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1. Purpose

The purpose of this analysis is to determine the design basis commercial spent nuclear fuel (SNF) decay heat to be used in subsequent thermal analyses of the waste package and its internal and near-field environment. This analysis, prepared by the Mined Geologic Disposal System (MGDS) Waste Package Development Department (WPDD), will provide tables of SNF heat as a function of time for each waste package (WP) design that represent both the average assembly heat outputs and the heat of the design basis assembly. The four main objectives of the analysis are to determine: 1) the appropriate design basis fuel characteristics to assume for WP thermal analysis, 2) the average fuel characteristics for each WP design based on reasonable design basis waste streams, 3) the nominal characteristics of canistered high-level waste (HLW) glass, and 4) the appropriate implementation of these waste form characteristics into assumptions for thermal loading of the potential repository at Yucca Mountain. This information will provide the base assumptions used to develop thermal analyses of the waste package, its support structures, and the waste forms.

2. Quality Assurance

The Quality Assurance (QA) program applies to this analysis. The work reported in this document is part of the preliminary WP design analysis that will eventually support the License Application Design phase. This activity, when appropriately confirmed, can impact the proper functioning of the Mined Geologic Disposal System waste package; the waste package has been identified as an MGDS Q-List item important to safety and waste isolation (pp. 4, 15, Ref. 5.1). The waste package is on the Q-List by direct inclusion by the Department of Energy (DOE), without conducting a QAP-2-3 evaluation. The Waste Package Development Department responsible manager has evaluated the design basis fuel development activity in accordance with QAP-2-0, *Conduct of Activities*. The "Perform Waste Stream Analysis to Determine Design Basis Fuel" (Ref. 5.2) evaluation has determined that the preparation and review of this design analysis is subject to *Quality Assurance Requirements and Description* (QARD; Ref. 5.3) requirements. As specified in NLP-3-18, this activity is subject to QA controls.

All design inputs which are identified in this document are for the preliminary stage of the WP design process; all of these design inputs, excluding the codes and standards, will require subsequent confirmation (or superseding inputs) as the waste package design proceeds. Consequently, the use of any data from this analysis for input into documents supporting construction, fabrication, or procurement is required to be controlled and tracked as TBV or TBD in accordance with NLP-3-15 or other appropriate procedures.

3. Method

Previous design basis fuel analyses (Refs. 5.18 and 5.19) have been developed utilizing a statistical analysis of the SNF characteristics projected for the first repository. Design basis SNF characteristics were selected that represented a specific portion of the waste inventory (such as an assumed coverage goal of 80%, for example). The resulting design basis characteristics produced arbitrary SNF parameters such as total heat output or criticality potential which are key impacts to the WP design. In this design analysis, and the preceding analysis of WP design configurations (Ref. 5.11), a reasonable design target based on WP performance characteristics (such as heat removal ability) has been selected. Then, a range of SNF characteristics can be identified that meet or are below the target design parameter value. This determination forms the basis of the WP loading constraints for each proposed WP design and separates the specification of design basis fuel from the constantly changing assumptions used to develop the proposed repository waste streams.

In this analysis, a single set of thermal design basis SNF characteristics are selected for each WP design option. Several SNF characteristics options that represent the assembly heat output design goal are compared, and one is selected based upon engineering judgement. Average assembly heat outputs for each WP design are also calculated using the assembly characteristics and receipt predictions from several reasonable waste streams. Nominal decay heat outputs from defense high-level waste containers are also presented for completeness. Suggested methodologies for the determination of repository thermal loading are compared and contrasted, with recommendations for future analyses.

4. Design Inputs

All design inputs which are identified in this document are for the preliminary stage of the design process; all of these design inputs, excluding the codes and standards, will require subsequent confirmation (or superseding inputs) as the waste package design proceeds. Consequently, the use of any data from this analysis for input into documents supporting construction, fabrication, or procurement is required to be controlled and tracked as TBV or TBD in accordance with NLP-3-15 or other appropriate procedures.

4.1 Design Parameters

Recommended WP design configurations are provided in Reference 5.11. That analysis set the capacity of the WP designs and the number of different WP design types which will be required to handle 100% of the anticipated commercial SNF waste stream. The selected design basis WP system configurations are presented here in Table 4.1-1 and the rationale supporting the selection is provided in the design configuration analysis (Ref. 5.11).

Table 4.1-1. Design Basis WP System Configuration Waste Stream Coverage

Case L1-T4-C1 (See Section 7.7, Ref 5.11) WP Types: ID:	Assembly Heat Range (W)		Assembly Criticality Range		Coverage Range	
	Hmin	Hmax	k _{min}	k _{max}	# of WPs	% of PWR or BWR SNF
21 PWR - No Absorber (base thermal & criticality) 1	0	850	0.00	1.00	1375 to 1835	26.9 to 40.6%
21 PWR - Absorber Plates (criticality option 1) 2	0	850	1.00	1.13	2399 to 3596	53.1% to 58.1%
21 PWR - Absorber Rods, No Plates (criticality option 2) 3	0	850	1.13	1.45	119 to 257	2.6% to 4.1%
12 PWR - No Absorber (thermal option 1) 4	850	1370 (or 1500)	0.00	1.02	80 to 850	1.0% to 7.7%
12 PWR - Long, Absorber Plates (base South Texas long WP) 5	0	1370 (or 1500)	0.00	1.13	150 to 272	1.9% to 2.5%
44 BWR - No Absorber (base thermal & criticality) 6	0	400	0.00	1.00	695 to 997	24.6% to 30.3%
44 BWR - Absorber Plates (criticality option 1) 7	0	400	1.00	1.37	1942 to 2704	68.2% to 74.6%
24 BWR - Thick Absorber Plates (thermal option 1, criticality option 2) 8	0	520	0.00	1.54	40 to 197	0.8% to 2.8%

The design configuration evaluation determined: 1) the number of different types of WP needed, 2) the capacity of each WP type, and 3) the SNF parameters which provide the limits for each WP type. The information determines the scope of the WP design efforts and provide goals for the determination of design basis fuel types, for both pressurized water reactor (PWR) and boiling water reactor (BWR) SNF, for thermal design basis analysis presented here. As discussed in the design configuration evaluation (p. 29, Ref. 5.11), the 12 PWR assembly WP type can be designed to accept PWR assemblies with a 1500 W/assembly heat rate or less given a total WP heat load limit of 18 kW. The change from 1370 W/assembly to 1500 W/assembly is assumed for this analysis (see Assumption 4.3.1), and will not significantly affect the WP coverage (for the first 63,000 MTUs of SNF) for the WP system reported in Table 4.1-1. A 1500 watt limit will provide significant additional capacity to handle non-standard PWR SNF assemblies for the waste stream cases with the full 86,800 MTUs of SNF.

The B&W 15x15 assembly type is used as the basis for the design basis PWR SNF characteristics (see Section 7.2 and Assumption 4.3.3). The physical dimensions of the B&W Mark B4 PWR fuel assembly are listed in Table 4.1-2 and are taken from page 2A-7 of Reference 5.16 and page 2.1.2.2-6 (Table 2.5) of Reference 5.17.

Table 4.1-2. B&W 15x15 PWR Assembly Dimensions

Number of Rods	208	(p. 2A-7, Ref. 5.16)
Rod Pitch	14.43 mm (0.568 in.)	(p. 2A-7, Ref. 5.16)
UO ₂ Pellet Diameter	9.36 mm (0.3686 in.)	(p. 2A-7, Ref. 5.16)
Cladding Outer Diameter	10.92 mm (0.430 in.)	(p. 2A-7, Ref. 5.16)
Cladding Thickness	0.673 mm (0.0265 in.)	(p. 2A-7, Ref. 5.16)
Number of Guide Tubes	16	(p. 2.1.2.2-6, Ref. 5.17)
Guide Tube Outer Diameter	13.46 mm (0.530 in.)	(p. 2.1.2.2-6, Ref. 5.17)
Guide Tube Thickness	0.406 mm (0.016 in.)	(p. 2.1.2.2-6, Ref. 5.17)
Instrument Tube Outer Diameter	12.52 mm (0.493 in.)	(p. 2.1.2.2-6, Ref. 5.17)
Active Fuel Length	3601.7 mm (141.8 in.)	(p. 2A-7, Ref. 5.16)
Uranium per Assembly	464 kg	(p. 2A-7, Ref. 5.16)

The Westinghouse 17x17 South Texas assembly type is used as the basis for the design basis South Texas SNF characteristics (see Section 7.2 and Assumption 4.3.4). The physical dimensions of the Westinghouse South Texas PWR fuel assembly are listed in Table 4.1-3 and are taken from pages 2A-30 and 2A-32 of Reference 5.16, page 2.1.2.2-3 (Table 2.2) of Reference 5.17, page 4.1-7 of Reference 5.32, and Assumption 4.3.4.

Table 4.1-3. Westinghouse 17x17 South Texas PWR Assembly Dimensions

Number of Rods	264 *	(p. 2A-30, Ref. 5.16)
Rod Pitch	12.60 mm (0.496 in.)	(p. 2A-32, Ref. 5.16)
UO ₂ Pellet Diameter	8.18 mm (0.322 in.)	(p. 2A-32, Ref. 5.16)
Cladding Outer Diameter	9.50 mm (0.374 in.)	(p. 2A-32, Ref. 5.16)
Cladding Thickness	0.572 mm (0.0225 in.)	(p. 2A-32, Ref. 5.16)
Number of Guide Tubes	24 *	(p. 2.1.2.2-3, Ref. 5.17)
Guide Tube Outer Diameter	12.04 mm (0.474 in.)	(p. 2.1.2.2-3, Ref. 5.17)
Guide Tube Thickness	0.406 mm (0.016 in.)	(p. 2.1.2.2-3, Ref. 5.17)
Instrument Tube Outer Diameter	12.19 mm (0.480 in.)	(p. 2.1.2.2-3, Ref. 5.17)
Active Fuel Length	4267.2 mm (168.0 in.)	(p. 4.1-7, Ref. 5.32)
Uranium per Assembly	544 kg	(see Section 7.2.1.2)

* See Assumption 4.3.4

The GE-5 8x8 assembly type is used as the basis for the design basis BWR SNF characteristics (see Section 7.2 and Assumption 4.3.5). The physical dimensions of the GE-5 8x8 BWR fuel assembly are listed in Table 4.1-4 and are taken from page 2A-21 of Reference 5.16, page 6-10 of Reference 5.28, and page 13 (Table 4.1-7) of Reference 5.29.

Table 4.1-4. GE-5 8x8 BWR Assembly Dimensions

Number of Rods	62	(p. 2A-21, Ref. 5.16)
Rod Pitch	16.26 mm (0.640 in.)	(p. 2A-21, Ref. 5.16)
UO ₂ Pellet Diameter	10.41 mm (0.410 in.)	(p. 2A-21, Ref. 5.16)
Cladding Outer Diameter	12.27 mm (0.483 in.)	(p. 2A-21, Ref. 5.16)
Cladding Thickness	0.8128 mm (0.032 in.)	(p. 2A-21, Ref. 5.16)
Number of Water Rods	2	(64 minus 62)
Water Rod Outer Diameter	12.45 mm (0.490 in.)	(p. 13, Ref. 5.29)
Water Rod Thickness	0.7112 mm (0.028 in.)	(p. 13, Ref. 5.29)
Channel Inside Width	134.06 mm (5.278 in.)	(p. 6-10, Ref. 5.28)
Channel Thickness	2.03 mm (0.080 in.)	(p. 6-10, Ref. 5.28)
Channel Corner Radius	9.65 mm (0.380 in.)	(p. 6-10, Ref. 5.28)
Active Fuel Length	3810.0 mm (150.0 in.)	(p. 2A-21, Ref. 5.16)
Uranium per Assembly	183 kg *	(p. 2A-21, Ref. 5.16)

* See Section 7.2 for assumed design basis initial uranium per assembly

The physical dimensions of the Savannah River pour canister, selected as the design basis for size in Section 7.4, are listed in Table 4.1-5. The dimensions are taken from Section 3 of Reference 5.16.

Table 4.1-5. Savannah River Pour Canister Dimensions

Outer Diameter	609.6 mm (24.0 in)	(p. 3.3-4, Ref. 5.16)
Outer Length	2997.2 mm (118.0 in.)	(p. 3.3-4, Ref. 5.16)
Canister Wall Thickness	9.525 mm (0.375 in.)	(p. 3.3-4, Ref. 5.16)
Canister Inside Volume	0.736 m ³	(p. 3.3-6, Ref. 5.16)
Canister Loading	85% of Volume	(p. 3.3-6, Ref. 5.16)
Glass Volume	0.6256 m ³	(85% of 0.736)
Glass Height	2.284 m (89.9 in.)	(See Assumption 4.3.16)
Glass Weight	1682 kg	(p. 3.3-6, Ref. 5.16)
Canister Weight	500 kg	(p. 3.3-6, Ref. 5.16)

4.2 Criteria

The design of individual WPs required for handling commercial SNF assemblies will depend on development of a reasonable design basis fuel which defines specifically what assemblies can be loaded into each WP design option. Criteria that relate to the development and design of repository components are derived from the applicable requirements and planning documents. Upper-level systems requirements are provided in the Mined Geologic Repository System Requirements Document (MGDSRD, Ref. 5.10). The requirements flow down to the Engineered Barrier Design Requirements Document (EBDRD, Ref. 5.8) as specific requirements for engineered barrier segment design and the Repository Design Requirements Document (RDRD, Ref. 5.7) as specific requirements for the repository segment. The Controlled Design Assumptions Document (CDA, Ref. 5.9) provides guidance for requirements listed in the EBDRD and RDRD which have unqualified or unconfirmed data associated with the requirement.

Based upon the applicable requirements, one criterion, applicable to this design analysis, was developed:

Design basis and average thermal characteristics shall be defined for each waste package design to support the consideration of thermal effects and thermal loads. (TBV)

[EBDRD 3.7.1.B]

The "TBD", "TBV", and "TBR" items identified in the applicable criteria documents will not be carried to the conclusions of this analysis based on the rationale that the conclusions derived by this analysis are for preliminary design and will not be used as input into documents supporting construction, fabrication, or procurement of specific waste package designs.

Finally, this design analysis is not intended to satisfy the referenced requirements in their entirety because this analysis is for the preliminary stage of WP design. The determination of full compliance with the EBDRD requirements will be performed in another design analysis when the WP designs are beyond the preliminary design phase.

4.3 Assumptions

Based on the rationale that the conclusions derived by this analysis are for preliminary design and will not be used as input into documents supporting construction, fabrication, or procurement, a TBD (to be determined) or TBV will not be carried to the conclusions of this analysis.

- 4.3.1 The maximum single assembly heat acceptable for the 12 PWR capacity waste packages (12 PWR high heat and 12 PWR South Texas) identified in Table 4.1-1 can be increased to 1500 watts. As discussed in the design configuration evaluation (p. 29, Ref. 5.11) the 12 PWR WP design can accommodate up to 1500 watts per assembly while still maintaining the ability to meet internal and near-field thermal goals. Therefore, this increased heat output capability will be assumed here as it will increase the number of high heat assemblies that can be captured by the system of WP designs specified in Table 4.1-1, particularly for the waste stream cases with the full 86,800 MTUs of SNF. Note that the impact on the design basis for shielding analysis is not discussed here. Shielding design bases that cover all of the commercial SNF to be delivered to the MGDS have not yet been specified. The specification of a more conservative design basis for shielding will not invalidate the design thermal compatibility with a 1500 W limit. This assumption is used in Section 4.1. (TBV)
- 4.3.2 It is assumed for this analysis that the waste package will not contain consolidated SNF rods, but will only contain intact SNF assemblies. This is consistent with CDA KEY 008 of Reference 5.9. This assumption is used throughout Section 7.2. (TBV)
- 4.3.3 The Babcock & Wilcox (B&W) 15x15 Mark B4 PWR SNF assembly (p. 2A-7, Ref. 5.16) will adequately represent typical PWR assemblies for the purpose of this analysis. Specific dimensions and characteristics of the assembly type are given in Table 4.1-2, and are typical for commercial PWR assemblies. Also, this assembly type is consistent with the criticality array configuration (B&W 15x15) assumed for the multi-purpose canister (MPC) procurement specification (p.27, Ref. 5.22). This assumption is based on engineering judgment and is used in Sections 4.1 and 7.2. (TBV)
- 4.3.4 Dimensions not listed for the Westinghouse 17x17 South Texas PWR SNF assembly (p. 2A-32, Ref. 5.16) are assumed to be represented by the standard (LOPAR) Westinghouse 17x17 assembly. The few dimensions that are listed for the South Texas assemblies in Reference 5.16 (p. 2A-32) are equivalent to those listed for the standard (LOPAR) Westinghouse 17x17 assembly (p. 2A-30, Ref. 5.16 and p. 2.1.2.2-3, Ref. 5.17); therefore, it is assumed that the South Texas design differs from the standard design only in length. This is consistent with the South Texas Project Safety Analysis Report (Ref. 5.32) and the listing of South Texas as a LOPAR design on page 2.1.2.1-2 of Reference 5.17. This assumption is based on engineering judgement and is used in Sections 4.1 and 7.2.

- 4.3.5 The General Electric (GE) GE-5 8x8 BWR SNF assembly (p. 2A-21, Ref. 5.16) will adequately represent typical BWR assemblies for the purpose of this analysis. Specific dimensions and characteristics of the assembly type are given in Table 4.1-4, and are typical for commercial BWR assemblies. Also, this assembly type is consistent with the criticality array configuration (GE 8x8) assumed for the MPC procurement specification (p.27, Ref. 5.22). This assumption is based on engineering judgment and is used in Sections 4.1 and 7.2. (TBV)
- 4.3.6 The SNF assembly masses for PWR, South Texas, and BWR assemblies are assumed bounded by 773.4 kg, 882.2 kg, and 328.4 kg, respectively. These maximum assembly weights for PWR, South Texas (long PWR), and BWR assemblies were developed in the design analysis Waste Container Cavity Size Determination (p. 27, Ref. 5.36), and are assumed to be bounding assembly weights for this analysis. These values include total design weight and variability. This assumption is based on engineering judgement. This assumption is used in Section 7.2. (TBV)
- 4.3.7 For the determination of homogeneous SNF assembly specific heat, it is assumed that the assembly is comprised of only uranium oxide (UO_2) and zircaloy. Besides the UO_2 , the assembly is composed of the zircaloy tubes and spacer grids, end fittings, channels, etc. which may be zircaloy or may be stainless steel (Incaloy) which has a specific heat similar to (generally greater than) zircaloy. It is reasonable to assume that the specific heat difference between these alloy steels are small and that the WP fill gas does not significantly contribute to the total assembly specific heat. Therefore, the homogeneous specific heat is a simple mass weighted average as given by Equation 7.2-1. The basis of this assumption is engineering judgement. This assumption is used in Section 7.2.
- 4.3.8 For the determination of the design basis SNF heat production, the average enrichment for each burnup considered will be used. The basis for this assumption is that PWR and BWR reactors are designed to make use of the uranium-235 enriched fuel to the maximum extent that is economical. Therefore, in reactor operation, it is typically desirable to attain a particular burnup of an assembly consistent with its enrichment. Inspection of the waste stream projection provided in Reference 5.5 reveals that there is a strong correlation between SNF enrichment and burnup. Also, for the purpose of determining SNF thermal output, there is only a very small dependence on assembly enrichment (for a given burnup). An enrichment/burnup mismatch (such as for assemblies that were damaged and removed from service early) does not have the impact on thermal output that it has for criticality control. This assumption is used in Section 7.2.
- 4.3.9 The specific MGDS commercial SNF assembly receipt scenarios to consider are identified in Reference 5.5 and have been developed based upon the best information available. The specific SNF assembly receipt scenarios and the associated assembly data from Reference 5.5 are assumed to be representative of the range of waste receipt variability that the MGDS can

reasonable expect. This assumption is based upon engineering judgement. This assumption is used in Sections 4.1 and 7.3. (TBV)

- 4.3.10 The use of the fully moderated SNF assembly k_{∞} as an indicator of the level of criticality control required to maintain a commercial SNF assembly in a subcritical condition is assumed to bound the fully moderated $k_{\text{effective}}$ of a WP which is fully loaded with the same commercial SNF assembly. The use of k_{∞} rather than the $k_{\text{effective}}$ for a commercial SNF assembly is conservative due to the neutron leakage term which is not used for k_{∞} . This assumption implies that the enrichment/burnup parameters for a commercial SNF assembly which determines the constant k_{∞} isopleths are assumed to be the same enrichment/burnup values which determine the $k_{\text{effective}}$ isopleth if a detailed WP calculation were performed. This assumption is based upon engineering judgement. This assumption is used in Sections 6.2 and 7.3. (TBV)

- 4.3.11 The use of the following equation obtained from page 5-4 of Reference 5.6 is assumed to provide representative, but slightly conservative values for PWR SNF assembly k_{∞} values.

$$k_{\infty} = 1.06 - (0.01 \cdot b) - (0.002 \cdot c) + (0.114 \cdot a) + (0.00007081 \cdot b^2) + (0.00007565 \cdot c^2) - (0.007 \cdot a^2) - (0.0002671 \cdot b \cdot a) - (0.0001145 \cdot b \cdot c) + (0.0002318 \cdot c \cdot a) + (0.000009366 \cdot b \cdot c \cdot a)$$

Where: a = initial uranium-235 enrichment in weight percent
 b = assembly burnup in GWd/MTU
 c = assembly cooling time (i.e., age) in years

The usage and development of this equation for PWR SNF is presented in detail in Reference 5.6, and is used here with one minor modification: the regression is assumed applicable for PWR ages up to 40 years. All assemblies older than 40 years are assigned the age of 40 years. Reference 5.6 conservatively recommends a maximum age of 20 years, which was expanded to 40 years in Reference 5.11 with minimal consequences. This assumption is based upon engineering judgement and is used in Sections 6.2 and 7.3. (TBV)

- 4.3.12 The use of the following equation developed in Attachment II of Reference 5.11 is assumed to provide representative, but slightly conservative values for BWR SNF assembly k_{∞} values.

$$k_{\infty} = 0.92601 - (0.012598 \cdot b) + (0.19901 \cdot a) + (0.0000949922 \cdot b^2) - (0.006702 \cdot a^2) - (0.001243 \cdot b \cdot a)$$

Where: a = initial uranium-235 enrichment in weight percent
 b = assembly burnup in GWd/MTU

The data which form the basis for this equation were obtained from NRC approved BWR rack analysis documentation and provided in References 5.4, 5.14, and 5.15. The data in these references are documented as bounding k_{∞} values for BWR assembly designs of various initial enrichments, assembly exposures, and assembly configurations. The equation development is provided in Attachment II of Reference 5.11. The equation is shown (in Reference 5.11) to be somewhat conservative for burnups generally less than 5 GWd/MTU, due to the neglected Gadolinium burnup, and should be used with caution for assemblies with very low burnup. This assumption is based upon engineering judgement and is used in Sections 6.2 and 7.3. (TBV)

- 4.3.13 All commercial SNF is assumed to fit into the basic WP SNF basket envelope developed in Reference 5.6. There are two notable exceptions which must be accommodated in this analysis:

- 1) South Texas PWR SNF assemblies are designed for a 14 foot reactor core (see Table 4.1-3) rather than the standard 12 foot reactor core. The South Texas PWR assemblies fit the standard PWR cross section but will require a longer WP length.
- 2) Big Rock Point BWR SNF assemblies are designed with an assembly square cross section of 6.52 inches (p. 123, Ref. 5.33) rather than the standard 5.44 inch square cross section. The Big Rock Point assemblies are also approximately half the length of the standard BWR assembly design.

Clearly, the South Texas PWR SNF will require a new WP design since these assemblies require a longer WP basket envelope and there are not enough of these long assemblies to justify the cost of fabricating all WPs with the additional length. Thus, specific accommodation of a South Texas SNF WP will be included in this analysis in order to capture the additional cost of this WP type. However, additional options to handle the Big Rock Point BWR SNF are available; such as (but not limited to) putting these assemblies into a standard PWR WP. Finally, there is a very small number of Big Rock Point BWR assemblies; therefore, assuming that they are handled as part of the standard BWR SNF waste stream will not significantly affect the results of this analysis. This assumption is based upon engineering judgement and experience of the LDE and the originating engineer for this design analysis. This assumption is used in Section 7.3. (TBV)

- 4.3.14 It is assumed that the few SNF assemblies not placed into any WP design type (unbinned) by the WPBIN00D program will not impact the average characteristics calculated for that WP type. As indicated in Section 7.3.3, there are some SNF assemblies that did not meet the loading requirements for any of the specified WP types. However, these assemblies represent a very small portion (approximately 0.04% for "Case 1") of the total waste stream and are judged to have little or no impact on averages such as the decay heat tables. This assumption is based upon engineering judgement and is used in Section 7.3.

- 4.3.15 The Savannah River pour canister is assumed to be adequately represented as presented in Section 3 of Reference 5.6 and is assumed to be the representative design which specifies the geometry and materials of construction. The Savannah River pour canister design is assumed as a basis (in size and weight) for the design of the defense high-level waste (DHLW) waste package. The basis of this assumption is that the specified reference is the best information available concerning the pour canister designs. This assumption is used in Section 7.4. (TBV)
- 4.3.16 It is assumed that the pour canister is filled to a height of 2.284 meters. Basis: this fill height is calculated based on the canister volume of 0.736 m³ (Table 4.1-5), the volume percentage glass loading of 85% (Table 4.1-5), and the nominal inner diameter of the pour canister of 590.55 mm (from outer diameter and thickness of Table 4.1-5). Assuming the canister is a right circular cylinder, the fill height would be $[4 \times \text{Volume} \times \text{Fill\%}] \div [\pi \times \text{Diameter}^2]$. The rest of the canister internal volume is assumed void space such that all of the canister heat is conservatively produced in the glass portion of the canister (see Assumption 4.3.17). This assumption is used in Sections 4.1 and 7.4.
- 4.3.17 It is assumed for this analysis that, for the HLW canister heat generation rates discussed in Assumption 4.3.22, all of the decay heat from the radioactive material is captured in the glass matrix. This includes all gamma radiation, neutrons, alpha particles, etc. Since the references do not state if any of the heat escapes the glass matrix, it is conservative to assume that all of the heat generation quoted in the references is captured in the glass matrix. This assumption is based upon engineering judgement. This assumption is used in Section 7.4.
- 4.3.18 It is assumed for this analysis that an axial power peaking factor of 1.00 for the HLW canister is reasonable and sufficient to obtain the peak glass matrix temperatures. Use of this factor assumes that the glass manufacturing process is controlled such that a reasonably homogeneous glass matrix is obtained and that any axial variations are negligible. This assumption is based upon engineering judgement. This assumption is used in Section 7.4.
- 4.3.19 The density of the borosilicate glass is assumed adequately represented by the quotient of nominal glass mass and volume. From Table 4.1-5, the mass of the glass in the Savannah River pour canister is 1682 kg and the glass volume is 0.6256 m³. The calculated nominal glass density would then be 2688.6 kg/m³. This estimate of glass density is based on engineering judgement. This assumption is used in Section 7.4.
- 4.3.20 Use of the conductivity for borosilicate glass in Reference 5.25 is assumed to adequately represent the glass waste form. The value for thermal conductivity of 1.1 W/m-K is the mid-range value for borosilicate glass reported in Table 11.7 (p. 584) of Reference 5.25 for a temperature range of 100°C to 500°C. This is slightly less than (resulting in higher glass temperatures than) the value of 1.4 W/m-K for Pyrex glass (Table A.3, p. 679, Ref. 5.24). This assumption is used in Section 7.4.

- 4.3.21 Use of the specific heat and emissivity for Pyrex glass is assumed to adequately represent the borosilicate glass waste form. The specific heat of Pyrex glass at 300 K is 835 J/kg-K (Table A.3, p. 679, Ref. 5.24) and the emissivity is 0.81 (calculated as the average of 0.82 at 300 K and 0.80 at 600 K, Table A.8, p. 692, Ref. 5.24). The use of Pyrex glass is assumed reasonable since Pyrex contains boron, and the composition of the glass is reasonably close to the composition of borosilicate glass provided in Reference 5.17. This assumption is used in Section 7.4. (TBV)
- 4.3.22 The data from References 5.16 and 5.17 are assumed to accurately represent the HLW glass waste forms which may be received by the MGDS. Use of the data from References 5.16 and 5.17 in this manner is consistent with the reasons for its creation. Section 3 of Reference 5.16 (i.e., Tables 3.2.5, 3.3.5, 3.4.7, and 3.5.4) and Section 2.2.1.3 of Reference 5.17 (i.e., Table 6.9, 6.10, 6.11, and 6.12) provide information concerning the decay heat versus time for the glass waste forms anticipated to be manufactured at Hanford, the Savannah River Plant (SRP), West Valley (WV), and the Idaho National Environmental and Engineering Laboratory (INEEL). It is further assumed that the curve fit representation of the data performed in Reference 5.31 is a reasonable representation of the data presented in References 5.16 and 5.17 and that the use of the curve fit representation will not affect future analysis results. The basis for this assumption is engineering judgement using the curve fit deviation evaluation presented in Attachments I, IV, and VII of Reference 5.31. This assumption is used in Section 7.4. (TBV)
- 4.3.23 It is assumed that the decay heat for the West Valley glass waste is representative of the decay heat for the INEEL glass waste. The INEEL data were judged to be very similar and less limiting than that presented for West Valley, and a curve fit of the INEEL data for use in future ANSYS analyses was not performed in Reference 5.31. This assumption is used in Section 7.4. (TBV)
- 4.3.24 It is assumed for this analysis that all of the HLW glass waste form is emplaced in the repository with an insignificant aging time (i.e., the glass pour canisters are emplaced in the repository immediately after manufacture). The basis of this assumption is that there are no repository waste acceptance criteria that indicates a minimum aging time after vitrification, so canister aging cannot be depended upon. This assumption is conservative since it does not allow the radioactive material to significantly decay before emplacement which increases the amount of heat generated in the glass matrix. Therefore, use of this assumption will slightly over-predict the glass matrix temperatures. This assumption is used in Section 7.4. (TBV)

4.4 Codes and Standards

Not applicable.

5. References

- 5.1 Yucca Mountain Site Characterization Project Q-List, YMP/90-55Q, REV 4, U.S. Department of Energy (DOE) Office of Civilian Radioactive Waste Management (OCRWM).
- 5.2 QAP-2-0 Activity Evaluation (WP-24): "Perform Waste Stream Analysis to Determine Design Basis Fuel," Civilian Radioactive Waste Management System (CRWMS) Management and Operating Contractor (M&O), August 3, 1997.
- 5.3 Quality Assurance Requirements and Description, DOE/RW-0333P REV 7, U.S. DOE OCRWM.
- 5.4 Pilgrim Nuclear Power Plant Spent Fuel Pool Rack Design, HOLTEC Document Number: HI-92925, U.S. Nuclear Regulatory Commission (NRC) Docket Number: 50-293, U.S. NRC, Washington, D.C.
- 5.5 "Input Files and Models Used in the Waste Quantity, Mix and Throughput Study", M. Fleming, Interoffice Correspondence VA.SALMF.03/97.007, CRWMS M&O, March 21, 1997.
- 5.6 Mined Geologic Disposal System Advanced Conceptual Design Report, Volume III of IV, Engineered Barrier Segment/Waste Package, DI Number: B00000000-1717-5705-00027 REV 00, CRWMS M&O.
- 5.7 Repository Design Requirements Document, YMP/CM-0023, REV 0, ICN 1, U.S. DOE Yucca Mountain Site Characterization Project.
- 5.8 Engineered Barrier Design Requirements Document, YMP/CM-0024, REV 0, ICN 1, U.S. DOE Yucca Mountain Site Characterization Project.
- 5.9 Controlled Design Assumptions Document, DI Number: B00000000-01717-4600-00032, REV 04, ICN 02, CRWMS M&O.
- 5.10 Mined Geologic Disposal System Requirements Document, DOE/RW-0404P, DI Number: B00000000-00811-1708-00002 REV 02, DCN 02, U.S. DOE OCRWM.
- 5.11 Determination of Waste Package Design Configurations, DI Number: BBAA00000-01717-0200-00017 REV 00, CRWMS M&O.

- 5.12 Software Qualification Report for the Spent Nuclear Fuel Decay Heat Function (SNFDHF), DI Number: 20026-2003 REV 00, CRWMS M&O.
- 5.13 Software Life Cycle Plan for the Spent Nuclear Fuel Decay Heat Function (SNFDHF), DI Number: 20026-2001 REV 00, CRWMS M&O.
- 5.14 Proposed Modification to the Technical Specifications for the Pilgrim Spent Fuel Pool Rack Design, HOLTEC Document Number: HI-93126, U.S. NRC Docket Number: 93-016, U.S. NRC, Washington, D.C.
- 5.15 Duane Arnold Nuclear Power Plant Spent Fuel Pool Rack Design, HOLTEC Document Number: HI-92987, U.S. NRC Docket Number: 50-331, U.S. NRC, Washington, D.C.
- 5.16 Characteristics of Potential Repository Wastes, DOE/RW-0184-R1; Volume 1, U.S. DOE OCRWM, July 1992.
- 5.17 Waste Form Characteristics Report, Version 1.2, UCRL-ID-108314 REV 1.2, Lawrence Livermore National Laboratory (LLNL), December 1996.
- 5.18 Design Basis Fuel, DI Number: BBA000000-01717-0200-00121 REV 00, CRWMS M&O.
- 5.19 Waste Package Design Basis Fuel Analysis, Draft Document, DI Number: B00000000-01717-0200-00127 REV 00A (RPC-951204-01), CRWMS M&O, September 19, 1995.
- 5.20 Waste Quantity, Mix and Throughput Study Report, DI Number: B00000000-01717-5705-00059 REV 01, CRWMS M&O.
- 5.21 Spent Nuclear Fuel Effective Thermal Conductivity Report, DI Number: BBA000000-01717-5705-00010 REV 00, CRWMS M&O.
- 5.22 Multi-Purpose Canister (MPC) Subsystem Design Procurement Specification, DI Number: DBG000000-01717-6300-00001 REV 06, CRWMS M&O.
- 5.23 Nuclear Systems I Thermal Hydraulic Fundamentals, Neil E. Todreas and Mujid S. Kazimi, Hemisphere Publishing Corporation, New York, NY, 1990.
- 5.24 Introduction to Heat Transfer, F. P. Incropera and D. P. DeWitt, John Wiley & Sons Inc., 1985.
- 5.25 Nuclear Chemical Engineering, M. Benedict, T. H. Pigford, and H. W. Levi, McGraw-Hill Book Company, New York, NY, 1981.

- 5.26 Thermal Evaluation of the Conceptual 12 PWR MPC with ACD Disposal Container, DI Number: BBABA0000-01717-0200-00002 REV 00, CRWMS M&O.
- 5.27 Multi-Purpose Canister Issue Evaluation, Issue No. MPC-009, Attachment 2 of M&O Correspondence LV.WP.RHB.7/93-133, CRWMS M&O, July 14, 1993.
- 5.28 Station Nuclear Engineering Manual, GE Mechanical & Nuclear Engineering Training, General Electric Co., NEDO-24810 / 80NED032, September 1980.
- 5.29 Determination of 8x8 Rod Array BWR SNF Assembly Effective Thermal Conductivity, DI Number: BBA000000-01717-0200-00017 REV 00, CRWMS M&O.
- 5.30 Engineered Barrier System Performance Requirements Systems Study Report, DI Number: BB00000000-01717-5705-00001 REV 02, CRWMS M&O.
- 5.31 Thermal Evaluation of the Conceptual DHLW Disposal Container, DI Number: BBAC00000-01717-0200-00002 REV 00, CRWMS M&O.
- 5.32 South Texas Project Units 1 and 2, Updated Final Safety Analysis Report, Revision 5, Houston Lighting and Power Document Number: ST-HL-AE-5523, U.S. Nuclear Regulatory Commission Docket Numbers: STN 50-498 and STN 50-499, Houston Lighting and Power, Wadsworth Texas, December 18, 1996.
- 5.33 Spent Nuclear Fuel Discharges from U.S. Reactors 1994, SR/CNEAF/96-01, Energy Information Administration, U.S. DOE, Washington D.C., February 1996.
- 5.34 Standard Review Plan for Dry Cask Storage Systems, Final Report, NUREG-1536, Spent Fuel Project Office, Office of Nuclear Material Safety and Safeguards, U.S. NRC, Washington D.C., January 1997.
- 5.35 Waste Package Design (Basis for Site Characterization Plan, Chapter 8), YMP/CM-0010 Rev. 00, U.S. DOE Yucca Mountain Site Characterization Project.
- 5.36 Waste Container Cavity Size Determination, DI Number: BBAA00000-01717-0200-00026 REV 00, CRWMS M&O.
- 5.37 The TN-24P PWR Spent-Fuel Storage Cask: Testing and Analysis, EPRI NP-5128, PNL-6045, Pacific Northwest Laboratory/Virginia Power Company/EG&G, Idaho National Engineering Laboratory, April 1987.
- 5.38 Repository Thermal Loading Management Analysis, DI Number: B00000000-01717-0200-00135 REV 00, CRWMS M&O.

6. Use of Computer Software

6.1 Scientific and Engineering Software

The GETHEAT function and its HEAT.DAT data file provided in the Spent Nuclear Fuel Decay Heat Function (SNFDHF) code system (Ref. 5.12) version (V) 1.0 (CSCI: 20026 V1.0) are used in this analysis. The GETHEAT function, with its HEAT.DAT data file (provided here as Attachment III), is designed to calculate PWR and BWR SNF decay heat rates given the assembly burnup, decay time (i.e., age), and assembly average initial uranium-235 enrichment. Thus, the GETHEAT function is appropriate for use with the PHIA00D and WPBIN00D programs provided in Attachments I and II to determine SNF decay heat loads as a function of time. The GETHEAT function is executed on an IBM compatible PC. The software qualification of the GETHEAT function, including problems of the type analyzed in this report, is summarized in the Software Qualification Report for the SNFDHF code system (Ref. 5.12). The GETHEAT evaluations performed for this design analysis are fully within the range of the validation for the GETHEAT software. Access to and use of the GETHEAT software function for this analysis was granted by Software Configuration Management and performed in accordance with the Life Cycle Plan for the SNFDHF code system (Ref. 5.13) and the QAP-SI series procedures. Inputs and outputs to the GETHEAT software function are included as attachments as described in this design analysis.

6.2 Computational Support Software

The design basis SNF heat load files were generated with the computer code PHIA00D (PHIA Version 00D) which is classified as computational support software. PHIA00D is not a controlled computer code and has not been qualified under the QAP-SI series of M&O procedures. Based upon the inputs provided in Section 7.2 and Assumption 4.3.8, PHIA00D uses the GETHEAT function (see Section 6.1) to perform a table look up using the data set of Attachment III. Once the proper sub-set of data is obtained, PHIA00D then will interpolate data points in order to generate an ANSYS usable data file. (ANSYS is an engineering analysis software program in use by the Waste Package Development Department.) The PHIA00D code listing and input database file (used by GETHEAT) are provided here as Attachments I and III. The ANSYS-readable output data files are provided in the attachments described in Section 7.2. The PHIA00D code is simply an automation of a simple data manipulation which can easily be checked by hand. The data are provided in this analysis for the purpose of performing hand calculation checks. The data manipulation has been checked by hand and will be used in this analysis on that basis. The PHIA00D code has been utilized as computational support software as it was intended and is appropriate for the use of generating ANSYS-readable SNF heat load files. The PHIA00D software was executed on an IBM compatible PC.

The percent values of the commercial SNF waste stream handled, the number of WPs of each type required, the decay heat of each WP type, and the number of SNF assemblies not handled by a proposed WP system scenario were generated with the computer code WPBIN00D (WPBIN Version 00D) which is classified as computational support software. WPBIN00D is not a controlled computer code and has not been qualified under the QAP-SI series of M&O procedures. Based upon the inputs provided in Section 7.3 and Assumptions 4.3.9 through 4.3.13, WPBIN00D determines commercial SNF assembly heat output and criticality potential using the GETHEAT function (see Section 6.1) and the equation from either Assumption 4.3.11 (for PWR SNF) or 4.3.12 (for BWR SNF), and then determines which WP type (from Table 4.1-1) the SNF assembly can be loaded into, and finally tallies that assembly to the selected WP type. If the SNF assembly does not meet any of the WP type criteria, then the assembly is tallied into a non-standard SNF bin ("unbinned" assemblies). Once each assembly in the waste stream has been tallied, WPBIN00D then summarizes the number of each WP type required and prints both a final summary table and a separate file containing the average assembly decay heat for each WP type in an ANSYS-readable format.

The WPBIN00D code listing is provided in Attachment II, and the output files with an input listing are provided in the attachments described in Section 7.3. The WPBIN00D code is simply an automation of a simple data manipulation process which can easily be checked by hand. The data are provided in this analysis and the references for the purpose of performing hand calculation checks. The data manipulation has been checked by hand, and will be used in this analysis on that basis. The WPBIN00D code was utilized for the purpose of computational support software as it was intended. The WPBIN00D software was executed on an IBM compatible PC.

The presentation graphics provided in Section 7 were generated with the computer code Harvard Graphics Version 2.0 which is classified as computational support software. Harvard Graphics Version 2.0 was executed on a IBM compatible PC. Harvard Graphics Version 2.0 is not a controlled computer code and has not been qualified under the QAP-SI series of M&O procedures and will not be qualified under the M&O procedures. Harvard Graphics Version 2.0 simply provides a framework to create a graphical representation of data. No calculation or modification beyond cut and paste operations with tabular data was performed in Harvard Graphics.

7. Design Analysis

7.1 Introduction

As part of an engineered barrier system for the containment of radionuclides, the waste package (WP), which can include a canistered waste form, must be shown to comply with all regulations and requirements that govern the conditions of the emplaced spent nuclear fuel (SNF) and the near-field rock at the repository horizon. Temperatures in the WP and near-field host rock are key to radionuclide containment, as they directly affect corrosion rates of the metal barriers and the ability of the rock to impede particle movement. Postclosure release rates are regulated by 10 CFR 60, 10 CFR 960, and 40 CFR 191. Maximum allowable temperatures, based on material performance criteria, have been specified as design goals for the WP/Engineered Barrier design (see the requirements documents cited in Section 4.2).

The method for WP thermal evaluations involves a three-step approach to determine the time-dependent WP thermal behavior. A three-dimensional (3-D) transient finite element model of the WP emplacement provides the WP surface temperature history for use as a boundary condition in a detailed WP model. Resulting SNF basket wall temperature predictions from the WP model provide the boundary for an estimation of peak SNF cladding temperatures. Cladding temperatures are predicted in the WP model using an effective conductivity defined to represent an homogeneous SNF assembly. Cladding temperatures may also be conservatively estimated using an empirical correlation.

This design analysis describes the development of spent nuclear fuel decay heat outputs for use in subsequent thermal analyses. To adequately describe the performance of the waste package, the waste form, and the repository near field; representative spent fuel decay heat outputs are needed for each waste package design type. Also, to demonstrate compliance with maximum temperature limitations, design basis heat outputs must also be specified to bound the hottest SNF assemblies that may be placed within a particular waste package design type. Reasonable repository performance is supported both by demonstrating that peak temperatures remain below maximum limits for the most stressing (highest heat output) loaded assemblies and by demonstrating knowledge of the average (or nominal) repository thermal response.

7.2 Determination of Design Basis SNF

It is likely that the license application for the waste package will be reviewed by the Nuclear Regulatory Commission using criteria similar to those already in place for dry cask storage systems. That is not to say the requirements placed upon the disposal device are the same as for storage casks, but that the topical safety analysis report (SAR) for the waste package should follow the standard format and content established for dry cask storage SARs. The *Standard Review Plan for Dry Cask Storage Systems* (p. 1-4, Ref. 5.34) states that:

“The application should present a general description of the fuel or other contents for storage in DCSS. ... Key parameters for spent fuel include the type of fuel (i.e., PWR, BWR, or both), number of fuel assemblies, and condition of the fuel assemblies (intact or consolidated). This section often includes additional characteristics, such as maximum burnup, initial enrichment, heat load, and cooling time, as well as the assembly vendor and configuration (e.g., Westinghouse 17x17), and these characteristics may also be repeated in the principal design criteria. In addition, the cover gas, if any, should be identified.”

Due to the large variability in SNF characteristics, several separate WP designs (as specified by Reference 5.11) will be required to accommodate all of the SNF earmarked for disposal in the first repository (as intact assemblies, see Assumption 4.3.2). Each individual WP design must have a specifically designated design basis fuel, and each WP type must be designed and evaluated to accommodate the bounding or limiting case SNF assembly which may have a thermal output much higher than average. Thus, a design basis SNF assembly can be determined which can be considered the hottest assembly that could be loaded and emplaced in that particular waste package. The detailed waste package/engineered barrier evaluation with design basis SNF would then represent the hottest waste package in a repository at a given thermal loading (with otherwise average SNF). While all of the waste packages (hot and cold) will collectively influence repository temperatures (average SNF characteristics), every waste package must meet thermal goals (design basis SNF characteristics).

Given that higher capacity waste packages are more likely to exceed thermal goals than smaller ones in the same repository thermal environment, the choice of a design basis SNF is important because it could limit the number of assemblies that can be loaded in one WP without exceeding thermal goals for disposal. The limiting SNF thermal goal for large waste packages is a temperature of no more than 350°C at the SNF cladding (DCWP 001, p. 8-3, Ref. 5.9). Several different design basis SNF types have been previously used by the OCRWM to demonstrate compliance with requirements and to allow comparison with previous evaluations. Table 7.2-1 summarizes the SNF types used. The heat loads for each assembly type have been calculated previously (Table 7.2-1, p. 38, Ref. 5.26) and are included here only for comparison.

Table 7.2-1. Previous Thermal Analysis SNF Assembly Design Bases

Organization	SNF Type	SNF Age	SNF Burnup	Enrichment	Uranium Mass	Initial Heat
MGDS (p. 32, Ref. 5.19)	PWR	10 years	48 GWd/MTU	4.20%	0.464 kg	850 watts
MGDS (p. 34, Ref. 5.19)	BWR	10 years	49 GWd/MTU	3.74%	0.200 kg	409 watts
MPC (p. 27, Ref. 5.22)	PWR	20 years	40 GWd/MTU	3.75%	0.490 kg	547 watts
MPC (p. 27, Ref. 5.22)	BWR	20 years	40 GWd/MTU	3.75%	0.200 kg	265 watts
MPC Historic (p. 2, Ref. 5.27)	PWR	10 years	40 GWd/MTU	3.75%	0.490 kg	718 watts

7.2.1 Design Basis SNF Assembly Type and Mass

Much of the previous design basis fuel and design basis repository waste stream analyses have considered the metric tons of uranium (MTUs) to be delivered and the estimated heat per MTU emplaced. For this analysis, an additional step is taken to base the determination on the performance parameters (ie., heat) expected for actual assemblies, rather than per MTU. This will capture the effects of variations in MTU/assembly, which are important since the waste packages are designed to hold a specific number of assemblies, not a specific MTU.

7.2.1.1 PWR SNF

An assumed assembly mass is required in order to determine the decay heat curve of the thermal design basis SNF. To begin the characterization of the PWR SNF, the physical size and uranium mass content of each PWR assembly in Reference 5.16 were compared. Of the PWR assembly types with an initial uranium mass listed, the B&W Mark B4 PWR assembly (p. 2A-7, Ref. 5.16) had the highest mass of 464 kg of uranium per assembly (see Table 4.1-2). This assembly type and mass has been previously specified as a design basis assembly in earlier evaluations (p. 5-6, Ref. 5.6).

Reference 5.16, however, does not include projections of future SNF assemblies or discharges, which is the subject of a recent waste quantity throughput study (Ref. 5.20). The throughput study used as input twelve potential commercial SNF waste stream projections (Ref. 5.5) of which "Case 1" was selected as a recommended repository design reference (Section 5.6.1, Ref. 5.20). Inspection of the data file for "Case 1" (attachment to Ref. 5.5) yields the uranium mass for each discharged batch. Table 7.2-2 presents the initial assembly uranium mass range (rounded to the nearest kg) for each reactor (or location that will be shipping SNF to the first repository) for PWR SNF from "Case 1". A PWR assembly (such as the B&W Mark B4) with an initial uranium mass of 464 kg (somewhat greater than nominal) could reasonably represent an assembly from any of these reactors, excluding South Texas. Further, there are relatively few PWR assemblies (with respect to the entire inventory) with masses greater than 0.464 MTU. Therefore there is no reason, at this time, to select a different assembly type and the assembly described in Table 4.1-2 will remain the assumed PWR design basis SNF assembly (see Assumption 4.3.3).

Table 7.2-2. PWR Uranium Mass per Assembly

SNF Source	Vendor	Minimum Assembly Uranium Mass (kg)	Maximum Assembly Uranium Mass (kg)
ARKANSAS NUCLEAR	CE, B&W	397	467
BEAVER VALLEY	WE	422	466
BRAIDWOOD	WE	423	430

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BYRON	WE	423	427
CALLAWAY	WE	423	464
CALVERT CLIFFS	CE	359	399
CATAWBA	WE	421	457
COMANCHE PEAK	WE	407	463
COOK	WE	401	463
CRYSTAL RIVER	B&W	462	471
DAVIS-BESSE	B&W	468	475
DIABLO CANYON	WE	424	469
FARLEY	WE	424	467
FORT CALHOUN	CE	340	376
GINNA	WE	329	398
HADDAM NECK	WE	363	421
HANFORD	CE, WE	389	401
HARRIS	WE	423	465
INDIAN POINT	B&W, WE	175	464
INEEL	WE	389	460
KEWAUNEE	WE	358	405
MAINE YANKEE	CE	352	397
MCGUIRE	WE	421	466
MILLSTONE	CE, WE	361	465
NORTH ANNA	WE	455	467
OCONEE	B&W	429	587
PALISADES	CE	386	416
PALO VERDE	CE	398	441
POINT BEACH	WE	354	406
PRAIRIE ISLAND	WE	336	406
RANCHO SECO	B&W	461	470
ROBINSON	WE	200	461

SALEM	WE	419	468
SAN ONOFRE	CE, WE	311	429
SEABROOK	WE	463	463
SEQUOYAH	WE	458	467
SOUTH TEXAS	WE	538	544
ST. LUCIE	CE	345	400
SUMMER	WE	415	465
SURRY	WE	437	464
THREE MILE ISLAND	B&W	461	467
TROJAN	WE	448	467
TURKEY POINT	WE	442	464
VOGTLE	WE	423	466
WATERFORD	CE	395	431
WATTS BAR	WE	374	500
WEST VALLEY	WE	382	382
WOLF CREEK	WE	455	468
YANKEE-ROWE	WE	218	274
ZION	WE	437	464

To reduce thermal analysis model size, it is sometimes necessary to represent the SNF assembly as a smeared heat source. A description of this methodology is described in detail in the Spent Nuclear Fuel Effective Thermal Conductivity Report (Ref. 5.21). While the thermal conductivity of a PWR assembly modeled as a smeared heat source is provided with guidelines in Reference 5.21 for several fill gases, the specific heat and density of the design basis assembly may also be needed for some transient problems. The density may be represented simply by the total weight of an assembly divided by the volume of the smeared heat source area. The mass of the design basis PWR assembly is 773.4 kg (see Assumption 4.3.6), and the volume is the cavity opening of the SNF basket, which depends on the particular design being evaluated. The specific heat of the design basis PWR smeared heat source assembly is 274 J/kg-K as given by the mass weighted average of Equation 7.2-1 (assuming that the assembly is comprised only of uranium oxide and zircaloy, see Assumption 4.3.7).

$$C_p^{SNF} = (C_p^{UO_2} - C_p^{Zirc}) \times \frac{M^U}{M^{Assy}} \times \frac{AW_U + 2 \times AW_O}{AW_U} + C_p^{Zirc}$$

(Equation 7.2-1)

Where:

 $C_p^{UO_2}$ = specific heat of uranium oxide, 247 J/kg·K at 100°C (Table 8-1, p. 296, Ref. 5.23) C_p^{Zirc} = specific heat of zircaloy, 330 J/kg·K at 400°C (Table 8-2, p. 296, Ref. 5.23) M^U = mass of uranium in the assembly, 464 kg (Table 4.1-2) M^{Assy} = mass of entire assembly, 773.4 kg (see Assumption 4.3.6) AW_U = atomic weight of uranium, 238.03 AW_O = atomic weight of oxygen, 15.9994

It is also sometimes necessary to reduce thermal analysis model size by representing the SNF assembly as a two-dimensional cross section at the hottest point. For a cross-sectional model of the waste package, an axial power peaking factor of 1.25 should be applied to the PWR SNF heat generation rate. This factor is based upon the experience of the analyst and will bound the range of axial power peaking factors for PWR SNF for the purpose of this DBF analysis. A general basis for this factor is that PWR reactor cores are designed such that axial peaking larger than an average of 1.25 is typically undesirable for the full duration of a reactor operating cycle for both licensing and economic reasons. Figure 3-18 of the TN-24P testing report (p. 3-29, Ref. 5.37) provides a typical power profile supporting this recommendation.

7.2.1.2 South Texas SNF

The PWR design basis assembly type represents all of the PWR assemblies except those from the South Texas reactor which are significantly longer (see Assumption 4.3.13). Therefore a separate design basis assembly is defined here for the waste package with South Texas assemblies. The South Texas assembly design type is indicated on page 2A-32 of Reference 5.16, and its dimensions are listed here in Table 4.1-3 (see Assumption 4.3.4). Reference 5.16 (p. 2A-32) does not indicate a uranium mass loading for South Texas assemblies; however, the waste stream projection information of Table 7.2-2 indicates a maximum uranium mass loading 544 kg per South Texas assembly, which provides a bounding assumption for the design basis South Texas assembly. It is reasonable to assume that the effective thermal conductivity for a South Texas assembly, which is a 17x17 array, would be bounded by the PWR effective thermal conductivity provided in Reference 5.21. The smeared heat source assembly would have a density calculated similar to that for other PWR assemblies but using a total assembly mass of 882.2 kg (see Assumption 4.3.6). Using Equation 7.2-1, the specific heat is 272 J/kg·K, assuming a uranium mass (M^U) of 544 kg and a total assembly mass (M^{Assy}) of 882.2 kg. An axial power peaking factor of 1.25 (the same as for other PWR assemblies) is also applicable to South Texas assemblies.

7.2.1.3 BWR SNF

To characterize the BWR SNF, the uranium mass content of different BWR assembly types were compared in the same manner as for PWR assemblies. Descriptions of BWR assembly types are provided in References 5.16 and 5.17, and projections of BWR discharges are provided in the waste quantity throughput study (Ref. 5.20). The throughput study used as input twelve potential commercial SNF waste stream projections (Ref. 5.5) of which "Case 1" was selected as a recommended repository design reference (Section 5.6.1, Ref. 5.20). Inspection of the data file for "Case 1" (attachment to Ref. 5.5) yields the uranium mass for each discharged batch. Table 7.2-3 presents the initial assembly uranium mass range (rounded to the nearest kg) for each reactor (or location that will be shipping SNF to the first repository) for BWR SNF from "Case 1". All of the discharged BWR assemblies are bounded by an initial uranium mass loading of 200 kg, which was the design basis value assumed in the Conceptual Multi-Purpose Canister specification (p. 27, Ref. 5.22), and will be specified here as the design basis for WP thermal analysis. The General Electric (GE) version 5 BWR assembly with an 8x8 rod array is a good representation of the BWR assembly types and is recommended as a design basis configuration here (see Assumption 4.3.5). The physical dimensions of this assembly are provided in Table 4.1-4.

Table 7.2-3. BWR Uranium Mass per Assembly

SNF Source	Vendor	Minimum Assembly Uranium Mass (kg)	Maximum Assembly Uranium Mass (kg)
BIG ROCK POINT	GE	123	139
BROWNS FERRY	GE	171	196
BRUNSWICK	GE	157	189
CLINTON	GE	178	186
COOPER STATION	GE	170	196
DRESDEN	GE	95	197
DUANE ARNOLD	GE	154	188
ENRICO FERMI	GE	170	184
FITZPATRICK	GE	142	196
GE MORRIS	GE	180	197
GRAND GULF	GE	176	184
HANFORD	GE	191	191
HATCH	GE	161	189

HOPE CREEK	GE	177	186
HUMBOLDT BAY	GE	69	77
INEEL	GE	59	196
LACROSSE	AC	108	121
LASALLE COUNTY	GE	177	186
LIMERICK	GE	169	187
MILLSTONE	GE	166	197
MONTICELLO	GE	165	194
NINE MILE POINT	GE	169	196
OYSTER CREEK	GE	172	196
PEACH BOTTOM	GE	170	196
PERRY	GE	175	185
PILGRIM	GE	172	197
QUAD CITIES	GE	170	196
RIVER BEND	GE	175	186
SUSQUEHANNA	GE	172	185
VERMONT YANKEE	GE	104	196
WASH. NUCLEAR	GE	168	184
WEST VALLEY	GE	112	141

As described for PWR assemblies, it is sometimes necessary to represent the SNF assembly as a smeared heat source. A description of this methodology is described in detail in the Spent Nuclear Fuel Effective Thermal Conductivity Report (Ref. 5.21). While the thermal conductivity of a BWR assembly modeled as a smeared heat source is provided with guidelines in Reference 5.21 for several fill gases, the specific heat and density of the design basis assembly may also be needed for some transient problems. The density may be represented simply by the total weight of an assembly divided by the volume of the smeared heat source area. The mass of the design basis BWR assembly is 328.4 kg (see Assumption 4.3.6), and the volume is the cavity opening of the SNF basket, which depends on the particular design being evaluated. The specific heat of the design basis BWR smeared heat source assembly is 273 J/kg-K as given by the mass weighted average of Equation 7.2-1 (assuming that the assembly is comprised only of uranium oxide and zircaloy, see Assumption 4.3.7), the uranium mass per assembly of 200 kg, and the total assembly mass of 328.4 kg.

For a cross-sectional model of the waste package, an axial power peaking factor of 1.40 should be applied to the BWR SNF heat generation rate. This factor is based upon the data in Appendix E of Reference 5.28 and will bound the range of axial power peaking factors for BWR SNF for the purpose of this analysis. A general basis for this factor is that BWR reactor cores are designed such that axial peaking larger than an average of 1.40 is typically undesirable for the full duration of a reactor operating cycle for both licensing and economic reasons.

7.2.2 Selection of Design Basis SNF Assembly Heat Output

Design basis SNF will impact the timing of peak near-field temperatures as well as the magnitude of the peak. The repository host rock temperatures beyond the near-field will peak between 10 to 500 years depending on the thermal loading but will be largely independent of the individual waste package design. The waste package itself will experience its peak temperature before the rock temperature peaks. The WP peak temperature and its timing will depend on the heat output of the design basis SNF and the basket/container design. Therefore, the choice of the design basis SNF is of key importance. Younger SNF types produce high peak temperatures within the first year which then drop off quickly. Older SNF (at the same initial power density, but not mass density) produces lower and later peaks with sustained higher long-term temperatures.

Each WP design option listed in Table 4.1-1 has a maximum initial assembly heat production associated with it. However, the assembly heat production as a function of time is also needed to address the transient effects of repository thermal loading. There are several combinations of assembly characteristics (age, burnup, enrichment, uranium mass) which could provide a given initial heat production. To select the recommended design basis heat production table for each WP design option, several combinations of assembly characteristics were evaluated (using PHIA00D) and compared, and the most conservative combination is selected here as the design basis.

7.2.2.1 PWR SNF

The PHIA00D code, described in Section 6.2 and included here as Attachment I, provides a table of assembly heat production as a function of time in a format suitable for direct use by the engineering analysis software ANSYS. PHIA00D requires as input the assembly age, burnup, enrichment, and uranium mass. Assuming the design basis assembly uranium mass from the previous section (464 kg) and an average enrichment for each burnup considered (see Assumption 4.3.8), the independent variables are reduced to age and burnup. Since the tables (Attachment III) utilized by the GETHEAT function allow for PWR burnups up to 60 GWd/MTU, a range of burnups of 10, 20, 30, 40, 50, and 60 GWd/MTU were considered. As indicated in Section 4.1 and Assumption 4.3.1, PWR waste packages will have a maximum initial assembly heat output of 850 watts or 1500 watts. Table 7.2-4 indicates the age and burnup combinations that result in an initial heat of 850 watts and 1500 watts and the attachment number for each resulting PHIA00D output file (representing the heat decay curve for each combination of assembly characteristics).

Table 7.2-4. Potential PWR Design Basis SNF Age/Burnup Combinations

Burnup	850 W (Initial Heat) Assembly		1500 W (Initial Heat) Assembly	
	SNF Age *	Included here as:	SNF Age *	Included here as:
10 GWd/MTU	2.1774 years	Attachment IV	1.3574 years	Attachment X
20 GWd/MTU	3.2594 years	Attachment V	2.0912 years	Attachment XI
30 GWd/MTU	4.4250 years	Attachment VI	2.6876 years	Attachment XII
40 GWd/MTU	6.5969 years	Attachment VII	3.4801 years	Attachment XIII
50 GWd/MTU	11.1743 years	Attachment VIII	4.5045 years	Attachment XIV
60 GWd/MTU	19.7615 years	Attachment IX	6.0238 years	Attachment XV

* Consistent with values in attachments, ages are reported to 4 decimal places to produce heat output as close to the target as possible.

Figure 7.2-1 compares the potential design basis heat outputs as a function of time for the assemblies with an initial heat of 850 watts. While all of the curves start at exactly 850 watts, the assemblies with higher burnups (and corresponding older ages) have greater heat production during later years. Thus, the highest burnup, 60 GWd/MTU, will result in the highest long term heat production and is the most conservative combination of characteristics for an initial heat of 850 watts. Likewise, as seen in Figure 7.2-2, the highest burnup of 60 GWd/MTU results in the most conservative combination of characteristics for an initial heat of 1500 watts as well. Further, only the 60 GWd/MTU burnup results in a 1500 watt assembly that is at least 5 years old. Therefore the heat decay tables provided by Attachments IX and XV provide the appropriate design basis PWR heat decay curves for waste packages with initial assembly heats of 850 and 1500 watts, respectively.

Figure 7.2-1. PWR Design Basis Heat Comparison (850 watts Initial)

Figure 7.2-2. PWR Design Basis Heat Comparison (1500 watts Initial)

7.2.2.2 South Texas SNF

The comparison of assembly heat as a function of time for South Texas assemblies will have similar results as that for the other PWR assemblies. Therefore, only one burnup, 60 GWd/MTU, was considered; and the resulting decay heat table (Attachment XVI) provides the appropriate design basis PWR heat decay curve for the South Texas waste package described in Table 4.1-1. Assuming the South Texas design basis assembly uranium mass (544 kg) and an average enrichment for the burnup considered (see Assumption 4.3.8), the PHIA00D code provides a table of assembly heat production as a function of time in a format suitable for direct use by the engineering analysis software ANSYS. Table 7.2-5 indicates the age and burnup combination that result in a South Texas assembly initial heat of 1500 watts and the attachment number for the resulting PHIA00D output file.

Table 7.2-5. Potential South Texas Design Basis SNF Age/Burnup Combinations

Burnup	1500 W (Initial Heat) Assembly	
	SNF Age *	Included here as:
60 GWd/MTU	7.8107 years	Attachment XVI

* Consistent with values in attachments, ages are reported to 4 decimal places to produce heat output as close to the target as possible.

7.2.2.3 BWR SNF

As for PWR assemblies, the PHIA00D code, described in Section 6.2 and included here as Attachment I, was used to calculate a table of assembly heat production as a function of time for potential design basis BWR assemblies. PHIA00D requires as input the assembly age, burnup, enrichment, and uranium mass. Assuming the design basis BWR assembly uranium mass (200 kg) and an average enrichment for each burnup considered (see Assumption 4.3.8), the independent PHIA00D input parameters are age and burnup. Since the tables (Attachment III) utilized by the GETHEAT function allow for BWR burnups up to 50 GWd/MTU, a range of burnups of 10, 20, 30, 40, and 50 GWd/MTU were considered. As indicated in Section 4.1, BWR waste packages will have a maximum initial assembly heat output of 400 watts or 520 watts. Table 7.2-6 indicates the age and burnup combinations that result in an initial heat of 400 watts and 520 watts and the attachment number for each resulting PHIA00D output file (representing the heat decay curve for each combination of assembly characteristics).

Table 7.2-6. Potential BWR Design Basis SNF Age/Burnup Combinations

Burnup	400 W (Initial Heat) Assembly		520 W (Initial Heat) Assembly	
	SNF Age *	Included here as:	SNF Age *	Included here as:
10 GWd/MTU	1.9978 years	Attachment XVII	1.5742 years	Attachment XXII
20 GWd/MTU	2.9174 years	Attachment XVIII	2.3440 years	Attachment XXIII
30 GWd/MTU	3.9422 years	Attachment XIX	3.0870 years	Attachment XXIV
40 GWd/MTU	7.8481 years	Attachment XX	5.2248 years	Attachment XXV
50 GWd/MTU	10.9614 years	Attachment XXI	6.4042 years	Attachment XXVI

* Consistent with values in attachments, ages are reported to 4 decimal places to produce heat output as close to the target as possible.

Figure 7.2-3 compares the potential design basis heat outputs as a function of time for the assemblies with an initial heat of 400 watts. As for the PWR assemblies, the assemblies with higher burnups (and corresponding older ages) have greater heat production during later years. Thus, the highest burnup, 50 GWd/MTU, will result in the highest long term heat production and is the most conservative combination of characteristics for an initial heat of 400 watts. Likewise, as seen in Figure 7.2-4, the highest burnup of 50 GWd/MTU results in the most conservative combination of characteristics for an initial heat of 520 watts as well. Therefore the heat decay tables provided by Attachments XXI and XXVI provide the appropriate design basis BWR heat decay curves for waste packages with initial assembly heats of 400 and 520 watts, respectively.

Figure 7.2-3. BWR Design Basis Heat Comparison (400 watts Initial)

Figure 7.2-4. BWR Design Basis Heat Comparison (520 watts Initial)

7.3 Determination of Average SNF

Eight potential waste stream cases were used as input to the Determination of Waste Package Design Configurations (Ref. 5.11). These eight cases were subsequently updated and expanded by Systems Engineering to become twelve waste stream cases (Ref. 5.5) and these were the final input to the Waste Quantity, Mix and Throughput Study Report (Ref. 5.20). To be consistent with the conclusions of the Throughput Study, the twelve cases have been reevaluated using the WP loading program, WPBIN00D, and the resulting coverages (numbers of assemblies placed in each WP type) are reported here (see Assumption 4.3.9). In addition, calculations of average heat output for total waste stream inventory and for individual WP design types were performed as part of the WPBIN00D program, described in Section 6.2. The parameters assumed to develop the twelve waste stream cases (p. 1, Ref. 5.5) are listed here in Table 7.3-1.

Table 7.3-1. Description of Potential Waste Stream Scenarios for Commercial SNF

Scenario	Interim Storage Facility	Acceptance Order	Total Accepted (MTU)	Unload Pool to Dry Storage after Reactor Shutdown	Cask Type for Reactor Dry Storage	Cask Type for Shipment from Reactor	
						To ISF	To MGDS
Case 1	Yes	YFF10	63,000	Yes	DPC	DPC	UCF
Case 2	Yes	YFF10	63,000	No	SPC	DPC 2 years, then UCF	UCF
Case 3	No	YFF10	63,000	No	SPC	N/A	DPC 2 years, then UCF
Case 4	No	YFF10	63,000	No	SPC	N/A	UCF
Case 5	Yes	OFF	63,000	Yes	DPC	DPC	UCF
Case 6	Yes	OFF	63,000	No	SPC	DPC 2 years, then UCF	UCF
Case 7	No	OFF	63,000	No	SPC	N/A	DPC 2 years, then UCF
Case 8	No	OFF	63,000	No	SPC	N/A	UCF
Case 9	Yes	YFF10	86,800	Yes	DPC	DPC	UCF
Case 10	No	YFF10	86,800	No	SPC	N/A	UCF
Case 11	Yes	OFF	86,800	Yes	DPC	DPC	UCF
Case 12	No	OFF	86,800	No	SPC	N/A	UCF

Note: ISF = Interim Storage Facility
YFF10 = Youngest Fuel First at least 10 years old
DPC = Dual Purpose Canister

UCF = Uncanistered SNF
OFF = Oldest Fuel First
SPC = Single Purpose

7.3.1 Total Inventory Average Characteristics

The WPBIN00D code, described in Section 6.2 and included here as Attachment II, provides a sorting of PWR and BWR assemblies in increments of 10 watts (of initial heat production) and increments of criticality potential (measured by k_{∞} , see Assumption 4.3.10). This sorting method provides information about the range of assembly characteristics and was part of the basis for the WP types selected in Reference 5.11. The WPBIN00D program also provides a table of average assembly heat production (for PWRs and BWRs) as a function of time in a format suitable for direct use by the engineering analysis software ANSYS. To create this heat output data file, the WPBIN00D program averages the predicted heat decay curve (using GETHEAT) for each batch of discharged SNF in the waste stream file, with time for each decay curve normalized to time of emplacement. This data file provides the heat production table for use in a thermal analysis of an average (nominal) PWR or BWR waste package emplaced in the potential repository, and does not depend upon any particular WP loading strategy (see next section). Table 7.3-2 indicates the average initial assembly heat production (for PWR and BWR assemblies) and the attachment number for each resulting WPBIN00D output file.

Table 7.3-2. Average Initial Assembly Heat for Each Waste Stream Case

Scenario	Input and Output File Included here as:	Average Initial PWR Assembly Heat	Average Initial BWR Assembly Heat	Heat Output Data Table Included here as:
Case 1	Attachment LIV	476.02 watts	174.51 watts	Attachment XXVII
Case 2	Attachment LV	483.64 watts	181.38 watts	Attachment XXVIII
Case 3	Attachment LVI	536.19 watts	202.47 watts	Attachment XXIX
Case 4	Attachment LVII	535.93 watts	202.46 watts	Attachment XXX
Case 5	Attachment LVIII	450.30 watts	167.91 watts	Attachment XXXI
Case 6	Attachment LIX	452.43 watts	173.14 watts	Attachment XXXII
Case 7	Attachment LX	477.44 watts	180.83 watts	Attachment XXXIII
Case 8	Attachment LXI	477.48 watts	180.85 watts	Attachment XXXIV
Case 9	Attachment LXII	511.58 watts	183.06 watts	Attachment XXXV
Case 10	Attachment LXIII	497.48 watts	183.74 watts	Attachment XXXVI
Case 11	Attachment LXIV	506.90 watts	183.00 watts	Attachment XXXVII
Case 12	Attachment LXV	472.71 watts	173.38 watts	Attachment XXXVIII

While the average initial assembly heat can vary by as much as 20%, the average assembly heat outputs do not vary significantly between the potential waste stream cases when viewed over a thousand years. Figures 7.3-1 and 7.3-2 compare the average assembly heat production as a function of time for each waste stream case for PWRs and BWRs, respectively. The figures show that, when viewed on a long-term time scale, it is difficult to differentiate the average characteristics from each of the potential waste streams. While certain waste stream scenarios can lead to generally hotter (or cooler) waste packages at the time of emplacement, the very-long term response of the repository as a whole (the thermal loading effect on the far-field) is relatively insensitive to some of the assumptions used to estimate what order the assemblies will be shipped from the reactor sites to the potential repository. However, this does not imply that waste stream assumptions will not impact peak temperatures in the near-field, as previous scoping thermal evaluations (p. 5-51, Ref. 5.30) indicate that peak drift temperatures were around 10°C cooler with an OFF waste stream compared to a YFF10 waste stream.

Twelve potential commercial SNF waste stream cases (developed in Ref. 5.5) were considered in this evaluation. The sorting provided by the WPBIN00D program requires the information described in Assumptions 4.3.9 through 4.3.13 and is assumed acceptable for characterizing the projected receipt of SNF assemblies. Of the twelve potential commercial SNF waste stream scenarios, "Case 1" was selected in the Throughput Study as a recommended repository design reference (Section 5.6.1, Ref. 5.20). Therefore, the average assembly heat data file resulting from the analysis of "Case 1", included here as Attachment XXVII, provides the appropriate average PWR and BWR heat decay curves for thermal analyses that do not distinguish different waste package types.

Figure 7.3-1. Average PWR SNF Heat Comparison

Figure 7.3-2. Average BWR SNF Heat Comparison

7.3.2 Waste Package Average Characteristics

In addition to the sorting of PWR and BWR assemblies as a function of characteristics performed in the previous section, the WPBIN00D code also provides a sorting of assemblies into specified WP design types with statistics of waste stream coverage and estimates of the number of each WP type needed during each year of repository emplacement. The WPBIN00D program also provides a table of average assembly heat production (for each WP type described in Table 4.1-1) as a function of time in a format suitable for direct use by the engineering analysis software ANSYS. To create this heat output data file, the WPBIN00D program averages (for the assemblies loaded into each WP type) the predicted heat decay curve normalized to time of emplacement. This data file provides the heat production table for use in a thermal analysis that includes average (nominal) examples of each WP design type. Table 7.3-3 compiles the number of resulting waste packages, unbinned assemblies (see Assumption 4.3.14), and output file attachment numbers for each waste stream case. Unbinned assemblies and their causes are discussed in Section 7.3.3.

Table 7.3-3. Results of Waste Package Binning for Each Waste Stream Case

Scenario	Input and Output File Included here as:	Total Number of PWR WPs	Total Number of BWR WPs	Number of Unbinned Assemblies	Heat Output Data Table Included here as:
Case 1	Attachment LXVI	4745	2845	81	Attachment XXXIX
Case 2	Attachment LXVII	4729	2883	67	Attachment XL
Case 3	Attachment LXVIII	4786	2891	28	Attachment XLI
Case 4	Attachment LXIX	4783	2891	28	Attachment XLII
Case 5	Attachment LXX	4623	2841	51	Attachment XLIII
Case 6	Attachment LXXI	4602	2868	51	Attachment XLIV
Case 7	Attachment LXXII	4609	2880	7	Attachment XLV
Case 8	Attachment LXXIII	4608	2881	7	Attachment XLVI
Case 9	Attachment LXXIV	6673	3904	1733	Attachment XLVII
Case 10	Attachment LXXV	6639	3859	390	Attachment XLVIII
Case 11	Attachment LXXVI	6550	3904	1661	Attachment XLIX
Case 12	Attachment LXXVII	6479	3858	240	Attachment L

Twelve potential commercial SNF waste stream cases (developed in Ref. 5.5) were considered in this evaluation. The sorting provided by the WPBIN00D program requires the information described in Assumptions 4.3.9 through 4.3.13 and is assumed acceptable for characterizing the projected receipt of SNF assemblies. Of the twelve potential commercial SNF waste stream scenarios, "Case 1" was selected in the Throughput Study as a recommended repository design reference (Section 5.6.1, Ref. 5.20). Therefore, the average waste package heat data file resulting from the analysis of "Case 1", included here as Attachment XXXIX, provides the appropriate heat decay curves for thermal analyses that distinguish between different waste package types. Attachment XXXIX provides the average assembly heat output as a function of time for each of the eight specified waste package design types. The calculated average assembly heat can vary significantly between WP types, as seen in Figure 7.3-3, and the differences can persist for thousands of years. Calculated average waste package statistics for waste stream "Case 1" are also provided in Table 7.3-4 (see Attachment LXVI). The coverage range indicates the number of waste packages of each design type and the percentage of assemblies (for PWRs and BWRs) captured by that design type.

Table 7.3-4 also provides the average uranium mass loading (based on the initial uranium mass loading of the average assemblies) for each WP type (see Attachment LIV). The average mass provides a method for determining the nominal (or average) WP emplacement spacing in a repository design where loading is based on the WP mass (MTU/acre for example). As seen in the difference between average and design basis heat output in Table 7.3-4, considerable variability in WP heat output is expected for each of the WP types. Section 7.5 provides some discussion as to how this heat output variability could be accommodated.

Table 7.3-6 tabulates the numbers of each WP type ready to be emplaced during each year of repository emplacement operations. Extra assemblies (those that would result in a partially filled WP) are carried to the next year such that no partially filled WPs are created until the last year of receipt for a given WP type. This concept would require that assemblies that do not fill a complete WP are held in lag storage until more of the same type are received. The holding time could be as long as four years dependent entirely upon the projected shipment dates estimated by waste stream "Case 1". While the scope of SNF storage at the repository surface facility is still under consideration, the alternative would result in hundreds of partially filled packages (thus increasing the number of WPs and costs). The impact to surface facility design is discussed in other design analyses.

Table 7.3-4. WP Design Coverage for Waste Stream Case 1

WP Types:	ID:	Coverage Range		Average MTU/WP	Average Initial WP Heat Output	Design Basis Initial WP Heat Output
		# of WPs	% SNF *			
21 PWR - No Absorber (base thermal & criticality)	1	1444	31.96%	8.988 MTU	10.272 kW	17.850 kW
21 PWR - Absorber Plates (criticality option 1)	2	2641	58.47%	9.051 MTU	9.120 kW	17.850 kW
21 PWR - Absorber Rods, No Plates (criticality option 2)	3	120	2.66%	8.148 MTU	2.905 kW	17.850 kW
12 PWR - No Absorber (thermal option 1)	4	390	4.93%	5.436 MTU	11.231 kW	18.000 kW
12 PWR - Long, Absorber Plates (base South Texas long WP)	5	150	1.90%	6.468 MTU	10.477 kW	18.000 kW
44 BWR - No Absorber (base thermal & criticality)	6	696	24.61%	7.656 MTU	11.625 kW	17.600 kW
44 BWR - Absorber Plates (criticality option 1)	7	2107	74.59%	7.876 MTU	6.440 kW	17.600 kW
24 BWR - Thick Absorber Plates (thermal option 1, criticality option 2)	8	42	0.80%	3.960 MTU	0.933 kW	12.480 kW

* Percent of PWR or BWR waste stream accommodated.

Figure 7.3-3. Average Assembly Heat for Each WP for Case 1

Table 7.3-5 summarizes the average SNF assembly characteristics for each of the commercial SNF WP design types. Table 7.3-5 lists the average age, burnup, enrichment, uranium mass, and initial heat output resulting from all of the assemblies placed in each WP type. These values are taken from the WPBIN00D output included here as Attachment XXXIX. Table 7.3-5 also lists the average assembly characteristics for all of the PWR and BWR assemblies emplaced in the MGDS (Attachment XXVII). Within the WPBIN00D program, assembly age and initial heat output are calculated based upon assembly characteristics and the year each assembly is emplaced; then averages are calculated and printed. It is important to note that the average assembly characteristics, such as average age or burnup, can be misleading for two reasons. First, the estimated heat output of an SNF assembly with average characteristics is not necessarily the same as the average of the individual assembly heat outputs. Second, there is still a wide range (variability) in the assembly characteristics for each WP design type, such that the average assembly characteristics cannot be considered "nominal" parameters for design.

Table 7.3-5. Average WP Assembly Characteristics for Waste Stream Case 1

WP Types:	ID:	Average Assembly Age	Average Assembly Burnup	Average Assembly Enrichment	Average MTU per Assembly	Average Initial Heat Output
21 PWR - No Absorber (base thermal & criticality)	1	27.920 years	44,102 MWd/MTU	3.723%	0.428 MTU	489.13 watts
21 PWR - Absorber Plates (criticality option 1)	2	26.340 years	36,662 MWd/MTU	3.638%	0.431 MTU	434.28 watts
21 PWR - Absorber Rods, No Plates (criticality option 2)	3	35.694 years	17,418 MWd/MTU	3.462%	0.388 MTU	138.32 watts
12 PWR - No Absorber (thermal option 1)	4	10.369 years	52,966 MWd/MTU	4.247%	0.453 MTU	935.91 watts
12 PWR - Long, Absorber Plates (base South Texas long WP)	5	15.944 years	44,782 MWd/MTU	3.887%	0.539 MTU	873.09 watts
44 BWR - No Absorber (base thermal & criticality)	6	18.753 years	42,164 MWd/MTU	3.319%	0.174 MTU	264.20 watts
44 BWR - Absorber Plates (criticality option 1)	7	29.878 years	29,421 MWd/MTU	2.910%	0.179 MTU	146.37 watts
24 BWR - Thick Absorber Plates (thermal option 1, criticality option 2)	8	18.139 years	8,836 MWd/MTU	3.468%	0.165 MTU	38.88 watts
All PWR Assemblies (including South Texas assemblies)		26.098 years	39,495 MWd/MTU	3.696%	0.432 MTU	476.02 watts
All BWR Assemblies		27.046 years	32,393 MWd/MTU	3.015%	0.177 MTU	174.51 watts

Table 7.3-6. Waste Packages Completed Each Year for Waste Stream Case 1

Year	21 PWR No Absorber	21 PWR Absorber Plates	21 PWR Control Rods	12 PWR High Heat	12 PWR South Texas	44 BWR No Absorber	44 BWR Absorber Plates	24 BWR Thick Absorbers
2010	2	16	0	1	0	2	10	0
2011	4	26	4	2	0	12	24	0
2012	19	56	0	9	6	19	38	0
2013	29	93	9	22	15	22	52	0
2014	44	149	6	30	0	36	96	0
2015	49	155	1	21	12	34	88	0
2016	57	130	2	31	7	40	95	0
2017	43	151	3	32	15	33	89	0
2018	52	132	3	31	12	49	85	0
2019	49	139	7	34	12	31	91	0
2020	50	138	5	35	8	34	95	0
2021	61	127	2	29	8	33	95	4
2022	61	130	3	37	10	37	78	14
2023	59	133	11	25	9	38	84	0
2024	62	118	14	25	10	43	83	8
2025	58	116	4	26 *	9	53	96	11
2026	76	94	20	0	0	12	176	2
2027	113	83	6	0	0	30	133	0
2028	92	109	2	0	0	16	134	0
2029	89	119	2	0	0	18	118	0
2030	87	128	4	0	0	27	110	2
2031	111	118	3	0	0	34	82	1 *
2032	105	118	6	0	14	30	84	0
2033	72 *	63 *	3	0	3	13 *	71 *	0
Total	1444	2641	120	390	150	696	2107	42

* Indicates that last WP is partially filled

CDA assumption Key 003 (Ref. 5.9) indicates slightly different totals for waste packages produced for waste stream "Case 1". This difference can be traced to the results of the Waste Quantity, Mix and Throughput Study Report (Ref. 5.20) where, at the end of each emplacement year, the number of filled WPs are "rounded-up" to make the results more conservative. This assumption is not used in this design analysis as there is no reason to emplace partially filled WPs at the end of each calendar year. The WP binning and heat averaging calculations performed by WPBIN00D utilize the original waste stream cases (Ref. 5.5), and do not "round-up" any numbers in the calculations.

Emplacing partially filled WPs is not considered a cost effective utilization of WP materials. Nevertheless, a comparison calculation was performed to determine the number of WPs emplaced when partially filled WPs are created at the end of each year of emplacement. Table 7.3-7 tabulates the numbers of each WP type ready to be emplaced during each year of repository emplacement operations. Partially filled WPs are closed and emplaced at the end of each calendar year and result in hundreds of partially filled packages (6 partially filled WPs are indicated in Table 7.3-6). However, the resulting 77 additional WPs will not significantly impact the average heat output for each WP type calculated in this section.

Table 7.3-7. Waste Packages Completed Each Year for CDA Assumption Key 003 (Ref. 5.9)

Year	21 PWR No Absorber	21 PWR Absorber Plates	21 PWR Control Rods	12 PWR High Heat	12 PWR South Texas	44 BWR No Absorber	44 BWR Absorber Plates	24 BWR Thick Absorbers
2010	3	17	1	2	0	3	11	0
2011	4	27	5	2	0	13	24	0
2012	19	56	0	9	7	20	38	0
2013	29	94	9	23	15	22	53	0
2014	45	150	7	30 *	0	37	96	0
2015	50	155	1	22	12 *	34	89	0
2016	57	131	3	32	8	41	96	0
2017	43	152	3	32	15	33	89	0
2018	52	133	4	31 *	12 *	49	86	0
2019	49	139	7	35	13	32	91	0
2020	51	138	5	36	8	35	95	0
2021	62	128	3	29	8 *	33	95	5
2022	61	131	3	38	11	38	79	15
2023	59	133	12	25	9 *	38	85	1
2024	63	118 *	15	26	10	43	84	8
2025	58	117	4	26	10	54	96	12
2026	77	94	20	0	0	12	176	2 *
2027	114	83 *	7	0	0	30	134	1
2028	92	109	2	0	0	17	135	1
2029	89	120	3	0	0	18	119	1
2030	88	129	5	0	0	28	111	2
2031	112	118	3 *	0	0	34	82	1
2032	105 *	118	7	0	14 *	31	85	0
2033	72	63	3	0	3	12	70	0
Total	1454	2653	132	398	155	707	2119	49

* Indicates that last WP is completely filled

7.3.3 Disposition of Unbinned Assemblies

As seen in Table 7.3-3, a number of assemblies were found to exceed the WP loading constraints and were not placed in one of the eight commercial SNF WP designs. It was the intent of the original WP design determination (Ref. 5.11) to handle all commercial SNF assemblies; however, the number and type of outlier assemblies are subject to change with each waste stream projection. Cases 9 through 12, which include all 86,800 MTUs of SNF, had the greatest number of unbinned assemblies which generally resulted from young or partially burned fuel due to reactor shutdowns. The baseline design currently includes only the first 63,000 MTUs of SNF (Cases 1 through 8). This section describes a possible disposition of these unbinned assemblies by placing them in one of the WP designs already defined.

A listing of the number of unbinned assemblies for each waste stream case, including an estimate of heat and k_{∞} , are provided in Attachments XXXIX through L. Also, a sorting of all assemblies based upon heat output and criticality potential is provided for each waste stream case in Attachments LIV through LXV. Each of the "unbinned" assemblies occurred due to one of the following four reasons:

Reason 1. PWR assemblies with estimated k_{∞} values greater than the highest PWR bin level of 1.45 (see Table 4.1-1).

For some of the cases, eight PWR assemblies were found to exceed the k_{∞} bin by 0.01. Since the k_{∞} determination is merely an estimate, and the waste stream is largely based on projections, it is reasonable to assume that, when present, these eight assemblies would be captured by the 21 PWR with control rods WP design (the third WP type). For each waste stream case, this would result in the following changes:

<u>Case:</u>	<u>Impact:</u>
1:	1 more 21 PWR w/ control rods WP partially filled with 8 assemblies
2:	8 assemblies placed in the last partially filled 21 PWR w/ control rods WP
3:	No change
4:	No change
5:	8 assemblies placed in the last partially filled 21 PWR w/ control rods WP
6:	8 assemblies placed in the last partially filled 21 PWR w/ control rods WP
7:	No change
8:	No change
9:	8 assemblies placed in the last partially filled 21 PWR w/ control rods WP
10:	No change
11:	1 more 21 PWR w/ control rods WP partially filled with 8 assemblies
12:	No change

Reason 2. South Texas (STx) assemblies with estimated k_{∞} values greater than the highest South Texas bin level of 1.13 (see Table 4.1-1).

For some of the cases, several South Texas assemblies were found to exceed the k_{∞} bin by as much as 0.136. It is likely that in the future, a new WP design type indicating a South Texas option with criticality control rods will be specified. However, for the same reasons above, it is reasonable to assume (for now) that, when present, these assemblies would be captured by the 12 PWR STx WP (the fifth WP type) or one very similar to it. For each waste stream case, this would result in the following changes:

<u>Case:</u>	<u>Impact:</u>
1:	No change
2:	No change
3:	No change
4:	No change
5:	3 more 12 PWR STx WPs with 7 assemblies placed in a previously partially filled WP
6:	3 more 12 PWR STx WPs with 7 assemblies placed in a previously partially filled WP
7:	7 assemblies placed in the last partially filled 12 PWR STx WP
8:	7 assemblies placed in the last partially filled 12 PWR STx WP
9:	14 more 12 PWR STx WPs with the last WP partially filled with 4 assemblies and 7 assemblies placed in a previously partially filled WP
10:	14 more 12 PWR STx WPs with the last WP partially filled with 4 assemblies and 7 assemblies placed in a previously partially filled WP
11:	13 more 12 PWR STx WPs with the last WP partially filled with 4 assemblies and 9 assemblies placed in a previously partially filled WP
12:	10 more 12 PWR STx WPs with the last WP partially filled with 4 assemblies and 9 assemblies placed in a previously partially filled WP

Reason 3. PWR assemblies with heat production greater than the highest PWR bin level of 1500 watts.

For the waste stream cases considering the full 86,800 MTUs of projected SNF (Cases 9 through 12), a number of PWR assemblies were found to have decay heat generation greater than the secondary limit of 1500 watts. All of these "unbinned" assemblies have very young ages (near 5 years old and shipped shortly after reactor shutdown) and would not otherwise be a problem for the reference repository design which considers only the first 63,000 MTUs. While it is unlikely that assemblies generating this much heat will be shipped, the surface facility aging time required to reduce the heat production to 1500 watts is small. Even at a high burnup of 60 GWd/MTU, a five year old assembly drops to 1500 watts in a little over one year (see Table 7.2-4); and most of the unbinned assemblies generate just over 1500 watts. After aging, these assemblies would be captured by the 12 PWR high heat WP (the fourth WP type). For each waste stream case, this would result in the following changes:

<u>Case:</u>	<u>Impact:</u>
1:	No change
2:	No change
3:	No change
4:	No change
5:	No change
6:	No change
7:	No change
8:	No change
9:	13 more 12 PWR high heat WPs with the last WP partially filled with 2 assemblies and 8 assemblies placed in a previously partially filled WP
10:	3 more 12 PWR high heat WPs with the last WP partially filled with 1 assembly and 8 assemblies placed in a previously partially filled WP
11:	13 more 12 PWR high heat WPs with 5 assemblies placed in a previously partially filled WP
12:	2 more 12 PWR high heat WPs with 9 assemblies placed in a previously partially filled WP

Reason 4. PWR assemblies that require criticality control but are too hot for the large WP with criticality control plates or control rods.

For some of the cases, many PWR assemblies were found to have decay heat generations greater than the primary limit of 850 watts and k_{∞} values greater than the 1.02 limit for the 12 PWR high heat WP (the fourth WP type). If future projections of the waste stream predict that a significant number of assemblies in this category persist, then a 12 PWR WP design with neutron absorbers could be specified. However, there are two alternatives: **Option 4.A)** the assemblies could be placed in the 12 PWR South Texas WP (the fifth WP type), or **Option 4.B)** the assemblies could be aged until their heat output reaches 850 watts and then placed in the 21 PWR WP w/ absorber plates (the second WP type). Assuming a high burnup of 60 GWd/MTU, it could take up to 15 years for an assembly to cool from 1500 watts to 850 watts (see Attachment XV). However, many of these assemblies are just over the heat limit of 850 watts and require less than a year of aging.

Option 4.A) Utilizing the South Texas WP would result in the following changes:

<u>Case:</u>	<u>Impact:</u>
1:	7 more 12 PWR STx WPs with the last WP partially filled with 1 assembly
2:	5 more 12 PWR STx WPs with the last WP partially filled with 11 assemblies
3:	3 more 12 PWR STx WPs with the last WP partially filled with 4 assemblies
4:	3 more 12 PWR STx WPs with the last WP partially filled with 4 assemblies
5:	No change
6:	No change
7:	No change
8:	No change
9:	117 more 12 PWR STx WPs with the last WP partially filled with 4 assemblies and 8 assemblies placed in a previously partially filled WP
10:	16 more 12 PWR STx WPs with the last WP partially filled with 2 assemblies and 8 assemblies placed in a previously partially filled WP

- 11: 111 more 12 PWR STx WPs with the last WP partially filled with 7 assemblies and 8 assemblies placed in a previously partially filled WP
- 12: 7 more 12 PWR STx WPs with the last WP partially filled with 6 assemblies and 8 assemblies placed in a previously partially filled WP

Option 4.B) Or, utilizing aging would result in the following changes:

Case: Impact:

- 1: 4 more 21 PWR w/ absorber plates WPs with the last WP partially filled with 4 assemblies and 6 assemblies placed in a previously partially filled WP
- 2: 2 more 21 PWR w/ absorber plates WPs with the last WP partially filled with 20 assemblies and 18 assemblies placed in a previously partially filled WP
- 3: 1 more 21 PWR w/ absorber plates WP partially filled with 9 assemblies and 19 assemblies placed in a previously partially filled WP
- 4: 2 more 21 PWR w/ absorber plates WPs with the last WP partially filled with 5 assemblies and 2 assemblies placed in a previously partially filled WP
- 5: No change
- 6: No change
- 7: No change
- 8: No change
- 9: 67 more 21 PWR w/ absorber plates WPs with the last WP partially filled with 10 assemblies and 8 assemblies placed in a previously partially filled WP
- 10: 9 more 21 PWR w/ absorber plates WPs with the last WP partially filled with 20 assemblies and 2 assemblies placed in a previously partially filled WP
- 11: 63 more 21 PWR w/ absorber plates WPs with the last WP partially filled with 14 assemblies and 19 assemblies placed in a previously partially filled WP
- 12: 4 more 21 PWR w/ absorber plates WPs with the last WP partially filled with 14 assemblies with 9 assemblies placed in a previously partially filled WP

Combining the changes due to reasons 1, 2, 3, and 4 (pick 4A or 4B as described above) will place every "unbinned" assembly received at the repository in one of the eight commercial SNF waste package designs listed in Table 4.1-1. The additional filled packages indicated above would then be added to the WP totals of Tables 7.3-3, 7.3-4, and 7.3-6. However, the average heat outputs for each waste package type (Attachments XXXIX through L) are not expected to significantly change if these additional filled waste packages are included (see Assumption 4.3.14).

7.4 Characteristics of High-Level Waste Glass

To capture a majority of the HLW glass waste form, the waste package must be designed and evaluated to accommodate the bounding or limiting case of a glass waste form which has a thermal output much higher than average. Thus, a design basis heat load can be determined which can be considered the hottest glass waste form heat load that could be loaded and emplaced in that waste package. Subsequent waste package/engineered barrier evaluations would then represent the hottest waste package for this waste form in a repository with thermal loading otherwise dominated by SNF waste packages. While all of the waste packages (hot and cold) will collectively influence repository temperatures (assumed to be the average SNF waste package characteristics), every waste package must meet thermal goals (WP design basis heat load characteristics).

7.4.1 Design Basis HLW Canister Types and Mass

The physical dimensions of the Savannah River pour canister are assumed to represent a typical high-level waste glass waste form for the potential repository at Yucca Mountain (see Assumption 4.3.15). While detailed information about the probable glass wastes to be produced at the other generating sites is currently being collected, the Savannah River canister is the best documented design at this time. Typical dimensions for the Savannah River canister are provided in Table 4.1-5.

Decay heat within the pour canister is produced within the glass matrix which only partially fills the canister. The fill height of the glass is given in Table 4.1-5 and is based on the canister volume, the percentage loading, and the internal dimensions of the canister (see Assumption 4.3.16). It is more conservative (with respect to peak glass temperature) to assume that the heat is produced only within the glass and not distributed throughout the entire volume of the canister. Further, it is also conservative to assume that energy produced by the radioactive material is deposited as heat only in the glass and not in the surrounding metal structures (Assumption 4.3.17). Since the glass is assumed to be a relatively homogeneous mixture, there will be no axial energy production profile as occurs in intact SNF, and an axial power peaking factor of 1.00 is applicable to the glass canisters (Assumption 4.3.18).

The density of the glass waste form is assumed to be 2688.6 kg/m^3 based on the nominal glass weight and volume (see Assumption 4.3.19) and the conductivity is $1.1 \text{ W/m}\cdot\text{K}$ (p. 584, Ref. 5.25, see Assumption 4.3.20). The Pyrex glass specific heat of $835 \text{ J/kg}\cdot\text{K}$ and emissivity of 0.81 are assumed to be applicable to the borosilicate glass waste form (see Assumption 4.3.21).

7.4.2 Design Basis HLW Canister Heat Output

Given that higher capacity waste packages are more likely to exceed thermal goals than smaller ones in the same repository thermal environment, the choice of a design basis heat load is important because it could limit the number of pour canisters that can be loaded in one WP without exceeding thermal goals for disposal. The limiting thermal goal for waste packages containing HLW canisters is a temperature of no more than 400°C anywhere in the glass matrix (DCWP 002, p. 8-4, Ref. 5.9). The design basis heat load will impact the timing of peak temperatures as well as the magnitude of the peak. The repository host rock temperatures will peak between 10 to 500 years depending on the thermal loading but will be largely independent of the individual waste package design. The waste package itself, however, will experience its peak temperature before the rock temperature peaks depending on the heat generated in each individual package.

Several different MGDS HLW canister design basis heat load types have been used by the OCRWM to demonstrate compliance with requirements and to allow comparison with previous evaluations. Currently, there are four sites that will manufacture high-level waste glass: Hanford, Savannah River Plant (SRP), West Valley (WV) and Idaho National Environmental and Engineering Laboratory (INEEL). Table 7.4-1 summarizes the projected HLW canister heat production as a function of time for each producer site as specified in References 5.16 (pp. 3.2-10, 3.3-12, 3.4-15, and 3.5-6) and 5.17 (see Assumption 4.3.22).

The time steps presented in Table 7.4-1 are judged to be too coarse to provide input to a time dependent thermal evaluation using the ANSYS engineering software. Therefore, a curve fit was performed to interpolate further data points creating a more detailed heat decay curve with time steps consistent with those used for commercial SNF in the previous sections. The curve fit, performed in Reference 5.31, used the MATHCAD software (see Attachments I, IV, and VII of Reference 5.31) to create a more detailed table heat production (see Attachments II, V, and VIII of Reference 5.31). The MATHCAD curve fit, using the data provided in Table 7.4-1, generated the appropriate equation coefficients for the radioactive decay equations, solved the radioactive decay equations to obtain the waste form heat generation rate versus time, and finally printed the decay heat data at the desired ANSYS time steps to an ASCII file. The MATHCAD-produced heat tables were then translated by hand into an ANSYS readable format suitable for direct inclusion in future thermal analyses (see Attachments III, VI, and IX of Reference 5.31). The attachments represent Hanford, Savannah River, and West Valley canister heat production. The INEEL glass waste form was judged to be similar enough to the West Valley glass waste form such that similar temperature histories are expected and therefore specific analysis (including the curve fit) of the INEEL data is not required (see Assumption 4.3.23).

Table 7.4-1. HLW Canister Thermal Analysis Design Bases Heat Loads (Refs. 5.16 and 5.17)

Manufacture Location	Hanford Site	Savannah River Site	Idaho National Environmental and Engineering Laboratory	West Valley Demonstration Project
Time Since Emplacement (Years)	Watts/Pour Canister	Watts/Pour Canister	Watts/Pour Canister	Watts/Pour Canister
0	869	709	339	326
1	683	627	267	319
2	595	586	230	311
5	502	527	185	290
10	439	467	157	258
15	391	418	138	230
20	349	374	123	205
30	279	301	97	164
50	181	198	61	105
100	67	75	20	37
200	19	17	2.6	8.9
300	12	7.2	0.67	5.4
500	8.7	2.7	0.24	3.7
1,000	3.9	1.1	0.11	1.9
2,000	0.86	0.72	0.06	0.7
5,000	0.08	0.54	0.04	0.33
10,000	0.06	0.43	0.033	0.26
20,000	0.05	0.30	0.023	0.18
50,000	0.04	0.16	0.012	0.08
100,000	0.04	0.11	0.008	0.04
500,000	0.07	0.05	0.003	0.04
1,000,000	0.07	0.02	0.001	0.03

The HLW glass canister heat outputs calculated in Reference 5.31 are applicable to the first 10,000 years after WP emplacement. To be consistent with the heat output tables created for the SNF, the HLW glass heat tables were extended to 1,000,000 years using the data in Table 7.4-1. A recalculation of the curve fit performed in Reference 5.31 was not performed because the heat generation of the HLW glass is so low during the extended time period.

Attachments III, VI, and IX of Reference 5.31 (heat production tables for Hanford, Savannah River, and West Valley canisters) were modified to include heat output at the additional time steps and the modified tables are included in this design analysis as Attachments LI, LII, and LIII, respectively. They are considered representative of the type of HLW glass to be emplaced in the first repository, and are considered somewhat conservative because the aging time between glass production and actual emplacement in the repository has been neglected (Assumption 4.3.24)

7.5 Assumptions for Thermal Loading

The typical first step in a thermal evaluation of emplaced WPs is to determine the effect of the WP heat on the repository host rock. The thermal response of the repository rock, both short-term and long-term, depends upon the density of waste within the repository horizon and the WP emplacement spacing strategy, typically called thermal loading because the decay heat from the waste significantly alters temperatures in the near-field and far-field. Table 7.5-1 describes three alternative emplacement strategies. The purpose of this section is to describe the three emplacement strategies and how the average assembly and WP characteristics developed in this document affect their implementation. This subject is also addressed in a recent repository design analysis (Ref. 5.38). Actual WP emplacement spacings will depend upon thermal and mass loading strategy developed in future analyses.

Table 7.5-1. Characteristics of Emplacement (Thermal Loading) Strategies

Emplacement (Thermal Loading) "Strategy"	Basis	Description
Areal Power Density (APD)	Uniform Power per Unit Area (kW/acre)	WPs are assigned area according to their heat output at the time of emplacement
Areal Mass Loading (AML)	Uniform Mass per Unit Area (MTU/acre)	WPs are assigned area according to their heavy metal mass content
Equivalent Energy Density (EED)	Uniform Heat per Unit Area (GJ/m ²)	WPs are assigned area according to their heat-producing potential integrated over a specific time period after emplacement

7.5.1 Areal Power Density (APD)

As seen in the previous sections, the decay heat of individual WPs can vary greatly depending on the age, burnup, etc. of the loaded SNF. For example, the initial heat output from a 21 PWR with absorber plates WP with design basis heat output can be more than 95% greater than average (see Table 7.3-4), which can greatly affect the early (short-term) localized temperatures within the repository. However, long-term thermal behavior of the repository rock is primarily a function of the areal mass loading or tons of SNF emplaced per unit area. The repository response will be determined more by the integrated heat (the area under the decay heat curve) from the aggregated emplaced SNF and less by the initial heat of the individual WPs. The integrated heat per MTU over 100,000 years (see Table 7.5-4) from a 21 PWR with absorber plates WP, with an assumed design basis heat output, is 58% greater than average (still a considerable amount); however, most of the large WPs will differ by much less, with the majority closer to average. Any initial variability

between WPs loaded with an equivalent MTU amount of SNF will decrease with time. Thus, an initial areal power density will become uneven over time, depending on the average characteristics assumed, and will provide an evenly distributed thermal loading only at the time of emplacement.

Early definitions of thermal loading for the Yucca Mountain Project utilized an initial areal power density (specifically, 57 kW/acre) based upon expected peak rock temperatures around small capacity, "SCP" (Ref. 5.35) concept waste packages emplaced in vertical boreholes. Subsequent design analyses led to the adoption of larger multiple barrier waste packages emplaced horizontally in the emplacement drift. Thermal analyses also indicated that, after only a few years, one can expect hot and cool regions resulting from different rates of change in decay heat output of individual WPs, which could adversely affect the predictability of long-term performance. Difficulty in predicting the decay heat output (and resulting thermal response) of each and every WP led to the use of WP emplacement spacings based upon the heavy metal mass content, described in the following section.

7.5.2 Areal Mass Loading (AML)

Over the past few years, the thermal loading of the potential repository has been defined in terms of AML for the purpose of defining repository layouts and thermal response calculation. AML is typically defined as metric tons of uranium (MTU) per acre; however, the tons of uranium is actually meant to be representative of the tons of heavy metal initially present in the nuclear fuel before it is utilized in a nuclear reactor and possibly reprocessed. AML is actually a repository "mass" loading and is related to thermal loading only by the strong correlation between uranium mass (heavy metal), enrichment, and burnup (see Assumption 4.3.8). AML provides a convenient measure for the determination of emplacement configurations accommodating a statutory 70,000 MTHM (metric tons heavy metal) within a given area.

Even with its limitations, a WP emplacement layout based on AML provides a more evenly distributed long-term thermal response, compared to APD, and allows consistent comparisons of competing proposed thermal loading strategies because the total inventory of waste (as measured in tons) does not vary with time or order of receipt. AML does not, however, provide a method for handling the variability in individual WP heat output which will certainly result in temperature variations during the early years of repository operation. Therefore, a thermal loading based on mass must be robust enough to accommodate this variability without violating the near-field thermal goals.

A loading scenario based on mass could be developed that provides a unique WP spacing for each individual WP based on that package's MTU total. This kind of scenario would require that the MTU of each WP be known in advance, and would be complex as there would be a unique WP spacing for each of the (roughly) 10,000 WPs. It is not clear at this time that calculating unique WP spacings (based upon AML) rather than categories of WP spacings based upon AML averages or ranges, would lower near-field temperature variability or improve waste isolation performance. The information needed to determine the characteristics of each individual WP to be emplaced was not

developed in this design analysis; however, it could be developed in subsequent design analyses for a single given waste stream projection and it could be developed as emplacement operations occur.

The information provided in this analysis is primarily focused on the average and bounding characteristics for each of the commercial SNF WP designs listed in Table 4.1-1. The mass-based loading scenario described here would space each of the eight commercial SNF WP design types based on the average mass for each WP type (assuming waste stream "Case 1") and an example nominal spacing (using Equation 7.5-1) for three different assumed thermal loading levels (consistent with the CDA Assumption Key 019, Ref. 5.9). It should be noted that the purpose here is not to propose a thermal loading strategy or to define the final spacings, but to provide SNF characteristics for use in developing the emplacement design.

$$AML(MTU/acre) = \frac{\text{Assembly Uranium Weight}(MTU/\text{assembly}) \times \text{Number of Assemblies}}{WP \text{ Spacing}(m) \times \text{Drift Spacing}(m) \times 2.4711 \times 10^{-4}(\text{acres}/m^2)}$$

(Equation 7.5-1)

Table 7.5-2. Example AML WP Spacing for Waste Stream Case 1

WP Types:	ID:	Average MTU/WP	Nominal center-to-center WP Spacing for Assumed:		
			83 MTU/acre with 22.5 m Drift Spacing	85 MTU/acre with 28.0 m Drift Spacing	100 MTU/acre with 22.5 m Drift Spacing
21 PWR - no absorber base thermal & criticality	1	8.988 MTU	19.477 m	15.283 m	16.166 m
21 PWR - absorber plates criticality option 1	2	9.051 MTU	19.613 m	15.390 m	16.279 m
21 PWR - absorber rods (no plates) criticality option 2	3	8.148 MTU	17.656 m	13.854 m	14.655 m
12 PWR - no absorber thermal option 1	4	5.436 MTU	11.780 m	9.243 m	9.777 m
12 PWR - absorber plates base South Texas long WP	5	6.468 MTU	14.016 m	10.998 m	11.633 m
44 BWR - no absorber base thermal & criticality	6	7.656 MTU	16.590 m	13.018 m	13.770 m
44 BWR - absorber plates criticality option 1	7	7.876 MTU	17.067 m	13.392 m	14.166 m
24 BWR - thick absorber plates thermal option 1, criticality option 2	8	3.960 MTU	8.581 m	6.733 m	7.122 m

As mentioned above, an AML emplacement does not provide an explicit method for handling the variability in individual WP heat output. With all of the WPs of a given design type emplaced with the same spacing, there will be heat output variability that is bounded by the design basis heat output and represented by the average heat output (see Table 7.3-4). The design basis heat output is the limiting case (that is, by definition no WPs of that type will generate more heat) and does not "represent" any portion of the waste stream; it represents only the hottest possible WP of that design type. This definition of "the hottest WP" is necessary for design because every WP must be shown to meet thermal goals and requirements (using design basis SNF characteristics), while all of the WPs (hot and cold) will collectively influence long-term repository temperatures (based on average SNF characteristics).

Future thermal calculations must demonstrate that the AML emplacement design based on fixed WP spacings for each design type (the solution described here) is robust enough to accommodate heat output variability without violating near-field thermal goals. It is estimated that all of the spacings listed in Table 7.5-2 may be acceptable (in terms of thermal limits) since the minimum 21 PWR/44 BWR WP spacing is more than a meter greater than the absolute minimum WP spacing of 12 meters specified for those WPs for ACD (p. 6.2-41, Ref. 5.6). The spacings are also comparable to previous emplacement spacing calculations (Table 7.4-8, Ref. 5.38) which utilized older waste stream projections. However, confirming thermal analysis calculations must be performed to ensure temperature limits and performance goals are met.

The last issue for AML emplacement design is the handling of DHLW WPs. DHLW WPs may represent between a quarter and a third of the total number of WPs; however, the heat output contribution is a much smaller fraction of the total. This is especially true over hundreds to thousands of years where the integrated heat output of a glass canister is much less than for SNF and will contribute very little to the long-term repository thermal response. Also, the DHLW WP technically contains no MTUs (because of the processing) and may not factor into a thermal loading based on MTU. For these reasons, it would be desirable to allocate no additional emplacement spacing for DHLW WPs, and to simply place the DHLW WPs between commercial SNF WPs where possible. The resulting AML calculation would then be based solely on commercial SNF, a practice consistent with previous (historical) thermal loading calculations and system studies where HLW canisters were neglected entirely. This emplacement scenario is also consistent with the approach described in the Repository Thermal Loading Management Analysis (Ref. 5.38).

Based upon discussions of WP sizes and emplacement methodology in MGDS ACD Report (Ref. 5.6), it may be difficult to place the WPs closer than one meter apart. Therefore, given typical ACD WP lengths, the placement of DHLW WPs between SNF WPs is more compatible with the 21 PWR/44 BWR SNF WPs than with the 12 PWR/24 BWR SNF WPs. Since there are relatively few 12 PWR/24 BWR SNF WPs, there should be no problem accommodating all of the DHLW in this fashion.

7.5.3 Equivalent Energy Density (EED)

The EED approach is a compromise between the APD and AML methods, and it has been suggested as an alternative to the current AML methodology (Ref. 5.38). The EED method is the most direct consideration of the impact of WP heat output on repository thermal response and explicitly ties the subsurface design, size, and layout to the projected decay heat output of the waste stream. Thus, the thermal strategy effectively drives the design instead of the mass and volume of waste to be disposed of in the first geologic repository.

Among the biggest problems with the EED (and the APD as well) is that the projected repository layout and WP density will vary with the constantly changing assumptions used to generate the waste stream characteristics. This is also a problem for the mass loading scenario (AML), but the impact is greater for the heat based emplacement scenarios (EED and APD). Particularly, if emplacement operations were to be delayed or if waste receipt rates were to change from year to year, the resulting emplacement layout would change considerably. This would not occur for a mass based emplacement as the waste mass does not vary with time. Regardless of the limitations, the EED method is a significant improvement over APD and places an emphasis on achieving a particular thermal strategy, which may be considered integral to the waste isolation strategy. Whether the waste isolation strategy includes a thermal strategy or not, it is not possible to emplace 70,000 MTHM in any reasonable repository area without significantly disturbing the host rock temperature and humidity. The project is in the process of determining how the heat can be used constructively to enhance radionuclide containment; however, those issues are not developed here.

A key element of concern for the EED method is the time, or deposition period, over which the total energy is to be equalized. The repository responds to the heat in different ways depending on the time period in question. Peak temperatures within the WP occur in the first couple years, emplacement drift wall temperatures peak in tens of years, average rock temperatures peak in hundreds of years, and the repository horizon drops below the boiling point in thousands of years. Thus, the selection of a deposition period (the heat integration time) will depend on the thermal strategy. Over very short time periods, the EED is essentially equivalent to APD; and for very long time periods, the EED will result in emplacement spacings similar to those for AML (similar, but not the same). The selection of a preferred deposition period is a function of the design goals in question, such as: to engineer a thermal environment that facilitates emplacement (and retrieval) operations, or to engineer a long-term thermal environment that will facilitate waste isolation. In consideration of these differing design goals, three different time integration periods have been considered: 100, 1000, 10,000, and 100,000 years. The 1000 year time period could be considered a compromise between short and long-term effects, and will be developed more extensively here.

The first step in defining a particular EED emplacement strategy is to specify the desired thermal loading goal in GJ/m^2 (giga-joules per meter squared). Using the average PWR and BWR assembly information listed in Table 7.5-3 (derived from Attachment XXVII), the total repository heat due to commercial SNF (from waste stream "Case 1") integrated over 1000 years is 309,408 TJ (tera-

joules). The integrated heat is calculated from the table of heat output (in Attachment XXVII) by performing a summation of the heat produced (average heat rate over each time increment multiplied by the time increment) over each of the time increments listed. For example, the integrated heat for the average PWR assembly for 0.01 years is 0.15 GJ [= (476.02+475.88) ÷ 2 × 0.01 × 365.25 × 24 × 3600 ÷ 10⁹]. Using the 1000 year integrated heat total and the total emplaced mass of SNF from Table 7.5-3, an equivalent repository loading (in terms of EED) can be calculated that would represent the same net density of SNF called for by the assumed repository mass loadings of 83, 85 and 100 MTU/acre (consistent with CDA Assumption Key 019, Ref. 5.9).

Table 7.5-3. Characteristics of Average SNF for Waste Stream Case 1

Total Repository Waste Stream Characteristic	PWR SNF	BWR SNF
Average Assembly Mass (Attachment XXVII)	0.432 MTU	0.177 MTU
Average Initial Assembly Heat (Attachment XXVII)	476.02 watts	174.51 watts
Number of Assemblies Emplaced (Attachment XXVII)	94,847 assemblies	124,269 assemblies
1000 year Integrated Heat per Average Assembly	2172.61 GJ	831.60 GJ
1000 year Integrated Heat for All Commercial SNF	309,408 TJ (tera-joules)	
Total Mass Emplaced for All Commercial SNF	63,003.69 MTU (p. 5, Attachment LXVI)	
1000 year EED Loading Equivalent to 83 MTU/acre of Commercial SNF	100.72 GJ/m ² (Nominal 101 GJ/m ²)	
1000 year EED Loading Equivalent to 85 MTU/acre of Commercial SNF	103.15 GJ/m ² (Nominal 103 GJ/m ²)	
1000 year EED Loading Equivalent to 100 MTU/acre of Commercial SNF	121.35 GJ/m ² (Nominal 121 GJ/m ²)	

The second step in defining a particular EED emplacement strategy is to determine the integrated heat output for each of the WPs to be emplaced. Table 7.5-4 provides the average integrated energy output over 100, 1000, 10,000, and 100,000 years for each of the eight commercial SNF WP design types. The integrated heat is calculated from the table of heat output (in Attachment XXXIX) by performing a summation of the heat produced over each of the time increments listed. Example nominal spacings (for the three EED loadings of Table 7.5-3) for each of the SNF WP design types are provided in Table 7.5-5. These example spacings are, however, only based upon the average heat output for each WP and do not consider the significant variability in heat output expected. Table 7.5-4 also provides the integrated energy output over 100, 1000, and 10,000 years for each of the WP design types loaded with the recommended design basis SNF and for the 4 canister capacity DHLW WP. The integrated heat for the WPs with design basis SNF is the limiting case (highest

possible) for each WP design type; however, it does not “represent” any portion of the waste stream. This definition of the “hottest WP” is necessary for design because every WP must be shown to meet thermal goals and requirements (using design basis SNF characteristics).

Table 7.5-4. Integrated WP Heat Output for Waste Stream Case 1

WP Types:	ID:	Average Heat per WP Integrated Over:			
		100 years	1000 years	10,000 years	100,000 years
21 PWR - no absorber base thermal & criticality	1	16,796 GJ	49,784 GJ	117,686 GJ	240,085 GJ
21 PWR - absorber plates criticality option 1	2	14,345 GJ	42,133 GJ	99,711 GJ	206,205 GJ
21 PWR - absorber rods (no plates) criticality option 2	3	4,721 GJ	15,350 GJ	43,374 GJ	103,118 GJ
12 PWR - no absorber thermal option 1	4	15,634 GJ	38,721 GJ	86,003 GJ	169,591 GJ
12 PWR - absorber plates base South Texas long WP	5	15,664 GJ	41,586 GJ	90,455 GJ	177,995 GJ
44 BWR - no absorber base thermal & criticality	6	17,561 GJ	48,206 GJ	105,615 GJ	207,637 GJ
44 BWR - absorber plates criticality option 1	7	10,602 GJ	33,072 GJ	76,744 GJ	156,856 GJ
24 BWR - thick absorber plates thermal option 1, criticality option 2	8	1,361 GJ	3,979 GJ	12,681 GJ	33,578 GJ
21 PWR with Design Basis SNF		27,498 GJ	70,456 GJ	163,629 GJ	326,593 GJ
12 PWR with Design Basis SNF		20,053 GJ	45,598 GJ	98,982 GJ	192,151 GJ
12 South Texas Design Basis SNF		22,598 GJ	52,386 GJ	114,951 GJ	224,175 GJ
44 BWR with Design Basis SNF		25,312 GJ	64,184 GJ	136,704 GJ	264,706 GJ
24 BWR with Design Basis SNF		15,035 GJ	36,511 GJ	76,103 GJ	145,964 GJ
5 DHLW WP - Hanford		3,589 GJ	5,308 GJ	5,746 GJ	6,362 GJ
5 DHLW WP - Savannah River		3,817 GJ	4,912 GJ	5,821 GJ	8,590 GJ
5 DHLW WP - West Valley		2,039 GJ	2,797 GJ	3,479 GJ	4,905 GJ

Table 7.5-5 provides example WP spacings for average and design basis WPs for nominal EED loadings of 101, 103, and 121 GJ/m² (equivalent to 83, 85, and 100 MTU/acre). While the WP spacings listed in Table 7.5-5 are not intended to be the final determination of the emplacement layout, the spacings do illustrate some potential problems with the EED method. Specifically, some of the cooler WPs will receive drift length allocations that are less than their physical length. Since it would not be possible to deviate from the EED spacings without violating the basic thermal strategy principles, some WP sequencing control and management would be required such that a WP with a space deficiency would always be placed adjacent to higher heat WPs with additional physical space. The minimum additional space to be "borrowed" from and adjacent WP would be based only upon the minimum space necessary to perform the emplacement operation (room for the emplacement gantry, etc.). Minimum spacing requirement due to peak near-field temperatures (p. 6.2-41, Ref. 5.6) would likely not be an issue because the heat deposition density is (by definition) regulated by the EED emplacement layout. That is, high heat WPs would already be given a larger emplacement WP spacing due to their integrated heat output.

An ideal EED emplacement methodology would provide a unique WP spacing for each individual WP based on that package's integrated heat. To implement this strategy, the characteristics of each WP must be known in advance such that a unique WP spacing could be calculated for each of the (roughly) 10,000 WPs. The detailed information needed to pre-determine the characteristics of each individual WP to be emplaced (based on assumptions and projections) was not developed in this design analysis; however, it could be developed with further analysis for a single given waste stream projection. For the AML emplacement strategy, it was shown (for simplicity in design) that the WP spacings could be determined using the average characteristics for each WP design type instead of the characteristics of each individual WP. This results in a set WP spacing for each WP type, given the mass loading strategy. However, a fixed WP spacing is not consistent with the goals of an EED emplacement because the basis of the strategy is the uniform deposition of heat across the repository horizon. The EED method necessitates the use of an individual WP spacing for every single WP to be emplaced in the repository.

Table 7.5-5. Example EED WP Spacing for Waste Stream Case 1

WP Types:	ID:	Nominal center-to-center WP Spacing for 1000 year EED of:		
		101 GJ/m ² with 22.5 m Drift Spacing	103 GJ/m ² with 28.0 m Drift Spacing	121 GJ/m ² with 22.5 m Drift Spacing
21 PWR - no absorber base thermal & criticality	1	21.907 m	17.262 m	18.286 m
21 PWR - absorber plates criticality option 1	2	18.540 m	14.609 m	15.476 m
21 PWR - absorber rods (no plates) criticality option 2	3	6.755 m	5.322 m	5.638 m
12 PWR - no absorber thermal option 1	4	17.039 m	13.426 m	14.223 m
12 PWR - absorber plates base South Texas long WP	5	18.300 m	14.420 m	15.275 m
44 BWR - no absorber base thermal & criticality	6	21.213 m	16.715 m	17.707 m
44 BWR - absorber plates criticality option 1	7	14.553 m	11.467 m	12.148 m
24 BWR - thick absorber plates thermal option 1, criticality option 2	8	1.751 m	1.380 m	1.462 m
21 PWR with Design Basis SNF		31.004 m	24.430 m	25.879 m
12 PWR with Design Basis SNF		20.065 m	15.811 m	16.749 m
12 South Texas Design Basis SNF		23.052 m	18.164 m	19.242 m
44 BWR with Design Basis SNF		28.244 m	22.255 m	23.575 m
24 BWR with Design Basis SNF		16.066 m	12.660 m	13.411 m
5 DHLW WP - Hanford		2.336 m *	1.840 m *	1.950 m *
5 DHLW WP - Savannah River		2.161 m *	1.703 m *	1.804 m *
5 DHLW WP - West Valley		1.231 m *	0.970 m *	1.027 m *

* Consistent with the strategy for AML, the DHLW WPs may not be allocated an individual spacing; they would simply be placed between large SNF WPs where possible.

7.5.4 Thermal Loading Approach

The sensitivity of waste isolation performance to the complexity of the WP spacing algorithm is currently unknown. Therefore, at this time, the relatively simple AML approach (using a limited group of WP AML categories) is recommended. A viable thermal loading strategy for waste isolation must be articulated and confirming calculations of near-field thermal performance must be performed before the EED emplacement method can replace the current emplacement method based upon waste mass. Compared to the relatively simple emplacement formula based on nominal waste package mass, the more complex variable spacing of the EED method will require a demonstrated improvement in waste isolation performance. It is recommended that, for VA design, the average WP characteristics be used to develop mass-based repository emplacement layouts as described by the examples in Table 7.5-2. (Note that Table 7.5-2 does not select the thermal loading strategy or the specific WP spacing; rather, it provides a summary of WP design characteristics and design bases for use in developing emplacement designs.) To demonstrate compliance with design requirements, emplacement spacings based on waste mass should be robust and have sufficient margin to accommodate the WP heat variability. It is not clear that unique AML WP spacings rather than WP spacings based upon AML averages (one nominal WP spacing for each WP design type) would lower near-field temperature variability or improve waste isolation performance.

While AML is recommended for VA design, calculations should be performed to evaluate and develop the EED methodology due to its potential to support the constructive use of heat to aid waste isolation. Sufficient integrated heat information is provided here to perform comparisons of emplacement layout performance and thermal loading strategy; however, further calculations of waste receipt and statistics related to individual WP heat outputs and characteristics must be developed to fully explore the EED performance.

8. Conclusions

The purpose of this analysis is to determine the design basis commercial SNF heat output to be used in subsequent thermal analyses of the WP and its near field environment. This analysis has also determined the average SNF heat output (as a function of the SNF waste stream) for each potential WP design listed in Table 4.1-1. Specifically, the four main objectives met here are to determine: 1) the appropriate design basis fuel characteristics to assume for WP thermal analysis, 2) the average fuel characteristics for each WP design based on reasonable design basis waste streams, 3) the nominal characteristics of canistered HLW glass, and 4) the appropriate implementation of these waste form characteristics into assumptions for thermal loading of the potential repository at Yucca Mountain. This information will provide the base assumptions used to develop thermal analyses of the waste package, its support structures, and the waste forms. The following are the recommendations for average and design basis SNF and DHLW characteristics resulting from this design analysis.

Due to the unqualified/unconfirmed input data used in this analysis, the output and conclusions from this analysis can not be used as input into documents supporting procurement, fabrication, or construction unless they are controlled and tracked as TBV or TBD in accordance with NLP-3-15 or other appropriate procedures.

8.1 Design Basis Fuel Characteristics

8.1.1 PWR SNF

The B&W 15x15 Mark B4 PWR assembly (see the discussion in Section 7.2 and the dimensions in Table 4.1-2) was selected as the design basis assembly configuration for PWR SNF (excluding South Texas). The design basis PWR uranium mass loading is 464 kg of initial uranium per assembly. The design basis PWR assembly has a burnup of 60,000 MWd/MTU and an initial enrichment of 4.73%. For the three 21 PWR WP designs, the initial single assembly heat limit is 850 watts (represented by an assembly age of 19.8 years). The design basis PWR assembly heat output as a function of time for those 21 PWR WPs is given in Attachment IX. For the 12 PWR high heat WP design, the initial single assembly heat limit is 1500 watts (represented by an assembly age of 6.0 years). The design basis PWR assembly heat output as a function of time for that WP is given in Attachment XV. For thermal analyses that utilize a smeared heat source homogeneous SNF assembly, the design basis homogeneous assembly density is given by the mass of the assembly (773.4 kg) divided by the WP basket opening size, the homogeneous conductivity is given by Reference 5.21, and the homogeneous specific heat is 274 J/kg·K. An axial power peaking factor of 1.25 should be used for all PWR assemblies.

Of twelve potential commercial SNF waste stream scenarios, "Case 1" was selected in the Throughput Study as a recommended repository design reference (Section 5.6.1, Ref. 5.20). Average

PWR assembly characteristics (for all PWRs including South Texas) were developed based upon the recommended waste stream case. The average PWR assembly heat output as a function of time for waste stream "Case 1" is given in Attachment XXVII. The average PWR assembly has an average age of 26.1 years, burnup of 39,500 MWd/MTU, initial enrichment of 3.70%, and initial uranium mass of 0.432 MTU/assembly (values from Table 7.3-5 rounded to 3 significant figures).

8.1.2 South Texas SNF

The Westinghouse 17x17 South Texas PWR assembly (see dimensions in Table 4.1-3) is the design basis assembly configuration for South Texas PWR SNF. The design basis South Texas uranium mass loading is 544 kg of initial uranium per assembly. The design basis South Texas assembly has a burnup of 60,000 MWd/MTU and an initial enrichment of 4.73%. For the 12 PWR South Texas WP design, the initial single assembly heat limit is 1500 watts (represented by an assembly age of 7.8 years). The design basis South Texas assembly heat output as a function of time for that WP is given in Attachment XVI. For thermal analyses that utilize a smeared heat source homogeneous SNF assembly, the design basis homogeneous assembly density is given by the mass of the assembly (882.2 kg) divided by the WP basket opening size, the homogeneous conductivity is assumed to be the same as that for other PWR assemblies as given in Reference 5.21, and the homogeneous specific heat is 272 J/kg-K. An axial power peaking factor of 1.25 should be used for all PWR assemblies, including South Texas.

8.1.3 BWR SNF

The GE-5 8x8 BWR assembly (see dimension in Table 4.1-4) was selected as the design basis assembly configuration for BWR SNF. The design basis PWR uranium mass loading is 200 kg of initial uranium per assembly. The design basis BWR assembly has a burnup of 50,000 MWd/MTU and an initial enrichment of 3.74%. For the two 44 BWR WP designs, the initial single assembly heat limit is 400 watts (represented by an assembly age of 11.0 years). The design basis BWR assembly heat output as a function of time for the 44 BWR WPs is given in Attachment XXI. For the 24 BWR WP design, the initial single assembly heat limit is 520 watts (represented by an assembly age of 6.4 years). The design basis BWR assembly heat output as a function of time for that WP is given in Attachment XXVI. For thermal analyses that utilize a smeared heat source homogeneous SNF assembly, the design basis homogeneous assembly density is given by the mass of the assembly (328.4 kg) divided by the WP basket opening size, the homogeneous conductivity is given by Reference 5.21, and the homogeneous specific heat is 273 J/kg-K. An axial power peaking factor of 1.40 should be used for all BWR assemblies.

The average BWR assembly heat output as a function of time for waste stream "Case 1" is given in Attachment XXVII. The average BWR assembly has an average age, burnup, enrichment, and initial uranium mass of 27.0 years, 32,400 MWd/MTU, 3.02%, and 0.177 MTU/assembly, respectively (values from Table 7.3-5 rounded to 3 significant figures).

8.2 Average Waste Package Characteristics

Average assembly characteristics were developed for each of the eight waste package design options based upon the recommended waste stream "Case 1". Tables of average assembly heat production (for each WP type) as a function of time are given in Attachment XXXIX and can be used to calculate average (or nominal) heat outputs for each WP design (heat is reported on a per-assembly basis in the attachments). The tables were created by averaging the predicted heat decay curve (normalized to time of emplacement) of the assemblies loaded into each WP type.

Calculated average WP statistics for waste stream "Case 1" are also provided in Table 8-1 (also see Attachment LXVI). The coverage range indicates the number of waste packages of each design type and the percentage of assemblies (for PWRs and BWRs) captured by that design type. Table 8-1 also provides the average uranium mass loading (based on the initial uranium mass loading of the assemblies) for each WP type. The average mass provides a method for determining the nominal (or average) WP emplacement spacing in a repository design where loading is based on the WP mass (MTU/acre for example).

Table 8-1. WP Design Coverage for Waste Stream Case 1

WP Types:	ID:	Coverage Range		Average MTU/WP	Average Initial WP Heat Output	Design Basis Initial WP Heat Output
		# of WPs	% of SNF *			
21 PWR - No Absorber (base thermal & criticality)	1	1444	31.96%	8.988 MTU	10.272 kW	17.850 kW
21 PWR - Absorber Plates (criticality option 1)	2	2641	58.47%	9.051 MTU	9.120 kW	17.850 kW
21 PWR - Absorber Rods (No Plates) (criticality option 2)	3	120	2.66%	8.148 MTU	2.905 kW	17.850 kW
12 PWR - No Absorber (thermal option 1)	4	390	4.93%	5.436 MTU	11.231 kW	18.000 kW
12 PWR - Long, Absorber Plates (base South Texas long WP)	5	150	1.90%	6.468 MTU	10.477 kW	18.000 kW
44 BWR - No Absorber (base thermal & criticality)	6	696	24.61%	7.656 MTU	11.625 kW	17.600 kW
44 BWR - Absorber Plates (criticality option 1)	7	2107	74.59%	7.876 MTU	6.440 kW	17.600 kW
24 BWR - Thick Absorber Plates (thermal option 1, criticality option 2)	8	42	0.80%	3.960 MTU	0.933 kW	12.480 kW

* Percent of PWR or BWR waste stream accommodated.

Other average SNF assembly characteristics, such as average age, burnup, and enrichment, are summarized in Table 7.3-5 which lists the average assembly characteristics for each of the commercial SNF WP design types. It is important to note that average assembly characteristics can be misleading because the heat of the average assembly type is not the same as the average assembly heat, and variability in the waste stream precludes the definition of a meaningful "nominal" assembly type.

Some of the assemblies projected to be delivered to the first repository in waste stream "Case 1" were found to exceed the WP loading constraints and were not initially placed into one of the eight commercial SNF WP designs. (This is why the percentages for PWRs in Table 8-1 do not add up to exactly 100%.) It is estimated that by slightly modifying the loading constraints and/or aging a few assemblies, all of the SNF could be accommodated. Eight of the unbinned PWR assemblies would result in one additional 21 PWR with control rods WP if the k_{∞} limit for that package were raised by 0.01; and 73 unbinned PWR assemblies would result in four additional 21 PWR with absorber plates WPs if those assemblies could be cooled (aged) for several years. Impacts to the Surface Facility design due to SNF aging are not characterized here. Based on the total number of WPs, it can be concluded that these five additional waste packages will not measurably impact the average heat output characteristics of Attachment XXXIX.

Also, the WP totals in Table 8-1 represent the number of WPs emplaced when partially filled WPs left over at the end of each year of emplacement are completed and emplaced in the next year. Table 7.3-7 lists the number of WPs used when partially filled WPs are emplaced at the end of each year instead (consistent with CDA Key 003). The difference, 77 additional WPs, will not significantly impact calculations of average WP heat output

8.3 Canistered HLW Glass Characteristics

Currently, there are four sites that will manufacture high-level waste glass: Hanford, Savannah River Plant, West Valley, and Idaho National Environmental and Engineering Laboratory. The physical dimensions of the Savannah River pour canister are assumed to represent a typical high-level waste glass waste form for the potential repository at Yucca Mountain. While detailed information about the probable glass wastes to be produced at the other generating sites is currently being collected, the Savannah River canister is the best documented design at this time. Typical dimensions for the Savannah River canister are provided in Table 4.1-5. The density of the glass waste form is assumed to be 2688.6 kg/m^3 based on the nominal glass weight and volume and the conductivity is $1.1 \text{ W/m}\cdot\text{K}$. The Pyrex glass specific heat of $835 \text{ J/kg}\cdot\text{K}$ and emissivity of 0.81 are assumed to be applicable to the borosilicate glass waste form. Attachments LI, LII, LIII are representative of the heat output of Hanford, Savannah River, and West Valley canisters. These decay tables are considered somewhat conservative as the aging time between glass production and actual emplacement in the repository has been neglected.

8.4 Thermal Loading

There are three emplacement strategies for repository thermal loading: Areal Power Density (APD, where WPs are spaced according to their heat output at the time of emplacement), Areal Mass Loading (AML, where WPs are spaced according to their heavy metal mass content), and Equivalent Energy Density (EED, where WPs are spaced according to their integrated heat output over a specified time period).

The sensitivity of waste isolation performance to the complexity of the WP spacing algorithm is currently unknown. Therefore, at this time, the relatively simple AML approach (using a limited group of WP AML categories) is recommended. Consistent with previously specified AML strategies (Ref. 5.38), DHLW WPs would be placed between the large (21 PWR or 44 BWR) WPs with no additional individual WP spacing allocation.

A viable thermal loading strategy for waste isolation must be articulated and confirming calculations of near-field thermal performance must be performed before the EED emplacement method can replace the current emplacement method which is based upon waste mass. Compared to the relatively simple emplacement formula based on nominal waste package mass, the more complex variable spacing of the EED method will require a demonstrated improvement in waste isolation performance. It is recommended that, for VA design, the average WP characteristics be used to develop mass-based repository emplacement layouts as described by the examples in Table 7.5-2. (Note that Table 7.5-2 does not select the thermal loading strategy or the specific WP spacing; rather, it provides a summary of WP design characteristics and design bases for use in developing emplacement design.) To demonstrate compliance with design requirements, emplacement spacings based on waste mass should be robust and have sufficient margin to accommodate the WP heat variability. It is not clear that unique AML WP spacings rather than WP spacings based upon AML averages (one nominal WP spacing for each WP design type) would lower near-field temperature variability or improve waste isolation performance.

While AML is recommended for VA design, calculations should be performed to evaluate and develop the EED methodology due to its potential to support the constructive use of heat to aid waste isolation. Sufficient integrated heat information is provided here to perform comparisons of emplacement layout performance and thermal loading strategy; however, further calculations of waste receipt and statistics related to individual WP heat outputs and characteristics must be developed to fully explore the EED performance.

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The sensitivity of waste isolation performance to the complexity of the WP spacing algorithm is currently unknown. Therefore, at this time, the relatively simple AML approach (using a limited group of WP AML categories) is recommended. Consistent with previously specified AML strategies (Ref. 5.38), DHLW WPs would be placed between the large (21 PWR or 44 BWR) WPs with no additional individual WP spacing allocation.

A viable thermal loading strategy for waste isolation must be articulated and confirming calculations of near-field thermal performance must be performed before the EED emplacement method can replace the current emplacement method which is based upon waste mass. Compared to the relatively simple emplacement formula based on nominal waste package mass, the more complex variable spacing of the EED method will require a demonstrated improvement in waste isolation performance. It is recommended that, for VA design, the average WP characteristics be used to develop mass-based repository emplacement layouts as described by the examples in Table 7.5-2. (Note that Table 7.5-2 does not select the thermal loading strategy or the specific WP spacing; rather, it provides a summary of WP design characteristics and design bases for use in developing emplacement designs.) To demonstrate compliance with design requirements, emplacement spacings based on waste mass should be robust and have sufficient margin to accommodate the WP heat variability. It is not clear that unique AML WP spacings rather than WP spacings based upon AML averages (one nominal WP spacing for each WP design type) would lower near-field temperature variability or improve waste isolation performance.

While AML is recommended for VA design, calculations should be performed to evaluate and develop the EED methodology due to its potential to support the constructive use of heat to aid waste isolation. Sufficient integrated heat information is provided here to perform comparisons of emplacement layout performance and thermal loading strategy; however, further calculations of waste receipt and statistics related to individual WP heat outputs and characteristics must be developed to fully explore the EED performance.

9. Attachments

Attachments to this design analysis are summarized in Table 9-1. Each attachment is identified by its specific number, file name, date, and number of pages.

Table 9-1. List of Attachments

Attachment Number	Title / Description	File Name	Date	Number of Pages
I	PHIA00D Program Source Code Listing	phia00d.cpp	08/12/97	3
II	WPBIN00D Program Source Code Listing	wpbin00d.cpp	08/12/97	8
III	GETHEAT Database File	heatdat.dat	08/08/94	6
IV	PHIA00D Output, PWR Heat (850 W, 10 GWd/MTU)	pwr850a.dat	08/12/97	1
V	PHIA00D Output, PWR Heat (850 W, 20 GWd/MTU)	pwr850b.dat	08/12/97	1
VI	PHIA00D Output, PWR Heat (850 W, 30 GWd/MTU)	pwr850c.dat	08/12/97	1
VII	PHIA00D Output, PWR Heat (850 W, 40 GWd/MTU)	pwr850d.dat	08/12/97	1
VIII	PHIA00D Output, PWR Heat (850 W, 50 GWd/MTU)	pwr850e.dat	08/12/97	1
IX	PHIA00D Output, PWR Heat (850 W, 60 GWd/MTU)	pwr850f.dat	08/12/97	1
X	PHIA00D Output, PWR Heat (1500 W, 10 GWd/MTU)	pwr1500a.dat	08/12/97	1
XI	PHIA00D Output, PWR Heat (1500 W, 20 GWd/MTU)	pwr1500b.dat	08/12/97	1
XII	PHIA00D Output, PWR Heat (1500 W, 30 GWd/MTU)	pwr1500c.dat	08/12/97	1
XIII	PHIA00D Output, PWR Heat (1500 W, 40 GWd/MTU)	pwr1500d.dat	08/12/97	1
XIV	PHIA00D Output, PWR Heat (1500 W, 50 GWd/MTU)	pwr1500e.dat	08/12/97	1
XV	PHIA00D Output, PWR Heat (1500 W, 60 GWd/MTU)	pwr1500f.dat	08/12/97	1
XVI	PHIA00D Output, STx Heat (1500 W, 60 GWd/MTU)	stx1500f.dat	08/12/97	1
XVII	PHIA00D Output, BWR Heat (400 W, 10 GWd/MTU)	bwr400a.dat	08/12/97	1
XVIII	PHIA00D Output, BWR Heat (400 W, 20 GWd/MTU)	bwr400b.dat	08/12/97	1
XIX	PHIA00D Output, BWR Heat (400 W, 30 GWd/MTU)	bwr400c.dat	08/12/97	1
XX	PHIA00D Output, BWR Heat (400 W, 40 GWd/MTU)	bwr400d.dat	08/12/97	1
XXI	PHIA00D Output, BWR Heat (400 W, 50 GWd/MTU)	bwr400e.dat	08/12/97	1
XXII	PHIA00D Output, BWR Heat (520 W, 10 GWd/MTU)	bwr520a.dat	08/12/97	1
XXIII	PHIA00D Output, BWR Heat (520 W, 20 GWd/MTU)	bwr520b.dat	08/12/97	1

XXIV	PHIA00D Output, BWR Heat (520 W, 30 GWd/MTU)	bwr520c.dat	08/12/97	1
XXV	PHIA00D Output, BWR Heat (520 W, 40 GWd/MTU)	bwr520d.dat	08/12/97	1
XXVI	PHIA00D Output, BWR Heat (520 W, 50 GWd/MTU)	bwr520e.dat	08/12/97	1
XXVII	WPBIN00D Output, Ave. PWR & BWR Heat (Case 1)	case1.dat	08/12/97	2
XXVIII	WPBIN00D Output, Ave. PWR & BWR Heat (Case 2)	case2.dat	08/12/97	2
XXIX	WPBIN00D Output, Ave. PWR & BWR Heat (Case 3)	case3.dat	08/12/97	2
XXX	WPBIN00D Output, Ave. PWR & BWR Heat (Case 4)	case4.dat	08/12/97	2
XXXI	WPBIN00D Output, Ave. PWR & BWR Heat (Case 5)	case5.dat	08/12/97	2
XXXII	WPBIN00D Output, Ave. PWR & BWR Heat (Case 6)	case6.dat	08/12/97	2
XXXIII	WPBIN00D Output, Ave. PWR & BWR Heat (Case 7)	case7.dat	08/12/97	2
XXXIV	WPBIN00D Output, Ave. PWR & BWR Heat (Case 8)	case8.dat	08/12/97	2
XXXV	WPBIN00D Output, Ave. PWR & BWR Heat (Case 9)	case9.dat	08/12/97	2
XXXVI	WPBIN00D Output, Ave. PWR & BWR Heat (Case 10)	case10.dat	08/12/97	2
XXXVII	WPBIN00D Output, Ave. PWR & BWR Heat (Case 11)	case11.dat	08/12/97	2
XXXVIII	WPBIN00D Output, Ave. PWR & BWR Heat (Case 12)	case12.dat	08/12/97	2
XXXIX	WPBIN00D Output, Ave. Heat for Each WP (Case 1)	finalw1.dat	08/12/97	8
XL	WPBIN00D Output, Ave. Heat for Each WP (Case 2)	finalw2.dat	08/12/97	8
XLI	WPBIN00D Output, Ave. Heat for Each WP (Case 3)	finalw3.dat	08/12/97	8
XLII	WPBIN00D Output, Ave. Heat for Each WP (Case 4)	finalw4.dat	08/12/97	8
XLIII	WPBIN00D Output, Ave. Heat for Each WP (Case 5)	finalw5.dat	08/12/97	8
XLIV	WPBIN00D Output, Ave. Heat for Each WP (Case 6)	finalw6.dat	08/12/97	8
XLV	WPBIN00D Output, Ave. Heat for Each WP (Case 7)	finalw7.dat	08/12/97	8
XLVI	WPBIN00D Output, Ave. Heat for Each WP (Case 8)	finalw8.dat	08/12/97	8
XLVII	WPBIN00D Output, Ave. Heat for Each WP (Case 9)	finalw9.dat	08/12/97	8
XLVIII	WPBIN00D Output, Ave. Heat for Each WP (Case 10)	finalw10.dat	08/12/97	8
XLIX	WPBIN00D Output, Ave. Heat for Each WP (Case 11)	finalw11.dat	08/12/97	8
L	WPBIN00D Output, Ave. Heat for Each WP (Case 12)	finalw12.dat	08/12/97	8
LI	HLW Glass Heat, Hanford (from Att. VI of Ref. 5.31)	hangls2.dat	09/29/97	1
LII	HLW Glass Heat, Sav. River (from Att. III of Ref. 5.31)	srpgls2.dat	09/29/97	1
LIII	HLW Glass Heat, West Valley (from Att. IX of Ref. 5.31)	wvygls2.dat	09/29/97	1

LIV	WPBIN00D Input & Output, Assembly Sorting (Case 1)	case1.all	08/12/97	12
LV	WPBIN00D Input & Output, Assembly Sorting (Case 2)	case2.all	08/12/97	12
LVI	WPBIN00D Input & Output, Assembly Sorting (Case 3)	case3.all	08/12/97	12
LVII	WPBIN00D Input & Output, Assembly Sorting (Case 4)	case4.all	08/12/97	12
LVIII	WPBIN00D Input & Output, Assembly Sorting (Case 5)	case5.all	08/12/97	12
LIX	WPBIN00D Input & Output, Assembly Sorting (Case 6)	case6.all	08/12/97	12
LX	WPBIN00D Input & Output, Assembly Sorting (Case 7)	case7.all	08/12/97	12
LXI	WPBIN00D Input & Output, Assembly Sorting (Case 8)	case8.all	08/12/97	12
LXII	WPBIN00D Input & Output, Assembly Sorting (Case 9)	case9.all	08/12/97	37
LXIII	WPBIN00D Input & Output, Assembly Sorting (Case 10)	case10.all	08/12/97	13
LXIV	WPBIN00D Input & Output, Assembly Sorting (Case 11)	case11.all	08/12/97	37
LXV	WPBIN00D Input & Output, Assembly Sorting (Case 12)	case12.all	08/12/97	13
LXVI	WPBIN00D Input & Output, WP Loading (Case 1)	finalw1.all	08/12/97	8
LXVII	WPBIN00D Input & Output, WP Loading (Case 2)	finalw2.all	08/12/97	9
LXVIII	WPBIN00D Input & Output, WP Loading (Case 3)	finalw3.all	08/12/97	8
LXIX	WPBIN00D Input & Output, WP Loading (Case 4)	finalw4.all	08/12/97	8
LXX	WPBIN00D Input & Output, WP Loading (Case 5)	finalw5.all	08/12/97	9
LXXI	WPBIN00D Input & Output, WP Loading (Case 6)	finalw6.all	08/12/97	8
LXXII	WPBIN00D Input & Output, WP Loading (Case 7)	finalw7.all	08/12/97	8
LXXIII	WPBIN00D Input & Output, WP Loading (Case 8)	finalw8.all	08/12/97	8
LXXIV	WPBIN00D Input & Output, WP Loading (Case 9)	finalw9.all	08/12/97	38
LXXV	WPBIN00D Input & Output, WP Loading (Case 10)	finalw10.all	08/12/97	11
LXXVI	WPBIN00D Input & Output, WP Loading (Case 11)	finalw11.all	08/12/97	37
LXXVII	WPBIN00D Input & Output, WP Loading (Case 12)	finalw12.all	08/12/97	11


```

/*phia.cpp Package Heat Input to ANSYS; now using the official heat
* subroutines. Now going to 900,000 yrs */
#include <conio.h>
#include <stdio.h>
#include <math.h>
#include <stdlib.h>
#include <float.h>
#include <string.h>
#include <ctype.h>
#include <time.h>
#include <graph.h>
#define MAIN
#include "heatdrs.h"

long int count;
int bmatch=0;
//Heat h;      Used only for quickwin
float getheat(float,float,float,int),icheck(float,float,float,int);
void buildref();
float refburnup[7][2],assay[7][2][3],getfloat(char*,int,int);

void main()
{long int i,j,k,years,mintime,maxtime=900000,
  upper,ansyssteps=0;
short type;
float x,lastheat,burnup,mtupassy,old,fnew,age,a,time,eps=.00001,
  times[]={.1, 1.0, 10.0, 100.0, 1000.0,10000.0,100000.0, 900000.0},
  dtimes[]={.01, .05, .5, 5, 50, 500,5000,50000};
unsigned int num,total,cycle;
char buf[80],c,datestr[15],numstr[3],binstr[]="ASSY";
FILE *fout,*ferr;
buildref();
ferr=fopen("junk.e","w");
clearscreen(_GCLEARSCREEN);
printf("*****\n");
printf("***      Package Heat Input to ANSYS (PHIA)      **\n");
printf("*** Enter the following parameters, separated by blanks, CR at end. **\n");
printf("***      **\n");
printf("***      Age at emplacement in years (must be greater than 1)      **\n");
printf("***      Burnup (MWD/MTU), 10000<=burnup<=60000 for PWR      **\n");
printf("***      7500<=burnup<=50000 for BWR      **\n");
printf("***      Enrichment in percent (zero if you wish to use average)      **\n");
printf("***      Fuel Type (BWR=b, PWR=p)      **\n");
printf("***      Mass of fuel per assembly (MTU/assy)      **\n");
printf("***      **\n");
printf("*** Typical example: 5 35000 3.75 p .43      **\n");
printf("*****\n");
num=scanf("%f %f %f %c %f",&age,&burnup,&a,&c,&mtupassy);
type=(tolower(c)=='b')?0:1;
x=icheck(age,burnup,a,type);
printf("\nEnter name of file for output\n");
scanf("%s",buf);
while((fout=fopen(buf,"w"))==NULL)
  {printf("Please enter a valid filename.\n");
  scanf("%s",buf);};
strdate(datestr);
fprintf(fout,"/COM, ");
fprintf(fout,"*****\n");
fprintf(fout,"/COM, ");
fprintf(fout,"*** History of SNF Assembly Heat Generation Rates      **\n");
fprintf(fout,"/COM, ");
fprintf(fout,"*** Output of PHIA, SCSI: B00000000-01717-1200-3000X Rev.000      **\n");
fprintf(fout,"/COM, ");
fprintf(fout,"***      **\n");
fprintf(fout,"/COM, ");
fprintf(fout,"*** Executable File Name: PHIA00D.EXE      **\n");
fprintf(fout,"/COM, ");
fprintf(fout,"*** Output File Name: %-12s%22s**\n",buf," ");
fprintf(fout,"/COM, ");
fprintf(fout,"*** Execution Date: %-12s%22s**\n",datestr," ");

```

```

fprintf(fout, "/COM, ");
fprintf(fout, "*** Start Age (years): %12.1f%22s**\n", age, " ");
fprintf(fout, "/COM, ");
fprintf(fout, "*** Decay Period (years): %12ld%22s**\n", maxtime, " ");
if(a==0)
{
    fprintf(fout, "/COM, ");
    fprintf(fout, "*** Default average enrichment for the burnup specified **\n");
    fprintf(fout, "/COM, ");
    fprintf(fout, "*** Enrichment (percent): %12.2f%22s**\n",
        (a>0)?a:x, " ");
    fprintf(fout, "/COM, ");
    fprintf(fout, "*** Burnup (MWd/MTU): %12.0f%22s**\n", burnup, " ");
    fprintf(fout, "/COM, ");
    fprintf(fout, "*** Assembly Type: %12s%22s**\n",
        (type==0)?"BWR":"PWR", " ");
    fprintf(fout, "/COM, ");
    fprintf(fout, "*** SNF U Mass (MTU/assy): %12.3f%22s**\n", mtupassy, " ");
    fprintf(fout, "/COM, ");
    fprintf(fout, "*** **\n");
    fprintf(fout, "/COM, ");
    fprintf(fout, "*** ASSY(#,1) is the SNF assembly heat in Watts. **\n");
    fprintf(fout, "/COM, ");
    fprintf(fout, "*** ASSY(#,0) is the time post emplacement in years. **\n");
    fprintf(fout, "/COM, ");
    fprintf(fout, "*****\n");
    time=0;
    cycle=0;
    while(time<maxtime)
    {
        ansyssteps++;
        if(time>=times[cycle]-eps) cycle++;
        time+=dtimes[cycle];
        fprintf(fout, "*SET, %s, \n", binstr);
        fprintf(fout, "**DIM, %s, TABLE, %ld, 1, \n", binstr, ansyssteps+1);
        time=.000001;
        fprintf(fout, "ASSY( 1,1)=%9.2f, ",
            mtupassy*h.GetHeat(age+time, type, burnup, a));
        num=1;
        total=1;
        cycle=0;
        time=0;
        while(time<maxtime)
        {
            total++;
            if(time>=times[cycle]-eps) cycle++;
            time+=dtimes[cycle];
            x=mtupassy*h.GetHeat(age+time, type, burnup, a);
            if(x<1) fprintf(fout, "%9.3f, ", x);
            else fprintf(fout, "%9.2f, ", x);
            if(num<5) num++;
            else
            {
                if(time<maxtime) fprintf(fout, "\nASSY(%2u,1)=", total+1);
                num=0;
            }
            fprintf(fout, "\n");
            fprintf(fout, "ASSY( 1,0)=%10.6f, ", 1.e-6);
            num=1;
            total=1;
            cycle=0;
            time=0;
            while(time<maxtime)
            {
                total++;
                fprintf(fout, "%d %f %f\n", cycle, time, times[cycle]);
                if(time>=times[cycle]-eps) cycle++;
                time+=dtimes[cycle];
                fprintf(fout, "%10.2f, ", time);
                if(num<5) num++;
                else
                {
                    if(time<maxtime) fprintf(fout, "\nASSY(%2u,0)=", total+1);
                    num=0;
                }
                fprintf(fout, "\n");
                fprintf(fout, "ASSY( 0,1)=1.0\n");
                fprintf(fout, "/COM, ");
            }
        }
    }
}

```

```
fprintf(fout,"*****\n");
fprintf(fout,"/EOF\n");}
```

```
float icheck(float age,float burn, float rich,int type)
{int i=0,j=0;
float x;
if(age<1)
{printf("Age cannot be less than 1. Please try again\n");
exit(0);}
if(burn>refburnup[5][type])
{printf("Burnup too high, please try again\n");
exit(0);}
if(burn<refburnup[0][type])
{printf("Burnup too low, please try again\n");
exit(0);}
while((i<5)&&(burn>refburnup[i][type]+1))i++;
if (burn==refburnup[i][type]) bmatch=1;
if(rich>0)
{if((bmatch==1)&&((rich<assay[i][type][0])||(rich>assay[i][type][2])))
{printf("Enrichment must be between %-.3f and %-.3f\n",
assay[i][type][0],assay[i][type][2]);
printf("Please try again\n");
exit(0);}
else if((bmatch==0)&&((rich<assay[i][type][0])||(rich>assay[i-1][type][2])))
{printf("Enrichment must be between %-.3f and %-.3f\n",
assay[i][type][0],assay[i-1][type][2]);
printf("Please try again\n");
exit(0);}}
if(rich==0) //Compute average enrichment
if (bmatch==1) return(assay[i][type][1]);
else
{x=(assay[i-1][type][1]+(burn-refburnup[i-1][type]))*
(assay[i][type][1]-assay[i-1][type][1])/
(refburnup[i][type]-refburnup[i-1][type]));
return(x);}
return(0);}
```

```
void buildref()
{int i,j,k,m,dummyd;
char dummyc,buf[300],c;
FILE *fin;
if ((fin=fopen("heatdat.dat","r"))==NULL)
{printf("Cant open heatdat\n");exit(0);}
j=0;k=0;i=0;
while(fgets(buf,300,fin)!=NULL)
if(((c=buf[0])=='B')||(c=='P'))
{j=(c=='B')?0:1;
refburnup[i][j]=getfloat(buf,4,7);
assay[i][j][k]=getfloat(buf,13,5);
if(++k>2)
{k=0;
i++;}
if(i>5)i=0;}
fclose(fin);}
```

```
float getfloat(char string[300], int start, int length)
{char temp[20];
int i,j;
for(i=start;i<start+length;i++) temp[i-start]=string[i];
temp[length]='\0';
return(atof(temp));}
```

```

/*wpbin00d.cpp Program to tabulate statistics according to a standard,
*regular, set of bins, or a special set of bins defined by limits on
*a set of records. This version has been extended to output to
*the variable maxtime, which is now set to 900,000 years.
*This program uses the verified routines in for computing assembly
*heat, the object modules for which are incorporated in the link
*command, as described below.
*The command for compiling only is \msvc\bin\cl /c /FPI87 /AH wpbin00d.cpp
*The command for linking is
\msvc\bin\link wpbin00d.obj heatmdh.obj gethtmdh.obj,;;;
*The executable will be wpbin00d.exe */

#include <string.h>
#include <stdlib.h>
#include <stdio.h>
#include <math.h>
#include <malloc.h>
#include <string.h>
#include <ctype.h>
#include <time.h>
#define MAIN
#include "heat.h"
#define YEARS 40
#define CRITS 85
#define BHEATS 100
#define PHEATS 200
#define MAXBINS 20
#define FIRSTPYR 2010
#define TSTEPS 300

void ansysout(int),avsout(int);
int stdhbin(char,float),stdcbin(float),spcbin(int,char,float,float);
float getfloat(char*,int,int),avages[MAXBINS]={0},avrichs[MAXBINS]={0},avburns[MAXBINS]={0};
float mcritsp[CRITS]={0},mheatp[PHEATS]={0},mcumhp[PHEATS]={0},
    mcumcp[CRITS]={0},mcritsb[CRITS]={0},mheatsb[BHEATS]={0},
    mcumhb[BHEATS]={0},mcumcb[CRITS]={0},
    mbins[MAXBINS][YEARS]={0},toheats[MAXBINS][TSTEPS]={0},
    avheats[2][TSTEPS]={0},avmtu[2]={0};
long int count=0,ntotalb=0,ntotalp=0,nobins[5]={0},maxtime=900000;
//Heat h; // Use this only for Quickwin application
int nbinsrecs,getint(char*,int,int),ncount=0,bincap[MAXBINS],
    ansysteps=0;
FILE *ferr;
FILE *fout,*foutd,*find,*finp;
long int ncrisp[CRITS]={0},nheatp[PHEATS]={0},ncumhp[PHEATS]={0},
    ncumcp[CRITS]={0},ncritsb[CRITS]={0},nheatsb[BHEATS]={0},
    ncumhb[BHEATS]={0},ncumcb[CRITS]={0},assybpyr[YEARS]={0},
    nbins[MAXBINS][YEARS],npkgs[MAXBINS][YEARS],assyppyr[YEARS]={0},
    totalassy[MAXBINS]={0};
float minheat[MAXBINS],maxheat[MAXBINS],mink[MAXBINS],
    maxk[MAXBINS],mtupyr[YEARS]={0},mobins[5]={0},
    totalmtu[MAXBINS]={0},totalpkg[MAXBINS]={0};
char brectype[MAXBINS],binstr[20][6]={{"BIN1","BIN2","BIN3","BIN4","BIN5",
    "BIN6","BIN7","BIN8","BIN9","BIN10","BIN11","BIN12","BIN13","BIN14",
    "BIN15","BIN16","BIN17","BIN18","BIN19","BIN20"}},
    avstr[2][5]={{"ABWR","APWR"}};
float /*x,lastheat,burnup,old,fnew,*/fptime,eps=.00001,
    times[]={.1, 1.0, 10.0, 100.0, 1000.0,10000.0,100000,900000},
    dtimes[]={.01, .05, .5, 5, 50, 500,5000,50000};

void main()
{int i,j,k,ndyr,npyr,yr,m,na,nh,nk,lastpyr=0,timelimit,atype,
    ndx,cycle,total,ii,rcount=0;
long int gtotalassy=0;
float age,b,heat,w,a,c,cumheat=0,mtupassy,avage=0,
    gtotalmtu=0,x,
    kinf,cumcrit=0, wtotalb=0,wtotalp=0,youngtotal=0,gtotalpkg=0;
char buffer[300],type,inname[13],outname[13],datname[13],title[50],rname[15],
    subtitle[50],datestr[15],outchar[3]={'\b','p','s'},*p;
if ((finp=fopen("wpbin00d.in","r"))==NULL)

```

```

    (printf("Can't open input parameter file\n");exit(0);)
    _strdate(datestr);
    fgets(buffer,100,finp); /*readthrough labels*/
    fgets(buffer,100,finp);
    sscanf(buffer,"%d %s %s %s %d",&nbinrecs,inname,outname,title,&timelimit);
    p=strchr(outname,'.');
    m=p-outname;
    strncpy(datname,outname,m);
    datname[m]='\0';
    strcat(datname,".dat");
    fgets(buffer,100,finp); //readthrough more labels
    for(i=0;i<nbinrecs;i++)
        (fgets(buffer,100,finp);
         sscanf(buffer,"%c %d %f %f %f %f\n",&brectype[i],&bincap[i],
          &minheat[i],&maxheat[i],&mink[i],&maxk[i]));)
    if ((find=fopen(inname,"r"))==NULL)
        (printf("Can't open input data file %s\n",inname);exit(0);)
    fout=fopen(outname,"w");
    foutd=fopen(datname,"w");
    ferr=fopen("junk.out","w");
    while(fgets(buffer,300,find)!=NULL)
        (w=getfloat(buffer,21,10);
         rcount++;
         if(rcount%1000==0)printf("%d Records read\n",rcount);
         b=getfloat(buffer,51,10);
         ndyr=getint(buffer,71,8);
         npyr=getint(buffer,287,4);
         type=tolower(buffer[123]);
         na=getint(buffer,31,10);
         a=getfloat(buffer,41,10);
         strncpy(rname,buffer+1,11);
         rname[11]='\0';
         if((na>0)&&(npyr<=timelimit)&&(npyr>0)&&((type=='p')||(type=='b'))
          (j=npyr-ndyr;
           yr=npyr-FIRSTPYR;
           mtupyr[yr]+=w;
           if(type=='b')assybpyr[yr]+=na;
           else assypyr[yr]+=na;
           if(j<10)
              (fprintf(ferr,"age=%d , mass= %f\n",j,w);
               youngtotal+=na;))
           if(npyr>lastpyr)lastpyr=npyr;
           j=(j<1)?1:j;
           avage+=na*j;
           mtupassy=w/na;
           heat=mtupassy*h.GetHeat((float)j,(type=='p'?1:0),b,a);
           c=((j>40)?40:(float)j);
           if(type=='b')
              (ntotalb+=na;
               wttotalb+=w;)
           else
              (ntotalp+=na;
               wttotalp+=w;)
           b/=1000; //Reduce for kinf regression
           if(type=='b')
              (kinf=.92601-.012598*b+.19901*a+9.49922e-5*b*b-.006702*a*a-.001243*a*b;
               if((kinf>1.4)||((b<5))fprintf(ferr,"Nassy=%d burnup=%.2f kinf=%.3f Enrch=%.2f Dschg=%d %s\n",
                na,b,kinf,a,ndyr,rname);))
           else
              (kinf=1.06-.01*b-.002*c+.114*a+.00007081*b*b+.00007565*c*c
               -.007*a*a-.0002671*b*a-.0001145*b*c+.0002318*c*a+
               .000009366*b*c*a;
               b*=1000; //Restore to original magnitude for another GetHeat
               if(nbinrecs==0)
                  (m=(type=='b'?0:1);
                   avmtu[m]+=w;
                   avburns[m]+=b*na;
                   avrichs[m]+=a*na;
                   avages[m]+=j*na;
                   ftime=1e-6;

```

```

total=1;
cycle=0;
x=w*h.GetHeat(ftime+(float)j,(type=='p'?1:0),b,a);
avheats[m][0]+=x;
ftime=0;
while(ftime<maxtime)
{
total++;
if(ftime>=times[cycle]-eps)cycle++;
ftime+=dtimes[cycle];
x=w*h.GetHeat(ftime+(float)j,(type=='p'?1:0),b,a);
avheats[m][total-1]+=x;}
if(type=='b')
{ncritsb[stdcbn(kinf)]+=na;
nheatsb[stdhbn(type,heat)]+=na;
mcritsb[stdcbn(kinf)]+=w;
mheatsb[stdhbn(type,heat)]+=w;}
else
{ncritsp[stdcbn(kinf)]+=na;
nheatsp[stdhbn(type,heat)]+=na;
mcritsp[stdcbn(kinf)]+=w;
mheatsp[stdhbn(type,heat)]+=w;}}
else
{if(strcmp(rname,"SOUTH TEXAS")==0) type='s';
ndx=spcbn(nbinrecs,type,heat,kinf);
avburns[ndx]+=b*na;
avrchs[ndx]+=a*na;
avages[ndx]+=j*na;
if(ndx<nbinrecs) //increment decay heat array for each bin
{ftime=1e-6;
total=1;
cycle=0;
x=w*h.GetHeat(ftime+(float)j,(type=='p'?1:0),b,a);
toheats[ndx][0]+=x;
ftime=0;
while(ftime<maxtime)
{
total++;
if(ftime>=times[cycle]-eps)cycle++;
ftime+=dtimes[cycle];
x=w*h.GetHeat(ftime+(float)j,(type=='p'?1:0),b,a);
toheats[ndx][total-1]+=x;}}
nbins[ndx][yr]+=na;
mbins[ndx][yr]+=w;}}
printf("Total assy %ld Avg age %f MTU B %f MTU P %f Final yr %d\n",
ntotalp+ntotalb,avage/(ntotalp+ntotalb),wttotalb,wttotalp,lastpyr);
fprintf(fout,"%s\n",title);
if(nbinrecs==0) strcpy(subtitle,"Standard Table");
else sprintf(subtitle,"%d %s",nbinrecs,"Bins");
fprintf(fout,"%s\n",subtitle);
if(nbinrecs==0)
{ncumhb[0]=nheatsb[0];
for(i=1;i<BHEATS;i++) ncumhb[i]=nheatsb[i]+ncumhb[i-1];
fprintf(fout,"\n\nBWR Heat Percentiles\n");
fprintf(fout,"%10s %10s %10s %10s\n",
"Watts/Assy"," Assy","Cum Assy","Percent");
for(i=0;i<BHEATS-1;i++) fprintf(fout,"%10d %10ld %10ld %10.2f\n",
(i+1)*10,nheatsb[i],ncumhb[i],(float)ncumhb[i]*100/ntotalb);
fprintf(fout,"%10s %10ld %10ld %10.2f\n",
"Above",nheatsb[BHEATS-1],ncumhb[BHEATS-1],
(float)ncumhb[BHEATS-1]*100/ntotalb);
fprintf(fout,"\n\nBWR Kinf Percentiles\n");
fprintf(fout,"%12s %12s %12s %12s\n"," Kinf"," Assy"," CumAssy"," Percent");
ncumcb[0]=ncritsb[0];
for(i=1;i<CRITS;i++) ncumcb[i]=ncritsb[i]+ncumcb[i-1];
for(i=0;i<CRITS-1;i++)
{kinf=((float)i+1+75)/100;
fprintf(fout,"%12.3f %12ld %12ld %12.2f\n",kinf,ncritsb[i],
ncumcb[i],(float)ncumcb[i]*100/ntotalb);}
fprintf(fout,"%12s %12ld %12ld %12.2f\n","Above",ncritsb[CRITS-1],
ncumcb[CRITS-1],(float)ncumcb[CRITS-1]*100/ntotalb);
ncumhp[0]=nheatsp[0];

```

```

for(i=1;i<PHEATS;i++) ncumhp[i]=nheatp[i]+ncumhp[i-1];
fprintf(fout,"\n\nPWR Heat Percentiles\n");
fprintf(fout,"%10s %10s %10s %10s\n",
"Watts/Assy", " Assy", "Cum Assy", "Percent");
for(i=0;i<PHEATS-1;i++) fprintf(fout,"%10d %10ld %10ld %10.2f\n",
(i+1)*10,nheatp[i],ncumhp[i],(float)ncumhp[i]*100/ntotalp);
fprintf(fout,"%10s %10ld %10ld %10.2f\n",
"Above",nheatp[PHEATS-1],ncumhp[PHEATS-1],
(float)ncumhp[PHEATS-1]*100/ntotalp);
fprintf(fout,"\n\nPWR Kinf Percentiles\n");
fprintf(fout,"%12s %12s %12s %12s\n", " Kinf", " Assy", " CumAssy", "Percent");
ncumcp[0]=ncritsp[0];
for(i=1;i<CRITS;i++) ncumcp[i]=ncritsp[i]+ncumcp[i-1];
for(i=0;i<CRITS-1;i++)
{kinf=((float)i+1+75)/100;
fprintf(fout,"%12.3f %12ld %12ld %12.2f\n",kinf,ncritsp[i],
ncumcp[i],(float)ncumcp[i]*100/ntotalp);}
fprintf(fout,"%12s %12ld %12ld %12.2f\n", "Above",ncritsp[CRITS-1],
ncumcp[CRITS-1],(float)ncumcp[CRITS-1]*100/ntotalp);
fprintf(fout,"\n\n%10s%10s%10s%10s\n", "Year", "MTU", "B Assy", "P Assy");
for(i=0;i<=timelimit-FIRSTPYR;i++) fprintf(fout,"%10d%10.2f%10ld%10ld\n",
i+FIRSTPYR,mtupyr[i],assybpyr[i],assyppyr[i]);
fprintf(fout,"\n\nAverage age = %7.3f\n",avage/(ntotalb+ntotalp));}
else
{for(i=0;i<nbinrecs;i++)
{fprintf(fout,"\n\nType=%c Cap=%d Hmin=%.1f Hmax=%.1f Kmin=%.2f Kmax=%.2f\n\n",
brectype[i],bincap[i],minheat[i],maxheat[i],mink[i],maxk[i]);
fprintf(fout,"%12s%12s%12s%12s\n", "Year", "Num_Assy", "Num_Pkgs", "MTU");
for(j=0;j<=lastpyr-FIRSTPYR;j++)
{totalassy[i]+=nbins[i][j];
totalmtu[i]+=mbins[i][j];
totalpkg[i]+=(float)nbins[i][j]/bincap[i];
fprintf(fout,"%12d%12ld%12.2f%12.2f\n",j+FIRSTPYR,nbins[i][j],
(float)nbins[i][j]/bincap[i],mbins[i][j]);}
gtotalassy+=totalassy[i];
gtotalpkg+=totalpkg[i];
gtotalmtu+=totalmtu[i];
fprintf(fout,"%12s%12ld%12.2f%12.2f\n",
"Bin Total",totalassy[i],totalpkg[i],totalmtu[i]);}
for(i=0;i<3;i++)
{for(j=0;j<=timelimit-FIRSTPYR;j++) nobins[i]+=nbins[nbinrecs+i][j];
for(j=0;j<=timelimit-FIRSTPYR;j++) mobins[i]+=mbins[nbinrecs+i][j];
gtotalassy+=nobins[i];
gtotalmtu+=mobins[i];}
fprintf(fout,"\n\nSummary Table\n");
fprintf(fout,"%10s%10s%10s%10s%10s\n", "Type", "Cap", "Num_Assy",
"PctType", "Num_Pkg", "MTU");
for(i=0;i<nbinrecs;i++)
fprintf(fout,"%10c%10d%10ld%10.2f%10.2f%10.2f\n",brectype[i],
bincap[i],totalassy[i],
(float)totalassy[i]*100/(brectype[i]=='b'?ntotalb:ntotalp),
totalpkg[i],totalmtu[i]);
for(i=0;i<3;i++)
fprintf(fout,"%10c%10d%10ld%10.2f%10.2f%10.2f\n",outchar[i],
1,nobins[i],(float)nobins[i]*100/(i==0?ntotalb:ntotalp),
(float)nobins[i],mobins[i]);
fprintf(fout,"%10s%20ld%20.2f%10.2f\n", "Totals",gtotalassy,
gtotalpkg,gtotalmtu);}
fprintf(foutd, "/COM, ");
fprintf(foutd, "*****\n");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*** Assembly Heat Generation Rates: ANSYS input formats **\n");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*** Output of WPBIN00D, SCS1: B00000000-01717-1200-3000X Rev.00D **\n");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*** **\n");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*** Executable File Name: WPBIN00D.EXE **\n");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*** Input File Name: %-12s%22s**\n",iname," ");

```

```

fprintf(foutd, "/COM, ");
fprintf(foutd, "*** Output File Name:      %-12s%22s**\n", datname, " ");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*** Execution Date:      %-12s%22s**\n", datestr, " ");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*****\n");
if(nbinrecs>0)for(i=0;i<nbinrecs;i++) ansysout(i);
else for(i=0;i<2;i++) avout(i);
fprintf(foutd, "/COM, ");
fprintf(foutd, "*****\n");
fprintf(foutd, "/EOF\n");
printf("Done \n");}

```

```

int stdhbin(char t, float ht)
{int n;
n=ht/10;
if((10*n-ht)==0)n--;
if(n<0) n=0;
else
    (if (t=='b') if(n>BHEATS-1) n=BHEATS-1;
     else if(n>PHEATS-1) n=PHEATS-1;)
return n;}

```

```

int stdcbin(float k)
{int n;
n=(int)(100*k-75);
if((100*k-75-n)==0)n--;
if(n<0) n=0;
else if(n>CRITS-1) n=CRITS-1;
return n;}

```

```

int spcbin(int num,char t,float ht, float k)
{int found=0,i=0;
while((found==0)&&(i<num))
    (if((brectype[i]==t)&&
      (ht>minheat[i])&&(ht<=maxheat[i])&&
      (k>mink[i])&&(k<=maxk[i])) found=1;
     i++;)
if(found==1)return(i-1);
else
    (fprintf(ferr,"No bin for %c %f %f\n",t,ht,k);
     if(t=='p') num++; //default adds 0 for t=='b'
     else if(t=='s') num+=2;
     return num;)}

```

```

float getfloat(char* string, int start, int length)
{char temp[20];
int i,j;
for(i=start;i<start+length;i++) temp[i-start]=string[i];
temp[length]='\0';
return(atof(temp));}

```

```

int getint(char*string, int start, int length)
{char temp[20];
int i,j;
for(i=start;i<start+length;i++) temp[i-start]=string[i];
temp[length]='\0';
return(atoi(temp));}

```

```

void ansysout(int bin)
{int i,total,cycle,num;
long int m;
float ftime,x;
m=totalassy[bin];
fprintf(foutd, "/COM, ");
fprintf(foutd, "*****\n");
fprintf(foutd, "/COM, ");
fprintf(foutd, "***                               **\n");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*** Assembly Type:      %-12s%22s**\n",

```



```

        ((brectype[bin]=='b')?"BWR":
        (brectype[bin]=='p')?"PWR":"STx"), " ");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*** Decay Period (years): %12ld%22s**\n", maxtime, " ");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*** Number of assemblies: %12ld%22s**\n", m, " ");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*** Assemblies/pkg: %12d%22s**\n", bincap[bin], " ");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*** Max Heat (Watts/assy): %12.2f%22s**\n", maxheat[bin], " ");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*** Min Heat (Watts/assy): %12.2f%22s**\n", minheat[bin], " ");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*** Max Kinf: %12.3f%22s**\n", maxk[bin], " ");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*** Min Kinf: %12.3f%22s**\n", mink[bin], " ");
if(m>0)
{
    fprintf(foutd, "/COM, ");
    fprintf(foutd, "*** Ave Age: %12.3f%22s**\n", avages[bin]/m, ".");
    fprintf(foutd, "/COM, ");
    fprintf(foutd, "*** Ave Burnup: %12.3f%22s**\n", avburns[bin]/m, " ");
    fprintf(foutd, "/COM, ");
    fprintf(foutd, "*** Ave Enrichment: %12.3f%22s**\n", avrichs[bin]/m, " ");
}
if(m>0)
{
    fprintf(foutd, "/COM, ");
    fprintf(foutd, "*** Ave MTU/assy: %12.3f%22s**\n", totalmtu[bin]/m, " ");
}
fprintf(foutd, "/COM, ");
fprintf(foutd, "*** **\n");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*****\n");
ansyssteps=0;
cycle=0;
ftime=0;
while(ftime<maxtime)
{
    ansyssteps++;
    if(ftime>=times[cycle]-eps) cycle++;
    ftime+=dtimes[cycle];
}
fprintf(foutd, "**SET,%s,\n", binstr[bin]);
fprintf(foutd, "**DIM,%s, TABLE,%d,1,\n", binstr[bin], ansyssteps+1);
total=1;
cycle=0;
ftime=0;
num=1;
if(m==0) return; //No assemblies to process in this bin.
for(i=0; i<TSTEPS; i++) totheats[bin][i]/=m;
fprintf(foutd, "%s( 1,1)=%9.2f", binstr[bin], totheats[bin][0]);
while(ftime<maxtime)
{
    total++;
    if(ftime>=times[cycle]-eps) cycle++;
    ftime+=dtimes[cycle];
    x=totheats[bin][total-1];
    if(x<1) fprintf(foutd, "%9.3f", x);
    else fprintf(foutd, "%9.2f", x);
    if(num<5) num++;
    else
        (if(ftime<maxtime) fprintf(foutd, "\n%s(%2u,1)=", binstr[bin], total+1);
        num=0;);
}
fprintf(foutd, "\n");
fprintf(foutd, "%s( 1,0)=%10.6f", binstr[bin], 1.e-6);
num=1;
total=1;
cycle=0;
ftime=0;
while(ftime<maxtime)
{
    total++;
    if(ftime>=times[cycle]-eps) cycle++;
    ftime+=dtimes[cycle];
    fprintf(foutd, "%10.2f", ftime);
    if(num<5) num++;
    else

```

```

        (if(ftime<maxtime)fprintf(foutd, "\n%s(%2u,0)=", binstr[bin], total+1);
        num=0;))
    fprintf(foutd, "\n");
    fprintf(foutd, "%s( 0,1)=1.0\n", binstr[bin]);
    return;

void avsout(int bin)    //values of bin=0,1 for BWR, PWR
{int i, total, cycle, num;
long int m;
float x, ftime;
m=(bin==0?ntotalb:ntotalp);
fprintf(foutd, "/COM, ");
fprintf(foutd, "*****\n");
fprintf(foutd, "/COM, ");
fprintf(foutd, "***\n");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*** Assembly Type:      %-12s%22s**\n", (bin==0?"BWR":"PWR", " ");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*** Decay Period (years):  %-12ld%22s**\n", maxtime, " ");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*** Number of assemblies:    %-12ld%22s**\n", m, " ");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*** Ave Age:                  %-12.3f%22s**\n", avages[bin]/m, " ");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*** Ave Burnup:              %-12.3f%22s**\n", avburns[bin]/m, " ");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*** Ave Enrichment:          %-12.3f%22s**\n", avrichs[bin]/m, " ");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*** Ave MTU/assy:            %-12.3f%22s**\n", avmtu[bin]/m, " ");
fprintf(foutd, "/COM, ");
fprintf(foutd, "***\n");
fprintf(foutd, "/COM, ");
fprintf(foutd, "*****\n");
ansyssteps=0;
cycle=0;
ftime=0;
while(ftime<maxtime)
{ansyssteps++;
if(ftime>=times[cycle]-eps)cycle++;
ftime+=dtimes[cycle];}
fprintf(foutd, "SET, %s, \n", avstr[bin]);
fprintf(foutd, "DIM, %s, TABLE, %d, 1, \n", avstr[bin], ansyssteps+1);
total=1;
cycle=0;
ftime=0;
num=1;
if(m==0) return;    //No assemblies to process in this bin.
for(i=0; i<ISTEPS; i++) avheats[bin][i]/=m;
fprintf(foutd, "%s( 1,1)=%9.2f, ", avstr[bin], avheats[bin][0]);
while(ftime<maxtime)
{total++;
if(ftime>=times[cycle]-eps)cycle++;
ftime+=dtimes[cycle];
x=avheats[bin][total-1];
if(x<1)fprintf(foutd, "%9.3f, ", x);
else fprintf(foutd, "%9.2f, ", x);
if(num<5)num++;
else
{if(ftime<maxtime)fprintf(foutd, "\n%s(%2u,1)=", avstr[bin], total+1);
num=0;}}
fprintf(foutd, "\n");
fprintf(foutd, "%s( 1,0)=%10.6f, ", avstr[bin], 1.e-6);
num=1;
total=1;
cycle=0;
ftime=0;
while(ftime<maxtime)
{total++;
if(ftime>=times[cycle]-eps)cycle++;
ftime+=dtimes[cycle];

```

```
fprintf(foutd,"%10.2f",ftime);
if(num<5)num++;
else
    {if(ftime<maxtime)fprintf(foutd,"\n%s(%2u,0)=",avstr[bin],total+1);
    num=0;)}
fprintf(foutd,"\n");
fprintf(foutd,"%s( 0,1)=1.0\n",avstr[bin]);
return;}
```

		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.				
SA TOTAL HEAT 92		21.	22.	23.	24.	25.	26.	27.	28.	29.	30.	31.	32.	33.	34.	35.	36.	37.	38.	39.	40.				
		41.	42.	43.	44.	45.	46.	47.	48.	49.	50.	51.	52.	53.	54.	55.	56.	57.	58.	59.	60.				
		61.	62.	63.	64.	65.	66.	67.	68.	69.	70.	71.	72.	73.	74.	75.	76.	77.	78.	79.	80.				
		81.	82.	83.	84.	85.	86.	87.	88.	89.	90.	91.	92.	93.	94.	95.	96.	97.	98.	99.	100.				
		101.	102.	103.	104.	105.	106.	107.	108.	109.	110.	111.	112.	113.	114.	115.	116.	117.	118.	119.	120.				
		121.	122.	123.	124.	125.	126.	127.	128.	129.	130.	140.	150.	200.	250.	300.	400.	500.	700.	1000.	1500.				
		2000.	2500.	3000.	4000.	5000.	7000.	10000.	20000.	50000.	100000.														
BWR	7500.	.72	4.081E+02	1.881E+02	1.062E+02	6.797E+02	4.958E+02	4.005E+02	3.494E+02	3.196E+02	3.009E+02	2.887E+02	2.786E+02	2.712E+02	2.652E+02	2.600E+02	2.561E+02	2.515E+02	2.478E+02	2.443E+02	2.411E+02	2.385E+02			
			2.351E+02	2.323E+02	2.297E+02	2.272E+02	2.247E+02	2.223E+02	2.200E+02	2.177E+02	2.155E+02	2.137E+02	2.113E+02	2.092E+02	2.072E+02	2.052E+02	2.032E+02	2.012E+02	1.993E+02	1.975E+02	1.956E+02	1.938E+02			
			1.920E+02	1.903E+02	1.885E+02	1.868E+02	1.851E+02	1.835E+02	1.819E+02	1.803E+02	1.787E+02	1.776E+02	1.757E+02	1.742E+02	1.727E+02	1.713E+02	1.699E+02	1.685E+02	1.671E+02	1.658E+02	1.645E+02	1.632E+02			
			1.619E+02	1.605E+02	1.594E+02	1.581E+02	1.569E+02	1.558E+02	1.546E+02	1.534E+02	1.523E+02	1.512E+02	1.501E+02	1.490E+02	1.480E+02	1.470E+02	1.459E+02	1.449E+02	1.439E+02	1.430E+02	1.420E+02	1.411E+02			
			1.402E+02	1.393E+02	1.384E+02	1.375E+02	1.366E+02	1.358E+02	1.350E+02	1.341E+02	1.333E+02	1.326E+02	1.318E+02	1.310E+02	1.303E+02	1.295E+02	1.288E+02	1.281E+02	1.274E+02	1.267E+02	1.260E+02	1.253E+02			
			1.248E+02	1.242E+02	1.235E+02	1.229E+02	1.223E+02	1.217E+02	1.211E+02	1.205E+02	1.200E+02	1.194E+02	1.189E+02	1.183E+02	1.178E+02	1.173E+02	1.168E+02	1.162E+02	1.157E+02	1.153E+02	1.148E+02	1.143E+02			
			1.138E+02	1.134E+02	1.129E+02	1.125E+02	1.120E+02	1.116E+02	1.112E+02	1.107E+02	1.103E+02	1.099E+02	1.061E+02	1.028E+02	9.136E+01	8.352E+01	7.53E+01	6.751E+01	5.945E+01	4.672E+01	3.404E+01	2.244E+01			
			1.710E+01	1.442E+01	1.303E+01	1.166E+01	1.092E+01	9.672E+00	8.278E+00	5.243E+00	1.971E+00	5.958E-01													
BWR	7500.	1.05	3.686E+03	1.651E+03	9.297E+02	5.970E+02	4.382E+02	3.564E+02	3.128E+02	2.874E+02	2.711E+02	2.602E+02	2.511E+02	2.443E+02	2.386E+02	2.337E+02	2.296E+02	2.253E+02	2.216E+02	2.181E+02	2.148E+02	2.120E+02			
			2.085E+02	2.058E+02	2.031E+02	2.005E+02	1.979E+02	1.955E+02	1.930E+02	1.907E+02	1.884E+02	1.864E+02	1.840E+02	1.819E+02	1.799E+02	1.777E+02	1.757E+02	1.737E+02	1.718E+02	1.699E+02	1.680E+02	1.662E+02			
			1.644E+02	1.626E+02	1.608E+02	1.591E+02	1.575E+02	1.558E+02	1.542E+02	1.526E+02	1.510E+02	1.498E+02	1.480E+02	1.466E+02	1.451E+02	1.437E+02	1.423E+02	1.409E+02	1.396E+02	1.383E+02	1.370E+02	1.357E+02			
			1.344E+02	1.332E+02	1.320E+02	1.308E+02	1.297E+02	1.285E+02	1.274E+02	1.263E+02	1.252E+02	1.242E+02	1.231E+02	1.221E+02	1.211E+02	1.201E+02	1.191E+02	1.182E+02	1.172E+02	1.163E+02	1.154E+02	1.145E+02			
			1.137E+02	1.128E+02	1.120E+02	1.112E+02	1.104E+02	1.096E+02	1.088E+02	1.080E+02	1.073E+02	1.065E+02	1.058E+02	1.051E+02	1.044E+02	1.037E+02	1.030E+02	1.024E+02	1.017E+02	1.011E+02	1.005E+02	1.000E+02			
			9.940E+01	9.880E+01	9.822E+01	9.765E+01	9.709E+01	9.654E+01	9.601E+01	9.548E+01	9.496E+01	9.445E+01	9.395E+01	9.346E+01	9.297E+01	9.250E+01	9.203E+01	9.157E+01	9.112E+01	9.068E+01	9.024E+01	8.981E+01			
			8.939E+01	8.897E+01	8.857E+01	8.817E+01	8.777E+01	8.738E+01	8.700E+01	8.663E+01	8.626E+01	8.590E+01	8.57E+01	9.797E+01	7.012E+01	6.397E+01	5.949E+01	5.202E+01	4.612E+01	3.674E+01	2.737E+01	1.876E+01			
			1.478E+01	1.274E+01	1.166E+01	1.054E+01	9.917E+00	8.826E+00	7.587E+00	4.886E+00	1.859E+00	5.676E-01													
BWR	7500.	1.75	3.385E+03	1.494E+03	8.399E+02	5.430E+02	4.037E+02	3.324E+02	2.946E+02	2.722E+02	2.576E+02	2.475E+02	2.388E+02	2.321E+02	2.262E+02	2.209E+02	2.165E+02	2.118E+02	2.077E+02	2.038E+02	2.001E+02	1.967E+02			
			1.928E+02	1.896E+02	1.866E+02	1.835E+02	1.805E+02	1.778E+02	1.750E+02	1.723E+02	1.696E+02	1.672E+02	1.644E+02	1.620E+02	1.598E+02	1.572E+02	1.549E+02	1.527E+02	1.505E+02	1.483E+02	1.462E+02	1.442E+02			
			1.422E+02	1.402E+02	1.382E+02	1.364E+02	1.345E+02	1.327E+02	1.309E+02	1.291E+02	1.274E+02	1.260E+02	1.241E+02	1.225E+02	1.209E+02	1.194E+02	1.179E+02	1.164E+02	1.150E+02	1.136E+02	1.122E+02	1.108E+02			
			1.095E+02	1.082E+02	1.069E+02	1.057E+02	1.044E+02	1.032E+02	1.020E+02	1.009E+02	9.976E+01	9.865E+01	9.757E+01	9.650E+01	9.546E+01	9.443E+01	9.343E+01	9.245E+01	9.149E+01	9.055E+01	8.962E+01	8.872E+01			
			8.783E+01	8.696E+01	8.611E+01	8.527E+01	8.446E+01	8.366E+01	8.287E+01	8.210E+01	8.135E+01	8.061E+01	7.989E+01	7.918E+01	7.848E+01	7.780E+01	7.714E+01	7.648E+01	7.584E+01	7.521E+01	7.460E+01	7.416E+01			
			7.350E+01	7.291E+01	7.234E+01	7.179E+01	7.124E+01	7.071E+01	7.018E+01	6.967E+01	6.917E+01	6.868E+01	6.819E+01	6.772E+01	6.725E+01	6.680E+01	6.635E+01	6.591E+01	6.548E+01	6.506E+01	6.465E+01	6.424E+01			
			6.384E+01	6.345E+01	6.307E+01	6.269E+01	6.232E+01	6.196E+01	6.161E+01	6.126E+01	6.092E+01	6.058E+01	5.754E+01	5.501E+01	4.703E+01	4.260E+01	3.963E+01	3.494E+01	3.128E+01	2.546E+01	1.969E+01	1.432E+01			
			1.181E+01	1.049E+01	9.762E+00	8.954E+00	8.457E+00	7.572E+00	6.561E+00	4.300E+00	1.699E+00	5.527E-01													
BWR	15000.	1.09	5.818E+03	2.853E+03	1.698E+03	1.144E+03	8.692E+02	7.198E+02	6.362E+02	5.848E+02	5.506E+02	5.277E+02	5.074E+02	4.924E+02	4.799E+02	4.691E+02	4.611E+02	4.511E+02	4.431E+02	4.357E+02	4.289E+02	4.236E+02			
			4.160E+02	4.100E+02	4.043E+02	3.988E+02	3.934E+02	3.883E+02	3.832E+02	3.783E+02	3.735E+02	3.702E+02	3.650E+02	3.605E+02	3.561E+02	3.518E+02	3.477E+02	3.436E+02	3.396E+02	3.357E+02	3.319E+02	3.281E+02			
			3.244E+02	3.208E+02	3.173E+02	3.138E+02	3.104E+02	3.070E+02	3.037E+02	3.005E+02	2.973E+02	2.951E+02	2.914E+02	2.883E+02	2.854E+02	2.825E+02	2.797E+02	2.770E+02	2.743E+02	2.716E+02	2.690E+02	2.664E+02			
			2.639E+02	2.615E+02	2.591E+02	2.567E+02	2.543E+02	2.520E+02	2.498E+02	2.476E+02	2.454E+02	2.433E+02	2.412E+02	2.391E+02	2.371E+02	2.352E+02	2.332E+02	2.313E+02	2.294E+02	2.276E+02	2.258E+02	2.240E+02			
			2.223E+02	2.206E+02	2.189E+02	2.173E+02	2.156E+02	2.141E+02	2.125E+02	2.110E+02	2.095E+02	2.080E+02	2.065E+02	2.051E+02	2.037E+02	2.024E+02	2.010E+02	1.997E+02	1.984E+02	1.971E+02	1.959E+02	1.954E+02			
			1.939E+02	1.926E+02	1.914E+02	1.902E+02	1.891E+02	1.880E+02	1.869E+02	1.859E+02	1.849E+02	1.838E+02	1.828E+02	1.818E+02	1.808E+02	1.798E+02	1.789E+02	1.780E+02	1.770E+02	1.761E+02	1.753E+02	1.744E+02			
			1.735E+02	1.727E+02	1.719E+02	1.711E+02	1.703E+02	1.695E+02	1.687E+02	1.679E+02	1.672E+02	1.664E+02	1.596E+02	1.538E+02	1.339E+02	1.208E+02	1.114E+02	9.585E+01	8.388E+01	6.511E+01	4.669E+01	2.990E+01			
			2.218E+01	1.835E+01	1.638E+01	1.447E+01	1.348E+01	1.182E+01	1.002E+01	6.163E+00	2.278E+00	7.455E-01													
BWR	15000.	1.79	5.359E+03	2.613E+03	1.553E+03	1.054E+03	8.094E+02	6.775E+02	6.036E+02	5.577E+02	5.269E+02	5.055E+02	4.870E+02	4.728E+02	4.608E+02	4.502E+02	4.418E+02	4.323E+02	4.242E+02	4.167E+02	4.096E+02	4.037E+02			
			3.963E+02	3.901E+02	3.841E+02	3.783E+02	3.728E+02	3.673E+02	3.621E+02	3.569E+02	3.519E+02	3.478E+02	3.424E+02	3.377E+02	3.331E+02	3.286E+02	3.242E+02	3.199E+02	3.158E+02	3.116E+02	3.076E+02	3.037E+02			
			2.998E+02	2.960E+02	2.923E+02	2.887E+02	2.851E+02	2.816E+02	2.781E+02	2.748E+02	2.715E+02	2.690E+02	2.651E+02	2.620E+02	2.589E+02	2.559E+02	2.530E+02	2.502E+02	2.474E+02	2.446E+02	2.420E+02	2.393E+02			
			2.367E+02	2.342E+02	2.317E+02	2.292E+02	2.268E+02	2.245E+02	2.222E+02	2.199E+02	2.177E+02	2.155E+02	2.134E+02	2.113E+02	2.092E+02	2.072E+02	2.052E+02	2.033E+02	2.014E+02	1.995E+02	1.977E+02	1.959E+02			
			1.941E+02	1.924E+02	1.907E+02	1.890E+02	1.874E+02	1.858E+02	1.842E+02	1.827E+02	1.812E+02	1.797E+02	1.783E+02	1.768E+02	1.754E+02	1.741E+02	1.727E+02	1.714E+02	1.701E+02	1.688E+02	1.676E+02	1.670E+02			
			1.657E+02	1.645E+02	1.633E+02	1.621E+02	1.610E+02	1.599E+02	1.589E+02	1.578E+02	1.568E+02	1.558E+02	1.548E+02	1.538E+02	1.528E+02	1.519E+02	1.510E+02	1.501E+02	1.492E+02	1.483E+02	1.474E+02	1.466E+02			
			1.458E+02	1.449E+02	1.441E+02	1.433E+02	1.426E+02	1.418E+02	1.411E+02	1.403E+02	1.396E+02	1.389E+02	1.324E+02	1.269E+02	1.088E+02	9.782E+01	9.013E+01	7.785E+01	6.838E+01	5.358E+01	3.904E+01	2.576E+01			
			1.962E+01	1.653E+01	1.492E+01	1.331E+01	1.244E+01	1.094E+01																	

		1.209E+02	1.201E+02	1.194E+02	1.186E+02	1.178E+02	1.171E+02	1.164E+02	1.157E+02	1.150E+02	1.143E+02	1.081E+02	1.029E+02	8.662E+01	7.742E+01	7.130E+01	6.181E+01	5.456E+01	4.326E+01	3.212E+01	2.191E+01
		1.718E+01	1.476E+01	1.347E+01	1.214E+01	1.138E+01	1.005E+01	8.602E+00	5.431E+00	2.092E+00	7.231E-01										
BUR 22500.	1.72	7.089E+03	6.699E+03	2.276E+03	1.608E+03	1.268E+03	1.074E+03	9.601E+02	8.868E+02	8.358E+02	8.003E+02	7.682E+02	7.439E+02	7.230E+02	7.049E+02	6.908E+02	6.733E+02	6.597E+02	6.470E+02	6.351E+02	6.263E+02
		6.139E+02	6.034E+02	5.934E+02	5.838E+02	5.745E+02	5.655E+02	5.568E+02	5.483E+02	5.401E+02	5.335E+02	5.247E+02	5.169E+02	5.094E+02	5.021E+02	4.950E+02	4.881E+02	4.813E+02	4.747E+02	4.682E+02	4.618E+02
		4.557E+02	4.496E+02	4.437E+02	4.378E+02	4.322E+02	4.266E+02	4.211E+02	4.158E+02	4.106E+02	4.056E+02	4.007E+02	3.957E+02	3.908E+02	3.861E+02	3.816E+02	3.771E+02	3.727E+02	3.684E+02	3.642E+02	3.601E+02
		3.560E+02	3.520E+02	3.481E+02	3.443E+02	3.406E+02	3.369E+02	3.333E+02	3.298E+02	3.264E+02	3.230E+02	3.197E+02	3.164E+02	3.132E+02	3.101E+02	3.071E+02	3.041E+02	3.011E+02	2.982E+02	2.954E+02	2.926E+02
		2.899E+02	2.872E+02	2.846E+02	2.821E+02	2.796E+02	2.771E+02	2.747E+02	2.723E+02	2.700E+02	2.677E+02	2.655E+02	2.633E+02	2.611E+02	2.590E+02	2.569E+02	2.549E+02	2.529E+02	2.509E+02	2.490E+02	2.483E+02
		2.459E+02	2.440E+02	2.422E+02	2.404E+02	2.387E+02	2.370E+02	2.354E+02	2.337E+02	2.321E+02	2.306E+02	2.290E+02	2.275E+02	2.261E+02	2.246E+02	2.232E+02	2.218E+02	2.204E+02	2.191E+02	2.177E+02	2.164E+02
		2.151E+02	2.139E+02	2.126E+02	2.114E+02	2.102E+02	2.090E+02	2.079E+02	2.067E+02	2.056E+02	2.045E+02	1.945E+02	1.899E+02	1.577E+02	1.400E+02	1.280E+02	1.091E+02	9.511E+01	7.370E+01	5.301E+01	3.420E+01
BUR 22500.	2.42	2.553E+01	2.119E+01	1.894E+01	1.671E+01	1.556E+01	1.354E+01	1.142E+01	6.881E+00	2.525E+00	8.879E-01										
		6.606E+03	3.393E+03	2.116E+03	1.501E+03	1.191E+03	1.016E+03	9.130E+02	8.466E+02	8.001E+02	7.670E+02	7.371E+02	7.145E+02	6.950E+02	6.778E+02	6.634E+02	6.486E+02	6.353E+02	6.230E+02	6.113E+02	6.018E+02
		5.897E+02	5.794E+02	5.696E+02	5.601E+02	5.510E+02	5.421E+02	5.334E+02	5.250E+02	5.168E+02	5.103E+02	5.014E+02	4.937E+02	4.862E+02	4.789E+02	4.719E+02	4.649E+02	4.582E+02	4.515E+02	4.451E+02	4.387E+02
		4.325E+02	4.264E+02	4.205E+02	4.147E+02	4.090E+02	4.034E+02	3.979E+02	3.926E+02	3.874E+02	3.835E+02	3.777E+02	3.727E+02	3.679E+02	3.632E+02	3.586E+02	3.541E+02	3.497E+02	3.454E+02	3.412E+02	3.370E+02
		3.330E+02	3.290E+02	3.251E+02	3.212E+02	3.175E+02	3.138E+02	3.102E+02	3.067E+02	3.032E+02	2.999E+02	2.965E+02	2.933E+02	2.901E+02	2.870E+02	2.839E+02	2.809E+02	2.780E+02	2.751E+02	2.722E+02	2.695E+02
		2.668E+02	2.641E+02	2.615E+02	2.589E+02	2.564E+02	2.540E+02	2.515E+02	2.492E+02	2.469E+02	2.446E+02	2.424E+02	2.402E+02	2.380E+02	2.359E+02	2.339E+02	2.319E+02	2.299E+02	2.279E+02	2.260E+02	2.250E+02
		2.229E+02	2.209E+02	2.191E+02	2.174E+02	2.157E+02	2.140E+02	2.124E+02	2.108E+02	2.092E+02	2.077E+02	2.062E+02	2.047E+02	2.032E+02	2.018E+02	2.004E+02	1.990E+02	1.977E+02	1.963E+02	1.950E+02	1.937E+02
		1.925E+02	1.913E+02	1.900E+02	1.888E+02	1.877E+02	1.865E+02	1.854E+02	1.843E+02	1.832E+02	1.821E+02	1.810E+02	1.799E+02	1.788E+02	1.777E+02	1.766E+02	1.755E+02	1.744E+02	1.733E+02	1.722E+02	1.711E+02
BUR 22500.	3.12	2.336E+01	1.961E+01	1.764E+01	1.566E+01	1.459E+01	1.275E+01	1.077E+01	6.599E+00	2.443E+00	8.733E-01										
		6.223E+03	3.180E+03	1.988E+03	1.419E+03	1.133E+03	9.734E+02	8.795E+02	8.185E+02	7.755E+02	7.442E+02	7.166E+02	6.947E+02	6.758E+02	6.591E+02	6.454E+02	6.302E+02	6.171E+02	6.047E+02	5.931E+02	5.831E+02
		5.711E+02	5.608E+02	5.509E+02	5.413E+02	5.320E+02	5.229E+02	5.142E+02	5.056E+02	4.972E+02	4.901E+02	4.815E+02	4.736E+02	4.660E+02	4.586E+02	4.514E+02	4.443E+02	4.374E+02	4.306E+02	4.240E+02	4.176E+02
		4.112E+02	4.051E+02	3.990E+02	3.931E+02	3.873E+02	3.816E+02	3.760E+02	3.706E+02	3.653E+02	3.611E+02	3.559E+02	3.504E+02	3.455E+02	3.407E+02	3.360E+02	3.315E+02	3.270E+02	3.226E+02	3.183E+02	3.141E+02
		3.100E+02	3.059E+02	3.019E+02	2.981E+02	2.943E+02	2.906E+02	2.869E+02	2.833E+02	2.798E+02	2.764E+02	2.731E+02	2.698E+02	2.666E+02	2.634E+02	2.603E+02	2.573E+02	2.543E+02	2.514E+02	2.485E+02	2.458E+02
		2.431E+02	2.404E+02	2.378E+02	2.352E+02	2.327E+02	2.302E+02	2.278E+02	2.255E+02	2.231E+02	2.209E+02	2.186E+02	2.165E+02	2.143E+02	2.122E+02	2.102E+02	2.082E+02	2.062E+02	2.043E+02	2.024E+02	2.012E+02
		1.991E+02	1.974E+02	1.954E+02	1.937E+02	1.920E+02	1.904E+02	1.888E+02	1.872E+02	1.856E+02	1.841E+02	1.826E+02	1.811E+02	1.797E+02	1.783E+02	1.770E+02	1.756E+02	1.743E+02	1.730E+02	1.717E+02	1.704E+02
		1.692E+02	1.680E+02	1.668E+02	1.656E+02	1.645E+02	1.634E+02	1.623E+02	1.612E+02	1.601E+02	1.591E+02	1.497E+02	1.418E+02	1.170E+02	1.031E+02	9.418E+01	8.062E+01	7.075E+01	5.554E+01	4.082E+01	2.738E+01
BUR 30000.	2.23	2.115E+01	1.798E+01	1.630E+01	1.457E+01	1.362E+01	1.193E+01	1.012E+01	6.234E+00	2.365E+00	8.640E-01										
		8.221E+03	4.433E+03	2.877E+03	2.109E+03	1.706E+03	1.467E+03	1.322E+03	1.224E+03	1.154E+03	1.106E+03	1.060E+03	1.024E+03	9.939E+02	9.671E+02	9.454E+02	9.205E+02	9.003E+02	8.814E+02	8.636E+02	8.492E+02
		8.309E+02	8.152E+02	8.003E+02	7.859E+02	7.721E+02	7.586E+02	7.456E+02	7.330E+02	7.207E+02	7.107E+02	6.977E+02	6.862E+02	6.750E+02	6.643E+02	6.538E+02	6.436E+02	6.337E+02	6.240E+02	6.145E+02	6.052E+02
		5.962E+02	5.873E+02	5.787E+02	5.703E+02	5.620E+02	5.540E+02	5.461E+02	5.384E+02	5.309E+02	5.235E+02	5.166E+02	5.094E+02	5.025E+02	4.958E+02	4.892E+02	4.828E+02	4.766E+02	4.704E+02	4.644E+02	4.585E+02
		4.528E+02	4.472E+02	4.416E+02	4.362E+02	4.310E+02	4.258E+02	4.207E+02	4.158E+02	4.109E+02	4.061E+02	4.015E+02	3.969E+02	3.925E+02	3.881E+02	3.838E+02	3.796E+02	3.755E+02	3.715E+02	3.675E+02	3.636E+02
		3.599E+02	3.561E+02	3.525E+02	3.489E+02	3.455E+02	3.420E+02	3.387E+02	3.354E+02	3.322E+02	3.290E+02	3.259E+02	3.229E+02	3.199E+02	3.170E+02	3.141E+02	3.113E+02	3.085E+02	3.059E+02	3.032E+02	3.021E+02
		2.989E+02	2.962E+02	2.937E+02	2.913E+02	2.889E+02	2.866E+02	2.844E+02	2.821E+02	2.800E+02	2.778E+02	2.757E+02	2.737E+02	2.717E+02	2.697E+02	2.677E+02	2.658E+02	2.639E+02	2.621E+02	2.603E+02	2.585E+02
		2.567E+02	2.550E+02	2.533E+02	2.517E+02	2.501E+02	2.485E+02	2.469E+02	2.453E+02	2.438E+02	2.423E+02	2.287E+02	2.172E+02	1.797E+02	1.571E+02	1.429E+02	1.041E+02	8.068E+01	5.843E+01	3.828E+01	
BUR 30000.	2.93	2.898E+01	2.426E+01	2.177E+01	1.924E+01	1.790E+01	1.550E+01	1.299E+01	7.674E+00	2.785E+00	1.038E+00										
		7.694E+03	4.129E+03	2.681E+03	1.969E+03	1.598E+03	1.381E+03	1.248E+03	1.159E+03	1.095E+03	1.050E+03	1.007E+03	9.746E+02	9.466E+02	9.219E+02	9.024E+02	8.789E+02	8.599E+02	8.421E+02	8.254E+02	8.121E+02
		7.945E+02	7.796E+02	7.654E+02	7.518E+02	7.386E+02	7.258E+02	7.133E+02	7.012E+02	6.895E+02	6.802E+02	6.680E+02	6.569E+02	6.462E+02	6.358E+02	6.257E+02	6.159E+02	6.063E+02	5.968E+02	5.877E+02	5.787E+02
		5.699E+02	5.613E+02	5.529E+02	5.447E+02	5.367E+02	5.288E+02	5.212E+02	5.137E+02	5.063E+02	5.006E+02	4.929E+02	4.852E+02	4.785E+02	4.719E+02	4.655E+02	4.592E+02	4.531E+02	4.471E+02	4.412E+02	4.354E+02
		4.298E+02	4.242E+02	4.186E+02	4.135E+02	4.083E+02	4.032E+02	3.983E+02	3.934E+02	3.886E+02	3.839E+02	3.793E+02	3.749E+02	3.705E+02	3.661E+02	3.619E+02	3.578E+02	3.537E+02	3.498E+02	3.459E+02	3.421E+02
		3.383E+02	3.347E+02	3.311E+02	3.276E+02	3.241E+02	3.208E+02	3.175E+02	3.142E+02	3.111E+02	3.079E+02	3.049E+02	3.019E+02	2.990E+02	2.961E+02	2.933E+02	2.905E+02	2.878E+02	2.852E+02	2.826E+02	2.812E+02
		2.783E+02	2.757E+02	2.732E+02	2.708E+02	2.685E+02	2.662E+02	2.640E+02	2.618E+02	2.597E+02	2.576E+02	2.555E+02	2.535E+02	2.515E+02	2.495E+02	2.476E+02	2.457E+02	2.439E+02	2.421E+02	2.403E+02	2.385E+02
		2.369E+02	2.352E+02	2.335E+02	2.319E+02	2.303E+02	2.288E+02	2.272E+02	2.257E+02	2.242E+02	2.228E+02	2.095E+02	1.983E+02	1.624E+02	1.416E+02	1.282E+02	1.082E+02	9.414E+01	7.311E+01	5.331E+01	3.527E+01
BUR 30000.	3.63	2.693E+01	2.269E+01	2.044E+01	1.813E+01	1.688E+01	1.466E+01	1.231E+01	7.335E+00	2.700E+00	1.019E+00										
		7.245E+03	3.875E+03	2.521E+03	1.859E+03	1.516E+03	1.317E+03	1.195E+03	1.113E+03	1.054E+03	1.011E+03	9.718E+02	9.412E+02	9.146E+02	8.910E+02	8.719E+02	8.496E+02	8.313E+02	8.140E+02	7.977E+02	7.844E+02
		7.675E+02	7.530E+02	7.391E+02	7.257E+02	7.127E+02	7.001E+02	6.878E+02	6.759E+02	6.642E+02	6.547E+02										

			9.302E+02	9.154E+02	9.010E+02	8.870E+02	8.732E+02	8.598E+02	8.467E+02	8.340E+02	8.215E+02	8.113E+02	7.971E+02	7.852E+02	7.738E+02	7.627E+02	7.519E+02	7.413E+02	7.310E+02	7.209E+02	7.111E+02	7.014E+02
			6.920E+02	6.828E+02	6.737E+02	6.649E+02	6.563E+02	6.478E+02	6.395E+02	6.315E+02	6.235E+02	6.158E+02	6.082E+02	6.008E+02	5.935E+02	5.864E+02	5.794E+02	5.726E+02	5.659E+02	5.594E+02	5.530E+02	5.467E+02
			5.406E+02	5.355E+02	5.286E+02	5.223E+02	5.172E+02	5.117E+02	5.062E+02	5.009E+02	4.957E+02	4.906E+02	4.856E+02	4.807E+02	4.759E+02	4.712E+02	4.665E+02	4.620E+02	4.576E+02	4.532E+02	4.489E+02	4.446E+02
			4.418E+02	4.375E+02	4.334E+02	4.295E+02	4.257E+02	4.219E+02	4.183E+02	4.147E+02	4.112E+02	4.077E+02	4.043E+02	4.010E+02	3.977E+02	3.945E+02	3.913E+02	3.882E+02	3.852E+02	3.822E+02	3.793E+02	3.764E+02
			3.736E+02	3.702E+02	3.680E+02	3.654E+02	3.627E+02	3.601E+02	3.576E+02	3.551E+02	3.526E+02	3.502E+02	3.481E+02	3.462E+02	3.443E+02	3.424E+02	3.405E+02	3.386E+02	3.367E+02	3.348E+02	3.329E+02	3.310E+02
			3.821E+01	3.732E+01	2.915E+01	2.584E+01	2.405E+01	2.074E+01	1.733E+01	1.013E+01	3.699E+00	1.495E+00										
BWR 40000.	4.14		1.018E+04	5.827E+03	3.981E+03	3.037E+03	2.526E+03	2.208E+03	2.007E+03	1.866E+03	1.763E+03	1.687E+03	1.618E+03	1.563E+03	1.516E+03	1.475E+03	1.442E+03	1.401E+03	1.370E+03	1.340E+03	1.312E+03	1.291E+03
			1.262E+03	1.238E+03	1.214E+03	1.191E+03	1.169E+03	1.148E+03	1.127E+03	1.107E+03	1.088E+03	1.071E+03	1.051E+03	1.033E+03	1.015E+03	9.981E+02	9.815E+02	9.652E+02	9.494E+02	9.340E+02	9.189E+02	9.042E+02
			8.898E+02	8.758E+02	8.621E+02	8.487E+02	8.357E+02	8.229E+02	8.104E+02	7.982E+02	7.863E+02	7.770E+02	7.636E+02	7.522E+02	7.412E+02	7.306E+02	7.202E+02	7.101E+02	7.001E+02	6.904E+02	6.807E+02	6.716E+02
			6.626E+02	6.537E+02	6.449E+02	6.364E+02	6.281E+02	6.199E+02	6.119E+02	6.041E+02	5.964E+02	5.889E+02	5.815E+02	5.743E+02	5.673E+02	5.604E+02	5.536E+02	5.470E+02	5.405E+02	5.342E+02	5.279E+02	5.218E+02
			5.159E+02	5.100E+02	5.043E+02	4.987E+02	4.932E+02	4.878E+02	4.825E+02	4.773E+02	4.722E+02	4.672E+02	4.623E+02	4.576E+02	4.529E+02	4.483E+02	4.438E+02	4.393E+02	4.350E+02	4.308E+02	4.266E+02	4.244E+02
			4.196E+02	4.154E+02	4.114E+02	4.076E+02	4.039E+02	4.002E+02	3.967E+02	3.932E+02	3.897E+02	3.863E+02	3.830E+02	3.798E+02	3.766E+02	3.734E+02	3.704E+02	3.673E+02	3.644E+02	3.615E+02	3.586E+02	3.558E+02
			3.530E+02	3.508E+02	3.476E+02	3.450E+02	3.424E+02	3.399E+02	3.374E+02	3.350E+02	3.326E+02	3.302E+02	3.281E+02	3.261E+02	3.241E+02	3.221E+02	3.201E+02	3.181E+02	3.161E+02	3.141E+02	3.121E+02	3.101E+02
			3.605E+01	3.057E+01	2.763E+01	2.454E+01	2.287E+01	1.975E+01	1.654E+01	9.742E+00	3.603E+00	1.469E+00										
BWR 50000.	3.04		1.173E+04	6.985E+03	4.946E+03	3.875E+03	3.280E+03	2.899E+03	2.647E+03	2.467E+03	2.331E+03	2.227E+03	2.136E+03	2.061E+03	1.996E+03	1.937E+03	1.887E+03	1.834E+03	1.789E+03	1.747E+03	1.708E+03	1.674E+03
			1.635E+03	1.600E+03	1.566E+03	1.534E+03	1.503E+03	1.473E+03	1.444E+03	1.416E+03	1.389E+03	1.365E+03	1.338E+03	1.313E+03	1.288E+03	1.265E+03	1.242E+03	1.220E+03	1.198E+03	1.177E+03	1.157E+03	1.137E+03
			1.118E+03	1.099E+03	1.080E+03	1.062E+03	1.045E+03	1.028E+03	1.011E+03	9.953E+02	9.795E+02	9.666E+02	9.501E+02	9.350E+02	9.207E+02	9.068E+02	8.932E+02	8.800E+02	8.671E+02	8.546E+02	8.423E+02	8.303E+02
			8.186E+02	8.071E+02	7.959E+02	7.850E+02	7.743E+02	7.639E+02	7.537E+02	7.437E+02	7.340E+02	7.245E+02	7.152E+02	7.061E+02	6.972E+02	6.885E+02	6.800E+02	6.717E+02	6.635E+02	6.555E+02	6.478E+02	6.402E+02
			6.327E+02	6.254E+02	6.183E+02	6.113E+02	6.045E+02	5.978E+02	5.912E+02	5.848E+02	5.785E+02	5.723E+02	5.663E+02	5.604E+02	5.546E+02	5.490E+02	5.434E+02	5.380E+02	5.326E+02	5.274E+02	5.223E+02	5.173E+02
			5.136E+02	5.084E+02	5.035E+02	4.987E+02	4.933E+02	4.899E+02	4.855E+02	4.812E+02	4.770E+02	4.729E+02	4.689E+02	4.649E+02	4.610E+02	4.572E+02	4.534E+02	4.498E+02	4.461E+02	4.426E+02	4.391E+02	4.357E+02
			4.323E+02	4.290E+02	4.258E+02	4.226E+02	4.195E+02	4.164E+02	4.134E+02	4.104E+02	4.075E+02	4.046E+02	4.017E+02	3.988E+02	3.959E+02	3.930E+02	3.901E+02	3.872E+02	3.843E+02	3.814E+02	3.785E+02	3.756E+02
			4.380E+01	3.730E+01	3.376E+01	2.994E+01	2.788E+01	2.389E+01	1.984E+01	1.134E+01	4.048E+00	1.675E+00										
BWR 50000.	3.74		1.113E+04	6.581E+03	4.638E+03	3.623E+03	3.060E+03	2.702E+03	2.467E+03	2.299E+03	2.174E+03	2.080E+03	1.997E+03	1.928E+03	1.868E+03	1.815E+03	1.769E+03	1.722E+03	1.681E+03	1.643E+03	1.607E+03	1.577E+03
			1.542E+03	1.510E+03	1.480E+03	1.451E+03	1.423E+03	1.396E+03	1.369E+03	1.344E+03	1.319E+03	1.297E+03	1.272E+03	1.249E+03	1.227E+03	1.205E+03	1.184E+03	1.164E+03	1.144E+03	1.125E+03	1.106E+03	1.088E+03
			1.070E+03	1.052E+03	1.035E+03	1.018E+03	1.002E+03	9.864E+02	9.709E+02	9.558E+02	9.411E+02	9.299E+02	9.127E+02	8.986E+02	8.852E+02	8.721E+02	8.594E+02	8.470E+02	8.349E+02	8.230E+02	8.114E+02	8.001E+02
			7.891E+02	7.782E+02	7.676E+02	7.573E+02	7.472E+02	7.373E+02	7.276E+02	7.181E+02	7.089E+02	6.998E+02	6.909E+02	6.822E+02	6.737E+02	6.654E+02	6.573E+02	6.493E+02	6.415E+02	6.339E+02	6.264E+02	6.191E+02
			6.119E+02	6.049E+02	5.980E+02	5.913E+02	5.847E+02	5.783E+02	5.719E+02	5.657E+02	5.597E+02	5.537E+02	5.479E+02	5.422E+02	5.366E+02	5.311E+02	5.257E+02	5.204E+02	5.152E+02	5.102E+02	5.052E+02	5.002E+02
			4.969E+02	4.919E+02	4.871E+02	4.826E+02	4.781E+02	4.738E+02	4.695E+02	4.654E+02	4.613E+02	4.572E+02	4.533E+02	4.494E+02	4.456E+02	4.419E+02	4.382E+02	4.346E+02	4.310E+02	4.276E+02	4.241E+02	4.208E+02
			4.175E+02	4.143E+02	4.111E+02	4.079E+02	4.049E+02	4.018E+02	3.988E+02	3.960E+02	3.931E+02	3.903E+02	3.875E+02	3.848E+02	3.821E+02	3.794E+02	3.767E+02	3.740E+02	3.713E+02	3.686E+02	3.659E+02	3.632E+02
			4.159E+01	3.545E+01	3.210E+01	2.851E+01	2.653E+01	2.280E+01	1.895E+01	1.095E+01	3.958E+00	1.660E+00										
BWR 50000.	4.44		1.055E+04	6.205E+03	4.362E+03	3.404E+03	2.874E+03	2.537E+03	2.317E+03	2.162E+03	2.045E+03	1.959E+03	1.880E+03	1.816E+03	1.761E+03	1.713E+03	1.674E+03	1.627E+03	1.590E+03	1.555E+03	1.522E+03	1.496E+03
			1.463E+03	1.433E+03	1.405E+03	1.378E+03	1.352E+03	1.327E+03	1.303E+03	1.279E+03	1.256E+03	1.237E+03	1.213E+03	1.191E+03	1.170E+03	1.150E+03	1.131E+03	1.111E+03	1.092E+03	1.073E+03	1.057E+03	1.040E+03
			1.023E+03	1.005E+03	9.903E+02	9.746E+02	9.595E+02	9.443E+02	9.297E+02	9.154E+02	9.014E+02	8.906E+02	8.750E+02	8.616E+02	8.488E+02	8.363E+02	8.242E+02	8.124E+02	8.008E+02	7.895E+02	7.784E+02	7.676E+02
			7.569E+02	7.466E+02	7.364E+02	7.265E+02	7.168E+02	7.073E+02	6.980E+02	6.889E+02	6.799E+02	6.712E+02	6.626E+02	6.543E+02	6.461E+02	6.381E+02	6.302E+02	6.225E+02	6.150E+02	6.076E+02	6.004E+02	5.933E+02
			5.833E+02	5.759E+02	5.729E+02	5.664E+02	5.600E+02	5.537E+02	5.476E+02	5.416E+02	5.357E+02	5.299E+02	5.242E+02	5.187E+02	5.132E+02	5.079E+02	5.026E+02	4.975E+02	4.925E+02	4.876E+02	4.827E+02	4.802E+02
			4.745E+02	4.696E+02	4.650E+02	4.605E+02	4.562E+02	4.520E+02	4.478E+02	4.437E+02	4.398E+02	4.358E+02	4.320E+02	4.282E+02	4.245E+02	4.208E+02	4.173E+02	4.137E+02	4.103E+02	4.069E+02	4.036E+02	4.003E+02
			3.971E+02	3.939E+02	3.908E+02	3.878E+02	3.848E+02	3.818E+02	3.789E+02	3.761E+02	3.733E+02	3.705E+02	3.678E+02	3.650E+02	3.623E+02	3.596E+02	3.569E+02	3.542E+02	3.515E+02	3.488E+02	3.461E+02	3.434E+02
			3.934E+01	3.360E+01	3.048E+01	2.711E+01	2.523E+01	2.173E+01	1.811E+01	1.052E+01	3.858E+00	1.632E+00										
PWR 10000.	.99		5.071E+03	2.334E+03	1.321E+03	8.481E+02	6.208E+02	5.021E+02	4.380E+02	4.001E+02	3.758E+02	3.598E+02	3.458E+02	3.356E+02	3.272E+02	3.198E+02	3.140E+02	3.075E+02	3.021E+02	2.972E+02	2.925E+02	2.886E+02
			2.838E+02	2.798E+02	2.760E+02	2.723E+02	2.688E+02	2.654E+02	2.621E+02	2.588E+02	2.557E+02	2.530E+02	2.498E+02	2.468E+02	2.439E+02	2.411E+02	2.384E+02	2.357E+02	2.331E+02	2.305E+02	2.280E+02	2.255E+02
			2.231E+02	2.207E+02	2.183E+02	2.160E+02	2.138E+02	2.116E+02	2.094E+02	2.072E+02	2.051E+02	2.035E+02	2.010E+02	1.991E+02	1.971E+02	1.952E+02	1.934E+02	1.915E+02	1.897E+02	1.880E+02	1.862E+02	1.845E+02
			1.829E+02	1.812E+02	1.796E+02	1.780E+02	1.764E+02	1.749E+02	1.734E+02	1.719E+02	1.705E+02	1.690E+02	1.676E+02	1.663E+02	1.649E+02	1.636E+02	1.623E+02	1.610E+02	1.597E+02	1.585E+02	1.573E+02	1.561E+02
			1.549E+02	1.538E+02	1.526E+02	1.515E+02	1.504E+02	1.494E+02	1.483E+02	1.473E+02	1.463E+02	1.453E+02	1.443E+02	1.434E+02								

			6.916E+01	6.865E+01	6.815E+01	6.766E+01	6.718E+01	6.671E+01	6.624E+01	6.579E+01	6.535E+01	6.491E+01	6.100E+01	5.778E+01	4.802E+01	4.299E+01	3.990E+01	3.521E+01	3.162E+01	2.594E+01	2.030E+01	1.505E+01
PAR 20000.	1.74		1.259E+01	1.126E+01	1.052E+01	9.680E+00	9.163E+00	8.194E+00	7.111E+00	4.664E+00	1.859E+00	6.278E-01										
			7.430E+03	3.679E+03	2.197E+03	1.492E+03	1.140E+03	9.482E+02	8.388E+02	7.704E+02	7.239E+02	6.915E+02	6.633E+02	6.418E+02	6.237E+02	6.078E+02	5.935E+02	5.810E+02	5.691E+02	5.581E+02	5.477E+02	5.393E+02
			5.285E+02	5.195E+02	5.109E+02	5.027E+02	4.948E+02	4.871E+02	4.796E+02	4.723E+02	4.652E+02	4.596E+02	4.524E+02	4.458E+02	4.394E+02	4.331E+02	4.271E+02	4.211E+02	4.153E+02	4.097E+02	4.041E+02	3.987E+02
			3.934E+02	3.882E+02	3.831E+02	3.781E+02	3.733E+02	3.685E+02	3.638E+02	3.592E+02	3.547E+02	3.512E+02	3.460E+02	3.418E+02	3.377E+02	3.337E+02	3.297E+02	3.259E+02	3.221E+02	3.184E+02	3.148E+02	3.112E+02
			3.077E+02	3.043E+02	3.009E+02	2.976E+02	2.944E+02	2.912E+02	2.881E+02	2.851E+02	2.821E+02	2.792E+02	2.763E+02	2.735E+02	2.708E+02	2.681E+02	2.654E+02	2.628E+02	2.603E+02	2.578E+02	2.553E+02	2.529E+02
			2.506E+02	2.483E+02	2.460E+02	2.438E+02	2.416E+02	2.395E+02	2.374E+02	2.353E+02	2.333E+02	2.314E+02	2.294E+02	2.275E+02	2.257E+02	2.238E+02	2.220E+02	2.203E+02	2.186E+02	2.169E+02	2.152E+02	2.136E+02
			2.125E+02	2.109E+02	2.093E+02	2.078E+02	2.063E+02	2.048E+02	2.034E+02	2.020E+02	2.006E+02	1.993E+02	1.980E+02	1.967E+02	1.954E+02	1.942E+02	1.929E+02	1.917E+02	1.905E+02	1.894E+02	1.882E+02	1.871E+02
			1.860E+02	1.849E+02	1.838E+02	1.828E+02	1.818E+02	1.808E+02	1.798E+02	1.788E+02	1.778E+02	1.769E+02	1.683E+02	1.610E+02	1.370E+02	1.225E+02	1.125E+02	9.680E+01	8.488E+01	6.640E+01	4.833E+01	3.189E+01
			2.429E+01	2.045E+01	1.843E+01	1.640E+01	1.529E+01	1.338E+01	1.132E+01	6.909E+00	2.545E+00	8.504E-01										
PAR 20000.	2.44		6.974E+03	3.421E+03	2.045E+03	1.396E+03	1.077E+03	9.033E+02	8.047E+02	7.428E+02	7.004E+02	6.707E+02	6.446E+02	6.242E+02	6.067E+02	5.913E+02	5.788E+02	5.649E+02	5.530E+02	5.420E+02	5.315E+02	5.225E+02
			5.120E+02	5.029E+02	4.941E+02	4.857E+02	4.775E+02	4.696E+02	4.619E+02	4.544E+02	4.471E+02	4.408E+02	4.333E+02	4.265E+02	4.199E+02	4.135E+02	4.072E+02	4.011E+02	3.951E+02	3.892E+02	3.835E+02	3.779E+02
			3.724E+02	3.670E+02	3.618E+02	3.566E+02	3.516E+02	3.467E+02	3.419E+02	3.371E+02	3.325E+02	3.288E+02	3.239E+02	3.196E+02	3.153E+02	3.112E+02	3.071E+02	3.031E+02	2.992E+02	2.954E+02	2.917E+02	2.880E+02
			2.844E+02	2.809E+02	2.774E+02	2.741E+02	2.708E+02	2.675E+02	2.643E+02	2.612E+02	2.582E+02	2.552E+02	2.523E+02	2.494E+02	2.466E+02	2.438E+02	2.411E+02	2.385E+02	2.359E+02	2.334E+02	2.309E+02	2.285E+02
			2.261E+02	2.237E+02	2.214E+02	2.192E+02	2.170E+02	2.148E+02	2.127E+02	2.106E+02	2.086E+02	2.066E+02	2.047E+02	2.028E+02	2.009E+02	1.991E+02	1.973E+02	1.955E+02	1.938E+02	1.921E+02	1.904E+02	1.887E+02
			1.875E+02	1.859E+02	1.843E+02	1.828E+02	1.814E+02	1.799E+02	1.785E+02	1.771E+02	1.757E+02	1.744E+02	1.731E+02	1.718E+02	1.705E+02	1.693E+02	1.681E+02	1.669E+02	1.657E+02	1.646E+02	1.635E+02	1.623E+02
			1.613E+02	1.602E+02	1.592E+02	1.581E+02	1.571E+02	1.561E+02	1.552E+02	1.542E+02	1.533E+02	1.524E+02	1.440E+02	1.370E+02	1.148E+02	1.021E+02	9.378E+01	8.086E+01	7.117E+01	5.615E+01	4.148E+01	2.804E+01
			2.180E+01	1.861E+01	1.692E+01	1.516E+01	1.419E+01	1.245E+01	1.058E+01	6.536E+00	2.452E+00	8.369E-01										
PAR 20000.	3.14		6.634E+03	3.223E+03	1.929E+03	1.324E+03	1.030E+03	8.700E+02	7.798E+02	7.229E+02	6.836E+02	6.554E+02	6.308E+02	6.111E+02	5.940E+02	5.788E+02	5.658E+02	5.522E+02	5.403E+02	5.290E+02	5.184E+02	5.089E+02
			4.982E+02	4.889E+02	4.798E+02	4.711E+02	4.627E+02	4.544E+02	4.465E+02	4.387E+02	4.311E+02	4.243E+02	4.167E+02	4.097E+02	4.028E+02	3.961E+02	3.896E+02	3.833E+02	3.770E+02	3.709E+02	3.650E+02	3.592E+02
			3.535E+02	3.479E+02	3.425E+02	3.372E+02	3.320E+02	3.269E+02	3.219E+02	3.170E+02	3.122E+02	3.082E+02	3.043E+02	2.986E+02	2.943E+02	2.900E+02	2.858E+02	2.817E+02	2.777E+02	2.738E+02	2.699E+02	2.662E+02
			2.625E+02	2.589E+02	2.554E+02	2.519E+02	2.485E+02	2.452E+02	2.420E+02	2.388E+02	2.357E+02	2.326E+02	2.297E+02	2.267E+02	2.239E+02	2.211E+02	2.184E+02	2.157E+02	2.130E+02	2.105E+02	2.079E+02	2.055E+02
			2.031E+02	2.007E+02	1.984E+02	1.961E+02	1.939E+02	1.917E+02	1.896E+02	1.875E+02	1.855E+02	1.835E+02	1.815E+02	1.795E+02	1.777E+02	1.759E+02	1.740E+02	1.723E+02	1.706E+02	1.689E+02	1.672E+02	1.651E+02
			1.642E+02	1.626E+02	1.611E+02	1.596E+02	1.581E+02	1.567E+02	1.553E+02	1.539E+02	1.525E+02	1.512E+02	1.499E+02	1.486E+02	1.474E+02	1.462E+02	1.450E+02	1.438E+02	1.427E+02	1.415E+02	1.404E+02	1.394E+02
			1.383E+02	1.372E+02	1.362E+02	1.352E+02	1.342E+02	1.333E+02	1.323E+02	1.314E+02	1.305E+02	1.296E+02	1.216E+02	1.149E+02	9.428E+01	8.333E+01	7.645E+01	6.611E+01	5.849E+01	4.662E+01	3.502E+01	2.433E+01
			1.938E+01	1.680E+01	1.541E+01	1.392E+01	1.306E+01	1.150E+01	9.817E+00	6.148E+00	2.358E+00	8.302E-01										
PAR 30000.	2.41		9.270E+03	4.848E+03	3.044E+03	2.164E+03	1.709E+03	1.449E+03	1.294E+03	1.192E+03	1.120E+03	1.069E+03	1.022E+03	9.867E+02	9.566E+02	9.302E+02	9.094E+02	8.847E+02	8.648E+02	8.453E+02	8.269E+02	8.148E+02
			7.974E+02	7.822E+02	7.677E+02	7.538E+02	7.403E+02	7.273E+02	7.146E+02	7.024E+02	6.905E+02	6.804E+02	6.681E+02	6.570E+02	6.462E+02	6.358E+02	6.257E+02	6.158E+02	6.062E+02	5.968E+02	5.876E+02	5.786E+02
			5.699E+02	5.613E+02	5.530E+02	5.448E+02	5.368E+02	5.290E+02	5.214E+02	5.139E+02	5.066E+02	5.000E+02	4.925E+02	4.855E+02	4.789E+02	4.724E+02	4.660E+02	4.598E+02	4.537E+02	4.478E+02	4.419E+02	4.362E+02
			4.306E+02	4.252E+02	4.198E+02	4.146E+02	4.094E+02	4.044E+02	3.995E+02	3.946E+02	3.899E+02	3.853E+02	3.807E+02	3.763E+02	3.720E+02	3.677E+02	3.635E+02	3.594E+02	3.554E+02	3.515E+02	3.477E+02	3.439E+02
			3.402E+02	3.366E+02	3.331E+02	3.296E+02	3.262E+02	3.229E+02	3.196E+02	3.164E+02	3.133E+02	3.102E+02	3.072E+02	3.043E+02	3.014E+02	2.986E+02	2.958E+02	2.931E+02	2.904E+02	2.878E+02	2.852E+02	2.833E+02
			2.808E+02	2.789E+02	2.759E+02	2.735E+02	2.712E+02	2.690E+02	2.668E+02	2.647E+02	2.626E+02	2.605E+02	2.585E+02	2.565E+02	2.545E+02	2.526E+02	2.507E+02	2.489E+02	2.471E+02	2.453E+02	2.435E+02	2.418E+02
			2.401E+02	2.385E+02	2.369E+02	2.353E+02	2.337E+02	2.322E+02	2.306E+02	2.292E+02	2.277E+02	2.263E+02	2.233E+02	2.029E+02	1.670E+02	1.465E+02	1.331E+02	1.129E+02	9.863E+01	7.710E+01	5.656E+01	3.784E+01
			2.917E+01	2.472E+01	2.235E+01	1.987E+01	1.851E+01	1.606E+01	1.347E+01	7.995E+00	2.898E+00	1.036E+00										
PAR 30000.	3.11		8.728E+03	4.536E+03	2.850E+03	2.033E+03	1.615E+03	1.377E+03	1.235E+03	1.142E+03	1.076E+03	1.028E+03	9.899E+02	9.528E+02	9.244E+02	8.994E+02	8.789E+02	8.563E+02	8.371E+02	8.192E+02	8.023E+02	7.881E+02
			7.709E+02	7.562E+02	7.420E+02	7.284E+02	7.152E+02	7.025E+02	6.901E+02	6.780E+02	6.663E+02	6.565E+02	6.442E+02	6.332E+02	6.227E+02	6.124E+02	6.024E+02	5.926E+02	5.830E+02	5.737E+02	5.646E+02	5.557E+02
			5.470E+02	5.385E+02	5.302E+02	5.221E+02	5.142E+02	5.064E+02	4.988E+02	4.914E+02	4.841E+02	4.785E+02	4.708E+02	4.639E+02	4.573E+02	4.508E+02	4.444E+02	4.382E+02	4.321E+02	4.261E+02	4.203E+02	4.146E+02
			4.090E+02	4.035E																		

		7.738E+02	7.618E+02	7.500E+02	7.385E+02	7.272E+02	7.163E+02	7.055E+02	6.950E+02	6.847E+02	6.766E+02	6.650E+02	6.552E+02	6.458E+02	6.366E+02	6.277E+02	6.190E+02	6.104E+02	6.021E+02	5.939E+02	5.858E+02	5.780E+02	5.703E+02	5.628E+02	5.554E+02	5.482E+02	5.412E+02	5.343E+02	5.275E+02	5.209E+02	5.144E+02	5.080E+02	5.018E+02	4.957E+02	4.897E+02	4.839E+02	4.782E+02	4.725E+02	4.671E+02	4.617E+02	4.564E+02	4.512E+02	4.462E+02	4.412E+02	4.364E+02	4.316E+02	4.269E+02	4.224E+02	4.179E+02	4.135E+02	4.092E+02	4.050E+02	4.008E+02	3.968E+02	3.928E+02	3.889E+02	3.851E+02	3.814E+02	3.777E+02	3.741E+02	3.705E+02	3.670E+02	3.644E+02	3.610E+02	3.577E+02	3.545E+02	3.514E+02	3.483E+02	3.453E+02	3.423E+02	3.394E+02	3.366E+02	3.338E+02	3.310E+02	3.283E+02	3.257E+02	3.231E+02	3.205E+02	3.180E+02	3.156E+02	3.131E+02	3.108E+02	3.084E+02	3.062E+02	3.039E+02	3.017E+02	2.995E+02	2.974E+02	2.953E+02	2.933E+02	2.913E+02	2.893E+02	2.874E+02	2.854E+02	2.835E+02	2.816E+02	2.797E+02	2.778E+02	2.759E+02	2.740E+02	2.721E+02	2.702E+02	2.683E+02	2.664E+02	2.645E+02	2.626E+02	2.607E+02	2.588E+02	2.569E+02	2.550E+02	2.531E+02	2.512E+02	2.493E+02	2.474E+02	2.455E+02	2.436E+02	2.417E+02	2.398E+02	2.379E+02	2.360E+02	2.341E+02	2.322E+02	2.303E+02	2.284E+02	2.265E+02	2.246E+02	2.227E+02	2.208E+02	2.189E+02	2.170E+02	2.151E+02	2.132E+02	2.113E+02	2.094E+02	2.075E+02	2.056E+02	2.037E+02	2.018E+02	1.999E+02	1.980E+02	1.961E+02	1.942E+02	1.923E+02	1.904E+02	1.885E+02	1.866E+02	1.847E+02	1.828E+02	1.809E+02	1.790E+02	1.771E+02	1.752E+02	1.733E+02	1.714E+02	1.695E+02	1.676E+02	1.657E+02	1.638E+02	1.619E+02	1.600E+02	1.581E+02	1.562E+02	1.543E+02	1.524E+02	1.505E+02	1.486E+02	1.467E+02	1.448E+02	1.429E+02	1.410E+02	1.391E+02	1.372E+02	1.353E+02	1.334E+02	1.315E+02	1.296E+02	1.277E+02	1.258E+02	1.239E+02	1.220E+02	1.201E+02	1.182E+02	1.163E+02	1.144E+02	1.125E+02	1.106E+02	1.087E+02	1.068E+02	1.049E+02	1.030E+02	1.011E+02	9.921E+01	9.731E+01	9.541E+01	9.351E+01	9.161E+01	8.971E+01	8.781E+01	8.591E+01	8.401E+01	8.211E+01	8.021E+01	7.831E+01	7.641E+01	7.451E+01	7.261E+01	7.071E+01	6.881E+01	6.691E+01	6.501E+01	6.311E+01	6.121E+01	5.931E+01	5.741E+01	5.551E+01	5.361E+01	5.171E+01	4.981E+01	4.791E+01	4.601E+01	4.411E+01	4.221E+01	4.031E+01	3.841E+01	3.651E+01	3.461E+01	3.271E+01	3.081E+01	2.891E+01	2.701E+01	2.511E+01	2.321E+01	2.131E+01	1.941E+01	1.751E+01	1.561E+01	1.371E+01	1.181E+01	9.91E+00	8.01E+00	6.11E+00	4.21E+00	2.31E+00	4.50E-01	2.60E-01	7.10E-02	5.20E-03	3.30E-04	1.40E-05	5.10E-07	3.20E-09	1.30E-11	5.00E-14	2.10E-16	8.00E-19	3.00E-21	1.00E-23	4.00E-26	1.50E-28	6.00E-31	2.50E-33	1.00E-35	4.00E-38	1.50E-40	6.00E-43	2.50E-45	1.00E-47	4.00E-50	1.50E-52	6.00E-55	2.50E-57	1.00E-59	4.00E-62	1.50E-64	6.00E-67	2.50E-69	1.00E-71	4.00E-74	1.50E-76	6.00E-79	2.50E-81	1.00E-83	4.00E-86	1.50E-88	6.00E-91	2.50E-93	1.00E-95	4.00E-98	1.50E-100	6.00E-103	2.50E-105	1.00E-107	4.00E-110	1.50E-112	6.00E-115	2.50E-117	1.00E-119	4.00E-122	1.50E-124	6.00E-127	2.50E-129	1.00E-131	4.00E-134	1.50E-136	6.00E-139	2.50E-141	1.00E-143	4.00E-146	1.50E-148	6.00E-151	2.50E-153	1.00E-155	4.00E-158	1.50E-160	6.00E-163	2.50E-165	1.00E-167	4.00E-170	1.50E-172	6.00E-175	2.50E-177	1.00E-179	4.00E-182	1.50E-184	6.00E-187	2.50E-189	1.00E-191	4.00E-194	1.50E-196	6.00E-199	2.50E-201	1.00E-203	4.00E-206	1.50E-208	6.00E-211	2.50E-213	1.00E-215	4.00E-218	1.50E-220	6.00E-223	2.50E-225	1.00E-227	4.00E-230	1.50E-232	6.00E-235	2.50E-237	1.00E-239	4.00E-242	1.50E-244	6.00E-247	2.50E-249	1.00E-251	4.00E-254	1.50E-256	6.00E-259	2.50E-261	1.00E-263	4.00E-266	1.50E-268	6.00E-271	2.50E-273	1.00E-275	4.00E-278	1.50E-280	6.00E-283	2.50E-285	1.00E-287	4.00E-290	1.50E-292	6.00E-295	2.50E-297	1.00E-299	4.00E-302	1.50E-304	6.00E-307	2.50E-309	1.00E-311	4.00E-314	1.50E-316	6.00E-319	2.50E-321	1.00E-323	4.00E-326	1.50E-328	6.00E-331	2.50E-333	1.00E-335	4.00E-338	1.50E-340	6.00E-343	2.50E-345	1.00E-347	4.00E-350	1.50E-352	6.00E-355	2.50E-357	1.00E-359	4.00E-362	1.50E-364	6.00E-367	2.50E-369	1.00E-371	4.00E-374	1.50E-376	6.00E-379	2.50E-381	1.00E-383	4.00E-386	1.50E-388	6.00E-391	2.50E-393	1.00E-395	4.00E-398	1.50E-400	6.00E-403	2.50E-405	1.00E-407	4.00E-410	1.50E-412	6.00E-415	2.50E-417	1.00E-419	4.00E-422	1.50E-424	6.00E-427	2.50E-429	1.00E-431	4.00E-434	1.50E-436	6.00E-439	2.50E-441	1.00E-443	4.00E-446	1.50E-448	6.00E-451	2.50E-453	1.00E-455	4.00E-458	1.50E-460	6.00E-463	2.50E-465	1.00E-467	4.00E-470	1.50E-472	6.00E-475	2.50E-477	1.00E-479	4.00E-482	1.50E-484	6.00E-487	2.50E-489	1.00E-491	4.00E-494	1.50E-496	6.00E-499	2.50E-501	1.00E-503	4.00E-506	1.50E-508	6.00E-511	2.50E-513	1.00E-515	4.00E-518	1.50E-520	6.00E-523	2.50E-525	1.00E-527	4.00E-530	1.50E-532	6.00E-535	2.50E-537	1.00E-539	4.00E-542	1.50E-544	6.00E-547	2.50E-549	1.00E-551	4.00E-554	1.50E-556	6.00E-559	2.50E-561	1.00E-563	4.00E-566	1.50E-568	6.00E-571	2.50E-573	1.00E-575	4.00E-578	1.50E-580	6.00E-583	2.50E-585	1.00E-587	4.00E-590	1.50E-592	6.00E-595	2.50E-597	1.00E-599	4.00E-602	1.50E-604	6.00E-607	2.50E-609	1.00E-611	4.00E-614	1.50E-616	6.00E-619	2.50E-621	1.00E-623	4.00E-626	1.50E-628	6.00E-631	2.50E-633	1.00E-635	4.00E-638	1.50E-640	6.00E-643	2.50E-645	1.00E-647	4.00E-650	1.50E-652	6.00E-655	2.50E-657	1.00E-659	4.00E-662	1.50E-664	6.00E-667	2.50E-669	1.00E-671	4.00E-674	1.50E-676	6.00E-679	2.50E-681	1.00E-683	4.00E-686	1.50E-688	6.00E-691	2.50E-693	1.00E-695	4.00E-698	1.50E-700	6.00E-703	2.50E-705	1.00E-707	4.00E-710	1.50E-712	6.00E-715	2.50E-717	1.00E-719	4.00E-722	1.50E-724	6.00E-727	2.50E-729	1.00E-731	4.00E-734	1.50E-736	6.00E-739	2.50E-741	1.00E-743	4.00E-746	1.50E-748	6.00E-751	2.50E-753	1.00E-755	4.00E-758	1.50E-760	6.00E-763	2.50E-765	1.00E-767	4.00E-770	1.50E-772	6.00E-775	2.50E-777	1.00E-779	4.00E-782	1.50E-784	6.00E-787	2.50E-789	1.00E-791	4.00E-794	1.50E-796	6.00E-799	2.50E-801	1.00E-803	4.00E-806	1.50E-808	6.00E-811	2.50E-813	1.00E-815	4.00E-818	1.50E-820	6.00E-823	2.50E-825	1.00E-827	4.00E-830	1.50E-832	6.00E-835	2.50E-837	1.00E-839	4.00E-842	1.50E-844	6.00E-847	2.50E-849	1.00E-851	4.00E-854	1.50E-856	6.00E-859	2.50E-861	1.00E-863	4.00E-866	1.50E-868	6.00E-871	2.50E-873	1.00E-875	4.00E-878	1.50E-880	6.00E-883	2.50E-885	1.00E-887	4.00E-890	1.50E-892	6.00E-895	2.50E-897	1.00E-899	4.00E-902	1.50E-904	6.00E-907	2.50E-909	1.00E-911	4.00E-914	1.50E-916	6.00E-919	2.50E-921	1.00E-923	4.00E-926	1.50E-928	6.00E-931	2.50E-933	1.00E-935	4.00E-938	1.50E-940	6.00E-943	2.50E-945	1.00E-947	4.00E-950	1.50E-952	6.00E-955	2.50E-957	1.00E-959	4.00E-962	1.50E-964	6.00E-967	2.50E-969	1.00E-971	4.00E-974	1.50E-976	6.00E-979	2.50E-981	1.00E-983	4.00E-986	1.50E-988	6.00E-991	2.50E-993	1.00E-995	4.00E-998	1.50E-1000	6.00E-1003	2.50E-1005	1.00E-1007	4.00E-1010	1.50E-1012	6.00E-1015	2.50E-1017	1.00E-1019	4.00E-1022	1.50E-1024	6.00E-1027	2.50E-1029	1.00E-1031	4.00E-1034	1.50E-1036	6.00E-1039	2.50E-1041	1.00E-1043	4.00E-1046	1.50E-1048	6.00E-1051	2.50E-1053	1.00E-1055	4.00E-1058	1.50E-1060	6.00E-1063	2.50E-1065	1.00E-1067	4.00E-1070	1.50E-1072	6.00E-1075	2.50E-1077	1.00E-1079	4.00E-1082	1.50E-1084	6.00E-1087	2.50E-1089	1.00E-1091	4.00E-1094	1.50E-1096	6.00E-1099	2.50E-1101	1.00E-1103	4.00E-1106	1.50E-1108	6.00E-1111	2.50E-1113	1.00E-1115	4.00E-1118	1.50E-1120	6.00E-1123	2.50E-1125	1.00E-1127	4.00E-1130	1.50E-1132	6.00E-1135	2.50E-1137	1.00E-1139	4.00E-1142	1.50E-1144	6.00E-1147	2.50E-1149	1.00E-1151	4.00E-1154	1.50E-1156	6.00E-1159	2.50E-1161	1.00E-1163	4.00E-1166	1.50E-1168	6.00E-1171	2.50E-1173	1.00E-1175	4.00E-1178	1.50E-1180	6.00E-1183	2.50E-1185	1.00E-1187	4.00E-1190	1.50E-1192	6.00E-1195	2.50E-1197	1.00E-1199	4.00E-1202	1.50E-1204	6.00E-1207	2.50E-1209	1.00E-1211	4.00E-1214	1.50E-1216	6.00E-1219	2.50E-1221	1.00E-1223	4.00E-1226	1.50E-1228	6.00E-1231	2.50E-1233	1.00E-1235	4.00E-1238	1.50E-1240	6.00E-1243	2.50E-1245	1.00E-1247	4.00E-1250	1.50E-1252	6.00E-1255	2.50E-1257	1.00E-1259	4.00E-1262	1.50E-1264	6.00E-1267	2.50E-1269	1.00E-1271	4.00E-1274	1.50E-1276	6.00E-1279	2.50E-1281	1.00E-1283	4.00E-1286	1.50E-1288	6.00E-1291	2.50E-1293	1.00E-1295	4.00E-1298	1.50E-1300	6.00E-1303	2.50E-1305	1.00E-1307	4.00E-1310	1.50E-1312	6.00E-1315	2.50E-1317	1.00E-1319	4.00E-1322	1.50E-1324	6.00E-1327	2.50E-1329	1.00E-1331	4.00E-1334	1.50E-1336	6.00E-1339	2.50E-1341	1.00E-1343	4.00E-1346	1.50E-1348	6.00E-1351	2.50E-1353	1.00E-1355	4.00E-1358	1.50E-1360	6.00E-1363	2.50E-1365	1.00E-1367	4.00E-1370	1.50E-1372	6.00E-1375	2.50E-1377	1.00E-1379	4.00E-1382	1.50E-1384	6.00E-1387	2.50E-1389	1.00E-1391	4.00E-1394	1.50E-1396	6.00E-1399	2.50E-1401	1.00E-1403	4.00E-1406	1.50E-1408	6.00E-1411	2.50E-1413	1.00E-1415	4.00E-1418	1.50E-1420	6.00E-1423	2.50E-1425	1.00E-1427	4.00E-1430	1.50E-1432	6.00E-1435	2.50E-1437	1.00E-1439	4.00E-1442	1.50E-1444	6.00E-1447	2.50E-1449	1.00E-1451	4.00E-1454	1.50E-1456	6.00E-1459	2.50E-1461	1.00E-1463	4.00E-1466	1.50E-1468	6.00E-1471	2.50E-1473	1.00E-1475	4.00E-1478	1.50E-1480	6.00E-1483	2
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4.257E+02 4.220E+02 4.183E+02 4.148E+02 4.112E+02 4.078E+02 4.044E+02 4.010E+02 3.977E+02 3.945E+02 3.652E+02 3.403E+02 2.605E+02 2.157E+02 1.884E+02 1.524E+02 1.305E+02 1.019E+02 7.720E+01 5.509E+01
4.473E+01 3.908E+01 3.589E+01 3.220E+01 2.999E+01 2.575E+01 2.135E+01 1.220E+01 4.378E+00 1.831E+00

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates **
/COM, ** Output of PHIA, SCS1: B00000000-01717-1200-3000X Rev.000 **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE **
/COM, ** Output File Name: pwr850a.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, ** Start Age (years): 2.1774 (RHBIII) **
/COM, ** Decay Period (years): 900000 **
/COM, ** Default average enrichment for the burnup specified **
/COM, ** Enrichment (percent): 1.69 **
/COM, ** Burnup (MWd/MTU): 10000 **
/COM, ** Assembly Type: PWR **
/COM, ** SNF U Mass (MTU/assy): 0.464 **
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts. **
/COM, ** ASSY(#,0) is the time post emplacement in years. **
/COM, *****
*SET,ASSY,
*DIM,ASSY,TABLE,135,1,
ASSY( 1,1)= 849.98, 844.51, 839.10, 833.75, 828.45, 823.21,
ASSY( 7,1)= 818.03, 812.91, 807.83, 802.82, 797.85, 773.80,
ASSY(13,1)= 750.96, 729.24, 708.58, 688.90, 670.14, 652.23,
ASSY(19,1)= 635.13, 618.78, 603.14, 588.15, 573.80, 560.03,
ASSY(25,1)= 546.82, 533.63, 520.55, 508.00, 495.94, 397.48,
ASSY(31,1)= 330.14, 283.63, 249.64, 225.73, 207.51, 194.73,
ASSY(37,1)= 184.47, 176.90, 170.56, 165.61, 161.36, 157.94,
ASSY(43,1)= 154.79, 151.91, 149.32, 147.08, 144.98, 129.47,
ASSY(49,1)= 118.38, 109.34, 101.49, 94.51, 88.23, 82.59,
ASSY(55,1)= 77.54, 72.97, 68.81, 65.07, 61.69, 58.60,
ASSY(61,1)= 55.82, 53.32, 51.05, 48.98, 47.17, 35.76,
ASSY(67,1)= 30.76, 27.87, 25.87, 24.11, 22.68, 21.34,
ASSY(73,1)= 20.20, 19.00, 17.96, 17.06, 16.26, 15.42,
ASSY(79,1)= 14.67, 14.00, 13.40, 12.85, 12.35, 8.73,
ASSY(85,1)= 7.05, 6.17, 5.70, 5.41, 5.18, 5.02,
ASSY(91,1)= 4.89, 4.73, 4.59, 4.46, 4.35, 4.22,
ASSY(97,1)= 4.11, 4.01, 3.91, 3.83, 3.74, 2.89,
ASSY(103,1)= 2.41, 1.91, 1.58, 1.35, 1.17, 1.04,
ASSY(109,1)= 0.930, 0.794, 0.688, 0.602, 0.533, 0.475,
ASSY(115,1)= 0.427, 0.386, 0.351, 0.321, 0.295, 0.151,
ASSY(121,1)= 0.093, 0.065, 0.048, 0.037, 0.030, 0.024,
ASSY(127,1)= 0.020, 0.017, 0.015, 0.013, 0.012, 0.010,
ASSY(133,1)= 0.009, 0.008, 0.008,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates **
/COM, ** Output of PHIA, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE **
/COM, ** Output File Name: pwr850b.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, ** Start Age (years): 3.2594 (RHBIII) **
/COM, ** Decay Period (years): 900000 **
/COM, ** Default average enrichment for the burnup specified **
/COM, ** Enrichment (percent): 2.44 **
/COM, ** Burnup (MWd/MTU): 20000 **
/COM, ** Assembly Type: PWR **
/COM, ** SNF U Mass (MTU/assy): 0.464 **
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts. **
/COM, ** ASSY(#,0) is the time post emplacement in years. **
/COM, *****
*SET,ASSY,
*DIM,ASSY,TABLE,135,1,
ASSY( 1,1)= 849.99, 846.54, 843.12, 839.72, 836.34, 832.99,
ASSY( 7,1)= 829.66, 826.35, 823.07, 819.81, 816.58, 800.72,
ASSY(13,1)= 785.40, 770.58, 756.25, 742.38, 728.95, 715.94,
ASSY(19,1)= 703.33, 691.10, 679.25, 667.74, 656.57, 645.98,
ASSY(25,1)= 636.74, 627.74, 618.97, 610.43, 602.11, 529.22,
ASSY(31,1)= 475.93, 436.01, 406.04, 383.30, 365.33, 351.03,
ASSY(37,1)= 339.21, 329.41, 321.21, 314.34, 307.90, 301.86,
ASSY(43,1)= 296.53, 291.81, 287.44, 283.38, 279.59, 250.19,
ASSY(49,1)= 228.23, 209.95, 194.05, 179.89, 167.24, 155.85,
ASSY(55,1)= 145.80, 136.62, 128.31, 120.83, 114.08, 107.99,
ASSY(61,1)= 102.46, 97.48, 93.00, 88.93, 85.33, 62.73,
ASSY(67,1)= 52.82, 47.09, 43.26, 40.00, 37.35, 34.93,
ASSY(73,1)= 32.87, 30.75, 28.93, 27.35, 25.95, 24.48,
ASSY(79,1)= 23.18, 22.02, 20.98, 20.05, 19.19, 12.99,
ASSY(85,1)= 10.10, 8.63, 7.85, 7.40, 7.03, 6.79,
ASSY(91,1)= 6.58, 6.34, 6.13, 5.94, 5.78, 5.60,
ASSY(97,1)= 5.43, 5.29, 5.15, 5.02, 4.91, 3.70,
ASSY(103,1)= 3.03, 2.39, 1.97, 1.67, 1.44, 1.27,
ASSY(109,1)= 1.14, 0.981, 0.857, 0.757, 0.675, 0.607,
ASSY(115,1)= 0.549, 0.500, 0.457, 0.420, 0.388, 0.207,
ASSY(121,1)= 0.133, 0.094, 0.071, 0.056, 0.045, 0.038,
ASSY(127,1)= 0.032, 0.028, 0.024, 0.021, 0.019, 0.017,
ASSY(133,1)= 0.015, 0.014, 0.013,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates **
/COM, ** Output of PHIA, SCSI: B00000000-01717-1200-3000X Rev.000 **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE **
/COM, ** Output File Name: pwr850c.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, ** Start Age (years): 4.4250 (RHBIII) **
/COM, ** Decay Period (years): 900000 **
/COM, ** Default average enrichment for the burnup specified **
/COM, ** Enrichment (percent): 3.11 **
/COM, ** Burnup (Mwd/MTU): 30000 **
/COM, ** Assembly Type: PWR **
/COM, ** SNF U Mass (MTU/assy): 0.464 **
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts. **
/COM, ** ASSY(#,0) is the time post emplacement in years. **
/COM, *****
*SET,ASSY,
*DIM,ASSY,TABLE,135,1,
ASSY( 1,1)= 850.00, 848.02, 846.06, 844.10, 842.15, 840.21,
ASSY( 7,1)= 838.27, 836.35, 834.44, 832.53, 830.63, 821.27,
ASSY(13,1)= 812.11, 803.15, 794.39, 785.81, 777.41, 769.19,
ASSY(19,1)= 761.13, 753.24, 746.10, 739.67, 733.35, 727.15,
ASSY(25,1)= 721.07, 715.09, 709.21, 703.44, 697.77, 645.99,
ASSY(31,1)= 608.79, 577.41, 553.58, 532.82, 516.20, 501.38,
ASSY(37,1)= 489.39, 478.55, 468.36, 458.83, 450.70, 443.19,
ASSY(43,1)= 436.32, 429.86, 423.85, 418.15, 413.17, 369.41,
ASSY(49,1)= 335.33, 307.20, 282.16, 260.20, 240.68, 223.51,
ASSY(55,1)= 207.90, 193.89, 181.29, 169.96, 159.76, 150.56,
ASSY(61,1)= 142.28, 134.78, 128.04, 122.13, 116.61, 82.82,
ASSY(67,1)= 68.04, 59.67, 54.25, 49.78, 46.19, 43.10,
ASSY(73,1)= 40.46, 37.80, 35.52, 33.55, 31.79, 30.00,
ASSY(79,1)= 28.42, 27.00, 25.74, 24.59, 23.54, 15.99,
ASSY(85,1)= 12.47, 10.66, 9.68, 9.11, 8.65, 8.34,
ASSY(91,1)= 8.07, 7.76, 7.48, 7.24, 7.02, 6.79,
ASSY(97,1)= 6.58, 6.39, 6.21, 6.05, 5.90, 4.38,
ASSY(103,1)= 3.54, 2.77, 2.27, 1.92, 1.66, 1.46,
ASSY(109,1)= 1.30, 1.13, 0.997, 0.887, 0.796, 0.719,
ASSY(115,1)= 0.655, 0.599, 0.551, 0.509, 0.472, 0.261,
ASSY(121,1)= 0.171, 0.124, 0.095, 0.076, 0.062, 0.052,
ASSY(127,1)= 0.045, 0.039, 0.034, 0.031, 0.027, 0.025,
ASSY(133,1)= 0.023, 0.021, 0.019,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates **
/COM, ** Output of PHIA, SCS1: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE **
/COM, ** Output File Name: pwr850d.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, ** Start Age (years): 6.5969 (RHBIII) **
/COM, ** Decay Period (years): 900000 **
/COM, ** Default average enrichment for the burnup specified **
/COM, ** Enrichment (percent): 3.72 **
/COM, ** Burnup (MWd/MTU): 40000 **
/COM, ** Assembly Type: PWR **
/COM, ** SNF U Mass (MTU/assy): 0.464 **
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts. **
/COM, ** ASSY(#,0) is the time post emplacement in years. **
/COM, *****
*SET,ASSY,
*DIM,ASSY,TABLE,135,1,
ASSY( 1,1)= 850.00, 849.13, 848.26, 847.40, 846.54, 845.68,
ASSY( 7,1)= 844.82, 843.96, 843.11, 842.26, 841.41, 837.19,
ASSY(13,1)= 833.03, 828.92, 824.86, 820.85, 816.88, 813.51,
ASSY(19,1)= 810.21, 806.95, 803.73, 800.53, 797.38, 794.25,
ASSY(25,1)= 791.16, 788.11, 785.08, 782.09, 779.13, 751.69,
ASSY(31,1)= 729.08, 708.97, 692.84, 677.72, 663.04, 649.64,
ASSY(37,1)= 638.30, 627.66, 617.76, 608.47, 599.99, 592.05,
ASSY(43,1)= 584.99, 577.94, 569.95, 562.50, 556.16, 501.26,
ASSY(49,1)= 456.46, 418.87, 385.31, 355.69, 329.35, 305.83,
ASSY(55,1)= 284.82, 266.05, 249.20, 233.99, 220.30, 207.97,
ASSY(61,1)= 196.83, 186.75, 177.66, 169.75, 162.19, 115.65,
ASSY(67,1)= 94.26, 81.70, 73.51, 66.90, 61.62, 57.20,
ASSY(73,1)= 53.44, 49.84, 46.76, 44.09, 41.71, 39.33,
ASSY(79,1)= 37.23, 35.36, 33.68, 32.16, 30.76, 20.82,
ASSY(85,1)= 16.21, 13.82, 12.54, 11.79, 11.18, 10.77,
ASSY(91,1)= 10.42, 10.01, 9.65, 9.33, 9.04, 8.74,
ASSY(97,1)= 8.47, 8.22, 8.00, 7.79, 7.59, 5.61,
ASSY(103,1)= 4.52, 3.55, 2.91, 2.46, 2.12, 1.87,
ASSY(109,1)= 1.66, 1.46, 1.29, 1.15, 1.04, 0.943,
ASSY(115,1)= 0.861, 0.791, 0.730, 0.677, 0.630, 0.357,
ASSY(121,1)= 0.238, 0.174, 0.135, 0.109, 0.090, 0.077,
ASSY(127,1)= 0.066, 0.058, 0.051, 0.046, 0.041, 0.037,
ASSY(133,1)= 0.034, 0.031, 0.029,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates **
/COM, ** Output of PHIA, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE **
/COM, ** Output File Name: pwr850e.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, ** Start Age (years): 11.1743 (RHBIII) **
/COM, ** Decay Period (years): 900000 **
/COM, ** Default average enrichment for the burnup specified **
/COM, ** Enrichment (percent): 4.26 **
/COM, ** Burnup (MWd/MTU): 50000 **
/COM, ** Assembly Type: PWR **
/COM, ** SNF U Mass (MTU/assy): 0.464 **
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts. **
/COM, ** ASSY(#,0) is the time post emplacement in years. **
/COM, *****
*SET, ASSY,
*DIM, ASSY, TABLE, 135, 1,
ASSY( 1,1)= 850.00, 849.68, 849.36, 849.05, 848.73, 848.41,
ASSY( 7,1)= 848.10, 847.78, 847.46, 847.15, 846.83, 845.27,
ASSY(13,1)= 843.71, 842.16, 840.62, 839.09, 837.57, 836.06,
ASSY(19,1)= 834.56, 833.06, 831.58, 830.11, 828.64, 827.18,
ASSY(25,1)= 825.73, 824.31, 822.92, 821.54, 820.16, 806.83,
ASSY(31,1)= 794.41, 782.96, 772.45, 763.10, 753.21, 742.00,
ASSY(37,1)= 731.88, 723.24, 714.88, 706.72, 698.81, 691.12,
ASSY(43,1)= 684.09, 678.03, 671.44, 663.75, 656.47, 594.72,
ASSY(49,1)= 542.54, 496.85, 456.64, 421.16, 389.58, 361.46,
ASSY(55,1)= 336.45, 313.99, 293.88, 275.80, 259.49, 244.83,
ASSY(61,1)= 231.56, 219.58, 209.17, 199.19, 190.27, 134.44,
ASSY(67,1)= 107.94, 92.41, 82.24, 74.31, 68.06, 63.06,
ASSY(73,1)= 58.79, 54.85, 51.48, 48.56, 45.93, 43.43,
ASSY(79,1)= 41.20, 39.21, 37.43, 35.81, 34.31, 23.79,
ASSY(85,1)= 18.88, 16.28, 14.85, 13.98, 13.27, 12.78,
ASSY(91,1)= 12.36, 11.85, 11.40, 11.01, 10.65, 10.29,
ASSY(97,1)= 9.95, 9.65, 9.37, 9.12, 8.88, 6.46,
ASSY(103,1)= 5.16, 4.02, 3.29, 2.77, 2.39, 2.09,
ASSY(109,1)= 1.86, 1.64, 1.46, 1.31, 1.19, 1.09,
ASSY(115,1)= 0.997, 0.920, 0.852, 0.793, 0.741, 0.432,
ASSY(121,1)= 0.295, 0.219, 0.172, 0.140, 0.117, 0.100,
ASSY(127,1)= 0.087, 0.077, 0.068, 0.061, 0.056, 0.051,
ASSY(133,1)= 0.047, 0.043, 0.040,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates **
/COM, ** Output of PHIA, SCS1: B00000000-01717-1200-3000X Rev.000 **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE **
/COM, ** Output File Name: pwr850f.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, ** Start Age (years): 19.7615 (RHBIII) **
/COM, ** Decay Period (years): 900000 **
/COM, ** Default average enrichment for the burnup specified **
/COM, ** Enrichment (percent): 4.73 **
/COM, ** Burnup (MWd/MTU): 60000 **
/COM, ** Assembly Type: PWR **
/COM, ** SNF U Mass (MTU/assy): 0.464 **
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts. **
/COM, ** ASSY(#,0) is the time post emplacement in years. **
/COM, *****
*SET,ASSY,
*DIM,ASSY,TABLE,135,1,
ASSY( 1,1)= 850.00, 849.84, 849.69, 849.54, 849.38, 849.23,
ASSY( 7,1)= 849.07, 848.92, 848.76, 848.61, 848.46, 847.69,
ASSY(13,1)= 846.92, 846.10, 845.07, 844.04, 843.01, 841.99,
ASSY(19,1)= 840.98, 839.96, 838.96, 837.95, 836.95, 835.95,
ASSY(25,1)= 834.96, 833.96, 832.98, 831.99, 831.01, 821.66,
ASSY(31,1)= 812.85, 804.28, 795.93, 787.70, 779.59, 771.71,
ASSY(37,1)= 764.06, 756.53, 749.11, 741.68, 734.26, 727.08,
ASSY(43,1)= 720.13, 713.29, 706.57, 700.21, 694.18, 631.90,
ASSY(49,1)= 578.22, 531.03, 490.23, 452.29, 419.48, 390.19,
ASSY(55,1)= 363.97, 340.43, 319.34, 300.32, 283.20, 267.73,
ASSY(61,1)= 254.49, 241.40, 229.92, 219.45, 209.92, 149.44,
ASSY(67,1)= 119.13, 101.20, 89.32, 80.21, 73.18, 67.65,
ASSY(73,1)= 62.94, 58.80, 55.25, 52.16, 49.40, 46.87,
ASSY(79,1)= 44.62, 42.60, 40.78, 39.12, 37.57, 26.89,
ASSY(85,1)= 21.86, 19.11, 17.55, 16.54, 15.73, 15.14,
ASSY(91,1)= 14.63, 14.01, 13.47, 12.98, 12.55, 12.10,
ASSY(97,1)= 11.69, 11.32, 10.98, 10.67, 10.37, 7.44,
ASSY(103,1)= 5.88, 4.57, 3.72, 3.12, 2.68, 2.35,
ASSY(109,1)= 2.08, 1.85, 1.65, 1.49, 1.36, 1.25,
ASSY(115,1)= 1.15, 1.06, 0.989, 0.924, 0.866, 0.518,
ASSY(121,1)= 0.360, 0.271, 0.215, 0.177, 0.150, 0.129,
ASSY(127,1)= 0.113, 0.100, 0.089, 0.081, 0.074, 0.067,
ASSY(133,1)= 0.062, 0.058, 0.054,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates **
/COM, ** Output of PHIA, SCS1: B00000000-01717-1200-3000X Rev.000 **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE **
/COM, ** Output File Name: pwr1500a.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, ** Start Age (years): 1.3574 (RHB111) **
/COM, ** Decay Period (years): 900000 **
/COM, ** Default average enrichment for the burnup specified **
/COM, ** Enrichment (percent): 1.69 **
/COM, ** Burnup (Mwd/MTU): 10000 **
/COM, ** Assembly Type: PHR **
/COM, ** SNF U Mass (MTU/assy): 0.464 **
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts.
/COM, ** ASSY(#,0) is the time post emplacement in years.
/COM, *****
*SET,ASSY
*DIM,ASSY,TABLE,135,1,
ASSY( 1,1)= 1500.00, 1487.32, 1474.84, 1462.56, 1450.46, 1438.55,
ASSY( 7,1)= 1426.82, 1415.26, 1403.88, 1392.67, 1381.63, 1328.77,
ASSY(13,1)= 1279.56, 1233.65, 1190.71, 1150.48, 1112.71, 1077.19,
ASSY(19,1)= 1043.73, 1012.15, 982.32, 953.18, 920.69, 890.05,
ASSY(25,1)= 861.11, 833.75, 807.83, 783.27, 759.95, 579.47,
ASSY(31,1)= 456.23, 369.73, 311.95, 269.61, 240.50, 218.17,
ASSY(37,1)= 202.70, 190.54, 181.65, 174.36, 168.72, 163.93,
ASSY(43,1)= 160.09, 156.76, 153.73, 150.92, 148.50, 131.57,
ASSY(49,1)= 120.01, 110.74, 102.70, 95.61, 89.21, 83.49,
ASSY(55,1)= 78.34, 73.69, 69.48, 65.67, 62.22, 59.08,
ASSY(61,1)= 56.27, 53.70, 51.40, 49.31, 47.47, 35.86,
ASSY(67,1)= 30.82, 27.90, 25.90, 24.14, 22.71, 21.36,
ASSY(73,1)= 20.22, 19.02, 17.98, 17.08, 16.28, 15.43,
ASSY(79,1)= 14.68, 14.01, 13.40, 12.86, 12.36, 8.74,
ASSY(85,1)= 7.05, 6.17, 5.70, 5.42, 5.18, 5.02,
ASSY(91,1)= 4.89, 4.73, 4.59, 4.46, 4.35, 4.22,
ASSY(97,1)= 4.11, 4.01, 3.91, 3.83, 3.74, 2.89,
ASSY(103,1)= 2.41, 1.91, 1.58, 1.35, 1.17, 1.04,
ASSY(109,1)= 0.930, 0.794, 0.688, 0.602, 0.533, 0.475,
ASSY(115,1)= 0.427, 0.386, 0.351, 0.321, 0.295, 0.151,
ASSY(121,1)= 0.093, 0.065, 0.048, 0.037, 0.030, 0.024,
ASSY(127,1)= 0.020, 0.017, 0.015, 0.013, 0.012, 0.010,
ASSY(133,1)= 0.009, 0.008, 0.008, 0.008, 0.008,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates **
/COM, ** Output of PHIA, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE **
/COM, ** Output File Name: pwr1500b.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, ** Start Age (years): 2.0912 (RHBIII) **
/COM, ** Decay Period (years): 900000 **
/COM, ** Default average enrichment for the burnup specified **
/COM, ** Enrichment (percent): 2.44 **
/COM, ** Burnup (MWd/MTU): 20000 **
/COM, ** Assembly Type: PWR **
/COM, ** SNF U Mass (MTU/assy): 0.464 **
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts. **
/COM, ** ASSY(#,0) is the time post emplacement in years. **
/COM, *****
*SET,ASSY,
*DIM,ASSY,TABLE,135,1,
ASSY( 1,1)= 1500.02, 1490.96, 1482.01, 1473.15, 1464.38, 1455.71,
ASSY( 7,1)= 1447.13, 1438.63, 1430.23, 1421.91, 1413.68, 1373.78,
ASSY(13,1)= 1335.85, 1299.75, 1265.36, 1232.56, 1201.26, 1171.34,
ASSY(19,1)= 1142.73, 1115.35, 1089.12, 1063.97, 1039.85, 1016.68,
ASSY(25,1)= 994.42, 973.02, 952.42, 931.86, 911.91, 747.38,
ASSY(31,1)= 630.99, 551.83, 491.09, 448.66, 414.42, 390.61,
ASSY(37,1)= 370.49, 355.67, 342.72, 332.61, 323.64, 316.59,
ASSY(43,1)= 310.03, 303.85, 298.18, 293.36, 288.85, 256.11,
ASSY(49,1)= 232.96, 214.00, 197.61, 183.07, 170.06, 158.44,
ASSY(55,1)= 148.11, 138.67, 130.19, 122.50, 115.60, 109.35,
ASSY(61,1)= 103.70, 98.60, 94.02, 89.85, 86.19, 63.03,
ASSY(67,1)= 52.98, 47.19, 43.35, 40.06, 37.41, 34.98,
ASSY(73,1)= 32.93, 30.80, 28.97, 27.39, 25.99, 24.51,
ASSY(79,1)= 23.21, 22.05, 21.01, 20.07, 19.21, 12.99,
ASSY(85,1)= 10.11, 8.63, 7.85, 7.40, 7.03, 6.79,
ASSY(91,1)= 6.58, 6.34, 6.13, 5.94, 5.78, 5.60,
ASSY(97,1)= 5.43, 5.29, 5.15, 5.02, 4.91, 3.70,
ASSY(103,1)= 3.03, 2.39, 1.97, 1.67, 1.44, 1.27,
ASSY(109,1)= 1.14, 0.981, 0.857, 0.757, 0.675, 0.607,
ASSY(115,1)= 0.549, 0.500, 0.457, 0.420, 0.388, 0.207,
ASSY(121,1)= 0.133, 0.094, 0.071, 0.056, 0.045, 0.038,
ASSY(127,1)= 0.032, 0.028, 0.024, 0.021, 0.019, 0.017,
ASSY(133,1)= 0.015, 0.014, 0.013,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates **
/COM, ** Output of PHIA, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE **
/COM, ** Output File Name: pwr1500c.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, ** Start Age (years): 2.6876 (RHBIII) **
/COM, ** Decay Period (years): 900000 **
/COM, ** Default average enrichment for the burnup specified **
/COM, ** Enrichment (percent): 3.11 **
/COM, ** Burnup (MWd/MTU): 30000 **
/COM, ** Assembly Type: PWR **
/COM, ** SNF U Mass (MTU/assy): 0.464 **
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts. **
/COM, ** ASSY(#,0) is the time post emplacement in years. **
/COM, *****
*SET,ASSY,
*DIM,ASSY,TABLE,135,1,
ASSY( 1,1)= 1500.03, 1493.66, 1487.34, 1481.06, 1474.84, 1468.67,
ASSY( 7,1)= 1462.54, 1456.47, 1450.44, 1444.45, 1438.52, 1409.50,
ASSY(13,1)= 1381.56, 1354.65, 1328.69, 1303.20, 1278.45, 1254.56,
ASSY(19,1)= 1231.49, 1209.19, 1187.62, 1166.76, 1146.56, 1127.00,
ASSY(25,1)= 1108.06, 1089.69, 1071.88, 1054.60, 1037.83, 899.75,
ASSY(31,1)= 800.93, 725.61, 669.51, 625.19, 591.81, 564.22,
ASSY(37,1)= 542.41, 523.72, 508.26, 494.82, 483.59, 473.12,
ASSY(43,1)= 463.28, 454.43, 446.70, 439.51, 432.88, 382.63,
ASSY(49,1)= 346.30, 316.31, 290.43, 267.53, 247.20, 229.07,
ASSY(55,1)= 213.13, 198.57, 185.53, 173.76, 163.17, 153.63,
ASSY(61,1)= 145.05, 137.29, 130.29, 123.98, 118.48, 83.48,
ASSY(67,1)= 68.39, 59.89, 54.43, 49.92, 46.31, 43.20,
ASSY(73,1)= 40.56, 37.88, 35.60, 33.61, 31.86, 30.06,
ASSY(79,1)= 28.47, 27.05, 25.78, 24.63, 23.58, 16.01,
ASSY(85,1)= 12.48, 10.66, 9.68, 9.12, 8.65, 8.34,
ASSY(91,1)= 8.07, 7.76, 7.48, 7.24, 7.02, 6.79,
ASSY(97,1)= 6.58, 6.39, 6.21, 6.05, 5.90, 4.38,
ASSY(103,1)= 3.54, 2.77, 2.27, 1.92, 1.66, 1.46,
ASSY(109,1)= 1.30, 1.13, 0.997, 0.887, 0.796, 0.719,
ASSY(115,1)= 0.655, 0.599, 0.551, 0.509, 0.472, 0.261,
ASSY(121,1)= 0.171, 0.124, 0.095, 0.076, 0.062, 0.052,
ASSY(127,1)= 0.045, 0.039, 0.034, 0.031, 0.027, 0.025,
ASSY(133,1)= 0.023, 0.021, 0.019,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates
/COM, ** Output of PHIA, SCS1: B00000000-01717-1200-3000X Rev.000
/COM, **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE
/COM, ** Output File Name: pwr1500d.dat
/COM, ** Execution Date: 08/12/97
/COM, ** Start Age (years): 3.4801 (RHB111)
/COM, ** Decay Period (years): 900000
/COM, ** Default average enrichment for the burnup specified
/COM, ** Enrichment (percent): 3.72
/COM, ** Burnup (MWD/MTU): 40000
/COM, ** Assembly Type: PUR
/COM, ** SNF U Mass (MTU/assy): 0.464
/COM, **
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts.
/COM, ** ASSY(#,0) is the time post emplacement in years.
/COM, *****
*SET ASSY
**DIM ASSY, TABLE, 135, 1
ASSY( 1,1)= 1499.99, 1495.46, 1490.95, 1486.47, 1482.01, 1477.58,
ASSY( 7,1)= 1473.18, 1468.80, 1464.45, 1460.12, 1455.81, 1451.66,
ASSY(13,1)= 1414.10, 1394.10, 1374.65, 1355.72, 1337.29, 1319.34,
ASSY(19,1)= 1301.86, 1285.97, 1271.22, 1256.81, 1242.73, 1228.98,
ASSY(25,1)= 1215.54, 1202.40, 1189.55, 1176.98, 1164.69, 1054.89,
ASSY(31,1)= 975.48, 908.64, 860.31, 818.21, 786.10, 757.40,
ASSY(37,1)= 734.18, 713.04, 696.50, 681.27, 666.38, 652.46,
ASSY(43,1)= 640.89, 630.07, 620.02, 610.53, 601.93, 593.72,
ASSY(49,1)= 483.36, 441.44, 405.68, 373.72, 345.41, 320.16,
ASSY(55,1)= 297.58, 277.53, 259.48, 243.28, 228.66, 215.52,
ASSY(61,1)= 203.64, 192.92, 183.22, 174.45, 166.77, 117.40,
ASSY(67,1)= 95.22, 82.29, 73.98, 67.27, 61.92, 57.45,
ASSY(73,1)= 53.69, 50.04, 46.93, 44.24, 41.86, 39.47,
ASSY(79,1)= 37.35, 35.47, 33.78, 32.25, 30.85, 20.86,
ASSY(85,1)= 16.22, 13.83, 12.54, 11.79, 11.18, 10.78,
ASSY(91,1)= 10.43, 10.02, 9.65, 9.33, 9.05, 8.74,
ASSY(97,1)= 8.47, 8.22, 8.00, 7.79, 7.59, 5.61,
ASSY(103,1)= 4.52, 3.55, 2.91, 2.46, 2.12, 1.87,
ASSY(109,1)= 1.66, 1.46, 1.29, 1.15, 1.04, 0.943,
ASSY(115,1)= 0.861, 0.791, 0.730, 0.677, 0.630, 0.557,
ASSY(121,1)= 0.238, 0.174, 0.135, 0.109, 0.090, 0.077,
ASSY(127,1)= 0.066, 0.058, 0.051, 0.046, 0.041, 0.037,
ASSY(133,1)= 0.034, 0.031, 0.029, 0.029, 0.029, 0.037,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates **
/COM, ** Output of PHIA, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE **
/COM, ** Output File Name: pwr1500e.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, ** Start Age (years): 4.5045 (RHBIII) **
/COM, ** Decay Period (years): 900000 **
/COM, ** Default average enrichment for the burnup specified **
/COM, ** Enrichment (percent): 4.26 **
/COM, ** Burnup (Mwd/MTU): 50000 **
/COM, ** Assembly Type: PWR **
/COM, ** SNF U Mass (MTU/assy): 0.464 **
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts. **
/COM, ** ASSY(#,0) is the time post emplacement in years. **
/COM, *****
*SET,ASSY,
*DIM,ASSY,TABLE,135,1,
ASSY( 1,1)= 1500.01, 1497.12, 1494.24, 1491.37, 1488.51, 1485.66,
ASSY( 7,1)= 1482.83, 1480.01, 1477.20, 1474.40, 1471.61, 1457.83,
ASSY(13,1)= 1444.34, 1431.10, 1418.13, 1405.40, 1392.92, 1380.67,
ASSY(19,1)= 1368.77, 1358.27, 1347.94, 1337.80, 1327.83, 1318.02,
ASSY(25,1)= 1308.39, 1298.91, 1289.58, 1280.41, 1271.39, 1188.65,
ASSY(31,1)= 1127.76, 1074.23, 1032.51, 994.99, 964.48, 936.61,
ASSY(37,1)= 914.22, 893.48, 873.81, 855.47, 839.69, 824.87,
ASSY(43,1)= 811.28, 798.44, 786.78, 775.72, 766.23, 680.07,
ASSY(49,1)= 613.97, 559.48, 511.47, 469.50, 432.52, 400.23,
ASSY(55,1)= 370.43, 344.48, 321.21, 300.36, 281.62, 264.76,
ASSY(61,1)= 249.56, 235.83, 223.47, 212.67, 202.38, 139.23,
ASSY(67,1)= 110.57, 94.00, 83.46, 75.26, 68.81, 63.68,
ASSY(73,1)= 59.37, 55.34, 51.90, 48.92, 46.29, 43.74,
ASSY(79,1)= 41.48, 39.47, 37.65, 36.02, 34.51, 23.88,
ASSY(85,1)= 18.93, 16.30, 14.86, 13.99, 13.27, 12.79,
ASSY(91,1)= 12.37, 11.86, 11.41, 11.01, 10.66, 10.29,
ASSY(97,1)= 9.96, 9.65, 9.37, 9.12, 8.88, 6.46,
ASSY(103,1)= 5.16, 4.03, 3.29, 2.77, 2.39, 2.09,
ASSY(109,1)= 1.86, 1.64, 1.46, 1.31, 1.19, 1.09,
ASSY(115,1)= 0.997, 0.920, 0.852, 0.793, 0.741, 0.432,
ASSY(121,1)= 0.295, 0.219, 0.172, 0.140, 0.117, 0.100,
ASSY(127,1)= 0.087, 0.077, 0.068, 0.061, 0.056, 0.051,
ASSY(133,1)= 0.047, 0.043, 0.040,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates **
/COM, ** Output of PHIA, SCSI: B00000000-01717-1200-3000X Rev.000 **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE **
/COM, ** Output File Name: pwr1500f.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, ** Start Age (years): 6.0238 (RHBIII) **
/COM, ** Decay Period (years): 900000 **
/COM, ** Default average enrichment for the burnup specified **
/COM, ** Enrichment (percent): 4.73 **
/COM, ** Burnup (MWd/MTU): 60000 **
/COM, ** Assembly Type: PWR **
/COM, ** SNF U Mass (MTU/assy): 0.464 **
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts. **
/COM, ** ASSY(#,0) is the time post emplacement in years. **
/COM, *****
*SET,ASSY,
*DIM,ASSY, TABLE, 135, 1,
ASSY( 1,1)= 1500.00, 1498.40, 1496.80, 1495.21, 1493.63, 1492.04,
ASSY( 7,1)= 1490.46, 1488.89, 1487.32, 1485.75, 1484.19, 1476.45,
ASSY(13,1)= 1468.81, 1461.27, 1453.82, 1446.47, 1439.22, 1432.06,
ASSY(19,1)= 1424.99, 1418.01, 1411.11, 1404.30, 1397.57, 1390.93,
ASSY(25,1)= 1384.36, 1377.87, 1371.46, 1365.13, 1359.21, 1306.99,
ASSY(31,1)= 1260.15, 1221.55, 1186.42, 1157.87, 1131.35, 1105.50,
ASSY(37,1)= 1081.51, 1061.24, 1042.22, 1024.85, 1008.44, 993.01,
ASSY(43,1)= 978.43, 965.87, 953.74, 939.29, 925.58, 825.95,
ASSY(49,1)= 745.28, 677.13, 617.78, 565.84, 519.94, 479.60,
ASSY(55,1)= 443.65, 411.79, 383.28, 357.77, 334.91, 314.36,
ASSY(61,1)= 295.86, 279.16, 264.09, 250.91, 238.39, 161.29,
ASSY(67,1)= 125.71, 105.15, 92.27, 82.49, 74.89, 69.07,
ASSY(73,1)= 64.20, 59.87, 56.17, 52.97, 50.15, 47.53,
ASSY(79,1)= 45.21, 43.13, 41.26, 39.56, 38.00, 27.06,
ASSY(85,1)= 21.95, 19.16, 17.58, 16.57, 15.75, 15.16,
ASSY(91,1)= 14.65, 14.03, 13.48, 13.00, 12.56, 12.11,
ASSY(97,1)= 11.70, 11.33, 10.99, 10.67, 10.38, 7.45,
ASSY(103,1)= 5.89, 4.57, 3.72, 3.12, 2.68, 2.35,
ASSY(109,1)= 2.08, 1.85, 1.65, 1.49, 1.36, 1.25,
ASSY(115,1)= 1.15, 1.06, 0.989, 0.924, 0.866, 0.518,
ASSY(121,1)= 0.360, 0.271, 0.215, 0.177, 0.150, 0.129,
ASSY(127,1)= 0.113, 0.100, 0.089, 0.081, 0.074, 0.067,
ASSY(133,1)= 0.062, 0.058, 0.054,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates **
/COM, ** Output of PHIA, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE **
/COM, ** Output File Name: stx1500f.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, ** Start Age (years): 7.8107 (RHBIII) **
/COM, ** Decay Period (years): 900000 **
/COM, ** Default average enrichment for the burnup specified **
/COM, ** Enrichment (percent): 4.73 **
/COM, ** Burnup (MWd/MTU): 60000 **
/COM, ** Assembly Type: PWR **
/COM, ** SNF U Mass (MTU/assy): 0.544 **
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts. **
/COM, ** ASSY(#,0) is the time post emplacement in years. **
/COM, *****
*SET,ASSY,
*DIM,ASSY,TABLE,135,1,
ASSY( 1,1)= 1500.01, 1498.91, 1497.82, 1496.73, 1495.65, 1494.56,
ASSY( 7,1)= 1493.48, 1492.40, 1491.32, 1490.25, 1489.17, 1488.09,
ASSY(13,1)= 1478.66, 1473.93, 1469.25, 1464.61, 1460.01, 1455.46,
ASSY(19,1)= 1450.94, 1446.47, 1442.04, 1437.65, 1433.29, 1428.98,
ASSY(25,1)= 1424.70, 1420.46, 1416.26, 1412.09, 1407.96, 1371.45,
ASSY(31,1)= 1339.42, 1308.75, 1279.66, 1254.16, 1231.23, 1210.09,
ASSY(37,1)= 1190.38, 1171.81, 1154.26, 1138.59, 1124.26, 1108.36,
ASSY(43,1)= 1091.87, 1077.30, 1064.04, 1051.17, 1038.73, 932.22,
ASSY(49,1)= 843.50, 767.59, 701.37, 643.40, 592.07, 546.71,
ASSY(55,1)= 506.31, 470.42, 438.31, 409.56, 383.74, 360.52,
ASSY(61,1)= 339.61, 320.76, 303.73, 288.66, 274.68, 187.16,
ASSY(67,1)= 146.32, 122.65, 107.71, 96.36, 87.54, 80.76,
ASSY(73,1)= 75.08, 70.03, 65.71, 61.98, 58.68, 55.63,
ASSY(79,1)= 52.92, 50.49, 48.30, 46.32, 44.49, 31.70,
ASSY(85,1)= 25.72, 22.46, 20.60, 19.42, 18.46, 17.77,
ASSY(91,1)= 17.17, 16.44, 15.80, 15.24, 14.73, 14.20,
ASSY(97,1)= 13.72, 13.28, 12.88, 12.51, 12.17, 8.73,
ASSY(103,1)= 6.90, 5.36, 4.36, 3.66, 3.15, 2.75,
ASSY(109,1)= 2.44, 2.16, 1.94, 1.75, 1.59, 1.46,
ASSY(115,1)= 1.35, 1.25, 1.16, 1.08, 1.02, 0.607,
ASSY(121,1)= 0.422, 0.318, 0.252, 0.208, 0.175, 0.151,
ASSY(127,1)= 0.132, 0.117, 0.105, 0.095, 0.086, 0.079,
ASSY(133,1)= 0.073, 0.067, 0.063,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates **
/COM, ** Output of PHIA, SCSI: B00000000-01717-1200-3000x Rev.000 **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE **
/COM, ** Output File Name: bwr400a.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, ** Start Age (years): 1.9978 (RHBIII) **
/COM, ** Decay Period (years): 900000 **
/COM, ** Default average enrichment for the burnup specified **
/COM, ** Enrichment (percent): 1.30 **
/COM, ** Burnup (Mwd/MTU): 10000 **
/COM, ** Assembly Type: BWR **
/COM, ** SNF U Mass (MTU/assy): 0.200 **
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts. **
/COM, ** ASSY(#,0) is the time post emplacement in years. **
/COM, *****
*SET,ASSY,
*DIM,ASSY,TABLE,135,1,
ASSY( 1,1)= 400.00, 397.40, 394.73, 392.08, 389.46, 386.88,
ASSY( 7,1)= 384.32, 381.79, 379.29, 376.82, 374.38, 362.57,
ASSY(13,1)= 351.39, 340.79, 330.74, 321.19, 312.11, 303.46,
ASSY(19,1)= 295.22, 287.36, 279.86, 272.69, 265.84, 259.28,
ASSY(25,1)= 252.99, 246.96, 241.18, 235.63, 230.30, 183.87,
ASSY(31,1)= 151.29, 129.76, 113.12, 102.16, 93.09, 87.26,
ASSY(37,1)= 82.20, 78.77, 75.70, 73.48, 71.45, 69.95,
ASSY(43,1)= 68.56, 67.30, 66.12, 65.17, 64.27, 58.03,
ASSY(49,1)= 53.67, 50.12, 47.03, 44.24, 41.70, 39.39,
ASSY(55,1)= 37.30, 35.41, 33.67, 32.10, 30.66, 29.35,
ASSY(61,1)= 28.16, 27.08, 26.08, 25.18, 24.42, 19.21,
ASSY(67,1)= 16.76, 15.21, 14.09, 13.08, 12.26, 11.49,
ASSY(73,1)= 10.83, 10.14, 9.55, 9.03, 8.57, 8.09,
ASSY(79,1)= 7.65, 7.27, 6.93, 6.61, 6.33, 4.27,
ASSY(85,1)= 3.32, 2.84, 2.58, 2.44, 2.32, 2.25,
ASSY(91,1)= 2.18, 2.11, 2.04, 1.98, 1.93, 1.87,
ASSY(97,1)= 1.82, 1.77, 1.73, 1.69, 1.65, 1.27,
ASSY(103,1)= 1.05, 0.827, 0.682, 0.580, 0.503, 0.444,
ASSY(109,1)= 0.398, 0.339, 0.294, 0.257, 0.228, 0.203,
ASSY(115,1)= 0.182, 0.165, 0.150, 0.137, 0.126, 0.064,
ASSY(121,1)= 0.040, 0.028, 0.020, 0.016, 0.013, 0.010,
ASSY(127,1)= 0.009, 0.007, 0.006, 0.006, 0.005, 0.004,
ASSY(133,1)= 0.004, 0.004, 0.003,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates
/COM, ** Output of PHIA, SCS1: B00000000-01717-1200-3000X Rev.000
/COM, **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE
/COM, ** Output File Name: bwr400b.dat
/COM, ** Execution Date: 08/12/97
/COM, ** Start Age (years): 2.9174 (RH8111)
/COM, ** Decay Period (years): 900000
/COM, ** Default average enrichment for the burnup specified
/COM, ** Enrichment (percent): 2.21
/COM, ** Burnup (MWD/MTU): 20000
/COM, ** Assembly Type: BUR
/COM, ** SNF U Mass (MTU/assy): 0.200
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts.
/COM, ** ASSY(#,0) is the time post emplacement in years.
/COM, *****
*SET,ASSY
*DIM,ASSY,TABLE,135,1,
ASSY( 1,1)= 400.00, 398.36, 396.74, 395.12, 393.52, 391.93,
ASSY( 7,1)= 390.35, 388.79, 387.23, 385.65, 384.07, 376.33,
ASSY(13,1)= 368.87, 361.68, 354.73, 348.02, 341.54, 335.27,
ASSY(19,1)= 329.20, 323.34, 317.65, 312.15, 306.82, 301.64,
ASSY(25,1)= 296.63, 291.76, 287.04, 282.45, 277.99, 273.38,
ASSY(31,1)= 216.78, 198.07, 182.91, 172.21, 163.28, 156.63,
ASSY(37,1)= 150.88, 146.37, 142.36, 139.19, 136.35, 133.64,
ASSY(43,1)= 131.10, 128.99, 127.06, 125.29, 123.63, 121.03,
ASSY(49,1)= 101.74, 93.98, 87.23, 81.17, 75.75, 70.87,
ASSY(55,1)= 66.51, 62.55, 58.98, 55.74, 52.81, 50.16,
ASSY(61,1)= 47.75, 45.58, 43.59, 41.80, 40.26, 38.11,
ASSY(67,1)= 25.50, 22.72, 20.81, 19.17, 17.85, 16.65,
ASSY(73,1)= 15.62, 14.57, 13.67, 12.89, 12.20, 11.47,
ASSY(79,1)= 10.85, 10.26, 9.75, 9.29, 8.87, 8.44,
ASSY(85,1)= 4.44, 3.73, 3.36, 3.15, 2.99, 2.88,
ASSY(91,1)= 2.79, 2.68, 2.59, 2.51, 2.44, 2.36,
ASSY(97,1)= 2.29, 2.23, 2.17, 2.12, 2.07, 2.01,
ASSY(103,1)= 1.27, 0.996, 0.819, 0.694, 0.601, 0.530,
ASSY(109,1)= 0.473, 0.409, 0.359, 0.318, 0.284, 0.256,
ASSY(115,1)= 0.232, 0.212, 0.194, 0.179, 0.166, 0.150,
ASSY(121,1)= 0.058, 0.041, 0.031, 0.025, 0.020, 0.017,
ASSY(127,1)= 0.015, 0.013, 0.011, 0.010, 0.009, 0.008,
ASSY(133,1)= 0.007, 0.007, 0.006, 0.006, 0.009, 0.008,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates **
/COM, ** Output of PHIA, SCSI: B00000000-01717-1200-3000X Rev.000 **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE **
/COM, ** Output File Name: bwr400c.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, ** Start Age (years): 3.9422 (RHBIII) **
/COM, ** Decay Period (years): 900000 **
/COM, ** Default average enrichment for the burnup specified **
/COM, ** Enrichment (percent): 2.93 **
/COM, ** Burnup (MWd/MTU): 30000 **
/COM, ** Assembly Type: BWR **
/COM, ** SNF U Mass (MTU/assy): 0.200 **
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts. **
/COM, ** ASSY(#,0) is the time post emplacement in years. **
/COM, *****
*SET,ASSY,
*DIM,ASSY,TABLE,135,1,
ASSY( 1,1)= 400.00, 398.91, 397.83, 396.76, 395.69, 394.63,
ASSY( 7,1)= 393.60, 392.68, 391.77, 390.86, 389.95, 385.49,
ASSY(13,1)= 381.14, 376.88, 372.73, 368.66, 364.69, 360.80,
ASSY(19,1)= 357.00, 353.28, 349.64, 346.08, 342.59, 339.17,
ASSY(25,1)= 335.83, 332.55, 329.33, 326.18, 323.10, 298.64,
ASSY(31,1)= 278.35, 263.59, 250.96, 241.27, 232.73, 225.86,
ASSY(37,1)= 219.68, 214.86, 210.49, 206.05, 201.87, 198.44,
ASSY(43,1)= 195.27, 192.37, 189.63, 187.07, 184.65, 165.27,
ASSY(49,1)= 150.51, 138.03, 127.28, 117.64, 109.03, 101.34,
ASSY(55,1)= 94.46, 88.31, 82.76, 77.77, 73.27, 69.22,
ASSY(61,1)= 65.56, 62.26, 59.25, 56.55, 54.19, 38.95,
ASSY(67,1)= 32.09, 28.08, 25.44, 23.26, 21.51, 20.00,
ASSY(73,1)= 18.72, 17.43, 16.34, 15.39, 14.55, 13.69,
ASSY(79,1)= 12.93, 12.26, 11.66, 11.12, 10.62, 7.04,
ASSY(85,1)= 5.38, 4.53, 4.09, 3.83, 3.62, 3.49,
ASSY(91,1)= 3.37, 3.24, 3.13, 3.02, 2.93, 2.83,
ASSY(97,1)= 2.75, 2.67, 2.59, 2.52, 2.46, 1.82,
ASSY(103,1)= 1.47, 1.15, 0.943, 0.797, 0.689, 0.606,
ASSY(109,1)= 0.540, 0.472, 0.418, 0.373, 0.336, 0.305,
ASSY(115,1)= 0.279, 0.256, 0.236, 0.219, 0.204, 0.115,
ASSY(121,1)= 0.077, 0.056, 0.043, 0.035, 0.029, 0.025,
ASSY(127,1)= 0.021, 0.019, 0.016, 0.015, 0.013, 0.012,
ASSY(133,1)= 0.011, 0.010, 0.009,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates **
/COM, ** Output of PHIA, SCSI: B00000000-01717-1200-3000X Rev.000 **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE **
/COM, ** Output File Name: bwr400d.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, ** Start Age (years): 7.8481 (RHBIII) **
/COM, ** Decay Period (years): 900000 **
/COM, ** Default average enrichment for the burnup specified **
/COM, ** Enrichment (percent): 3.44 **
/COM, ** Burnup (Mwd/MTU): 40000 **
/COM, ** Assembly Type: BWR **
/COM, ** SNF U Mass (MTU/assy): 0.200 **
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts. **
/COM, ** ASSY(#,0) is the time post emplacement in years. **
/COM, *****
*SET,ASSY,
*DIM,ASSY,TABLE,135,1,
ASSY( 1,1)= 400.00, 399.72, 399.44, 399.16, 398.88, 398.60,
ASSY( 7,1)= 398.33, 398.05, 397.77, 397.50, 397.22, 395.85,
ASSY(13,1)= 394.63, 393.42, 392.23, 391.04, 389.87, 388.70,
ASSY(19,1)= 387.55, 386.41, 385.27, 384.15, 383.04, 381.93,
ASSY(25,1)= 380.84, 379.76, 378.68, 377.61, 376.56, 367.33,
ASSY(31,1)= 359.17, 351.56, 344.46, 338.13, 332.30, 326.92,
ASSY(37,1)= 321.88, 317.16, 312.71, 308.67, 304.91, 300.93,
ASSY(43,1)= 296.97, 293.37, 290.00, 286.64, 283.37, 255.74,
ASSY(49,1)= 232.65, 213.14, 195.85, 180.63, 167.18, 155.10,
ASSY(55,1)= 144.48, 135.01, 126.54, 118.92, 112.08, 105.90,
ASSY(61,1)= 100.34, 95.32, 90.77, 86.80, 83.05, 59.48,
ASSY(67,1)= 48.20, 41.37, 36.87, 33.27, 30.43, 28.12,
ASSY(73,1)= 26.16, 24.33, 22.76, 21.41, 20.20, 19.02,
ASSY(79,1)= 17.97, 17.05, 16.21, 15.46, 14.77, 9.88,
ASSY(85,1)= 7.62, 6.45, 5.82, 5.46, 5.16, 4.97,
ASSY(91,1)= 4.81, 4.61, 4.44, 4.28, 4.15, 4.00,
ASSY(97,1)= 3.88, 3.76, 3.65, 3.56, 3.46, 2.53,
ASSY(103,1)= 2.03, 1.58, 1.30, 1.09, 0.945, 0.831,
ASSY(109,1)= 0.740, 0.653, 0.583, 0.525, 0.476, 0.435,
ASSY(115,1)= 0.400, 0.370, 0.343, 0.320, 0.299, 0.176,
ASSY(121,1)= 0.121, 0.090, 0.071, 0.058, 0.049, 0.042,
ASSY(127,1)= 0.036, 0.032, 0.029, 0.026, 0.024, 0.021,
ASSY(133,1)= 0.020, 0.018, 0.017,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates **
/COM, ** Output of PHIA, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE **
/COM, ** Output File Name: bwr400e.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, ** Start Age (years): 10.9614 (RHBIII) **
/COM, ** Decay Period (years): 900000 **
/COM, ** Default average enrichment for the burnup specified **
/COM, ** Enrichment (percent): 3.74 **
/COM, ** Burnup (MWd/MTU): 50000 **
/COM, ** Assembly Type: BWR **
/COM, ** SNF U Mass (MTU/assy): 0.200 **
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts. **
/COM, ** ASSY(#,0) is the time post emplacement in years. **
/COM, *****
*SET,ASSY,
*DIM,ASSY,TABLE,135,1,
ASSY( 1,1)= 400.00, 399.84, 399.69, 399.53, 399.38, 399.23,
ASSY( 7,1)= 399.09, 398.94, 398.79, 398.65, 398.50, 397.78,
ASSY(13,1)= 397.06, 396.34, 395.63, 394.92, 394.22, 393.52,
ASSY(19,1)= 392.82, 392.13, 391.45, 390.76, 390.09, 389.41,
ASSY(25,1)= 388.74, 388.08, 387.41, 386.76, 386.10, 379.90,
ASSY(31,1)= 374.04, 368.57, 363.39, 358.65, 354.14, 349.36,
ASSY(37,1)= 344.75, 340.53, 336.50, 332.62, 328.88, 325.21,
ASSY(43,1)= 321.67, 318.58, 315.62, 312.11, 308.66, 279.40,
ASSY(49,1)= 254.59, 232.95, 214.14, 197.40, 182.67, 169.49,
ASSY(55,1)= 157.90, 147.54, 138.25, 129.92, 122.43, 115.71,
ASSY(61,1)= 109.62, 104.12, 99.43, 94.79, 90.69, 64.68,
ASSY(67,1)= 51.94, 44.20, 39.13, 35.11, 31.97, 29.48,
ASSY(73,1)= 27.37, 25.45, 23.82, 22.40, 21.13, 19.93,
ASSY(79,1)= 18.87, 17.92, 17.07, 16.30, 15.58, 10.60,
ASSY(85,1)= 8.29, 7.07, 6.41, 6.02, 5.70, 5.49,
ASSY(91,1)= 5.30, 5.08, 4.88, 4.71, 4.56, 4.40,
ASSY(97,1)= 4.25, 4.12, 4.00, 3.89, 3.79, 2.75,
ASSY(103,1)= 2.18, 1.71, 1.39, 1.18, 1.01, 0.889,
ASSY(109,1)= 0.791, 0.702, 0.630, 0.570, 0.519, 0.476,
ASSY(115,1)= 0.439, 0.407, 0.379, 0.354, 0.332, 0.200,
ASSY(121,1)= 0.139, 0.105, 0.084, 0.069, 0.058, 0.050,
ASSY(127,1)= 0.044, 0.039, 0.035, 0.032, 0.029, 0.027,
ASSY(133,1)= 0.024, 0.023, 0.021,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates **
/COM, ** Output of PHIA, SCSI: B00000000-01717-1200-3000X Rev.000 **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE **
/COM, ** Output File Name: bwr520a.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, ** Start Age (years): 1.5742 (RHBIII) **
/COM, ** Decay Period (years): 900000 **
/COM, ** Default average enrichment for the burnup specified **
/COM, ** Enrichment (percent): 1.30 **
/COM, ** Burnup (Mwd/MTU): 10000 **
/COM, ** Assembly Type: BWR **
/COM, ** SNF U Mass (MTU/assy): 0.200 **
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts. **
/COM, ** ASSY(#,0) is the time post emplacement in years. **
/COM, *****
*SET,ASSY,
*DIM,ASSY,TABLE,135,1,
ASSY( 1,1)= 520.00, 516.39, 512.82, 509.30, 505.83, 502.40,
ASSY( 7,1)= 499.02, 495.68, 492.38, 489.12, 485.91, 470.42,
ASSY(13,1)= 455.84, 442.10, 429.14, 416.88, 405.27, 393.03,
ASSY(19,1)= 380.19, 368.06, 356.59, 345.72, 335.42, 325.63,
ASSY(25,1)= 316.34, 307.49, 299.06, 291.03, 283.36, 222.01,
ASSY(31,1)= 178.16, 147.60, 126.95, 111.29, 100.67, 92.14,
ASSY(37,1)= 86.44, 81.65, 78.28, 75.34, 73.16, 71.21,
ASSY(43,1)= 69.73, 68.36, 67.11, 65.97, 65.02, 58.46,
ASSY(49,1)= 54.00, 50.40, 47.28, 44.46, 41.91, 39.58,
ASSY(55,1)= 37.47, 35.56, 33.81, 32.22, 30.78, 29.46,
ASSY(61,1)= 28.26, 27.17, 26.17, 25.26, 24.48, 19.24,
ASSY(67,1)= 16.77, 15.22, 14.10, 13.09, 12.27, 11.50,
ASSY(73,1)= 10.84, 10.14, 9.55, 9.03, 8.58, 8.09,
ASSY(79,1)= 7.66, 7.27, 6.93, 6.62, 6.33, 4.28,
ASSY(85,1)= 3.32, 2.84, 2.58, 2.44, 2.32, 2.25,
ASSY(91,1)= 2.18, 2.11, 2.04, 1.98, 1.93, 1.87,
ASSY(97,1)= 1.82, 1.77, 1.73, 1.69, 1.65, 1.27,
ASSY(103,1)= 1.05, 0.827, 0.682, 0.580, 0.503, 0.444,
ASSY(109,1)= 0.398, 0.339, 0.294, 0.257, 0.228, 0.203,
ASSY(115,1)= 0.182, 0.165, 0.150, 0.137, 0.126, 0.064,
ASSY(121,1)= 0.040, 0.028, 0.020, 0.016, 0.013, 0.010,
ASSY(127,1)= 0.009, 0.007, 0.006, 0.006, 0.005, 0.004,
ASSY(133,1)= 0.004, 0.004, 0.003,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates **
/COM, ** Output of PHIA, SCSI: B00000000-01717-1200-3000X Rev.000 **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE **
/COM, ** Output File Name: bwr520b.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, ** Start Age (years): 2.3440 (RHBIII) **
/COM, ** Decay Period (years): 900000 **
/COM, ** Default average enrichment for the burnup specified **
/COM, ** Enrichment (percent): 2.21 **
/COM, ** Burnup (MWd/MTU): 20000 **
/COM, ** Assembly Type: BWR **
/COM, ** SNF U Mass (MTU/assy): 0.200 **
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts. **
/COM, ** ASSY(#,0) is the time post emplacement in years. **
/COM, *****
*SET,ASSY,
*DIM,ASSY,TABLE,135,1,
ASSY( 1,1)= 520.01, 517.36, 514.74, 512.14, 509.57, 507.02,
ASSY( 7,1)= 504.49, 501.98, 499.50, 497.04, 494.60, 482.74,
ASSY(13,1)= 471.39, 460.51, 450.09, 440.09, 430.49, 421.27,
ASSY(19,1)= 412.41, 403.88, 395.67, 387.76, 379.92, 372.33,
ASSY(25,1)= 365.01, 357.95, 351.13, 344.54, 338.17, 284.58,
ASSY(31,1)= 247.82, 220.33, 200.52, 184.98, 173.63, 164.52,
ASSY(37,1)= 157.52, 151.69, 146.98, 142.93, 139.63, 136.76,
ASSY(43,1)= 134.03, 131.47, 129.29, 127.33, 125.54, 112.24,
ASSY(49,1)= 102.70, 94.82, 87.97, 81.84, 76.34, 71.39,
ASSY(55,1)= 66.99, 62.99, 59.38, 56.09, 53.13, 50.45,
ASSY(61,1)= 48.02, 45.81, 43.81, 42.00, 40.44, 30.18,
ASSY(67,1)= 25.53, 22.74, 20.84, 19.19, 17.86, 16.66,
ASSY(73,1)= 15.64, 14.58, 13.68, 12.90, 12.21, 11.48,
ASSY(79,1)= 10.84, 10.27, 9.76, 9.30, 8.88, 5.84,
ASSY(85,1)= 4.44, 3.73, 3.36, 3.15, 2.99, 2.88,
ASSY(91,1)= 2.79, 2.68, 2.59, 2.51, 2.44, 2.36,
ASSY(97,1)= 2.29, 2.23, 2.17, 2.12, 2.07, 1.55,
ASSY(103,1)= 1.27, 0.996, 0.819, 0.694, 0.601, 0.530,
ASSY(109,1)= 0.473, 0.409, 0.359, 0.318, 0.284, 0.256,
ASSY(115,1)= 0.232, 0.212, 0.194, 0.179, 0.166, 0.090,
ASSY(121,1)= 0.058, 0.041, 0.031, 0.025, 0.020, 0.017,
ASSY(127,1)= 0.015, 0.013, 0.011, 0.010, 0.009, 0.008,
ASSY(133,1)= 0.007, 0.007, 0.006,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates **
/COM, ** Output of PHIA, SCSI: B00000000-01717-1200-3000X Rev.000 **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE **
/COM, ** Output File Name: bwr520c.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, ** Start Age (years): 3.0870 (RHBIII) **
/COM, ** Decay Period (years): 900000 **
/COM, ** Default average enrichment for the burnup specified **
/COM, ** Enrichment (percent): 2.93 **
/COM, ** Burnup (MWd/MTU): 30000 **
/COM, ** Assembly Type: BWR **
/COM, ** SNF U Mass (MTU/assy): 0.200 **
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts. **
/COM, ** ASSY(#,0) is the time post emplacement in years. **
/COM, *****
*SET,ASSY,
*DIM,ASSY,TABLE,135,1,
ASSY( 1,1)= 520.00, 518.20, 516.41, 514.64, 512.87, 511.12,
ASSY( 7,1)= 509.37, 507.64, 505.92, 504.21, 502.52, 494.19,
ASSY(13,1)= 486.13, 478.32, 470.75, 463.41, 456.28, 449.36,
ASSY(19,1)= 442.65, 436.12, 429.78, 423.61, 417.61, 411.78,
ASSY(25,1)= 406.10, 400.57, 395.18, 390.42, 385.95, 346.45,
ASSY(31,1)= 315.22, 292.43, 273.60, 259.77, 247.90, 238.71,
ASSY(37,1)= 230.59, 224.02, 218.16, 213.56, 209.20, 204.81,
ASSY(43,1)= 200.80, 197.50, 194.41, 191.56, 188.87, 168.12,
ASSY(49,1)= 152.84, 140.03, 129.06, 119.20, 110.43, 102.61,
ASSY(55,1)= 95.58, 89.32, 83.67, 78.60, 74.02, 69.89,
ASSY(61,1)= 66.16, 62.79, 59.75, 56.99, 54.60, 39.10,
ASSY(67,1)= 32.18, 28.13, 25.49, 23.29, 21.54, 20.02,
ASSY(73,1)= 18.74, 17.45, 16.35, 15.40, 14.57, 13.71,
ASSY(79,1)= 12.95, 12.27, 11.67, 11.13, 10.63, 7.04,
ASSY(85,1)= 5.38, 4.53, 4.09, 3.83, 3.63, 3.49,
ASSY(91,1)= 3.38, 3.24, 3.13, 3.02, 2.93, 2.83,
ASSY(97,1)= 2.75, 2.67, 2.59, 2.52, 2.46, 1.82,
ASSY(103,1)= 1.47, 1.15, 0.943, 0.797, 0.689, 0.606,
ASSY(109,1)= 0.540, 0.472, 0.418, 0.373, 0.336, 0.305,
ASSY(115,1)= 0.279, 0.256, 0.236, 0.219, 0.204, 0.115,
ASSY(121,1)= 0.077, 0.056, 0.043, 0.035, 0.029, 0.025,
ASSY(127,1)= 0.021, 0.019, 0.016, 0.015, 0.013, 0.012,
ASSY(133,1)= 0.011, 0.010, 0.009,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates **
/COM, ** Output of PHIA, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE **
/COM, ** Output File Name: bwr520d.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, ** Start Age (years): 5.2248 (RHBIII) **
/COM, ** Decay Period (years): 900000 **
/COM, ** Default average enrichment for the burnup specified **
/COM, ** Enrichment (percent): 3.44 **
/COM, ** Burnup (MWd/MTU): 40000 **
/COM, ** Assembly Type: BWR **
/COM, ** SNF U Mass (MTU/assy): 0.200 **
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts. **
/COM, ** ASSY(#,0) is the time post emplacement in years. **
/COM, *****
*SET,ASSY,
*DIM,ASSY,TABLE,135,1,
ASSY( 1,1)= 520.00, 519.26, 518.53, 517.80, 517.07, 516.35,
ASSY( 7,1)= 515.62, 514.90, 514.18, 513.47, 512.75, 509.22,
ASSY(13,1)= 505.74, 502.32, 498.95, 495.64, 492.37, 489.16,
ASSY(19,1)= 486.00, 482.88, 479.81, 476.78, 473.80, 470.86,
ASSY(25,1)= 468.18, 465.75, 463.36, 460.99, 458.66, 436.89,
ASSY(31,1)= 418.65, 403.50, 390.41, 379.18, 369.45, 361.12,
ASSY(37,1)= 353.39, 346.17, 339.62, 333.71, 328.21, 323.10,
ASSY(43,1)= 318.30, 313.79, 309.63, 305.82, 301.94, 269.86,
ASSY(49,1)= 244.34, 223.44, 204.62, 188.37, 174.03, 161.61,
ASSY(55,1)= 149.90, 139.85, 130.87, 122.81, 115.57, 109.06,
ASSY(61,1)= 103.19, 97.89, 93.10, 89.15, 84.97, 60.25,
ASSY(67,1)= 48.65, 41.64, 37.08, 33.44, 30.57, 28.23,
ASSY(73,1)= 26.27, 24.41, 22.84, 21.47, 20.27, 19.08,
ASSY(79,1)= 18.03, 17.09, 16.25, 15.50, 14.81, 9.89,
ASSY(85,1)= 7.63, 6.46, 5.83, 5.46, 5.17, 4.97,
ASSY(91,1)= 4.81, 4.61, 4.44, 4.28, 4.15, 4.00,
ASSY(97,1)= 3.88, 3.76, 3.65, 3.56, 3.46, 2.53,
ASSY(103,1)= 2.03, 1.58, 1.30, 1.09, 0.945, 0.831,
ASSY(109,1)= 0.740, 0.653, 0.583, 0.525, 0.477, 0.435,
ASSY(115,1)= 0.400, 0.370, 0.343, 0.320, 0.299, 0.176,
ASSY(121,1)= 0.121, 0.090, 0.071, 0.058, 0.049, 0.042,
ASSY(127,1)= 0.036, 0.032, 0.029, 0.026, 0.024, 0.021,
ASSY(133,1)= 0.020, 0.018, 0.017,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of SNF Assembly Heat Generation Rates **
/COM, ** Output of PHIA, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: PHIA00D.EXE **
/COM, ** Output File Name: bwr520e.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, ** Start Age (years): 6.4042 (RHBIII) **
/COM, ** Decay Period (years): 900000 **
/COM, ** Default average enrichment for the burnup specified **
/COM, ** Enrichment (percent): 3.74 **
/COM, ** Burnup (Mwd/MTU): 50000 **
/COM, ** Assembly Type: BWR **
/COM, ** SNF U Mass (MTU/assy): 0.200 **
/COM, **
/COM, ** ASSY(#,1) is the SNF assembly heat in Watts. **
/COM, ** ASSY(#,0) is the time post emplacement in years. **
/COM, *****
*SET,ASSY,
*DIM,ASSY,TABLE,135,1,
ASSY( 1,1)= 520.00, 519.52, 519.04, 518.57, 518.09, 517.62,
ASSY( 7,1)= 517.15, 516.67, 516.20, 515.73, 515.27, 512.94,
ASSY(13,1)= 510.65, 508.38, 506.14, 503.92, 501.73, 499.57,
ASSY(19,1)= 497.43, 495.32, 493.24, 491.39, 489.56, 487.75,
ASSY(25,1)= 485.96, 484.19, 482.44, 480.70, 478.99, 462.74,
ASSY(31,1)= 449.17, 437.01, 426.86, 417.68, 409.02, 400.90,
ASSY(37,1)= 393.62, 386.85, 380.59, 374.69, 369.18, 363.97,
ASSY(43,1)= 359.18, 354.64, 349.90, 345.26, 341.00, 305.76,
ASSY(49,1)= 276.98, 252.51, 231.16, 212.53, 196.01, 181.39,
ASSY(55,1)= 168.41, 156.93, 146.67, 137.47, 129.22, 121.81,
ASSY(61,1)= 115.14, 109.12, 103.66, 98.97, 94.41, 66.21,
ASSY(67,1)= 52.83, 44.74, 39.55, 35.43, 32.22, 29.69,
ASSY(73,1)= 27.57, 25.62, 23.95, 22.52, 21.25, 20.04,
ASSY(79,1)= 18.96, 18.00, 17.14, 16.37, 15.65, 10.63,
ASSY(85,1)= 8.30, 7.08, 6.41, 6.02, 5.70, 5.49,
ASSY(91,1)= 5.30, 5.08, 4.89, 4.71, 4.56, 4.40,
ASSY(97,1)= 4.25, 4.12, 4.00, 3.89, 3.79, 2.75,
ASSY(103,1)= 2.19, 1.71, 1.39, 1.18, 1.01, 0.890,
ASSY(109,1)= 0.791, 0.702, 0.630, 0.570, 0.519, 0.476,
ASSY(115,1)= 0.439, 0.407, 0.379, 0.354, 0.332, 0.200,
ASSY(121,1)= 0.139, 0.105, 0.084, 0.069, 0.058, 0.050,
ASSY(127,1)= 0.044, 0.039, 0.035, 0.032, 0.029, 0.027,
ASSY(133,1)= 0.024, 0.023, 0.021,
ASSY( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ASSY( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ASSY(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ASSY(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ASSY(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ASSY(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ASSY(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ASSY(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ASSY(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ASSY(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ASSY(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ASSY(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ASSY(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ASSY(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ASSY(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ASSY(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ASSY(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ASSY(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ASSY(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ASSY(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ASSY(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ASSY(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ASSY(133,0)= 800000.00, 850000.00, 900000.00,
ASSY( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case1.wsm **
/COM, ** Output File Name: case1.dat **
/COM, ** Execution Date: 08/11/97 **
/COM, *****
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 124269 **
/COM, ** Ave Age: 27.046 **
/COM, ** Ave Burnup: 32392.993 **
/COM, ** Ave Enrichment: 3.015 **
/COM, ** Ave MTU/assy: 0.177 **
/COM, **
/COM, *****
*SET, ABWR,
*DIM, ABWR, TABLE, 135, 1,
ABWR( 1,1)= 174.51, 174.46, 174.41, 174.36, 174.31, 174.26,
ABWR( 7,1)= 174.20, 174.15, 174.10, 174.05, 174.00, 173.75,
ABWR(13,1)= 173.50, 173.25, 173.00, 172.76, 172.51, 172.27,
ABWR(19,1)= 172.02, 171.78, 171.54, 171.30, 171.07, 170.83,
ABWR(25,1)= 170.59, 170.36, 170.13, 169.90, 169.67, 167.52,
ABWR(31,1)= 165.47, 163.53, 161.67, 159.90, 158.20, 156.58,
ABWR(37,1)= 155.03, 153.39, 151.82, 150.34, 148.91, 147.49,
ABWR(43,1)= 146.12, 144.78, 143.48, 142.23, 141.03, 129.30,
ABWR(49,1)= 119.29, 110.31, 102.44, 95.43, 89.25, 83.56,
ABWR(55,1)= 78.56, 74.06, 70.02, 66.38, 63.12, 60.13,
ABWR(61,1)= 57.43, 55.00, 52.86, 50.78, 48.93, 37.13,
ABWR(67,1)= 31.05, 27.28, 24.60, 22.45, 20.69, 19.24,
ABWR(73,1)= 17.92, 16.72, 15.69, 14.80, 13.96, 13.16,
ABWR(79,1)= 12.46, 11.83, 11.26, 10.75, 10.26, 6.90,
ABWR(85,1)= 5.34, 4.53, 4.10, 3.85, 3.65, 3.51,
ABWR(91,1)= 3.40, 3.26, 3.14, 3.04, 2.94, 2.85,
ABWR(97,1)= 2.76, 2.68, 2.60, 2.53, 2.47, 1.82,
ABWR(103,1)= 1.46, 1.15, 0.941, 0.795, 0.687, 0.604,
ABWR(109,1)= 0.539, 0.473, 0.420, 0.376, 0.340, 0.310,
ABWR(115,1)= 0.283, 0.261, 0.241, 0.224, 0.209, 0.120,
ABWR(121,1)= 0.081, 0.060, 0.047, 0.038, 0.032, 0.027,
ABWR(127,1)= 0.023, 0.021, 0.018, 0.016, 0.015, 0.014,
ABWR(133,1)= 0.012, 0.011, 0.011,
ABWR( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ABWR( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ABWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ABWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ABWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ABWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ABWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ABWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ABWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ABWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ABWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ABWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ABWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ABWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ABWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ABWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ABWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ABWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ABWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ABWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ABWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ABWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ABWR(133,0)= 800000.00, 850000.00, 900000.00,
ABWR( 0,1)=1.0
/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 94847
/COM, ** Ave Age: 26.098
/COM, ** Ave Burnup: 39494.778
/COM, ** Ave Enrichment: 3.696
/COM, ** Ave MTU/assy: 0.432
/COM, **
/COM, *****
*SET, APWR,
*DIM, APWR, TABLE, 135, 1,
APWR( 1,1)= 476.02, 475.88, 475.74, 475.60, 475.46, 475.32,
APWR( 7,1)= 475.18, 475.04, 474.90, 474.76, 474.62, 473.92,
APWR(13,1)= 473.23, 472.54, 471.86, 471.18, 470.50, 469.83,
APWR(19,1)= 469.16, 468.49, 467.83, 467.17, 466.52, 465.87,
APWR(25,1)= 465.22, 464.57, 463.93, 463.29, 462.66, 456.77,
APWR(31,1)= 451.15, 445.81, 440.69, 435.82, 431.14, 426.68,
APWR(37,1)= 422.38, 417.84, 413.46, 409.41, 405.49, 401.61,
APWR(43,1)= 397.85, 394.15, 390.56, 387.13, 383.79, 351.35,
APWR(49,1)= 323.69, 298.88, 277.05, 257.58, 240.36, 224.61,
APWR(55,1)= 210.65, 198.11, 186.82, 176.66, 167.53, 159.20,
APWR(61,1)= 151.69, 144.89, 138.85, 133.12, 128.00, 95.59,
APWR(67,1)= 79.32, 69.55, 62.70, 57.26, 52.86, 49.22,
APWR(73,1)= 45.95, 42.97, 40.41, 38.18, 36.08, 34.11,
APWR(79,1)= 32.37, 30.80, 29.39, 28.12, 26.89, 18.53,
APWR(85,1)= 14.60, 12.55, 11.43, 10.76, 10.22, 9.85,
APWR(91,1)= 9.53, 9.15, 8.82, 8.53, 8.26, 7.98,
APWR(97,1)= 7.73, 7.50, 7.29, 7.10, 6.92, 5.09,
APWR(103,1)= 4.10, 3.21, 2.63, 2.22, 1.92, 1.68,
APWR(109,1)= 1.50, 1.31, 1.16, 1.04, 0.939, 0.854,
APWR(115,1)= 0.780, 0.717, 0.662, 0.614, 0.572, 0.326,
APWR(121,1)= 0.219, 0.160, 0.125, 0.101, 0.084, 0.071,
APWR(127,1)= 0.061, 0.054, 0.048, 0.043, 0.039, 0.035,
APWR(133,1)= 0.032, 0.029, 0.027,
APWR( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
APWR( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
APWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
APWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
APWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
APWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
APWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
APWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
APWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
APWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
APWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
APWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
APWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
APWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
APWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
APWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
APWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
APWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
APWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
APWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
APWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
APWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
APWR(133,0)= 800000.00, 850000.00, 900000.00,
APWR( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case2.wsm **
/COM, ** Output File Name: case2.dat **
/COM, ** Execution Date: 08/11/97 **
/COM, *****
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 125541 **
/COM, ** Ave Age: 25.399 **
/COM, ** Ave Burnup: 32723.921 **
/COM, ** Ave Enrichment: 3.070 **
/COM, ** Ave MTU/assy: 0.177 **
/COM, **
/COM, *****
*SET,ABWR,
*DIM,ABWR, TABLE, 135, 1,
ABWR( 1,1)= 181.38, 181.27, 181.21, 181.15, 181.10,
ABWR( 7,1)= 181.04, 180.99, 180.93, 180.88, 180.82, 180.54,
ABWR(13,1)= 180.27, 179.99, 179.72, 179.45, 179.18, 178.91,
ABWR(19,1)= 178.65, 178.38, 178.12, 177.86, 177.60, 177.34,
ABWR(25,1)= 177.08, 176.83, 176.57, 176.32, 176.07, 173.73,
ABWR(31,1)= 171.52, 169.42, 167.42, 165.52, 163.70, 161.98,
ABWR(37,1)= 160.32, 158.58, 156.90, 155.34, 153.83, 152.33,
ABWR(43,1)= 150.89, 149.48, 148.11, 146.81, 145.55, 133.24,
ABWR(49,1)= 122.80, 113.44, 105.24, 97.93, 91.52, 85.60,
ABWR(55,1)= 80.39, 75.73, 71.53, 67.75, 64.36, 61.26,
ABWR(61,1)= 58.47, 55.93, 53.74, 51.57, 49.66, 37.49,
ABWR(67,1)= 31.26, 27.42, 24.71, 22.53, 20.76, 19.29,
ABWR(73,1)= 17.97, 16.77, 15.73, 14.84, 13.99, 13.19,
ABWR(79,1)= 12.49, 11.86, 11.29, 10.78, 10.29, 6.92,
ABWR(85,1)= 5.36, 4.55, 4.12, 3.87, 3.66, 3.53,
ABWR(91,1)= 3.41, 3.28, 3.16, 3.05, 2.96, 2.86,
ABWR(97,1)= 2.77, 2.69, 2.61, 2.54, 2.48, 1.82,
ABWR(103,1)= 1.47, 1.15, 0.944, 0.798, 0.689, 0.606,
ABWR(109,1)= 0.540, 0.475, 0.422, 0.378, 0.342, 0.311,
ABWR(115,1)= 0.285, 0.262, 0.243, 0.226, 0.210, 0.121,
ABWR(121,1)= 0.082, 0.061, 0.047, 0.039, 0.032, 0.027,
ABWR(127,1)= 0.024, 0.021, 0.019, 0.017, 0.015, 0.014,
ABWR(133,1)= 0.013, 0.012, 0.011,
ABWR( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ABWR( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ABWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ABWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ABWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ABWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ABWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ABWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ABWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ABWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ABWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ABWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ABWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ABWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ABWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ABWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ABWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ABWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ABWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ABWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ABWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ABWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ABWR(133,0)= 800000.00, 850000.00, 900000.00,
ABWR( 0,1)=1.0
/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 94631 **
/COM, ** Ave Age: 25.100 **
/COM, ** Ave Burnup: 39557.358 **
/COM, ** Ave Enrichment: 3.716 **
/COM, ** Ave MTU/assy: 0.432 **
/COM, **
/COM, *****
*SET,APWR,
*DIM,APWR, TABLE,135,1,
APWR( 1,1)= 483.64, 483.49, 483.34, 483.20, 483.05, 482.91,
APWR( 7,1)= 482.76, 482.62, 482.47, 482.33, 482.18, 481.46,
APWR(13,1)= 480.74, 480.03, 479.32, 478.61, 477.91, 477.21,
APWR(19,1)= 476.52, 475.83, 475.14, 474.46, 473.78, 473.10,
APWR(25,1)= 472.43, 471.76, 471.09, 470.43, 469.77, 463.67,
APWR(31,1)= 457.86, 452.36, 447.08, 442.06, 437.24, 432.66,
APWR(37,1)= 428.25, 423.60, 419.11, 414.96, 410.95, 406.99,
APWR(43,1)= 403.14, 399.36, 395.69, 392.19, 388.79, 355.68,
APWR(49,1)= 327.54, 302.28, 280.08, 260.27, 242.78, 226.76,
APWR(55,1)= 212.57, 199.83, 188.36, 178.04, 168.76, 160.31,
APWR(61,1)= 152.67, 145.77, 139.66, 133.84, 128.64, 95.82,
APWR(67,1)= 79.41, 69.58, 62.72, 57.26, 52.85, 49.21,
APWR(73,1)= 45.94, 42.96, 40.39, 38.16, 36.07, 34.10,
APWR(79,1)= 32.35, 30.79, 29.38, 28.11, 26.88, 18.52,
APWR(85,1)= 14.60, 12.54, 11.43, 10.76, 10.22, 9.85,
APWR(91,1)= 9.52, 9.15, 8.82, 8.52, 8.26, 7.98,
APWR(97,1)= 7.73, 7.50, 7.29, 7.10, 6.92, 5.09,
APWR(103,1)= 4.10, 3.21, 2.63, 2.22, 1.92, 1.68,
APWR(109,1)= 1.50, 1.31, 1.16, 1.04, 0.940, 0.854,
APWR(115,1)= 0.780, 0.717, 0.663, 0.615, 0.572, 0.326,
APWR(121,1)= 0.219, 0.161, 0.125, 0.101, 0.084, 0.071,
APWR(127,1)= 0.061, 0.054, 0.048, 0.043, 0.039, 0.035,
APWR(133,1)= 0.032, 0.029, 0.027,
APWR( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
APWR( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
APWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
APWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
APWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
APWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
APWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
APWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
APWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
APWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
APWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
APWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
APWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
APWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
APWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
APWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
APWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
APWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
APWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
APWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
APWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
APWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
APWR(133,0)= 800000.00, 850000.00, 900000.00,
APWR( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case3.wsm **
/COM, ** Output File Name: case3.dat **
/COM, ** Execution Date: 08/11/97 **
/COM, *****
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 125489 **
/COM, ** Ave Age: 21.172 **
/COM, ** Ave Burnup: 33818.206 **
/COM, ** Ave Enrichment: 3.163 **
/COM, ** Ave MTU/assy: 0.176 **
/COM, **
/COM, *****
*SET,ABWR,
*DIM,ABWR, TABLE,135,1,
ABWR( 1,1)= 202.47, 202.01, 201.94, 201.88, 201.81, 201.49,
ABWR( 7,1)= 202.07, 202.01, 201.94, 201.88, 201.81, 201.49,
ABWR(13,1)= 201.17, 200.85, 200.53, 200.22, 199.90, 199.59,
ABWR(19,1)= 199.28, 198.97, 198.67, 198.36, 198.06, 197.76,
ABWR(25,1)= 197.46, 197.16, 196.87, 196.57, 196.28, 195.98,
ABWR(31,1)= 190.97, 188.53, 186.21, 183.99, 181.86, 179.86,
ABWR(37,1)= 177.94, 175.94, 174.01, 172.20, 170.47, 168.75,
ABWR(43,1)= 167.09, 165.46, 163.89, 162.38, 160.93, 159.48,
ABWR(49,1)= 134.94, 124.29, 114.98, 106.71, 99.45, 92.77,
ABWR(55,1)= 86.91, 81.66, 76.93, 72.68, 68.86, 65.40,
ABWR(61,1)= 62.28, 59.46, 57.01, 54.60, 52.48, 50.00,
ABWR(67,1)= 32.26, 28.13, 25.28, 22.99, 21.15, 19.63,
ABWR(73,1)= 18.29, 17.05, 15.99, 15.07, 14.22, 13.41,
ABWR(79,1)= 12.69, 12.05, 11.47, 10.95, 10.46, 10.00,
ABWR(85,1)= 5.46, 4.64, 4.20, 3.94, 3.73, 3.60,
ABWR(91,1)= 3.48, 3.34, 3.22, 3.11, 3.01, 2.91,
ABWR(97,1)= 2.82, 2.74, 2.66, 2.59, 2.52, 2.46,
ABWR(103,1)= 1.49, 1.17, 0.959, 0.811, 0.701, 0.616,
ABWR(109,1)= 0.549, 0.483, 0.429, 0.385, 0.349, 0.318,
ABWR(115,1)= 0.291, 0.268, 0.248, 0.231, 0.216, 0.125,
ABWR(121,1)= 0.085, 0.063, 0.049, 0.040, 0.034, 0.029,
ABWR(127,1)= 0.025, 0.022, 0.019, 0.018, 0.016, 0.014,
ABWR(133,1)= 0.013, 0.012, 0.011,
ABWR( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ABWR( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ABWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ABWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ABWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ABWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ABWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ABWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ABWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ABWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ABWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ABWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ABWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ABWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ABWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ABWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ABWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ABWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ABWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ABWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ABWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ABWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ABWR(133,0)= 800000.00, 850000.00, 900000.00,
ABWR( 0,1)=1.0
/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 94794 **
/COM, ** Ave Age: 21.004 **
/COM, ** Ave Burnup: 40596.840 **
/COM, ** Ave Enrichment: 3.817 **
/COM, ** Ave MTU/assy: 0.432 **
/COM, **
/COM, *****
*SET, APWR,
*DIM, APWR, TABLE, 135, 1,
APWR( 1,1)= 536.19, 536.02, 535.85, 535.68, 535.51, 535.34,
APWR( 7,1)= 535.17, 535.00, 534.83, 534.65, 534.49, 533.64,
APWR(13,1)= 532.80, 531.97, 531.14, 530.31, 529.49, 528.67,
APWR(19,1)= 527.86, 527.06, 526.25, 525.46, 524.66, 523.87,
APWR(25,1)= 523.09, 522.31, 521.53, 520.76, 519.99, 512.87,
APWR(31,1)= 506.11, 499.71, 493.59, 487.79, 482.22, 476.95,
APWR(37,1)= 471.87, 466.53, 461.38, 456.64, 452.05, 447.52,
APWR(43,1)= 443.13, 438.82, 434.63, 430.65, 426.78, 389.27,
APWR(49,1)= 357.51, 329.10, 304.16, 281.97, 262.40, 244.48,
APWR(55,1)= 228.66, 214.45, 201.68, 190.17, 179.80, 170.44,
APWR(61,1)= 161.98, 154.35, 147.60, 141.16, 135.42, 99.35,
APWR(67,1)= 81.68, 71.18, 64.01, 58.33, 53.76, 50.01,
APWR(73,1)= 46.68, 43.63, 41.01, 38.73, 36.62, 34.62,
APWR(79,1)= 32.84, 31.26, 29.83, 28.54, 27.31, 18.83,
APWR(85,1)= 14.87, 12.78, 11.65, 10.97, 10.42, 10.04,
APWR(91,1)= 9.71, 9.33, 8.99, 8.68, 8.41, 8.13,
APWR(97,1)= 7.87, 7.64, 7.43, 7.23, 7.04, 5.18,
APWR(103,1)= 4.16, 3.26, 2.67, 2.25, 1.95, 1.71,
APWR(109,1)= 1.52, 1.33, 1.18, 1.06, 0.957, 0.870,
APWR(115,1)= 0.796, 0.732, 0.676, 0.628, 0.585, 0.334,
APWR(121,1)= 0.225, 0.165, 0.129, 0.104, 0.087, 0.074,
APWR(127,1)= 0.064, 0.056, 0.050, 0.044, 0.040, 0.036,
APWR(133,1)= 0.033, 0.031, 0.028,
APWR( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
APWR( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
APWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
APWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
APWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
APWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
APWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
APWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
APWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
APWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
APWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
APWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
APWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
APWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
APWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
APWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
APWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
APWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
APWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
APWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
APWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
APWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
APWR(133,0)= 800000.00, 850000.00, 900000.00,
APWR( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case4.wsm **
/COM, ** Output File Name: case4.dat **
/COM, ** Execution Date: 08/11/97 **
/COM, *****
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 125509 **
/COM, ** Ave Age: 21.173 **
/COM, ** Ave Burnup: 33818.961 **
/COM, ** Ave Enrichment: 3.163 **
/COM, ** Ave MTU/assy: 0.176 **
/COM, **
/COM, *****
*SET,ABWR,
*DIM,ABWR,TABLE,135,1,
ABWR( 1,1)= 202.46, 202.39, 202.33, 202.26, 202.19, 202.13,
ABWR( 7,1)= 202.06, 202.00, 201.93, 201.87, 201.80, 201.48,
ABWR(13,1)= 201.16, 200.84, 200.52, 200.21, 199.90, 199.58,
ABWR(19,1)= 199.27, 198.97, 198.66, 198.36, 198.05, 197.75,
ABWR(25,1)= 197.45, 197.16, 196.86, 196.57, 196.27, 193.55,
ABWR(31,1)= 190.96, 188.53, 186.20, 183.98, 181.86, 179.86,
ABWR(37,1)= 177.94, 175.93, 174.00, 172.20, 170.47, 168.75,
ABWR(43,1)= 167.09, 165.46, 163.89, 162.38, 160.92, 146.84,
ABWR(49,1)= 134.93, 124.29, 114.98, 106.71, 99.45, 92.77,
ABWR(55,1)= 86.91, 81.66, 76.93, 72.68, 68.86, 65.40,
ABWR(61,1)= 62.28, 59.46, 57.01, 54.60, 52.48, 39.00,
ABWR(67,1)= 32.26, 28.13, 25.28, 22.99, 21.15, 19.63,
ABWR(73,1)= 18.29, 17.05, 15.99, 15.07, 14.22, 13.41,
ABWR(79,1)= 12.69, 12.05, 11.47, 10.95, 10.46, 7.04,
ABWR(85,1)= 5.46, 4.64, 4.20, 3.94, 3.73, 3.60,
ABWR(91,1)= 3.48, 3.34, 3.22, 3.11, 3.01, 2.91,
ABWR(97,1)= 2.82, 2.74, 2.66, 2.59, 2.52, 1.86,
ABWR(103,1)= 1.49, 1.17, 0.959, 0.811, 0.701, 0.616,
ABWR(109,1)= 0.549, 0.483, 0.429, 0.385, 0.349, 0.318,
ABWR(115,1)= 0.291, 0.268, 0.248, 0.231, 0.216, 0.125,
ABWR(121,1)= 0.085, 0.063, 0.049, 0.040, 0.034, 0.029,
ABWR(127,1)= 0.025, 0.022, 0.019, 0.018, 0.016, 0.014,
ABWR(133,1)= 0.013, 0.012, 0.011,
ABWR( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ABWR( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ABWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ABWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ABWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ABWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ABWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ABWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ABWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ABWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ABWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ABWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ABWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ABWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ABWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ABWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ABWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ABWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ABWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ABWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ABWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ABWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ABWR(133,0)= 800000.00, 850000.00, 900000.00,
ABWR( 0,1)=1.0
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/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 94761
/COM, ** Ave Age: 21.030
/COM, ** Ave Burnup: 40595.598
/COM, ** Ave Enrichment: 3.817
/COM, ** Ave MTU/assy: 0.432
/COM, **
/COM, *****
*SET,APWR,
*DIM,APWR, TABLE,135,1,
APWR( 1,1)= 535.93, 535.76, 535.59, 535.42, 535.25, 535.07;
APWR( 7,1)= 534.91, 534.74, 534.57, 534.40, 534.23, 533.38,
APWR(13,1)= 532.55, 531.72, 530.89, 530.06, 529.24, 528.43,
APWR(19,1)= 527.62, 526.81, 526.01, 525.22, 524.42, 523.64,
APWR(25,1)= 522.85, 522.07, 521.30, 520.53, 519.76, 512.65,
APWR(31,1)= 505.89, 499.50, 493.39, 487.59, 482.04, 476.76,
APWR(37,1)= 471.69, 466.35, 461.22, 456.48, 451.90, 447.36,
APWR(43,1)= 442.98, 438.67, 434.49, 430.50, 426.64, 389.15,
APWR(49,1)= 357.41, 329.00, 304.08, 281.89, 262.33, 244.43,
APWR(55,1)= 228.61, 214.41, 201.63, 190.13, 179.77, 170.41,
APWR(61,1)= 161.95, 154.32, 147.58, 141.14, 135.40, 99.34,
APWR(67,1)= 81.67, 71.18, 64.01, 58.32, 53.76, 50.01,
APWR(73,1)= 46.68, 43.63, 41.01, 38.73, 36.62, 34.62,
APWR(79,1)= 32.84, 31.26, 29.83, 28.54, 27.31, 18.83,
APWR(85,1)= 14.87, 12.78, 11.65, 10.97, 10.42, 10.04,
APWR(91,1)= 9.71, 9.33, 8.99, 8.69, 8.41, 8.13,
APWR(97,1)= 7.87, 7.64, 7.43, 7.23, 7.04, 5.18,
APWR(103,1)= 4.16, 3.26, 2.67, 2.25, 1.95, 1.71,
APWR(109,1)= 1.52, 1.34, 1.18, 1.06, 0.957, 0.870,
APWR(115,1)= 0.796, 0.732, 0.676, 0.628, 0.585, 0.334,
APWR(121,1)= 0.225, 0.165, 0.129, 0.104, 0.087, 0.074,
APWR(127,1)= 0.064, 0.056, 0.050, 0.044, 0.040, 0.036,
APWR(133,1)= 0.033, 0.031, 0.028,
APWR( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
APWR( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
APWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
APWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
APWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
APWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
APWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
APWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
APWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
APWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
APWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
APWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
APWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
APWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
APWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
APWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
APWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
APWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
APWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
APWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
APWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
APWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
APWR(133,0)= 800000.00, 850000.00, 900000.00,
APWR( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case5.wsm **
/COM, ** Output File Name: case5.dat **
/COM, ** Execution Date: 08/11/97 **
/COM, *****
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 124125 **
/COM, ** Ave Age: 27.504 **
/COM, ** Ave Burnup: 31765.858 **
/COM, ** Ave Enrichment: 2.978 **
/COM, ** Ave MTU/assy: 0.178 **
/COM, **
/COM, *****
*SET, ABWR,
*DIM, ABWR, TABLE, 135, 1,
ABWR( 1,1)= 167.91, 167.87, 167.83, 167.79, 167.75, 167.71,
ABWR( 7,1)= 167.67, 167.62, 167.58, 167.54, 167.50, 167.30,
ABWR(13,1)= 167.09, 166.89, 166.69, 166.49, 166.29, 166.09,
ABWR(19,1)= 165.89, 165.69, 165.50, 165.30, 165.10, 164.91,
ABWR(25,1)= 164.72, 164.53, 164.33, 164.14, 163.96, 162.11,
ABWR(31,1)= 160.34, 158.63, 156.99, 155.39, 153.84, 152.33,
ABWR(37,1)= 150.87, 149.40, 147.97, 146.58, 145.23, 143.89,
ABWR(43,1)= 142.59, 141.31, 140.06, 138.83, 137.63, 126.42,
ABWR(49,1)= 116.62, 107.94, 100.28, 93.45, 87.33, 81.86,
ABWR(55,1)= 76.97, 72.59, 68.65, 65.09, 61.87, 58.96,
ABWR(61,1)= 56.34, 54.00, 51.84, 49.84, 48.04, 36.52,
ABWR(67,1)= 30.57, 26.89, 24.25, 22.14, 20.42, 18.99,
ABWR(73,1)= 17.69, 16.51, 15.49, 14.61, 13.78, 12.99,
ABWR(79,1)= 12.30, 11.68, 11.12, 10.62, 10.13, 6.81,
ABWR(85,1)= 5.27, 4.47, 4.05, 3.80, 3.60, 3.47,
ABWR(91,1)= 3.35, 3.22, 3.10, 3.00, 2.91, 2.81,
ABWR(97,1)= 2.72, 2.64, 2.57, 2.50, 2.44, 1.80,
ABWR(103,1)= 1.45, 1.14, 0.931, 0.787, 0.680, 0.598,
ABWR(109,1)= 0.533, 0.468, 0.415, 0.372, 0.336, 0.306,
ABWR(115,1)= 0.280, 0.257, 0.238, 0.221, 0.206, 0.118,
ABWR(121,1)= 0.080, 0.059, 0.046, 0.037, 0.031, 0.027,
ABWR(127,1)= 0.023, 0.020, 0.018, 0.016, 0.015, 0.013,
ABWR(133,1)= 0.012, 0.011, 0.010,
ABWR( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ABWR( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ABWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ABWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ABWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ABWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ABWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ABWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ABWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ABWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ABWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ABWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ABWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ABWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ABWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ABWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ABWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ABWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ABWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ABWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ABWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ABWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ABWR(133,0)= 800000.00, 850000.00, 900000.00,
ABWR( 0,1)=1.0
/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 94858
/COM, ** Ave Age: 27.080
/COM, ** Ave Burnup: 38787.087
/COM, ** Ave Enrichment: 3.642
/COM, ** Ave MTU/assy: 0.432
/COM, **
/COM, *****
*SET, APWR,
*DIM, APWR, TABLE, 135, 1,
APWR( 1,1)= 450.30, 450.20, 450.09, 449.98, 449.87, 449.77,
APWR( 7,1)= 449.66, 449.55, 449.44, 449.33, 449.23, 448.69,
APWR(13,1)= 448.15, 447.62, 447.09, 446.57, 446.04, 445.52,
APWR(19,1)= 445.00, 444.48, 443.97, 443.45, 442.94, 442.43,
APWR(25,1)= 441.92, 441.42, 440.92, 440.42, 439.92, 435.08,
APWR(31,1)= 430.42, 425.89, 421.53, 417.25, 413.13, 409.08,
APWR(37,1)= 405.16, 401.21, 397.38, 393.66, 390.04, 386.45,
APWR(43,1)= 382.95, 379.50, 376.14, 372.82, 369.59, 339.24,
APWR(49,1)= 312.65, 289.08, 268.20, 249.56, 232.87, 217.90,
APWR(55,1)= 204.50, 192.45, 181.62, 171.84, 162.99, 154.99,
APWR(61,1)= 147.79, 141.31, 135.37, 129.93, 124.98, 93.73,
APWR(67,1)= 77.95, 68.46, 61.77, 56.45, 52.13, 48.57,
APWR(73,1)= 45.33, 42.40, 39.88, 37.69, 35.61, 33.67,
APWR(79,1)= 31.94, 30.40, 29.01, 27.76, 26.54, 18.28,
APWR(85,1)= 14.40, 12.37, 11.27, 10.61, 10.08, 9.71,
APWR(91,1)= 9.40, 9.02, 8.70, 8.41, 8.15, 7.87,
APWR(97,1)= 7.63, 7.40, 7.20, 7.01, 6.83, 5.03,
APWR(103,1)= 4.05, 3.17, 2.60, 2.19, 1.89, 1.66,
APWR(109,1)= 1.48, 1.30, 1.15, 1.03, 0.927, 0.842,
APWR(115,1)= 0.769, 0.707, 0.653, 0.605, 0.564, 0.320,
APWR(121,1)= 0.215, 0.157, 0.122, 0.099, 0.082, 0.069,
APWR(127,1)= 0.060, 0.053, 0.047, 0.042, 0.038, 0.034,
APWR(133,1)= 0.031, 0.029, 0.027,
APWR( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
APWR( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
APWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
APWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
APWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
APWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
APWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
APWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
APWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
APWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
APWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
APWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
APWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
APWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
APWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
APWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
APWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
APWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
APWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
APWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
APWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
APWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
APWR(133,0)= 800000.00, 850000.00, 900000.00,
APWR( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: B00000000-01717-1200-3000X Rev.000 **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case6.msm **
/COM, ** Output File Name: case6.dat **
/COM, ** Execution Date: 08/11/97 **
/COM, *****
/COM, **
/COM, ** Assembly Type: BUR **
/COM, ** Decay Period (Years): 900000 **
/COM, ** Number of assemblies: 125084 **
/COM, ** Ave Age: 26.571 **
/COM, ** Ave Burnup: 32139.173 **
/COM, ** Ave Enrichment: 3.011 **
/COM, ** Ave MTU/assy: 0.177 **
/COM, **
*SET,ABUR,
*DIM,ABUR, TABLE,135,1,
ABUR(1,1)= 173.14, 173.10, 173.05, 173.01, 172.97, 172.92,
ABUR(7,1)= 172.88, 172.83, 172.79, 172.74, 172.70, 172.68,
ABUR(13,1)= 172.26, 172.04, 171.82, 171.61, 171.39, 171.18,
ABUR(19,1)= 170.97, 170.75, 170.54, 170.33, 170.12, 169.91,
ABUR(25,1)= 169.71, 169.50, 169.30, 169.09, 168.89, 166.92,
ABUR(31,1)= 165.04, 163.22, 161.48, 159.79, 158.16, 156.57,
ABUR(37,1)= 155.03, 153.49, 152.00, 150.54, 149.14, 147.74,
ABUR(43,1)= 146.39, 145.06, 143.77, 142.49, 141.24, 129.60,
ABUR(49,1)= 119.48, 110.51, 102.59, 95.55, 89.25, 83.60,
ABUR(55,1)= 78.56, 74.05, 69.99, 66.32, 63.01, 60.02,
ABUR(61,1)= 57.32, 54.90, 52.69, 50.64, 48.78, 36.95,
ABUR(67,1)= 30.88, 27.12, 24.45, 22.31, 20.57, 19.12,
ABUR(73,1)= 17.81, 16.62, 15.60, 14.71, 13.87, 13.08,
ABUR(79,1)= 12.38, 11.76, 11.19, 10.69, 10.20, 6.86,
ABUR(85,1)= 5.31, 4.51, 4.08, 3.83, 3.63, 3.49,
ABUR(91,1)= 3.38, 3.24, 3.13, 3.02, 2.93, 2.83,
ABUR(97,1)= 2.74, 2.66, 2.59, 2.52, 2.45, 1.81,
ABUR(103,1)= 1.46, 1.14, 0.936, 0.791, 0.684, 0.602,
ABUR(109,1)= 0.536, 0.471, 0.418, 0.374, 0.338, 0.308,
ABUR(115,1)= 0.282, 0.259, 0.240, 0.223, 0.208, 0.120,
ABUR(121,1)= 0.081, 0.060, 0.047, 0.038, 0.032, 0.027,
ABUR(127,1)= 0.023, 0.020, 0.018, 0.016, 0.015, 0.013,
ABUR(133,1)= 0.012, 0.011, 0.011,
ABUR(1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ABUR(7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ABUR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ABUR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ABUR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ABUR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ABUR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ABUR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ABUR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ABUR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ABUR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ABUR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ABUR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ABUR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ABUR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ABUR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ABUR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ABUR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ABUR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ABUR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ABUR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ABUR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ABUR(133,0)= 800000.00, 850000.00, 900000.00,
ABUR(0,1)=1.0
/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 94616 **
/COM, ** Ave Age: 26.710 **
/COM, ** Ave Burnup: 38757.079 **
/COM, ** Ave Enrichment: 3.648 **
/COM, ** Ave MTU/assy: 0.431 **
/COM, **
/COM, *****
*SET, APWR,
*DIM, APWR, TABLE, 135, 1,
APWR( 1,1)= 452.43, 452.32, 452.21, 452.10, 451.99, 451.88,
APWR( 7,1)= 451.77, 451.66, 451.55, 451.45, 451.33, 450.79,
APWR(13,1)= 450.24, 449.70, 449.16, 448.63, 448.09, 447.56,
APWR(19,1)= 447.03, 446.50, 445.98, 445.46, 444.93, 444.42,
APWR(25,1)= 443.90, 443.39, 442.87, 442.36, 441.86, 436.93,
APWR(31,1)= 432.20, 427.62, 423.20, 418.88, 414.71, 410.61,
APWR(37,1)= 406.65, 402.66, 398.80, 395.04, 391.39, 387.78,
APWR(43,1)= 384.26, 380.78, 377.40, 374.05, 370.79, 360.25,
APWR(49,1)= 313.52, 289.82, 268.84, 250.11, 233.35, 218.30,
APWR(55,1)= 204.84, 192.74, 181.86, 172.04, 163.16, 155.12,
APWR(61,1)= 147.89, 141.38, 135.43, 129.96, 125.00, 93.65,
APWR(67,1)= 77.86, 68.36, 61.67, 56.36, 52.05, 48.49,
APWR(73,1)= 45.26, 42.33, 39.81, 37.62, 35.56, 33.62,
APWR(79,1)= 31.89, 30.35, 28.96, 27.71, 26.50, 18.24,
APWR(85,1)= 14.38, 12.35, 11.25, 10.59, 10.06, 9.70,
APWR(91,1)= 9.38, 9.01, 8.68, 8.39, 8.13, 7.86,
APWR(97,1)= 7.61, 7.39, 7.18, 7.00, 6.82, 5.02,
APWR(103,1)= 4.04, 3.17, 2.59, 2.19, 1.89, 1.66,
APWR(109,1)= 1.48, 1.30, 1.15, 1.03, 0.926, 0.841,
APWR(115,1)= 0.768, 0.706, 0.652, 0.605, 0.563, 0.320,
APWR(121,1)= 0.214, 0.157, 0.122, 0.098, 0.082, 0.069,
APWR(127,1)= 0.060, 0.052, 0.047, 0.042, 0.038, 0.034,
APWR(133,1)= 0.031, 0.029, 0.026,
APWR( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
APWR( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
APWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
APWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
APWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
APWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
APWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
APWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
APWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
APWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
APWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
APWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
APWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
APWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
APWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
APWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
APWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
APWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
APWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
APWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
APWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
APWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
APWR(133,0)= 800000.00, 850000.00, 900000.00,
APWR( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: B00000000-01717-1200-3000X Rev.000 **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case7.wsm **
/COM, ** Output File Name: case7.dat **
/COM, ** Execution Date: 08/11/97 **
/COM, *****
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 125320 **
/COM, ** Ave Age: 23.007 **
/COM, ** Ave Burnup: 32843.787 **
/COM, ** Ave Enrichment: 3.087 **
/COM, ** Ave MTU/assy: 0.177 **
/COM, **
/COM, *****
*SET,ABWR,
*DIM,ABWR, TABLE,135,1,
ABWR( 1,1)= 180.83, 180.79, 180.74, 180.70, 180.65, 180.61,
ABWR( 7,1)= 180.57, 180.52, 180.48, 180.43, 180.39, 180.17,
ABWR(13,1)= 179.95, 179.74, 179.52, 179.31, 179.10, 178.88,
ABWR(19,1)= 178.67, 178.46, 178.25, 178.04, 177.84, 177.63,
ABWR(25,1)= 177.42, 177.22, 177.01, 176.81, 176.61, 174.63,
ABWR(31,1)= 172.74, 170.90, 169.12, 167.38, 165.70, 164.05,
ABWR(37,1)= 162.45, 160.86, 159.32, 157.81, 156.35, 154.89,
ABWR(43,1)= 153.48, 152.08, 150.71, 149.36, 148.04, 135.76,
ABWR(49,1)= 125.04, 115.56, 107.17, 99.70, 93.03, 87.06,
ABWR(55,1)= 81.72, 76.93, 72.62, 68.74, 65.24, 62.09,
ABWR(61,1)= 59.24, 56.67, 54.33, 52.17, 50.21, 37.77,
ABWR(67,1)= 31.41, 27.51, 24.76, 22.56, 20.78, 19.30,
ABWR(73,1)= 17.98, 16.77, 15.74, 14.84, 14.00, 13.20,
ABWR(79,1)= 12.49, 11.86, 11.29, 10.78, 10.29, 6.93,
ABWR(85,1)= 5.37, 4.56, 4.13, 3.87, 3.67, 3.54,
ABWR(91,1)= 3.42, 3.28, 3.16, 3.06, 2.96, 2.86,
ABWR(97,1)= 2.77, 2.69, 2.62, 2.55, 2.48, 1.83,
ABWR(103,1)= 1.47, 1.15, 0.946, 0.799, 0.691, 0.608,
ABWR(109,1)= 0.542, 0.476, 0.423, 0.379, 0.343, 0.312,
ABWR(115,1)= 0.286, 0.263, 0.244, 0.226, 0.211, 0.122,
ABWR(121,1)= 0.083, 0.061, 0.048, 0.039, 0.032, 0.028,
ABWR(127,1)= 0.024, 0.021, 0.019, 0.017, 0.015, 0.014,
ABWR(133,1)= 0.013, 0.012, 0.011,
ABWR( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ABWR( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ABWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ABWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ABWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ABWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ABWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ABWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ABWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ABWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ABWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ABWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ABWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ABWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ABWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ABWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ABWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ABWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ABWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ABWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ABWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ABWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ABWR(133,0)= 800000.00, 850000.00, 900000.00,
ABWR( 0,1)=1.0
/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 94692 **
/COM, ** Ave Age: 23.553 **
/COM, ** Ave Burnup: 39844.154 **
/COM, ** Ave Enrichment: 3.739 **
/COM, ** Ave MTU/assy: 0.432 **
/COM, **
/COM, *****
*SET, APWR,
*DIM, APWR, TABLE, 135, 1,
APWR( 1,1)= 477.44, 477.33, 477.21, 477.10, 476.99, 476.88,
APWR( 7,1)= 476.77, 476.65, 476.54, 476.43, 476.32, 475.76,
APWR(13,1)= 475.21, 474.66, 474.11, 473.56, 473.02, 472.48,
APWR(19,1)= 471.94, 471.40, 470.87, 470.33, 469.80, 469.27,
APWR(25,1)= 468.75, 468.22, 467.70, 467.18, 466.66, 461.59,
APWR(31,1)= 456.70, 451.93, 447.33, 442.81, 438.43, 434.12,
APWR(37,1)= 429.94, 425.76, 421.72, 417.75, 413.90, 410.07,
APWR(43,1)= 406.35, 402.64, 399.03, 395.46, 391.98, 359.40,
APWR(49,1)= 330.89, 305.61, 283.18, 263.16, 245.27, 229.23,
APWR(55,1)= 214.85, 201.93, 190.29, 179.80, 170.35, 161.84,
APWR(61,1)= 154.15, 147.19, 140.84, 135.03, 129.75, 96.53,
APWR(67,1)= 79.87, 69.90, 62.97, 57.47, 53.02, 49.36,
APWR(73,1)= 46.08, 43.08, 40.51, 38.27, 36.18, 34.20,
APWR(79,1)= 32.45, 30.88, 29.47, 28.19, 26.97, 18.59,
APWR(85,1)= 14.66, 12.61, 11.49, 10.81, 10.27, 9.90,
APWR(91,1)= 9.57, 9.19, 8.86, 8.56, 8.30, 8.02,
APWR(97,1)= 7.77, 7.54, 7.33, 7.13, 6.95, 5.11,
APWR(103,1)= 4.11, 3.22, 2.64, 2.23, 1.92, 1.69,
APWR(109,1)= 1.51, 1.32, 1.17, 1.05, 0.944, 0.857,
APWR(115,1)= 0.784, 0.721, 0.666, 0.618, 0.575, 0.328,
APWR(121,1)= 0.220, 0.162, 0.126, 0.102, 0.084, 0.072,
APWR(127,1)= 0.062, 0.054, 0.048, 0.043, 0.039, 0.035,
APWR(133,1)= 0.032, 0.030, 0.028,
APWR( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
APWR( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
APWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
APWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
APWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
APWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
APWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
APWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
APWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
APWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
APWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
APWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
APWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
APWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
APWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
APWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
APWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
APWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
APWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
APWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
APWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
APWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
APWR(133,0)= 800000.00, 850000.00, 900000.00,
APWR( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: 800000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case8.wsm **
/COM, ** Output File Name: case8.dat **
/COM, ** Execution Date: 08/11/97 **
/COM, *****
/COM, **
/COM, ** Assembly Type: BNR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 125343 **
/COM, ** Ave Age: 23.001 **
/COM, ** Ave Burnup: 32845.503 **
/COM, ** Ave Enrichment: 3.087 **
/COM, ** Ave MTU/assy: 0.177 **
/COM, *****
*SET,ABWR,
*DIM,ABWR, TABLE,135,1,
ABWR(1,1)= 180.85, 180.80, 180.76, 180.72, 180.67, 180.63,
ABWR(7,1)= 180.58, 180.54, 180.50, 180.45, 180.41, 180.19,
ABWR(13,1)= 179.97, 179.76, 179.54, 179.33, 179.11, 178.90,
ABWR(19,1)= 178.69, 178.48, 178.27, 178.06, 177.85, 177.65,
ABWR(25,1)= 177.44, 177.24, 177.03, 176.83, 176.63, 176.45,
ABWR(31,1)= 172.76, 170.91, 169.14, 167.40, 165.72, 164.07,
ABWR(37,1)= 162.47, 160.88, 159.34, 157.83, 156.37, 154.91,
ABWR(43,1)= 153.49, 152.09, 150.73, 149.37, 148.05, 135.77,
ABWR(49,1)= 125.05, 115.58, 107.18, 99.70, 93.03, 87.07,
ABWR(55,1)= 81.73, 76.94, 72.63, 68.74, 65.24, 62.09,
ABWR(61,1)= 59.25, 56.68, 54.33, 52.17, 50.22, 37.77,
ABWR(67,1)= 31.42, 27.51, 24.76, 22.56, 20.78, 19.30,
ABWR(73,1)= 17.99, 16.78, 15.74, 14.84, 14.00, 13.20,
ABWR(79,1)= 12.49, 11.86, 11.29, 10.78, 10.29, 6.93,
ABWR(85,1)= 5.37, 4.56, 4.13, 3.87, 3.67, 3.54,
ABWR(91,1)= 3.42, 3.28, 3.16, 3.06, 2.96, 2.86,
ABWR(97,1)= 2.77, 2.69, 2.62, 2.55, 2.48, 1.83,
ABWR(103,1)= 1.47, 1.15, 0.946, 0.800, 0.691, 0.608,
ABWR(109,1)= 0.542, 0.476, 0.423, 0.379, 0.343, 0.312,
ABWR(115,1)= 0.286, 0.263, 0.244, 0.226, 0.211, 0.122,
ABWR(121,1)= 0.083, 0.061, 0.048, 0.039, 0.032, 0.028,
ABWR(127,1)= 0.024, 0.021, 0.019, 0.017, 0.015, 0.014,
ABWR(133,1)= 0.013, 0.012, 0.011, 0.01, 0.009, 0.008,
ABWR(1,0)= 0.00001, 0.01, 0.02, 0.03, 0.04, 0.05,
ABWR(7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ABWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ABWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ABWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ABWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ABWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ABWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ABWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ABWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ABWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ABWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ABWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ABWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ABWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ABWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ABWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ABWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ABWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ABWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ABWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ABWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ABWR(133,0)= 800000.00, 850000.00, 900000.00, 950000.00, 1000000.00, 1500000.00,
ABWR(0,1)=1.0
/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 94668 **
/COM, ** Ave Age: 23.556 **
/COM, ** Ave Burnup: 39849.758 **
/COM, ** Ave Enrichment: 3.739 **
/COM, ** Ave MTU/assy: 0.432 **
/COM, **
/COM, *****
*SET, APWR,
*DIM, APWR, TABLE, 135, 1,
APWR( 1,1)= 477.48, 477.36, 477.25, 477.14, 477.03, 476.92,
APWR( 7,1)= 476.80, 476.69, 476.58, 476.47, 476.36, 475.80,
APWR(13,1)= 475.25, 474.70, 474.15, 473.60, 473.06, 472.51,
APWR(19,1)= 471.97, 471.44, 470.90, 470.37, 469.84, 469.31,
APWR(25,1)= 468.78, 468.26, 467.74, 467.21, 466.70, 461.62,
APWR(31,1)= 456.74, 451.97, 447.37, 442.84, 438.47, 434.15,
APWR(37,1)= 429.97, 425.80, 421.75, 417.79, 413.93, 410.10,
APWR(43,1)= 406.38, 402.67, 399.06, 395.49, 392.01, 359.43,
APWR(49,1)= 330.92, 305.63, 283.20, 263.18, 245.30, 229.25,
APWR(55,1)= 214.87, 201.95, 190.31, 179.82, 170.37, 161.85,
APWR(61,1)= 154.17, 147.20, 140.86, 135.04, 129.77, 96.54,
APWR(67,1)= 79.88, 69.91, 62.98, 57.47, 53.03, 49.36,
APWR(73,1)= 46.08, 43.08, 40.51, 38.27, 36.18, 34.21,
APWR(79,1)= 32.45, 30.88, 29.47, 28.20, 26.97, 18.59,
APWR(85,1)= 14.66, 12.61, 11.49, 10.82, 10.27, 9.90,
APWR(91,1)= 9.58, 9.20, 8.86, 8.57, 8.30, 8.02,
APWR(97,1)= 7.77, 7.54, 7.33, 7.13, 6.95, 5.11,
APWR(103,1)= 4.11, 3.22, 2.64, 2.23, 1.92, 1.69,
APWR(109,1)= 1.51, 1.32, 1.17, 1.05, 0.944, 0.858,
APWR(115,1)= 0.784, 0.721, 0.666, 0.618, 0.575, 0.328,
APWR(121,1)= 0.220, 0.162, 0.126, 0.102, 0.084, 0.072,
APWR(127,1)= 0.062, 0.054, 0.048, 0.043, 0.039, 0.035,
APWR(133,1)= 0.032, 0.030, 0.028,
APWR( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
APWR( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
APWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
APWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
APWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
APWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
APWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
APWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
APWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
APWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
APWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
APWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
APWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
APWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
APWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
APWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
APWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
APWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
APWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
APWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
APWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
APWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
APWR(133,0)= 800000.00, 850000.00, 900000.00,
APWR( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: B000000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case9.wsm **
/COM, ** Output File Name: case9.dat **
/COM, ** Execution Date: 08/11/97 **
/COM, *****
/COM, **
/COM, ** Assembly Type: BNR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 167752 **
/COM, ** Ave Age: 26.265 **
/COM, ** Ave Burnup: 32713.272 **
/COM, ** Ave Enrichment: 3.093 **
/COM, ** Ave MTU/assy: 0.177 **
/COM, **
/COM, *****
*SET,ABWR,
*DIM,ABWR, TABLE,135,1,
ABWR(1,1)= 183.06, 183.00, 182.94, 182.87, 182.81, 182.75,
ABWR(7,1)= 182.69, 182.62, 182.56, 182.50, 182.43, 182.12,
ABWR(13,1)= 181.81, 181.51, 180.90, 180.60, 180.30,
ABWR(19,1)= 180.00, 179.71, 179.41, 179.12, 178.83, 178.55,
ABWR(25,1)= 178.26, 177.98, 177.69, 177.41, 177.13, 176.56,
ABWR(31,1)= 172.13, 169.88, 167.75, 165.73, 163.81, 162.01,
ABWR(37,1)= 160.28, 158.50, 156.80, 155.18, 153.62, 152.09,
ABWR(43,1)= 150.62, 149.17, 147.77, 146.44, 145.15, 132.76,
ABWR(49,1)= 122.26, 112.90, 104.68, 97.38, 90.95, 85.05,
ABWR(55,1)= 79.86, 75.20, 71.02, 67.25, 63.84, 60.76,
ABWR(61,1)= 57.98, 55.46, 53.25, 51.12, 49.21, 37.08,
ABWR(67,1)= 30.90, 27.09, 24.40, 22.24, 20.49, 19.04,
ABWR(73,1)= 17.74, 16.55, 15.53, 14.65, 13.82, 13.03,
ABWR(79,1)= 12.34, 11.72, 11.16, 10.65, 10.17, 9.86,
ABWR(85,1)= 5.32, 4.52, 4.09, 3.84, 3.64, 3.51,
ABWR(91,1)= 3.35, 3.26, 3.14, 3.03, 2.94, 2.84,
ABWR(97,1)= 2.75, 2.67, 2.60, 2.53, 2.47, 1.82,
ABWR(103,1)= 1.46, 1.15, 0.940, 0.794, 0.687, 0.604,
ABWR(109,1)= 0.539, 0.473, 0.420, 0.377, 0.341, 0.310,
ABWR(115,1)= 0.284, 0.262, 0.242, 0.225, 0.210, 0.121,
ABWR(121,1)= 0.082, 0.061, 0.047, 0.039, 0.032, 0.027,
ABWR(127,1)= 0.024, 0.021, 0.019, 0.017, 0.015, 0.014,
ABWR(133,1)= 0.013, 0.012, 0.011,
ABWR(1,0)= 0.00001, 0.01, 0.02, 0.03, 0.04, 0.05,
ABWR(7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ABWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ABWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ABWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ABWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ABWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ABWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ABWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ABWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ABWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ABWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ABWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ABWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ABWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ABWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ABWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ABWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ABWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ABWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ABWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ABWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ABWR(133,0)= 800000.00, 850000.00, 900000.00,
ABWR(0,1)=1.0
/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 131523 **
/COM, ** Ave Age: 25.271 **
/COM, ** Ave Burnup: 39821.826 **
/COM, ** Ave Enrichment: 3.750 **
/COM, ** Ave MTU/assy: 0.434 **
/COM, **
/COM, *****
*SET, APWR,
*DIM, APWR, TABLE, 135, 1,
APWR( 1,1)= 511.58, 511.39, 511.19, 511.00, 510.81, 510.61,
APWR( 7,1)= 510.42, 510.23, 510.04, 509.85, 509.66, 508.71,
APWR(13,1)= 507.76, 506.82, 505.89, 504.97, 504.05, 503.15,
APWR(19,1)= 502.24, 501.35, 500.46, 499.57, 498.70, 497.83,
APWR(25,1)= 496.96, 496.11, 495.25, 494.41, 493.57, 485.97,
APWR(31,1)= 478.83, 472.27, 466.05, 460.24, 454.70, 449.52,
APWR(37,1)= 444.54, 439.44, 434.53, 429.97, 425.57, 421.26,
APWR(43,1)= 417.10, 413.01, 409.06, 405.29, 401.64, 366.66,
APWR(49,1)= 337.07, 310.75, 287.57, 266.97, 248.75, 232.15,
APWR(55,1)= 217.43, 204.22, 192.36, 181.66, 172.00, 163.27,
APWR(61,1)= 155.38, 148.25, 141.93, 135.96, 130.59, 96.73,
APWR(67,1)= 79.95, 69.93, 62.98, 57.47, 53.02, 49.35,
APWR(73,1)= 46.07, 43.08, 40.51, 38.27, 36.18, 34.21,
APWR(79,1)= 32.46, 30.90, 29.49, 28.22, 26.99, 18.63,
APWR(85,1)= 14.72, 12.66, 11.54, 10.87, 10.32, 9.95,
APWR(91,1)= 9.62, 9.24, 8.90, 8.61, 8.34, 8.06,
APWR(97,1)= 7.80, 7.57, 7.36, 7.17, 6.98, 5.14,
APWR(103,1)= 4.13, 3.23, 2.65, 2.24, 1.93, 1.70,
APWR(109,1)= 1.51, 1.32, 1.17, 1.05, 0.948, 0.862,
APWR(115,1)= 0.788, 0.725, 0.669, 0.621, 0.579, 0.330,
APWR(121,1)= 0.222, 0.163, 0.127, 0.102, 0.085, 0.072,
APWR(127,1)= 0.063, 0.055, 0.049, 0.044, 0.039, 0.036,
APWR(133,1)= 0.033, 0.030, 0.028,
APWR( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
APWR( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
APWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
APWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
APWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
APWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
APWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
APWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
APWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
APWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
APWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
APWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
APWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
APWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
APWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
APWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
APWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
APWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
APWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
APWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
APWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
APWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
APWR(133,0)= 800000.00, 850000.00, 900000.00,
APWR( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case10.wsm **
/COM, ** Output File Name: case10.dat **
/COM, ** Execution Date: 08/11/97 **
/COM, *****
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 167745 **
/COM, ** Ave Age: 25.495 **
/COM, ** Ave Burnup: 32713.029 **
/COM, ** Ave Enrichment: 3.093 **
/COM, ** Ave MTU/assy: 0.177 **
/COM, **
/COM, *****
*SET, ABWR,
*DIM, ABWR, TABLE, 135, 1,
ABWR( 1,1)= 183.74, 183.68, 183.62, 183.57, 183.51, 183.45,
ABWR( 7,1)= 183.40, 183.34, 183.28, 183.23, 183.17, 182.89,
ABWR(13,1)= 182.62, 182.34, 182.06, 181.79, 181.52, 181.25,
ABWR(19,1)= 180.98, 180.72, 180.45, 180.19, 179.92, 179.66,
ABWR(25,1)= 179.40, 179.15, 178.89, 178.63, 178.38, 176.01,
ABWR(31,1)= 173.75, 171.62, 169.58, 167.63, 165.76, 163.99,
ABWR(37,1)= 162.29, 160.52, 158.82, 157.23, 155.68, 154.16,
ABWR(43,1)= 152.69, 151.24, 149.84, 148.49, 147.18, 134.61,
ABWR(49,1)= 123.93, 114.39, 106.02, 98.58, 92.03, 86.02,
ABWR(55,1)= 80.74, 76.00, 71.73, 67.89, 64.42, 61.29,
ABWR(61,1)= 58.46, 55.90, 53.66, 51.48, 49.55, 37.24,
ABWR(67,1)= 30.99, 27.15, 24.45, 22.28, 20.52, 19.07,
ABWR(73,1)= 17.76, 16.57, 15.55, 14.66, 13.83, 13.04,
ABWR(79,1)= 12.35, 11.73, 11.17, 10.66, 10.18, 6.86,
ABWR(85,1)= 5.32, 4.52, 4.09, 3.84, 3.64, 3.51,
ABWR(91,1)= 3.39, 3.26, 3.14, 3.04, 2.94, 2.84,
ABWR(97,1)= 2.75, 2.67, 2.60, 2.53, 2.47, 1.82,
ABWR(103,1)= 1.46, 1.15, 0.940, 0.795, 0.687, 0.604,
ABWR(109,1)= 0.539, 0.473, 0.420, 0.377, 0.341, 0.310,
ABWR(115,1)= 0.284, 0.262, 0.242, 0.225, 0.210, 0.121,
ABWR(121,1)= 0.082, 0.061, 0.047, 0.039, 0.032, 0.027,
ABWR(127,1)= 0.024, 0.021, 0.019, 0.017, 0.015, 0.014,
ABWR(133,1)= 0.013, 0.012, 0.011,
ABWR( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ABWR( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ABWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ABWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ABWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ABWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ABWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ABWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ABWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ABWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ABWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ABWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ABWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ABWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ABWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ABWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ABWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ABWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ABWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ABWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ABWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ABWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ABWR(133,0)= 800000.00, 850000.00, 900000.00,
ABWR( 0,1)=1.0
/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 131519 **
/COM, ** Ave Age: 25.387 **
/COM, ** Ave Burnup: 39821.772 **
/COM, ** Ave Enrichment: 3.750 **
/COM, ** Ave MTU/assy: 0.434 **
/COM, **
/COM, *****
*SET, APWR,
*DIM, APWR, TABLE, 135, 1,
APWR( 1,1)= 497.48, 497.32, 497.17, 497.02, 496.86, 496.71,
APWR( 7,1)= 496.56, 496.40, 496.25, 496.10, 495.95, 495.19,
APWR(13,1)= 494.43, 493.68, 492.94, 492.19, 491.46, 490.72,
APWR(19,1)= 489.99, 489.27, 488.55, 487.83, 487.12, 486.41,
APWR(25,1)= 485.70, 485.00, 484.30, 483.61, 482.92, 476.51,
APWR(31,1)= 470.40, 464.62, 459.10, 453.85, 448.81, 444.02,
APWR(37,1)= 439.40, 434.58, 429.93, 425.61, 421.44, 417.31,
APWR(43,1)= 413.31, 409.37, 405.55, 401.90, 398.35, 364.08,
APWR(49,1)= 334.93, 308.87, 285.95, 265.54, 247.50, 231.03,
APWR(55,1)= 216.45, 203.36, 191.57, 180.95, 171.37, 162.71,
APWR(61,1)= 154.88, 147.81, 141.54, 135.58, 130.26, 96.61,
APWR(67,1)= 79.89, 69.90, 62.95, 57.45, 53.00, 49.34,
APWR(73,1)= 46.05, 43.06, 40.50, 38.26, 36.17, 34.20,
APWR(79,1)= 32.46, 30.89, 29.49, 28.21, 26.99, 18.63,
APWR(85,1)= 14.71, 12.66, 11.54, 10.87, 10.32, 9.95,
APWR(91,1)= 9.62, 9.24, 8.90, 8.61, 8.34, 8.06,
APWR(97,1)= 7.80, 7.57, 7.36, 7.17, 6.98, 5.14,
APWR(103,1)= 4.13, 3.23, 2.65, 2.24, 1.93, 1.70,
APWR(109,1)= 1.51, 1.32, 1.17, 1.05, 0.948, 0.862,
APWR(115,1)= 0.788, 0.725, 0.669, 0.621, 0.579, 0.330,
APWR(121,1)= 0.222, 0.163, 0.127, 0.102, 0.085, 0.072,
APWR(127,1)= 0.063, 0.055, 0.049, 0.044, 0.039, 0.036,
APWR(133,1)= 0.033, 0.030, 0.028,
APWR( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
APWR( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
APWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
APWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
APWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
APWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
APWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
APWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
APWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
APWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
APWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
APWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
APWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
APWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
APWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
APWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
APWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
APWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
APWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
APWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
APWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
APWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
APWR(133,0)= 800000.00, 850000.00, 900000.00,
APWR( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case11.wsm **
/COM, ** Output File Name: case11.dat **
/COM, ** Execution Date: 08/11/97 **
/COM, *****
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 167752 **
/COM, ** Ave Age: 26.147 **
/COM, ** Ave Burnup: 32713.324 **
/COM, ** Ave Enrichment: 3.093 **
/COM, ** Ave MTU/assy: 0.177 **
/COM, **
/COM, *****
*SET,ABWR,
*DIM,ABWR, TABLE,135,1,
ABWR( 1,1)= 183.00, 182.95, 182.89, 182.83, 182.78, 182.72,
ABWR( 7,1)= 182.66, 182.60, 182.55, 182.49, 182.43, 182.15,
ABWR(13,1)= 181.87, 181.60, 181.32, 181.04, 180.77, 180.50,
ABWR(19,1)= 180.23, 179.96, 179.70, 179.43, 179.17, 178.91,
ABWR(25,1)= 178.65, 178.39, 178.13, 177.88, 177.62, 175.22,
ABWR(31,1)= 172.94, 170.81, 168.78, 166.84, 164.98, 163.20,
ABWR(37,1)= 161.49, 159.79, 158.15, 156.55, 155.01, 153.49,
ABWR(43,1)= 152.03, 150.58, 149.17, 147.80, 146.47, 134.09,
ABWR(49,1)= 123.39, 113.96, 105.64, 98.24, 91.65, 85.75,
ABWR(55,1)= 80.49, 75.77, 71.53, 67.70, 64.25, 61.13,
ABWR(61,1)= 58.32, 55.80, 53.51, 51.38, 49.46, 37.19,
ABWR(67,1)= 30.97, 27.13, 24.43, 22.27, 20.51, 19.06,
ABWR(73,1)= 17.75, 16.56, 15.54, 14.66, 13.82, 13.04,
ABWR(79,1)= 12.34, 11.72, 11.16, 10.66, 10.17, 6.86,
ABWR(85,1)= 5.32, 4.52, 4.09, 3.84, 3.64, 3.51,
ABWR(91,1)= 3.39, 3.26, 3.14, 3.04, 2.94, 2.84,
ABWR(97,1)= 2.75, 2.67, 2.60, 2.53, 2.47, 1.82,
ABWR(103,1)= 1.46, 1.15, 0.940, 0.794, 0.687, 0.604,
ABWR(109,1)= 0.539, 0.473, 0.420, 0.377, 0.341, 0.310,
ABWR(115,1)= 0.284, 0.262, 0.242, 0.225, 0.210, 0.121,
ABWR(121,1)= 0.082, 0.061, 0.047, 0.039, 0.032, 0.027,
ABWR(127,1)= 0.024, 0.021, 0.019, 0.017, 0.015, 0.014,
ABWR(133,1)= 0.013, 0.012, 0.011,
ABWR( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ABWR( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ABWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ABWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ABWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ABWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ABWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ABWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ABWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ABWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ABWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ABWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ABWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ABWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ABWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ABWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ABWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ABWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ABWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ABWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ABWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ABWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ABWR(133,0)= 800000.00, 850000.00, 900000.00,
ABWR( 0,1)=1.0
/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 131522 **
/COM, ** Ave Age: 25.297 **
/COM, ** Ave Burnup: 39821.919 **
/COM, ** Ave Enrichment: 3.750 **
/COM, ** Ave MTU/assy: 0.434 **
/COM, **
/COM, *****
*SET,APWR,
*DIM,APWR, TABLE, 135, 1,
APWR( 1,1)= 506.90, 506.73, 506.56, 506.38, 506.21, 506.04,
APWR( 7,1)= 505.87, 505.69, 505.52, 505.35, 505.18, 504.33,
APWR(13,1)= 503.48, 502.64, 501.81, 500.98, 500.16, 499.34,
APWR(19,1)= 498.53, 497.73, 496.93, 496.14, 495.35, 494.57,
APWR(25,1)= 493.79, 493.02, 492.25, 491.49, 490.74, 483.72,
APWR(31,1)= 477.09, 470.95, 465.10, 459.57, 454.28, 449.22,
APWR(37,1)= 444.36, 439.57, 434.96, 430.49, 426.17, 421.92,
APWR(43,1)= 417.81, 413.77, 409.85, 406.01, 402.29, 367.74,
APWR(49,1)= 337.96, 311.68, 288.45, 267.79, 249.35, 232.83,
APWR(55,1)= 218.06, 204.80, 192.87, 182.11, 172.40, 163.63,
APWR(61,1)= 155.73, 148.62, 142.16, 136.23, 130.85, 96.85,
APWR(67,1)= 80.03, 69.98, 63.01, 57.49, 53.04, 49.37,
APWR(73,1)= 46.08, 43.09, 40.52, 38.28, 36.19, 34.22,
APWR(79,1)= 32.47, 30.90, 29.50, 28.22, 27.00, 18.63,
APWR(85,1)= 14.72, 12.66, 11.54, 10.87, 10.32, 9.95,
APWR(91,1)= 9.62, 9.24, 8.90, 8.61, 8.34, 8.06,
APWR(97,1)= 7.80, 7.57, 7.36, 7.17, 6.98, 5.14,
APWR(103,1)= 4.13, 3.23, 2.65, 2.24, 1.93, 1.70,
APWR(109,1)= 1.51, 1.32, 1.17, 1.05, 0.948, 0.862,
APWR(115,1)= 0.788, 0.725, 0.669, 0.621, 0.579, 0.330,
APWR(121,1)= 0.222, 0.163, 0.127, 0.102, 0.085, 0.072,
APWR(127,1)= 0.063, 0.055, 0.049, 0.044, 0.039, 0.036,
APWR(133,1)= 0.033, 0.030, 0.028,
APWR( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
APWR( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
APWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
APWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
APWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
APWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
APWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
APWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
APWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
APWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
APWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
APWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
APWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
APWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
APWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
APWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
APWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
APWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
APWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
APWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
APWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
APWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
APWR(133,0)= 800000.00, 850000.00, 900000.00,
APWR( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: B000000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case12.wsm **
/COM, ** Output File Name: case12.dat **
/COM, ** Execution Date: 08/11/97 **
/COM, *****
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 167745 **
/COM, ** Ave Age: 25.586 **
/COM, ** Ave Burnup: 32712.977 **
/COM, ** Ave Enrichment: 3.093 **
/COM, ** Ave MTU/assy: 0.177 **
/COM, **
/COM, *****
*SET,ABWR,
*DIM,ABWR, TABLE, 135, 1,
ABWR( 1,1)= 173.38, 173.34, 173.30, 173.26, 173.22, 173.18,
ABWR( 7,1)= 173.13, 173.09, 173.05, 173.01, 172.97, 172.76,
ABWR(13,1)= 172.56, 172.35, 172.15, 171.95, 171.75, 171.54,
ABWR(19,1)= 171.34, 171.15, 170.95, 170.75, 170.55, 170.36,
ABWR(25,1)= 170.16, 169.97, 169.77, 169.58, 169.39, 167.52,
ABWR(31,1)= 165.73, 163.98, 162.30, 160.65, 159.05, 157.48,
ABWR(37,1)= 155.97, 154.46, 153.00, 151.56, 150.17, 148.79,
ABWR(43,1)= 147.45, 146.12, 144.82, 143.53, 142.27, 130.59,
ABWR(49,1)= 120.39, 111.36, 103.36, 96.24, 89.88, 84.19,
ABWR(55,1)= 79.11, 74.54, 70.42, 66.71, 63.37, 60.35,
ABWR(61,1)= 57.63, 55.17, 52.93, 50.86, 48.99, 37.03,
ABWR(67,1)= 30.88, 27.08, 24.40, 22.24, 20.49, 19.05,
ABWR(73,1)= 17.74, 16.56, 15.54, 14.65, 13.82, 13.04,
ABWR(79,1)= 12.34, 11.72, 11.16, 10.66, 10.17, 6.86,
ABWR(85,1)= 5.32, 4.52, 4.09, 3.84, 3.64, 3.51,
ABWR(91,1)= 3.39, 3.26, 3.14, 3.03, 2.94, 2.84,
ABWR(97,1)= 2.75, 2.67, 2.60, 2.53, 2.47, 1.82,
ABWR(103,1)= 1.46, 1.15, 0.940, 0.794, 0.687, 0.604,
ABWR(109,1)= 0.539, 0.473, 0.420, 0.377, 0.341, 0.310,
ABWR(115,1)= 0.284, 0.262, 0.242, 0.225, 0.210, 0.121,
ABWR(121,1)= 0.082, 0.061, 0.047, 0.039, 0.032, 0.027,
ABWR(127,1)= 0.024, 0.021, 0.019, 0.017, 0.015, 0.014,
ABWR(133,1)= 0.013, 0.012, 0.011,
ABWR( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
ABWR( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
ABWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
ABWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
ABWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
ABWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
ABWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
ABWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
ABWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
ABWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
ABWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
ABWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
ABWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
ABWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
ABWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
ABWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
ABWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
ABWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
ABWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
ABWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
ABWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
ABWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
ABWR(133,0)= 800000.00, 850000.00, 900000.00,
ABWR( 0,1)=1.0
/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 131519
/COM, ** Ave Age: 25.390
/COM, ** Ave Burnup: 39821.344
/COM, ** Ave Enrichment: 3.750
/COM, ** Ave MTU/assy: 0.434
/COM, **
/COM, *****
*SET, APWR,
*DIM, APWR, TABLE, 135, 1,
APWR( 1,1)= 472.71, 472.60, 472.48, 472.37, 472.25, 472.14,
APWR( 7,1)= 472.02, 471.91, 471.80, 471.68, 471.57, 471.00,
APWR(13,1)= 470.44, 469.88, 469.32, 468.76, 468.21, 467.66,
APWR(19,1)= 467.11, 466.56, 466.02, 465.48, 464.94, 464.40,
APWR(25,1)= 463.86, 463.33, 462.80, 462.27, 461.75, 456.62,
APWR(31,1)= 451.70, 446.92, 442.30, 437.79, 433.43, 429.14,
APWR(37,1)= 424.99, 420.86, 416.85, 412.92, 409.10, 405.31,
APWR(43,1)= 401.63, 397.96, 394.38, 390.85, 387.41, 355.27,
APWR(49,1)= 327.16, 302.25, 280.15, 260.44, 242.82, 227.02,
APWR(55,1)= 212.87, 200.15, 188.69, 178.36, 169.05, 160.65,
APWR(61,1)= 153.07, 146.21, 139.96, 134.23, 129.03, 96.20,
APWR(67,1)= 79.69, 69.79, 62.87, 57.39, 52.96, 49.31,
APWR(73,1)= 46.03, 43.04, 40.48, 38.25, 36.16, 34.19,
APWR(79,1)= 32.44, 30.88, 29.48, 28.21, 26.98, 18.63,
APWR(85,1)= 14.71, 12.66, 11.54, 10.87, 10.32, 9.95,
APWR(91,1)= 9.62, 9.24, 8.90, 8.61, 8.34, 8.06,
APWR(97,1)= 7.80, 7.57, 7.36, 7.17, 6.98, 5.14,
APWR(103,1)= 4.13, 3.23, 2.65, 2.24, 1.93, 1.70,
APWR(109,1)= 1.51, 1.32, 1.17, 1.05, 0.948, 0.862,
APWR(115,1)= 0.788, 0.725, 0.669, 0.621, 0.579, 0.330,
APWR(121,1)= 0.222, 0.163, 0.127, 0.102, 0.085, 0.072,
APWR(127,1)= 0.063, 0.055, 0.049, 0.044, 0.039, 0.036,
APWR(133,1)= 0.033, 0.030, 0.028,
APWR( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
APWR( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
APWR(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
APWR(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
APWR(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
APWR(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
APWR(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
APWR(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
APWR(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
APWR(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
APWR(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
APWR(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
APWR(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
APWR(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
APWR(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
APWR(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
APWR(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
APWR(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
APWR(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
APWR(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
APWR(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
APWR(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
APWR(133,0)= 800000.00, 850000.00, 900000.00,
APWR( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case1.wsm **
/COM, ** Output File Name: finalw1.dat **
/COM, ** Execution Date: 08/11/97 **
/COM, *****
/COM, *****
/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 30317 **
/COM, ** Assemblies/pkg: 21 **
/COM, ** Max Heat (Watts/assy): 850.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 27.920 **
/COM, ** Ave Burnup: 44101.833 **
/COM, ** Ave Enrichment: 3.723 **
/COM, ** Ave MTU/assy: 0.428 **
/COM, **
/COM, *****
/COM, *SET, BIN1,
/COM, *DIM, BIN1, TABLE, 135, 1,
BIN1( 1,1)= 489.13, 489.02, 488.91, 488.79, 488.68, 488.57,
BIN1( 7,1)= 488.46, 488.35, 488.24, 488.13, 488.02, 487.47,
BIN1(13,1)= 486.92, 486.37, 485.82, 485.28, 484.74, 484.20,
BIN1(19,1)= 483.67, 483.13, 482.60, 482.07, 481.54, 481.02,
BIN1(25,1)= 480.49, 479.97, 479.45, 478.93, 478.42, 473.40,
BIN1(31,1)= 468.57, 463.84, 459.27, 454.81, 450.48, 446.22,
BIN1(37,1)= 442.08, 437.90, 433.83, 429.90, 426.07, 422.25,
BIN1(43,1)= 418.53, 414.84, 411.25, 407.70, 404.24, 371.65,
BIN1(49,1)= 343.09, 317.69, 295.20, 275.10, 257.14, 240.98,
BIN1(55,1)= 226.51, 213.50, 201.78, 191.24, 181.78, 173.09,
BIN1(61,1)= 165.26, 158.17, 151.72, 145.78, 140.39, 105.93,
BIN1(67,1)= 88.03, 77.14, 69.39, 63.26, 58.32, 54.26,
BIN1(73,1)= 50.59, 47.30, 44.46, 42.00, 39.68, 37.51,
BIN1(79,1)= 35.59, 33.87, 32.32, 30.92, 29.57, 20.38,
BIN1(85,1)= 16.07, 13.80, 12.57, 11.83, 11.22, 10.82,
BIN1(91,1)= 10.46, 10.04, 9.67, 9.34, 9.04, 8.73,
BIN1(97,1)= 8.46, 8.20, 7.97, 7.76, 7.55, 5.53,
BIN1(103,1)= 4.43, 3.47, 2.83, 2.39, 2.06, 1.81,
BIN1(109,1)= 1.61, 1.41, 1.25, 1.12, 1.01, 0.923,
BIN1(115,1)= 0.845, 0.778, 0.719, 0.668, 0.622, 0.357,
BIN1(121,1)= 0.241, 0.177, 0.138, 0.112, 0.093, 0.079,
BIN1(127,1)= 0.069, 0.060, 0.053, 0.048, 0.043, 0.039,
BIN1(133,1)= 0.036, 0.033, 0.031,
BIN1( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN1( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN1(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN1(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN1(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN1(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN1(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN1(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN1(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN1(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN1(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN1(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN1(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN1(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN1(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN1(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN1(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN1(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN1(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN1(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,

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BIN1(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
 BIN1(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
 BIN1(133,0)= 800000.00, 850000.00, 900000.00,
 BIN1(0,1)=1.0

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/COM, *****
/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 55455 **
/COM, ** Assemblies/pkg: 21 **
/COM, ** Max Heat (Watts/assy): 850.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.130 **
/COM, ** Min Kinf: 1.000 **
/COM, ** Ave Age: 26.340 **
/COM, ** Ave Burnup: 36662.111 **
/COM, ** Ave Enrichment: 3.638 **
/COM, ** Ave MTU/assy: 0.431 **
/COM, **
/COM, *****

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*SET,BIN2,

*DIM,BIN2, TABLE, 135, 1,

BIN2(1,1)=	434.28,	434.15,	434.01,	433.88,	433.75,	433.61,
BIN2(7,1)=	433.48,	433.35,	433.22,	433.08,	432.95,	432.29,
BIN2(13,1)=	431.63,	430.98,	430.33,	429.68,	429.04,	428.40,
BIN2(19,1)=	427.77,	427.14,	426.51,	425.88,	425.26,	424.65,
BIN2(25,1)=	424.03,	423.42,	422.81,	422.21,	421.61,	416.10,
BIN2(31,1)=	410.86,	405.90,	401.15,	396.67,	392.36,	388.29,
BIN2(37,1)=	384.36,	380.19,	376.17,	372.48,	368.91,	365.38,
BIN2(43,1)=	361.97,	358.62,	355.36,	352.27,	349.27,	319.85,
BIN2(49,1)=	294.93,	272.45,	252.66,	235.01,	219.41,	205.05,
BIN2(55,1)=	192.36,	180.95,	170.67,	161.41,	153.07,	145.49,
BIN2(61,1)=	138.64,	132.44,	126.98,	121.74,	117.08,	87.72,
BIN2(67,1)=	73.12,	64.39,	58.25,	53.34,	49.33,	46.00,
BIN2(73,1)=	42.97,	40.20,	37.82,	35.75,	33.79,	31.93,
BIN2(79,1)=	30.29,	28.82,	27.50,	26.30,	25.15,	17.27,
BIN2(85,1)=	13.58,	11.65,	10.61,	9.99,	9.49,	9.15,
BIN2(91,1)=	8.85,	8.51,	8.20,	7.93,	7.69,	7.43,
BIN2(97,1)=	7.20,	6.99,	6.80,	6.62,	6.46,	4.78,
BIN2(103,1)=	3.85,	3.02,	2.48,	2.09,	1.81,	1.59,
BIN2(109,1)=	1.42,	1.24,	1.10,	0.980,	0.883,	0.801,
BIN2(115,1)=	0.732,	0.672,	0.620,	0.574,	0.534,	0.302,
BIN2(121,1)=	0.201,	0.147,	0.114,	0.092,	0.076,	0.064,
BIN2(127,1)=	0.055,	0.049,	0.043,	0.038,	0.035,	0.031,
BIN2(133,1)=	0.029,	0.026,	0.024,			
BIN2(1,0)=	0.000001,	0.01,	0.02,	0.03,	0.04,	0.05,
BIN2(7,0)=	0.06,	0.07,	0.08,	0.09,	0.10,	0.15,
BIN2(13,0)=	0.20,	0.25,	0.30,	0.35,	0.40,	0.45,
BIN2(19,0)=	0.50,	0.55,	0.60,	0.65,	0.70,	0.75,
BIN2(25,0)=	0.80,	0.85,	0.90,	0.95,	1.00,	1.50,
BIN2(31,0)=	2.00,	2.50,	3.00,	3.50,	4.00,	4.50,
BIN2(37,0)=	5.00,	5.50,	6.00,	6.50,	7.00,	7.50,
BIN2(43,0)=	8.00,	8.50,	9.00,	9.50,	10.00,	15.00,
BIN2(49,0)=	20.00,	25.00,	30.00,	35.00,	40.00,	45.00,
BIN2(55,0)=	50.00,	55.00,	60.00,	65.00,	70.00,	75.00,
BIN2(61,0)=	80.00,	85.00,	90.00,	95.00,	100.00,	150.00,
BIN2(67,0)=	200.00,	250.00,	300.00,	350.00,	400.00,	450.00,
BIN2(73,0)=	500.00,	550.00,	600.00,	650.00,	700.00,	750.00,
BIN2(79,0)=	800.00,	850.00,	900.00,	950.00,	1000.00,	1500.00,
BIN2(85,0)=	2000.00,	2500.00,	3000.00,	3500.00,	4000.00,	4500.00,
BIN2(91,0)=	5000.00,	5500.00,	6000.00,	6500.00,	7000.00,	7500.00,
BIN2(97,0)=	8000.00,	8500.00,	9000.00,	9500.00,	10000.00,	15000.00,
BIN2(103,0)=	20000.00,	25000.00,	30000.00,	35000.00,	40000.00,	45000.00,
BIN2(109,0)=	50000.00,	55000.00,	60000.00,	65000.00,	70000.00,	75000.00,
BIN2(115,0)=	80000.00,	85000.00,	90000.00,	95000.00,	100000.00,	150000.00,
BIN2(121,0)=	200000.00,	250000.00,	300000.00,	350000.00,	400000.00,	450000.00,
BIN2(127,0)=	500000.00,	550000.00,	600000.00,	650000.00,	700000.00,	750000.00,
BIN2(133,0)=	800000.00,	850000.00,	900000.00,			
BIN2(0,1)=	1.0					

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/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 2520
/COM, ** Assemblies/pkg: 21
/COM, ** Max Heat (Watts/assy): 850.00
/COM, ** Min Heat (Watts/assy): 0.00
/COM, ** Max Kinf: 1.450
/COM, ** Min Kinf: 1.130
/COM, ** Ave Age: 35.694
/COM, ** Ave Burnup: 17417.637
/COM, ** Ave Enrichment: 3.462
/COM, ** Ave MTU/assy: 0.388
/COM, **
/COM, *****
*SET,BIN3,
*DIM,BIN3, TABLE, 135, 1,
BIN3( 1,1)= 138.32, 138.29, 138.26, 138.23, 138.20, 138.16,
BIN3( 7,1)= 138.13, 138.10, 138.07, 138.04, 138.01, 137.85,
BIN3(13,1)= 137.69, 137.54, 137.38, 137.23, 137.08, 136.92,
BIN3(19,1)= 136.77, 136.62, 136.47, 136.32, 136.17, 136.02,
BIN3(25,1)= 135.87, 135.73, 135.58, 135.43, 135.29, 133.86,
BIN3(31,1)= 132.49, 131.16, 129.88, 128.64, 127.43, 126.21,
BIN3(37,1)= 125.04, 123.87, 122.75, 121.63, 120.54, 119.47,
BIN3(43,1)= 118.42, 117.39, 116.39, 115.37, 114.37, 105.15,
BIN3(49,1)= 97.02, 89.76, 83.27, 77.48, 72.29, 67.63,
BIN3(55,1)= 63.47, 59.73, 56.38, 53.36, 50.63, 48.19,
BIN3(61,1)= 46.00, 44.01, 42.24, 40.62, 39.17, 30.27,
BIN3(67,1)= 26.03, 23.60, 21.81, 20.37, 19.12, 18.04,
BIN3(73,1)= 17.00, 16.05, 15.22, 14.49, 13.77, 13.10,
BIN3(79,1)= 12.51, 11.97, 11.48, 11.04, 10.61, 7.67,
BIN3(85,1)= 6.29, 5.55, 5.15, 4.90, 4.69, 4.55,
BIN3(91,1)= 4.42, 4.27, 4.14, 4.02, 3.91, 3.80,
BIN3(97,1)= 3.69, 3.60, 3.51, 3.43, 3.36, 2.58,
BIN3(103,1)= 2.14, 1.70, 1.41, 1.20, 1.05, 0.931,
BIN3(109,1)= 0.836, 0.725, 0.637, 0.565, 0.506, 0.457,
BIN3(115,1)= 0.415, 0.379, 0.348, 0.322, 0.298, 0.163,
BIN3(121,1)= 0.106, 0.076, 0.058, 0.046, 0.038, 0.032,
BIN3(127,1)= 0.027, 0.024, 0.021, 0.019, 0.017, 0.015,
BIN3(133,1)= 0.014, 0.012, 0.011,
BIN3( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN3( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN3(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN3(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN3(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN3(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN3(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN3(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN3(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN3(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN3(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN3(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN3(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN3(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN3(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN3(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN3(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN3(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN3(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN3(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN3(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN3(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN3(133,0)= 800000.00, 850000.00, 900000.00,
BIN3( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 4674
/COM, ** Assemblies/pkg: 12

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/COM, ** Max Heat (Watts/assy): 1500.00 **
/COM, ** Min Heat (Watts/assy): 850.00 **
/COM, ** Max Kinf: 1.020 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 10.369 **
/COM, ** Ave Burnup: 52965.737 **
/COM, ** Ave Enrichment: 4.247 **
/COM, ** Ave MTU/assy: 0.453 **
/COM, **
/COM, *****
*SET,BIN4,
*DIM,BIN4,TABLE,135,1,
BIN4( 1,1)= 935.91, 935.50, 935.08, 934.67, 934.26, 933.85,
BIN4( 7,1)= 933.44, 933.03, 932.63, 932.22, 931.81, 929.78,
BIN4(13,1)= 927.77, 925.77, 923.79, 921.81, 919.86, 917.91,
BIN4(19,1)= 915.98, 914.06, 912.16, 910.26, 908.38, 906.52,
BIN4(25,1)= 904.66, 902.82, 900.99, 899.17, 897.36, 881.27,
BIN4(31,1)= 866.12, 852.16, 838.95, 826.77, 815.19, 804.67,
BIN4(37,1)= 794.62, 783.24, 772.36, 763.10, 754.22, 745.49,
BIN4(43,1)= 737.09, 728.94, 721.09, 714.10, 707.34, 637.55,
BIN4(49,1)= 580.88, 530.05, 486.31, 447.57, 414.19, 382.89,
BIN4(55,1)= 355.88, 331.71, 310.06, 290.64, 273.18, 257.45,
BIN4(61,1)= 243.26, 230.46, 219.63, 208.67, 199.14, 139.54,
BIN4(67,1)= 111.31, 94.75, 84.02, 75.71, 69.19, 64.02,
BIN4(73,1)= 59.64, 55.63, 52.21, 49.24, 46.59, 44.09,
BIN4(79,1)= 41.86, 39.88, 38.09, 36.47, 34.96, 24.45,
BIN4(85,1)= 19.53, 16.90, 15.45, 14.54, 13.81, 13.30,
BIN4(91,1)= 12.86, 12.32, 11.85, 11.43, 11.06, 10.67,
BIN4(97,1)= 10.32, 10.00, 9.71, 9.44, 9.19, 6.65,
BIN4(103,1)= 5.29, 4.12, 3.36, 2.82, 2.43, 2.13,
BIN4(109,1)= 1.89, 1.67, 1.49, 1.34, 1.22, 1.11,
BIN4(115,1)= 1.02, 0.942, 0.874, 0.814, 0.761, 0.447,
BIN4(121,1)= 0.306, 0.228, 0.180, 0.147, 0.123, 0.106,
BIN4(127,1)= 0.092, 0.081, 0.072, 0.065, 0.059, 0.054,
BIN4(133,1)= 0.050, 0.046, 0.043,
BIN4( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN4( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN4(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN4(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN4(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN4(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN4(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN4(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN4(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN4(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN4(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN4(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN4(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN4(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN4(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN4(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN4(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN4(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN4(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN4(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN4(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN4(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN4(133,0)= 800000.00, 850000.00, 900000.00,
BIN4( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: STx **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 1800 **
/COM, ** Assemblies/pkg: 12 **
/COM, ** Max Heat (Watts/assy): 1500.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.130 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 15.944 **

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/COM, ** Ave Burnup: 44782.169 **
/COM, ** Ave Enrichment: 3.887 **
/COM, ** Ave MTU/assy: 0.539 **
/COM, **
/COM, *****
*SET, BIN5,
*DIM, BIN5, TABLE, 135, 1,
BIN5( 1,1)= 873.09, 872.79, 872.49, 872.19, 871.89, 871.59,
BIN5( 7,1)= 871.29, 870.99, 870.69, 870.39, 870.09, 868.61,
BIN5(13,1)= 867.14, 865.67, 864.22, 862.77, 861.34, 859.91,
BIN5(19,1)= 858.49, 857.08, 855.67, 854.28, 852.89, 851.51,
BIN5(25,1)= 850.14, 848.78, 847.42, 846.08, 844.74, 832.25,
BIN5(31,1)= 820.42, 809.40, 798.90, 788.88, 779.31, 770.38,
BIN5(37,1)= 761.82, 752.77, 744.08, 736.05, 728.31, 720.77,
BIN5(43,1)= 713.49, 706.26, 699.28, 692.78, 686.49, 624.22,
BIN5(49,1)= 572.08, 525.37, 484.76, 448.62, 417.16, 387.96,
BIN5(55,1)= 362.48, 339.65, 319.14, 300.69, 284.12, 269.11,
BIN5(61,1)= 255.59, 243.29, 232.77, 222.25, 213.02, 154.41,
BIN5(67,1)= 125.26, 107.58, 95.72, 86.31, 78.91, 72.95,
BIN5(73,1)= 67.81, 63.13, 59.12, 55.66, 52.51, 49.52,
BIN5(79,1)= 46.88, 44.52, 42.40, 40.49, 38.69, 26.24,
BIN5(85,1)= 20.45, 17.43, 15.79, 14.83, 14.04, 13.52,
BIN5(91,1)= 13.07, 12.53, 12.06, 11.64, 11.26, 10.88,
BIN5(97,1)= 10.53, 10.21, 9.92, 9.65, 9.40, 6.85,
BIN5(103,1)= 5.47, 4.29, 3.51, 2.96, 2.56, 2.25,
BIN5(109,1)= 2.00, 1.77, 1.59, 1.43, 1.30, 1.19,
BIN5(115,1)= 1.10, 1.02, 0.946, 0.883, 0.827, 0.493,
BIN5(121,1)= 0.342, 0.257, 0.204, 0.168, 0.141, 0.122,
BIN5(127,1)= 0.106, 0.094, 0.084, 0.076, 0.069, 0.064,
BIN5(133,1)= 0.059, 0.054, 0.050,
BIN5( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN5( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN5(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN5(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN5(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN5(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN5(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN5(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN5(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN5(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN5(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN5(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN5(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN5(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN5(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN5(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN5(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN5(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN5(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN5(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN5(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN5(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN5(133,0)= 800000.00, 850000.00, 900000.00,
BIN5( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 30587 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 18.753 **
/COM, ** Ave Burnup: 42164.201 **
/COM, ** Ave Enrichment: 3.319 **
/COM, ** Ave MTU/assy: 0.174 **
/COM, **
/COM, *****

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*SET,BIN6,
*DIM,BIN6,TABLE,135,1,
BIN6( 1,1)= 264.20, 264.11, 264.02, 263.93, 263.85, 263.76,
BIN6( 7,1)= 263.67, 263.58, 263.49, 263.40, 263.31, 262.87,
BIN6(13,1)= 262.43, 261.99, 261.55, 261.12, 260.69, 260.26,
BIN6(19,1)= 259.84, 259.42, 259.00, 258.58, 258.16, 257.75,
BIN6(25,1)= 257.34, 256.93, 256.53, 256.12, 255.72, 252.01,
BIN6(31,1)= 248.49, 245.18, 242.04, 239.06, 236.21, 233.53,
BIN6(37,1)= 230.96, 228.25, 225.64, 223.22, 220.89, 218.59,
BIN6(43,1)= 216.37, 214.22, 212.14, 210.16, 208.25, 189.56,
BIN6(49,1)= 173.87, 159.83, 147.65, 136.84, 127.40, 118.67,
BIN6(55,1)= 111.06, 104.24, 98.12, 92.63, 87.71, 83.22,
BIN6(61,1)= 79.19, 75.54, 72.39, 69.25, 66.50, 48.97,
BIN6(67,1)= 40.12, 34.68, 30.95, 27.99, 25.64, 23.73,
BIN6(73,1)= 22.06, 20.54, 19.24, 18.12, 17.08, 16.11,
BIN6(79,1)= 15.24, 14.47, 13.78, 13.15, 12.56, 8.47,
BIN6(85,1)= 6.57, 5.59, 5.05, 4.74, 4.49, 4.32,
BIN6(91,1)= 4.17, 4.00, 3.85, 3.72, 3.60, 3.47,
BIN6(97,1)= 3.36, 3.26, 3.17, 3.08, 3.00, 2.19,
BIN6(103,1)= 1.75, 1.37, 1.12, 0.942, 0.813, 0.714,
BIN6(109,1)= 0.635, 0.561, 0.501, 0.451, 0.410, 0.375,
BIN6(115,1)= 0.345, 0.318, 0.296, 0.275, 0.258, 0.152,
BIN6(121,1)= 0.105, 0.078, 0.062, 0.051, 0.043, 0.037,
BIN6(127,1)= 0.032, 0.028, 0.025, 0.023, 0.021, 0.019,
BIN6(133,1)= 0.017, 0.016, 0.015,
BIN6( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN6( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN6(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN6(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN6(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN6(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN6(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN6(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN6(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN6(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN6(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN6(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN6(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN6(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN6(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN6(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN6(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN6(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN6(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN6(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN6(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN6(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN6(133,0)= 800000.00, 850000.00, 900000.00,
BIN6( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 92689 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.370 **
/COM, ** Min Kinf: 1.000 **
/COM, ** Ave Age: 29.878 **
/COM, ** Ave Burnup: 29420.945 **
/COM, ** Ave Enrichment: 2.910 **
/COM, ** Ave MTU/assy: 0.179 **
/COM, **
/COM, *****
*SET,BIN7,
*DIM,BIN7,TABLE,135,1,
BIN7( 1,1)= 146.37, 146.33, 146.29, 146.25, 146.21, 146.17,
BIN7( 7,1)= 146.13, 146.10, 146.06, 146.02, 145.98, 145.79,
BIN7(13,1)= 145.60, 145.41, 145.22, 145.03, 144.85, 144.66,

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BIN7(19,1)= 144.48, 144.29, 144.11, 143.93, 143.75, 143.57,
BIN7(25,1)= 143.39, 143.21, 143.03, 142.85, 142.68, 141.03,
BIN7(31,1)= 139.45, 137.94, 136.50, 135.11, 133.77, 132.49,
BIN7(37,1)= 131.26, 129.97, 128.73, 127.54, 126.40, 125.26,
BIN7(43,1)= 124.15, 123.07, 122.02, 121.01, 120.02, 110.50,
BIN7(49,1)= 102.28, 94.90, 88.39, 82.58, 77.42, 72.69,
BIN7(55,1)= 68.51, 64.74, 61.36, 58.30, 55.55, 53.03,
BIN7(61,1)= 50.76, 48.70, 46.88, 45.13, 43.56, 33.55,
BIN7(67,1)= 28.33, 25.09, 22.72, 20.81, 19.24, 17.92,
BIN7(73,1)= 16.71, 15.60, 14.66, 13.83, 13.04, 12.30,
BIN7(79,1)= 11.64, 11.05, 10.53, 10.05, 9.58, 6.44,
BIN7(85,1)= 4.97, 4.22, 3.82, 3.58, 3.40, 3.27,
BIN7(91,1)= 3.16, 3.04, 2.93, 2.84, 2.75, 2.66,
BIN7(97,1)= 2.58, 2.50, 2.43, 2.37, 2.31, 1.71,
BIN7(103,1)= 1.38, 1.08, 0.888, 0.751, 0.650, 0.572,
BIN7(109,1)= 0.510, 0.446, 0.395, 0.354, 0.319, 0.290,
BIN7(115,1)= 0.265, 0.243, 0.225, 0.209, 0.194, 0.111,
BIN7(121,1)= 0.074, 0.054, 0.042, 0.034, 0.028, 0.024,
BIN7(127,1)= 0.021, 0.018, 0.016, 0.015, 0.013, 0.012,
BIN7(133,1)= 0.011, 0.010, 0.009,
BIN7( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN7( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN7(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN7(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN7(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN7(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN7(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN7(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN7(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN7(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN7(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN7(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN7(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN7(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN7(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN7(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN7(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN7(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN7(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN7(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN7(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN7(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN7(133,0)= 800000.00, 850000.00, 900000.00,
BIN7( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 993 **
/COM, ** Assemblies/pkg: 24 **
/COM, ** Max Heat (Watts/assy): 520.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.540 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 18.139 **
/COM, ** Ave Burnup: 8835.600 **
/COM, ** Ave Enrichment: 3.468 **
/COM, ** Ave MTU/assy: 0.165 **
/COM, **
/COM, *****
*SET,BIN8,
*DIM,BIN8,TABLE,135,1,
BIN8( 1,1)= 38.88, 38.87, 38.86, 38.85, 38.84, 38.83,
BIN8( 7,1)= 38.82, 38.81, 38.80, 38.79, 38.78, 38.72,
BIN8(13,1)= 38.67, 38.62, 38.56, 38.51, 38.46, 38.41,
BIN8(19,1)= 38.35, 38.30, 38.25, 38.20, 38.15, 38.10,
BIN8(25,1)= 38.05, 38.00, 37.95, 37.90, 37.85, 37.37,
BIN8(31,1)= 36.91, 36.46, 36.04, 35.62, 35.22, 34.81,
BIN8(37,1)= 34.42, 34.03, 33.66, 33.29, 32.95, 32.60,
BIN8(43,1)= 32.27, 31.94, 31.62, 31.29, 30.97, 28.07,

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BIN8(49,1)= 25.54, 23.31, 21.36, 19.62, 18.08, 16.71,
BIN8(55,1)= 15.49, 14.40, 13.43, 12.57, 11.80, 11.11,
BIN8(61,1)= 10.50, 9.96, 9.47, 9.02, 8.63, 8.36,
BIN8(67,1)= 5.40, 4.90, 4.56, 4.29, 4.06, 3.85,
BIN8(73,1)= 3.66, 3.47, 3.31, 3.17, 3.04, 2.92,
BIN8(79,1)= 2.80, 2.70, 2.60, 2.52, 2.44, 1.88,
BIN8(85,1)= 1.62, 1.48, 1.40, 1.35, 1.30, 1.26,
BIN8(91,1)= 1.23, 1.20, 1.16, 1.13, 1.11, 1.08,
BIN8(97,1)= 1.05, 1.03, 1.01, 0.986, 0.966, 0.762,
BIN8(103,1)= 0.644, 0.518, 0.434, 0.373, 0.328, 0.292,
BIN8(109,1)= 0.264, 0.229, 0.201, 0.178, 0.160, 0.144,
BIN8(115,1)= 0.131, 0.119, 0.110, 0.101, 0.094, 0.051,
BIN8(121,1)= 0.033, 0.024, 0.018, 0.014, 0.012, 0.010,
BIN8(127,1)= 0.008, 0.007, 0.006, 0.006, 0.005, 0.005,
BIN8(133,1)= 0.004, 0.004, 0.004,
BIN8( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN8( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN8(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN8(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN8(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN8(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN8(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN8(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN8(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN8(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN8(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN8(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN8(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN8(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN8(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN8(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN8(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN8(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN8(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN8(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN8(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN8(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN8(133,0)= 800000.00, 850000.00, 900000.00,
BIN8( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: B00000000-01717-1200-3000X Rev.000 **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case2.wsm **
/COM, ** Output File Name: finalw2.dat **
/COM, ** Execution Date: 08/11/97 **
/COM, *****
/COM, *****
/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 30329 **
/COM, ** Assemblies/pkg: 21 **
/COM, ** Max Heat (Watts/assy): 850.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 27.230 **
/COM, ** Ave Burnup: 44075.419 **
/COM, ** Ave Enrichment: 3.709 **
/COM, ** Ave MTU/assy: 0.428 **
/COM, **
/COM, *****
*SET, BIN1,
*DIM, BIN1, TABLE, 135, 1,
BIN1( 1,1)= 497.57, 497.45, 497.33, 497.21, 497.10, 496.98,
BIN1( 7,1)= 496.86, 496.74, 496.62, 496.51, 496.39, 495.80,
BIN1(13,1)= 495.22, 494.64, 494.06, 493.49, 492.91, 492.34,
BIN1(19,1)= 491.77, 491.21, 490.64, 490.08, 489.52, 488.97,
BIN1(25,1)= 488.41, 487.86, 487.31, 486.76, 486.21, 480.94,
BIN1(31,1)= 475.86, 470.93, 466.16, 461.51, 457.01, 452.62,
BIN1(37,1)= 448.36, 444.04, 439.85, 435.81, 431.88, 427.96,
BIN1(43,1)= 424.15, 420.37, 416.68, 413.06, 409.52, 376.21,
BIN1(49,1)= 347.15, 321.29, 298.41, 277.99, 259.76, 243.33,
BIN1(55,1)= 228.65, 215.44, 203.55, 192.85, 183.26, 174.45,
BIN1(61,1)= 166.51, 159.32, 152.80, 146.78, 141.32, 106.46,
BIN1(67,1)= 88.40, 77.44, 69.65, 63.48, 58.52, 54.44,
BIN1(73,1)= 50.76, 47.45, 44.60, 42.13, 39.80, 37.62,
BIN1(79,1)= 35.69, 33.97, 32.41, 31.01, 29.65, 20.42,
BIN1(85,1)= 16.10, 13.83, 12.59, 11.84, 11.24, 10.83,
BIN1(91,1)= 10.47, 10.05, 9.68, 9.35, 9.05, 8.75,
BIN1(97,1)= 8.47, 8.21, 7.98, 7.77, 7.57, 5.54,
BIN1(103,1)= 4.44, 3.47, 2.84, 2.39, 2.06, 1.81,
BIN1(109,1)= 1.61, 1.41, 1.25, 1.12, 1.02, 0.924,
BIN1(115,1)= 0.846, 0.778, 0.719, 0.668, 0.623, 0.357,
BIN1(121,1)= 0.241, 0.177, 0.138, 0.112, 0.093, 0.079,
BIN1(127,1)= 0.069, 0.060, 0.053, 0.048, 0.043, 0.039,
BIN1(133,1)= 0.036, 0.033, 0.031,
BIN1( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN1( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN1(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN1(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN1(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN1(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN1(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN1(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN1(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN1(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN1(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN1(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN1(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN1(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN1(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN1(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN1(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN1(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN1(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN1(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,

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BIN1(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
 BIN1(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
 BIN1(133,0)= 800000.00, 850000.00, 900000.00,
 BIN1(0,1)=1.0

/COM, *****
 /COM, **
 /COM, ** Assembly Type: PWR **
 /COM, ** Decay Period (years): 900000 **
 /COM, ** Number of assemblies: 54876 **
 /COM, ** Assemblies/pkg: 21 **
 /COM, ** Max Heat (Watts/assy): 850.00 **
 /COM, ** Min Heat (Watts/assy): 0.00 **
 /COM, ** Max Kinf: 1.130 **
 /COM, ** Min Kinf: 1.000 **
 /COM, ** Ave Age: 25.043 **
 /COM, ** Ave Burnup: 36993.288 **
 /COM, ** Ave Enrichment: 3.676 **
 /COM, ** Ave MTU/assy: 0.431 **
 /COM, **
 /COM, *****

*SET,BIN2,

*DIM,BIN2,TABLE,135,1,

BIN2(1,1)=	446.30,	446.16,	446.02,	445.88,	445.74,	445.60,
BIN2(7,1)=	445.46,	445.32,	445.18,	445.04,	444.90,	444.20,
BIN2(13,1)=	443.51,	442.83,	442.14,	441.46,	440.79,	440.12,
BIN2(19,1)=	439.45,	438.79,	438.13,	437.47,	436.82,	436.17,
BIN2(25,1)=	435.52,	434.88,	434.24,	433.61,	432.98,	427.20,
BIN2(31,1)=	421.70,	416.53,	411.58,	406.89,	402.40,	398.16,
BIN2(37,1)=	394.08,	389.75,	385.57,	381.74,	378.03,	374.38,
BIN2(43,1)=	370.85,	367.38,	364.01,	360.83,	357.73,	327.32,
BIN2(49,1)=	301.65,	278.48,	258.09,	239.90,	223.88,	209.09,
BIN2(55,1)=	196.03,	184.29,	173.71,	164.19,	155.62,	147.82,
BIN2(61,1)=	140.78,	134.40,	128.81,	123.43,	118.64,	88.55,
BIN2(67,1)=	73.67,	64.80,	58.59,	53.64,	49.59,	46.23,
BIN2(73,1)=	43.19,	40.40,	38.00,	35.91,	33.95,	32.09,
BIN2(79,1)=	30.43,	28.96,	27.63,	26.42,	25.27,	17.35,
BIN2(85,1)=	13.64,	11.70,	10.66,	10.04,	9.53,	9.19,
BIN2(91,1)=	8.89,	8.54,	8.24,	7.97,	7.72,	7.47,
BIN2(97,1)=	7.23,	7.02,	6.83,	6.65,	6.48,	4.79,
BIN2(103,1)=	3.87,	3.03,	2.49,	2.10,	1.82,	1.60,
BIN2(109,1)=	1.43,	1.25,	1.10,	0.985,	0.887,	0.805,
BIN2(115,1)=	0.735,	0.675,	0.623,	0.577,	0.537,	0.304,
BIN2(121,1)=	0.203,	0.148,	0.115,	0.092,	0.077,	0.065,
BIN2(127,1)=	0.056,	0.049,	0.043,	0.039,	0.035,	0.032,
BIN2(133,1)=	0.029,	0.027,	0.025,			
BIN2(1,0)=	0.000001,	0.01,	0.02,	0.03,	0.04,	0.05,
BIN2(7,0)=	0.06,	0.07,	0.08,	0.09,	0.10,	0.15,
BIN2(13,0)=	0.20,	0.25,	0.30,	0.35,	0.40,	0.45,
BIN2(19,0)=	0.50,	0.55,	0.60,	0.65,	0.70,	0.75,
BIN2(25,0)=	0.80,	0.85,	0.90,	0.95,	1.00,	1.50,
BIN2(31,0)=	2.00,	2.50,	3.00,	3.50,	4.00,	4.50,
BIN2(37,0)=	5.00,	5.50,	6.00,	6.50,	7.00,	7.50,
BIN2(43,0)=	8.00,	8.50,	9.00,	9.50,	10.00,	15.00,
BIN2(49,0)=	20.00,	25.00,	30.00,	35.00,	40.00,	45.00,
BIN2(55,0)=	50.00,	55.00,	60.00,	65.00,	70.00,	75.00,
BIN2(61,0)=	80.00,	85.00,	90.00,	95.00,	100.00,	150.00,
BIN2(67,0)=	200.00,	250.00,	300.00,	350.00,	400.00,	450.00,
BIN2(73,0)=	500.00,	550.00,	600.00,	650.00,	700.00,	750.00,
BIN2(79,0)=	800.00,	850.00,	900.00,	950.00,	1000.00,	1500.00,
BIN2(85,0)=	2000.00,	2500.00,	3000.00,	3500.00,	4000.00,	4500.00,
BIN2(91,0)=	5000.00,	5500.00,	6000.00,	6500.00,	7000.00,	7500.00,
BIN2(97,0)=	8000.00,	8500.00,	9000.00,	9500.00,	10000.00,	15000.00,
BIN2(103,0)=	20000.00,	25000.00,	30000.00,	35000.00,	40000.00,	45000.00,
BIN2(109,0)=	50000.00,	55000.00,	60000.00,	65000.00,	70000.00,	75000.00,
BIN2(115,0)=	80000.00,	85000.00,	90000.00,	95000.00,	100000.00,	150000.00,
BIN2(121,0)=	200000.00,	250000.00,	300000.00,	350000.00,	400000.00,	450000.00,
BIN2(127,0)=	500000.00,	550000.00,	600000.00,	650000.00,	700000.00,	750000.00,
BIN2(133,0)=	800000.00,	850000.00,	900000.00,			
BIN2(0,1)=	1.0					

/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 3112
/COM, ** Assemblies/pkg: 21
/COM, ** Max Heat (Watts/assy): 850.00
/COM, ** Min Heat (Watts/assy): 0.00
/COM, ** Max Kinf: 1.450
/COM, ** Min Kinf: 1.130
/COM, ** Ave Age: 31.995
/COM, ** Ave Burnup: 17873.954
/COM, ** Ave Enrichment: 3.565
/COM, ** Ave MTU/assy: 0.397
/COM, **
/COM, *****

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*SET,BIN3,

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*DIM,BIN3,TABLE,135,1,

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BIN3( 1,1)= 162.76, 162.72, 162.67, 162.62, 162.58, 162.53,
BIN3( 7,1)= 162.48, 162.44, 162.39, 162.34, 162.30, 162.07,
BIN3(13,1)= 161.84, 161.61, 161.38, 161.16, 160.93, 160.71,
BIN3(19,1)= 160.49, 160.26, 160.04, 159.83, 159.61, 159.39,
BIN3(25,1)= 159.18, 158.96, 158.75, 158.54, 158.33, 156.35,
BIN3(31,1)= 154.47, 152.68, 150.96, 149.32, 147.74, 146.21,
BIN3(37,1)= 144.74, 143.23, 141.78, 140.38, 139.03, 137.69,
BIN3(43,1)= 136.40, 135.13, 133.90, 132.67, 131.48, 120.28,
BIN3(49,1)= 110.61, 101.94, 94.25, 87.40, 81.31, 75.74,
BIN3(55,1)= 70.83, 66.41, 62.45, 58.91, 55.69, 52.82,
BIN3(61,1)= 50.24, 47.89, 45.85, 43.93, 42.23, 31.92,
BIN3(67,1)= 27.19, 24.55, 22.66, 21.13, 19.82, 18.70,
BIN3(73,1)= 17.63, 16.63, 15.77, 15.01, 14.27, 13.58,
BIN3(79,1)= 12.95, 12.40, 11.89, 11.43, 10.98, 7.93,
BIN3(85,1)= 6.50, 5.74, 5.32, 5.06, 4.85, 4.70,
BIN3(91,1)= 4.56, 4.41, 4.27, 4.15, 4.04, 3.92,
BIN3(97,1)= 3.82, 3.72, 3.63, 3.55, 3.47, 2.66,
BIN3(103,1)= 2.20, 1.75, 1.46, 1.24, 1.08, 0.961,
BIN3(109,1)= 0.863, 0.749, 0.659, 0.585, 0.524, 0.473,
BIN3(115,1)= 0.430, 0.393, 0.361, 0.334, 0.309, 0.170,
BIN3(121,1)= 0.111, 0.080, 0.061, 0.049, 0.040, 0.034,
BIN3(127,1)= 0.029, 0.025, 0.022, 0.019, 0.017, 0.016,
BIN3(133,1)= 0.014, 0.013, 0.012,
BIN3( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN3( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN3(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN3(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN3(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN3(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN3(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN3(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN3(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN3(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN3(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN3(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN3(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN3(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN3(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN3(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN3(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN3(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN3(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN3(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN3(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN3(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN3(133,0)= 800000.00, 850000.00, 900000.00,
BIN3( 0,1)=1.0

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/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 4447
/COM, ** Assemblies/pkg: 12
/COM, **

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/COM, ** Max Heat (Watts/assy): 1500.00 **
/COM, ** Min Heat (Watts/assy): 850.00 **
/COM, ** Max Kinf: 1.020 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 10.396 **
/COM, ** Ave Burnup: 53357.122 **
/COM, ** Ave Enrichment: 4.280 **
/COM, ** Ave MTU/assy: 0.450 **
/COM, **
/COM, *****
*SET, BIN4,
*DIM, BIN4, TABLE, 135, 1,
BIN4( 1, 1) = 937.77, 937.36, 936.95, 936.54, 936.13, 935.73,
BIN4( 7, 1) = 935.32, 924.91, 934.51, 934.10, 933.70, 931.68,
BIN4(13, 1) = 929.68, 927.69, 925.72, 923.76, 921.81, 919.87,
BIN4(19, 1) = 917.95, 916.05, 914.15, 912.27, 910.40, 908.54,
BIN4(25, 1) = 906.70, 904.86, 903.04, 901.23, 899.43, 883.37,
BIN4(31, 1) = 868.24, 854.29, 841.08, 828.92, 817.37, 806.72,
BIN4(37, 1) = 796.55, 785.22, 774.39, 765.12, 756.23, 747.47,
BIN4(43, 1) = 739.04, 730.92, 723.11, 716.00, 709.13, 639.17,
BIN4(49, 1) = 582.24, 531.27, 487.36, 448.47, 414.92, 383.56,
BIN4(55, 1) = 356.46, 332.21, 310.48, 291.00, 273.48, 257.70,
BIN4(61, 1) = 243.47, 230.63, 219.73, 208.76, 199.21, 139.41,
BIN4(67, 1) = 111.09, 94.50, 83.75, 75.43, 68.92, 63.77,
BIN4(73, 1) = 59.39, 55.41, 52.00, 49.04, 46.41, 43.92,
BIN4(79, 1) = 41.71, 39.73, 37.95, 36.34, 34.85, 24.40,
BIN4(85, 1) = 19.51, 16.89, 15.44, 14.54, 13.81, 13.30,
BIN4(91, 1) = 12.85, 12.32, 11.85, 11.43, 11.06, 10.67,
BIN4(97, 1) = 10.31, 9.99, 9.70, 9.43, 9.18, 6.64,
BIN4(103, 1) = 5.28, 4.11, 3.35, 2.82, 2.42, 2.12,
BIN4(109, 1) = 1.89, 1.67, 1.49, 1.34, 1.21, 1.11,
BIN4(115, 1) = 1.02, 0.942, 0.874, 0.814, 0.761, 0.447,
BIN4(121, 1) = 0.307, 0.229, 0.180, 0.147, 0.124, 0.106,
BIN4(127, 1) = 0.092, 0.082, 0.073, 0.066, 0.059, 0.054,
BIN4(133, 1) = 0.050, 0.046, 0.043, 0.036, 0.039, 0.054,
BIN4( 1, 0) = 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN4( 7, 0) = 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN4(13, 0) = 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN4(19, 0) = 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN4(25, 0) = 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN4(31, 0) = 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN4(37, 0) = 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN4(43, 0) = 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN4(49, 0) = 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN4(55, 0) = 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN4(61, 0) = 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN4(67, 0) = 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN4(73, 0) = 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN4(79, 0) = 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN4(85, 0) = 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN4(91, 0) = 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN4(97, 0) = 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN4(103, 0) = 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN4(109, 0) = 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN4(115, 0) = 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN4(121, 0) = 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN4(127, 0) = 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN4(133, 0) = 800000.00, 850000.00, 900000.00,
BIN4( 0, 1) = 1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: STX
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 1800
/COM, ** Assemblies/pkg: 12
/COM, ** Max Heat (Watts/assy): 1500.00
/COM, ** Min Heat (Watts/assy): 0.00
/COM, ** Max Kinf: 1.130
/COM, ** Min Kinf: 0.000
/COM, ** Ave Age: 15.702
/COM, **

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/COM, ** Ave Burnup: 44782.169 **
/COM, ** Ave Enrichment: 3.887 **
/COM, ** Ave MTU/assy: 0.539 **
/COM, **
/COM, *****
*SET, BIN5,
*DIM, BIN5, TABLE, 135, 1,
BIN5( 1,1)= 877.09, 876.79, 876.48, 876.18, 875.87, 875.57,
BIN5( 7,1)= 875.27, 874.96, 874.66, 874.36, 874.05, 872.55,
BIN5(13,1)= 871.05, 869.56, 868.09, 866.62, 865.16, 863.71,
BIN5(19,1)= 862.26, 860.83, 859.40, 857.99, 856.58, 855.18,
BIN5(25,1)= 853.79, 852.40, 851.03, 849.66, 848.30, 835.67,
BIN5(31,1)= 823.70, 812.56, 801.96, 791.86, 782.20, 773.28,
BIN5(37,1)= 764.73, 755.57, 746.78, 738.71, 730.93, 723.32,
BIN5(43,1)= 715.98, 708.69, 701.65, 695.20, 688.96, 626.28,
BIN5(49,1)= 573.94, 526.99, 486.25, 449.91, 418.37, 389.00,
BIN5(55,1)= 363.42, 340.50, 319.90, 301.37, 284.74, 269.67,
BIN5(61,1)= 256.13, 243.76, 233.22, 222.65, 213.38, 154.58,
BIN5(67,1)= 125.36, 107.65, 95.77, 86.35, 78.94, 72.98,
BIN5(73,1)= 67.84, 63.15, 59.14, 55.67, 52.53, 49.54,
BIN5(79,1)= 46.89, 44.53, 42.41, 40.50, 38.70, 26.24,
BIN5(85,1)= 20.45, 17.43, 15.79, 14.83, 14.04, 13.52,
BIN5(91,1)= 13.07, 12.53, 12.06, 11.64, 11.27, 10.88,
BIN5(97,1)= 10.53, 10.21, 9.92, 9.65, 9.40, 6.85,
BIN5(103,1)= 5.48, 4.29, 3.51, 2.96, 2.56, 2.25,
BIN5(109,1)= 2.00, 1.77, 1.59, 1.43, 1.30, 1.19,
BIN5(115,1)= 1.10, 1.02, 0.946, 0.883, 0.827, 0.493,
BIN5(121,1)= 0.342, 0.257, 0.204, 0.168, 0.141, 0.122,
BIN5(127,1)= 0.106, 0.094, 0.084, 0.076, 0.069, 0.064,
BIN5(133,1)= 0.059, 0.054, 0.050,
BIN5( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN5( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN5(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN5(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN5(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN5(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN5(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN5(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN5(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN5(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN5(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN5(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN5(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN5(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN5(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN5(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN5(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN5(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN5(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN5(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN5(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN5(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN5(133,0)= 800000.00, 850000.00, 900000.00,
BIN5( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 32097 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 17.935 **
/COM, ** Ave Burnup: 42233.528 **
/COM, ** Ave Enrichment: 3.327 **
/COM, ** Ave MTU/assy: 0.174 **
/COM, **
/COM, *****

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*SET,BIN6,
*DIM,BIN6,TABLE,135,1,
BIN6( 1,1)= 268.91, 268.82, 268.72, 268.63, 268.54, 268.44,
BIN6( 7,1)= 268.35, 268.26, 268.17, 268.07, 267.98, 267.52,
BIN6(13,1)= 267.06, 266.60, 266.15, 265.70, 265.25, 264.81,
BIN6(19,1)= 264.36, 263.92, 263.49, 263.05, 262.62, 262.19,
BIN6(25,1)= 261.76, 261.34, 260.92, 260.50, 260.08, 256.23,
BIN6(31,1)= 252.58, 249.15, 245.89, 242.81, 239.86, 237.10,
BIN6(37,1)= 234.44, 231.66, 228.98, 226.51, 224.13, 221.77,
BIN6(43,1)= 219.50, 217.29, 215.16, 213.14, 211.19, 192.09,
BIN6(49,1)= 176.12, 161.82, 149.42, 138.41, 128.82, 119.94,
BIN6(55,1)= 112.21, 105.28, 99.06, 93.48, 88.48, 83.92,
BIN6(61,1)= 79.83, 76.12, 72.94, 69.75, 66.96, 49.20,
BIN6(67,1)= 40.26, 34.78, 31.04, 28.06, 25.69, 23.78,
BIN6(73,1)= 22.11, 20.58, 19.28, 18.15, 17.12, 16.14,
BIN6(79,1)= 15.27, 14.49, 13.80, 13.17, 12.58, 8.48,
BIN6(85,1)= 6.58, 5.59, 5.06, 4.74, 4.49, 4.32,
BIN6(91,1)= 4.18, 4.01, 3.86, 3.72, 3.60, 3.48,
BIN6(97,1)= 3.36, 3.26, 3.17, 3.08, 3.00, 2.19,
BIN6(103,1)= 1.75, 1.37, 1.12, 0.943, 0.813, 0.714,
BIN6(109,1)= 0.636, 0.562, 0.501, 0.452, 0.410, 0.375,
BIN6(115,1)= 0.345, 0.319, 0.296, 0.276, 0.258, 0.152,
BIN6(121,1)= 0.105, 0.079, 0.062, 0.051, 0.043, 0.037,
BIN6(127,1)= 0.032, 0.028, 0.025, 0.023, 0.021, 0.019,
BIN6(133,1)= 0.017, 0.016, 0.015,
BIN6( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN6( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN6(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN6(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN6(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN6(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN6(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN6(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN6(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN6(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN6(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN6(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN6(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN6(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN6(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN6(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN6(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN6(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN6(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN6(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN6(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN6(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN6(133,0)= 800000.00, 850000.00, 900000.00,
BIN6( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 91935 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.370 **
/COM, ** Min Kinf: 1.000 **
/COM, ** Ave Age: 28.192 **
/COM, ** Ave Burnup: 29778.716 **
/COM, ** Ave Enrichment: 2.972 **
/COM, ** Ave MTU/assy: 0.178 **
/COM, **
/COM, *****

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*SET,BIN7,
*DIM,BIN7,TABLE,135,1,
BIN7( 1,1)= 153.00, 152.95, 152.91, 152.87, 152.82, 152.78,
BIN7( 7,1)= 152.74, 152.69, 152.65, 152.61, 152.56, 152.35,
BIN7(13,1)= 152.13, 151.92, 151.71, 151.50, 151.29, 151.08,

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BIN7(19,1)= 150.87, 150.66, 150.46, 150.25, 150.05, 149.85,
BIN7(25,1)= 149.65, 149.45, 149.25, 149.05, 148.85, 147.02,
BIN7(31,1)= 145.28, 143.63, 142.05, 140.53, 139.08, 137.70,
BIN7(37,1)= 136.38, 134.98, 133.63, 132.37, 131.15, 129.93,
BIN7(43,1)= 128.76, 127.61, 126.50, 125.43, 124.39, 114.31,
BIN7(49,1)= 105.69, 97.94, 91.11, 85.02, 79.64, 74.68,
BIN7(55,1)= 70.30, 66.37, 62.82, 59.63, 56.76, 54.13,
BIN7(61,1)= 51.76, 49.61, 47.73, 45.90, 44.27, 33.89,
BIN7(67,1)= 28.53, 25.21, 22.82, 20.89, 19.30, 17.97,
BIN7(73,1)= 16.75, 15.64, 14.69, 13.86, 13.07, 12.33,
BIN7(79,1)= 11.67, 11.08, 10.55, 10.08, 9.61, 6.46,
BIN7(85,1)= 4.99, 4.24, 3.83, 3.60, 3.41, 3.29,
BIN7(91,1)= 3.18, 3.05, 2.94, 2.85, 2.76, 2.67,
BIN7(97,1)= 2.59, 2.51, 2.44, 2.38, 2.32, 1.71,
BIN7(103,1)= 1.38, 1.09, 0.891, 0.754, 0.652, 0.574,
BIN7(109,1)= 0.512, 0.448, 0.397, 0.355, 0.321, 0.291,
BIN7(115,1)= 0.266, 0.245, 0.226, 0.210, 0.196, 0.112,
BIN7(121,1)= 0.075, 0.055, 0.043, 0.035, 0.029, 0.024,
BIN7(127,1)= 0.021, 0.019, 0.016, 0.015, 0.013, 0.012,
BIN7(133,1)= 0.011, 0.010, 0.009,
BIN7( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN7( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN7(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN7(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN7(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN7(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN7(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN7(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN7(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN7(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN7(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN7(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN7(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN7(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN7(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN7(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN7(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN7(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN7(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN7(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN7(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN7(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN7(133,0)= 800000.00, 850000.00, 900000.00,
BIN7( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 1509 **
/COM, ** Assemblies/pkg: 24 **
/COM, ** Max Heat (Watts/assy): 520.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.540 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 14.011 **
/COM, ** Ave Burnup: 9886.267 **
/COM, ** Ave Enrichment: 3.605 **
/COM, ** Ave MTU/assy: 0.167 **
/COM, **
/COM, *****
*SET,BIN8,
*DIM,BIN8,TABLE,135,1,
BIN8( 1,1)= 48.53, 48.52, 48.50, 48.49, 48.47, 48.45,
BIN8( 7,1)= 48.44, 48.42, 48.41, 48.39, 48.37, 48.30,
BIN8(13,1)= 48.22, 48.14, 48.06, 47.99, 47.91, 47.84,
BIN8(19,1)= 47.76, 47.69, 47.61, 47.54, 47.47, 47.39,
BIN8(25,1)= 47.32, 47.25, 47.18, 47.11, 47.03, 46.37,
BIN8(31,1)= 45.73, 45.13, 44.55, 44.00, 43.48, 42.96,
BIN8(37,1)= 42.46, 41.96, 41.48, 41.02, 40.58, 40.14,
BIN8(43,1)= 39.71, 39.29, 38.87, 38.44, 38.03, 34.42,

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BIN8(49,1)= 31.28, 28.52, 26.09, 23.94, 22.04, 20.32,
BIN8(55,1)= 18.81, 17.45, 16.25, 15.18, 14.21, 13.35,
BIN8(61,1)= 12.59, 11.91, 11.29, 10.74, 10.25, 7.41,
BIN8(67,1)= 6.23, 5.61, 5.21, 4.88, 4.60, 4.36,
BIN8(73,1)= 4.14, 3.92, 3.73, 3.57, 3.42, 3.27,
BIN8(79,1)= 3.13, 3.01, 2.90, 2.80, 2.71, 2.05,
BIN8(85,1)= 1.75, 1.59, 1.50, 1.44, 1.39, 1.35,
BIN8(91,1)= 1.31, 1.27, 1.24, 1.20, 1.18, 1.14,
BIN8(97,1)= 1.12, 1.09, 1.07, 1.04, 1.02, 0.804,
BIN8(103,1)= 0.677, 0.544, 0.455, 0.391, 0.343, 0.306,
BIN8(109,1)= 0.276, 0.240, 0.211, 0.187, 0.168, 0.151,
BIN8(115,1)= 0.137, 0.126, 0.115, 0.107, 0.099, 0.054,
BIN8(121,1)= 0.035, 0.025, 0.019, 0.015, 0.013, 0.011,
BIN8(127,1)= 0.009, 0.008, 0.007, 0.006, 0.006, 0.005,
BIN8(133,1)= 0.005, 0.004, 0.004,
BIN8( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN8( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN8(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN8(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN8(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN8(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN8(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN8(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN8(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN8(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN8(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN8(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN8(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN8(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN8(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN8(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN8(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN8(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN8(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN8(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN8(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN8(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN8(133,0)= 800000.00, 850000.00, 900000.00,
BIN8( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case3.wsm **
/COM, ** Output File Name: finalw3.dat **
/COM, ** Execution Date: 08/11/97 **
/COM, *****
/COM, *****
/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 28628 **
/COM, ** Assemblies/pkg: 21 **
/COM, ** Max Heat (Watts/assy): 850.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 21.766 **
/COM, ** Ave Burnup: 45788.995 **
/COM, ** Ave Enrichment: 3.832 **
/COM, ** Ave MTU/assy: 0.429 **
/COM, **
/COM, *****
*SET,BIN1,
*DIM,BIN1,TABLE,135,1,
BIN1( 1,1)= 576.03, 575.88, 575.73, 575.58, 575.43, 575.28,
BIN1( 7,1)= 575.14, 574.99, 574.84, 574.69, 574.55, 573.81,
BIN1(13,1)= 573.07, 572.34, 571.62, 570.89, 570.17, 569.46,
BIN1(19,1)= 568.74, 568.03, 567.32, 566.62, 565.92, 565.22,
BIN1(25,1)= 564.53, 563.84, 563.15, 562.47, 561.78, 555.19,
BIN1(31,1)= 548.87, 542.73, 536.82, 531.10, 525.59, 520.19,
BIN1(37,1)= 514.98, 509.70, 504.59, 499.67, 494.90, 490.16,
BIN1(43,1)= 485.56, 480.98, 476.54, 472.18, 467.93, 428.04,
BIN1(49,1)= 393.42, 362.78, 335.72, 311.64, 290.19, 270.93,
BIN1(55,1)= 253.74, 238.30, 224.41, 211.90, 200.63, 190.46,
BIN1(61,1)= 181.27, 172.98, 165.45, 158.49, 152.20, 112.35,
BIN1(67,1)= 92.30, 80.26, 71.95, 65.40, 60.16, 55.89,
BIN1(73,1)= 52.12, 48.68, 45.74, 43.18, 40.81, 38.58,
BIN1(79,1)= 36.60, 34.83, 33.24, 31.80, 30.43, 21.00,
BIN1(85,1)= 16.59, 14.27, 13.00, 12.23, 11.61, 11.18,
BIN1(91,1)= 10.81, 10.37, 9.99, 9.65, 9.34, 9.02,
BIN1(97,1)= 8.73, 8.47, 8.23, 8.00, 7.79, 5.70,
BIN1(103,1)= 4.56, 3.56, 2.91, 2.45, 2.11, 1.85,
BIN1(109,1)= 1.65, 1.45, 1.29, 1.16, 1.04, 0.951,
BIN1(115,1)= 0.871, 0.802, 0.742, 0.690, 0.643, 0.371,
BIN1(121,1)= 0.251, 0.185, 0.145, 0.117, 0.098, 0.083,
BIN1(127,1)= 0.072, 0.064, 0.056, 0.051, 0.046, 0.042,
BIN1(133,1)= 0.038, 0.035, 0.033,
BIN1( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN1( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN1(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN1(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN1(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN1(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN1(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN1(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN1(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN1(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN1(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN1(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN1(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN1(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN1(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN1(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN1(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN1(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN1(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN1(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,

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BIN1(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
 BIN1(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
 BIN1(133,0)= 800000.00, 850000.00, 900000.00,
 BIN1(0,1)=1.0

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/COM, *****
/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 54644 **
/COM, ** Assemblies/pkg: 21 **
/COM, ** Max Heat (Watts/assy): 850.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.130 **
/COM, ** Min Kinf: 1.000 **
/COM, ** Ave Age: 21.745 **
/COM, ** Ave Burnup: 37948.201 **
/COM, ** Ave Enrichment: 3.767 **
/COM, ** Ave MTU/assy: 0.430 **
/COM, **
/COM, *****

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*SET,BIN2,

*DIM,BIN2,TABLE,135,1,

BIN2(1,1)=	487.66,	487.49,	487.33,	487.17,	487.01,	486.85,
BIN2(7,1)=	486.69,	486.53,	486.37,	486.20,	486.04,	485.25,
BIN2(13,1)=	484.45,	483.66,	482.88,	482.10,	481.32,	480.55,
BIN2(19,1)=	479.79,	479.03,	478.27,	477.52,	476.77,	476.02,
BIN2(25,1)=	475.28,	474.55,	473.82,	473.09,	472.36,	465.74,
BIN2(31,1)=	459.45,	453.56,	447.93,	442.62,	437.52,	432.74,
BIN2(37,1)=	428.15,	423.26,	418.56,	414.27,	410.12,	406.03,
BIN2(43,1)=	402.08,	398.19,	394.42,	390.87,	387.43,	353.65,
BIN2(49,1)=	325.23,	299.64,	277.17,	257.15,	239.54,	223.29,
BIN2(55,1)=	208.95,	196.07,	184.48,	174.03,	164.61,	156.09,
BIN2(61,1)=	148.39,	141.44,	135.35,	129.48,	124.26,	91.59,
BIN2(67,1)=	75.70,	66.30,	59.84,	54.69,	50.51,	47.05,
BIN2(73,1)=	43.95,	41.09,	38.64,	36.50,	34.51,	32.62,
BIN2(79,1)=	30.93,	29.43,	28.07,	26.85,	25.68,	17.63,
BIN2(85,1)=	13.87,	11.90,	10.84,	10.21,	9.69,	9.34,
BIN2(91,1)=	9.04,	8.69,	8.38,	8.10,	7.85,	7.59,
BIN2(97,1)=	7.35,	7.14,	6.94,	6.76,	6.59,	4.87,
BIN2(103,1)=	3.93,	3.08,	2.52,	2.13,	1.84,	1.62,
BIN2(109,1)=	1.45,	1.27,	1.12,	1.00,	0.902,	0.819,
BIN2(115,1)=	0.748,	0.688,	0.635,	0.588,	0.548,	0.310,
BIN2(121,1)=	0.208,	0.152,	0.118,	0.095,	0.079,	0.067,
BIN2(127,1)=	0.058,	0.051,	0.045,	0.040,	0.036,	0.033,
BIN2(133,1)=	0.030,	0.028,	0.025,			
BIN2(1,0)=	0.000001,	0.01,	0.02,	0.03,	0.04,	0.05,
BIN2(7,0)=	0.06,	0.07,	0.08,	0.09,	0.10,	0.15,
BIN2(13,0)=	0.20,	0.25,	0.30,	0.35,	0.40,	0.45,
BIN2(19,0)=	0.50,	0.55,	0.60,	0.65,	0.70,	0.75,
BIN2(25,0)=	0.80,	0.85,	0.90,	0.95,	1.00,	1.50,
BIN2(31,0)=	2.00,	2.50,	3.00,	3.50,	4.00,	4.50,
BIN2(37,0)=	5.00,	5.50,	6.00,	6.50,	7.00,	7.50,
BIN2(43,0)=	8.00,	8.50,	9.00,	9.50,	10.00,	15.00,
BIN2(49,0)=	20.00,	25.00,	30.00,	35.00,	40.00,	45.00,
BIN2(55,0)=	50.00,	55.00,	60.00,	65.00,	70.00,	75.00,
BIN2(61,0)=	80.00,	85.00,	90.00,	95.00,	100.00,	150.00,
BIN2(67,0)=	200.00,	250.00,	300.00,	350.00,	400.00,	450.00,
BIN2(73,0)=	500.00,	550.00,	600.00,	650.00,	700.00,	750.00,
BIN2(79,0)=	800.00,	850.00,	900.00,	950.00,	1000.00,	1500.00,
BIN2(85,0)=	2000.00,	2500.00,	3000.00,	3500.00,	4000.00,	4500.00,
BIN2(91,0)=	5000.00,	5500.00,	6000.00,	6500.00,	7000.00,	7500.00,
BIN2(97,0)=	8000.00,	8500.00,	9000.00,	9500.00,	10000.00,	15000.00,
BIN2(103,0)=	20000.00,	25000.00,	30000.00,	35000.00,	40000.00,	45000.00,
BIN2(109,0)=	50000.00,	55000.00,	60000.00,	65000.00,	70000.00,	75000.00,
BIN2(115,0)=	80000.00,	85000.00,	90000.00,	95000.00,	100000.00,	150000.00,
BIN2(121,0)=	200000.00,	250000.00,	300000.00,	350000.00,	400000.00,	450000.00,
BIN2(127,0)=	500000.00,	550000.00,	600000.00,	650000.00,	700000.00,	750000.00,
BIN2(133,0)=	800000.00,	850000.00,	900000.00,			
BIN2(0,1)=	1.0					

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/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 3933
/COM, ** Assemblies/pkg: 21
/COM, ** Max Heat (Watts/assy): 850.00
/COM, ** Min Heat (Watts/assy): 0.00
/COM, ** Max Kinf: 1.450
/COM, ** Min Kinf: 1.130
/COM, ** Ave Age: 23.388
/COM, ** Ave Burnup: 17856.997
/COM, ** Ave Enrichment: 3.723
/COM, ** Ave MTU/assy: 0.407
/COM, **

```

```

/COM, *****

```

```

*SET,BIN3,

```

```

*DIM,BIN3, TABLE, 135, 1,

```

```

BIN3( 1,1)= 193.24, 193.18, 193.12, 193.06, 193.00, 192.94,
BIN3( 7,1)= 192.88, 192.82, 192.76, 192.70, 192.64, 192.58,
BIN3(13,1)= 192.04, 191.74, 191.45, 191.16, 190.86, 190.57,
BIN3(19,1)= 190.29, 190.00, 189.72, 189.43, 189.15, 188.87,
BIN3(25,1)= 188.59, 188.32, 188.04, 187.77, 187.49, 187.21,
BIN3(31,1)= 182.54, 180.26, 178.08, 175.99, 173.98, 172.05,
BIN3(37,1)= 170.20, 168.29, 166.46, 164.71, 163.03, 161.36,
BIN3(43,1)= 159.75, 158.16, 156.62, 155.10, 153.63, 152.21,
BIN3(49,1)= 127.94, 117.32, 107.93, 99.57, 92.15, 85.38,
BIN3(55,1)= 79.41, 74.04, 69.25, 64.96, 61.08, 57.62,
BIN3(61,1)= 54.51, 51.69, 49.26, 46.95, 44.92, 42.84,
BIN3(67,1)= 27.53, 24.66, 22.73, 21.17, 19.85, 18.72,
BIN3(73,1)= 17.67, 16.66, 15.80, 15.03, 14.31, 13.61,
BIN3(79,1)= 12.99, 12.43, 11.93, 11.47, 11.03, 10.61,
BIN3(85,1)= 6.56, 5.80, 5.38, 5.13, 4.91, 4.76,
BIN3(91,1)= 4.63, 4.47, 4.33, 4.21, 4.09, 3.98,
BIN3(97,1)= 3.87, 3.77, 3.68, 3.60, 3.52, 3.44,
BIN3(103,1)= 2.24, 1.79, 1.48, 1.27, 1.11, 0.981,
BIN3(109,1)= 0.881, 0.765, 0.674, 0.599, 0.537, 0.485,
BIN3(115,1)= 0.441, 0.404, 0.371, 0.343, 0.318, 0.295,
BIN3(121,1)= 0.115, 0.083, 0.063, 0.051, 0.042, 0.035,
BIN3(127,1)= 0.030, 0.026, 0.023, 0.020, 0.018, 0.017,
BIN3(133,1)= 0.015, 0.014, 0.013,
BIN3( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN3( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.11,
BIN3(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN3(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN3(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.05,
BIN3(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN3(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN3(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 10.50,
BIN3(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN3(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN3(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 105.00,
BIN3(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN3(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN3(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1050.00,
BIN3(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN3(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN3(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 10500.00,
BIN3(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN3(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN3(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 105000.00,
BIN3(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN3(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN3(133,0)= 800000.00, 850000.00, 900000.00,
BIN3( 0,1)=1.0

```

```

/COM, *****

```

```

/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 5761
/COM, ** Assemblies/pkg: 12

```

```

/COM, **      Max Heat (Watts/assy): 1500.00      **
/COM, **      Min Heat (Watts/assy): 850.00      **
/COM, **      Max Kinf: 1.020                    **
/COM, **      Min Kinf: 0.000                    **
/COM, **      Ave Age: 10.676                    **
/COM, **      Ave Burnup: 53713.108              **
/COM, **      Ave Enrichment: 4.228              **
/COM, **      Ave MTU/assy: 0.446                **
/COM, **
/COM, *****

```

```

*SET,BIN4,

```

```

*DIM,BIN4, TABLE, 135, 1,

```

BIN4(1,1)=	932.50,	932.10,	931.71,	931.31,	930.92,	930.52,
BIN4(7,1)=	930.13,	929.74,	929.34,	928.95,	928.56,	926.61,
BIN4(13,1)=	924.68,	922.75,	920.84,	918.95,	917.06,	915.19,
BIN4(19,1)=	913.33,	911.49,	909.65,	907.83,	906.02,	904.22,
BIN4(25,1)=	902.44,	900.66,	898.90,	897.14,	895.40,	879.72,
BIN4(31,1)=	864.93,	851.21,	838.22,	826.20,	814.77,	804.25,
BIN4(37,1)=	794.20,	783.15,	772.58,	763.40,	754.60,	745.88,
BIN4(43,1)=	737.49,	729.37,	721.53,	714.39,	707.49,	637.87,
BIN4(49,1)=	580.98,	530.13,	486.32,	447.54,	414.00,	382.81,
BIN4(55,1)=	355.79,	331.62,	309.97,	290.56,	273.11,	257.39,
BIN4(61,1)=	243.22,	230.43,	219.55,	208.66,	199.14,	139.56,
BIN4(67,1)=	111.26,	94.64,	83.86,	75.52,	68.98,	63.82,
BIN4(73,1)=	59.44,	55.45,	52.04,	49.08,	46.45,	43.96,
BIN4(79,1)=	41.75,	39.77,	37.99,	36.39,	34.89,	24.44,
BIN4(85,1)=	19.56,	16.94,	15.49,	14.58,	13.84,	13.33,
BIN4(91,1)=	12.89,	12.35,	11.88,	11.46,	11.08,	10.69,
BIN4(97,1)=	10.34,	10.01,	9.72,	9.45,	9.20,	6.65,
BIN4(103,1)=	5.28,	4.11,	3.35,	2.81,	2.42,	2.12,
BIN4(109,1)=	1.88,	1.66,	1.48,	1.34,	1.21,	1.11,
BIN4(115,1)=	1.02,	0.940,	0.872,	0.813,	0.760,	0.447,
BIN4(121,1)=	0.307,	0.229,	0.180,	0.147,	0.124,	0.106,
BIN4(127,1)=	0.092,	0.082,	0.073,	0.066,	0.060,	0.054,
BIN4(133,1)=	0.050,	0.046,	0.043,			
BIN4(1,0)=	0.000001,	0.01,	0.02,	0.03,	0.04,	0.05,
BIN4(7,0)=	0.06,	0.07,	0.08,	0.09,	0.10,	0.15,
BIN4(13,0)=	0.20,	0.25,	0.30,	0.35,	0.40,	0.45,
BIN4(19,0)=	0.50,	0.55,	0.60,	0.65,	0.70,	0.75,
BIN4(25,0)=	0.80,	0.85,	0.90,	0.95,	1.00,	1.50,
BIN4(31,0)=	2.00,	2.50,	3.00,	3.50,	4.00,	4.50,
BIN4(37,0)=	5.00,	5.50,	6.00,	6.50,	7.00,	7.50,
BIN4(43,0)=	8.00,	8.50,	9.00,	9.50,	10.00,	15.00,
BIN4(49,0)=	20.00,	25.00,	30.00,	35.00,	40.00,	45.00,
BIN4(55,0)=	50.00,	55.00,	60.00,	65.00,	70.00,	75.00,
BIN4(61,0)=	80.00,	85.00,	90.00,	95.00,	100.00,	150.00,
BIN4(67,0)=	200.00,	250.00,	300.00,	350.00,	400.00,	450.00,
BIN4(73,0)=	500.00,	550.00,	600.00,	650.00,	700.00,	750.00,
BIN4(79,0)=	800.00,	850.00,	900.00,	950.00,	1000.00,	1500.00,
BIN4(85,0)=	2000.00,	2500.00,	3000.00,	3500.00,	4000.00,	4500.00,
BIN4(91,0)=	5000.00,	5500.00,	6000.00,	6500.00,	7000.00,	7500.00,
BIN4(97,0)=	8000.00,	8500.00,	9000.00,	9500.00,	10000.00,	15000.00,
BIN4(103,0)=	20000.00,	25000.00,	30000.00,	35000.00,	40000.00,	45000.00,
BIN4(109,0)=	50000.00,	55000.00,	60000.00,	65000.00,	70000.00,	75000.00,
BIN4(115,0)=	80000.00,	85000.00,	90000.00,	95000.00,	100000.00,	150000.00,
BIN4(121,0)=	200000.00,	250000.00,	300000.00,	350000.00,	400000.00,	450000.00,
BIN4(127,0)=	500000.00,	550000.00,	600000.00,	650000.00,	700000.00,	750000.00,
BIN4(133,0)=	800000.00,	850000.00,	900000.00,			
BIN4(0,1)=	1.0					

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/COM, *****

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```

/COM, **
/COM, **      Assembly Type: STx                  **
/COM, **      Decay Period (years): 900000        **
/COM, **      Number of assemblies: 1800          **
/COM, **      Assemblies/pkg: 12                  **
/COM, **      Max Heat (Watts/assy): 1500.00      **
/COM, **      Min Heat (Watts/assy): 0.00         **
/COM, **      Max Kinf: 1.130                     **
/COM, **      Min Kinf: 0.000                     **
/COM, **      Ave Age: 14.437                     **

```

```

/COM, ** Ave Burnup: 45973.889 **
/COM, ** Ave Enrichment: 3.952 **
/COM, ** Ave MTU/assy: 0.538 **
/COM, **
/COM, *****
*SET, BIN5,
*DIM, BIN5, TABLE, 135, 1,
BIN5( 1,1)= 920.36, 920.02, 919.69, 919.36, 919.03, 918.69,
BIN5( 7,1)= 918.36, 918.03, 917.70, 917.37, 917.04, 915.40,
BIN5(13,1)= 913.77, 912.15, 910.54, 908.93, 907.34, 905.76,
BIN5(19,1)= 904.19, 902.63, 901.08, 899.53, 898.00, 896.48,
BIN5(25,1)= 894.96, 893.46, 891.96, 890.47, 888.99, 875.41,
BIN5(31,1)= 862.56, 850.58, 839.19, 828.44, 818.18, 808.65,
BIN5(37,1)= 799.51, 789.61, 780.12, 771.56, 763.31, 755.21,
BIN5(43,1)= 747.40, 739.78, 732.42, 725.60, 719.01, 652.91,
BIN5(49,1)= 597.89, 548.54, 505.69, 467.62, 434.60, 403.75,
BIN5(55,1)= 376.97, 352.98, 331.42, 312.04, 294.62, 278.92,
BIN5(61,1)= 264.68, 251.81, 240.84, 229.75, 220.07, 158.70,
BIN5(67,1)= 128.35, 109.96, 97.70, 87.99, 80.37, 74.26,
BIN5(73,1)= 69.01, 64.23, 60.14, 56.60, 53.41, 50.37,
BIN5(79,1)= 47.67, 45.27, 43.12, 41.18, 39.35, 26.71,
BIN5(85,1)= 20.83, 17.77, 16.10, 15.12, 14.32, 13.79,
BIN5(91,1)= 13.32, 12.77, 12.29, 11.86, 11.48, 11.08,
BIN5(97,1)= 10.73, 10.40, 10.10, 9.83, 9.57, 6.97,
BIN5(103,1)= 5.57, 4.36, 3.57, 3.01, 2.60, 2.29,
BIN5(109,1)= 2.04, 1.80, 1.62, 1.46, 1.33, 1.22,
BIN5(115,1)= 1.12, 1.04, 0.966, 0.902, 0.845, 0.505,
BIN5(121,1)= 0.351, 0.264, 0.210, 0.173, 0.146, 0.126,
BIN5(127,1)= 0.110, 0.097, 0.087, 0.079, 0.072, 0.066,
BIN5(133,1)= 0.061, 0.056, 0.052,
BIN5( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN5( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN5(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN5(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN5(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN5(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN5(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN5(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN5(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN5(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN5(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN5(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN5(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN5(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN5(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN5(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN5(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN5(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN5(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN5(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN5(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN5(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN5(133,0)= 800000.00, 850000.00, 900000.00,
BIN5( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 37931 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 14.512 **
/COM, ** Ave Burnup: 44184.476 **
/COM, ** Ave Enrichment: 3.446 **
/COM, ** Ave MTU/assy: 0.174 **
/COM, **
/COM, *****

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*SET,BIN6,
*DIM,BIN6,TABLE,135,1,
BIN6( 1,1)= 293.84, 293.74, 293.63, 293.53, 293.43, 293.33,
BIN6( 7,1)= 293.22, 293.12, 293.02, 292.92, 292.81, 292.31,
BIN6(13,1)= 291.80, 291.30, 290.80, 290.30, 289.81, 289.32,
BIN6(19,1)= 288.83, 288.35, 287.87, 287.39, 286.91, 286.44,
BIN6(25,1)= 285.97, 285.50, 285.04, 284.57, 284.11, 279.84,
BIN6(31,1)= 275.80, 272.00, 268.39, 264.94, 261.64, 258.56,
BIN6(37,1)= 255.60, 252.52, 249.56, 246.81, 244.17, 241.57,
BIN6(43,1)= 239.06, 236.59, 234.20, 231.93, 229.73, 208.56,
BIN6(49,1)= 190.80, 175.00, 161.26, 149.11, 138.51, 128.74,
BIN6(55,1)= 120.23, 112.61, 105.78, 99.64, 94.12, 89.15,
BIN6(61,1)= 84.67, 80.62, 77.13, 73.66, 70.61, 51.29,
BIN6(67,1)= 41.70, 35.84, 31.91, 28.78, 26.31, 24.32,
BIN6(73,1)= 22.61, 21.04, 19.70, 18.54, 17.49, 16.48,
BIN6(79,1)= 15.60, 14.81, 14.10, 13.46, 12.86, 8.69,
BIN6(85,1)= 6.75, 5.74, 5.19, 4.87, 4.61, 4.44,
BIN6(91,1)= 4.29, 4.11, 3.96, 3.82, 3.70, 3.57,
BIN6(97,1)= 3.45, 3.35, 3.25, 3.16, 3.08, 2.24,
BIN6(103,1)= 1.79, 1.40, 1.14, 0.964, 0.832, 0.731,
BIN6(109,1)= 0.650, 0.575, 0.514, 0.464, 0.421, 0.386,
BIN6(115,1)= 0.355, 0.328, 0.305, 0.284, 0.266, 0.158,
BIN6(121,1)= 0.109, 0.082, 0.065, 0.053, 0.045, 0.039,
BIN6(127,1)= 0.034, 0.030, 0.027, 0.024, 0.022, 0.020,
BIN6(133,1)= 0.018, 0.017, 0.016,
BIN6( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN6( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN6(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN6(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN6(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN6(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN6(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN6(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN6(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN6(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN6(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN6(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN6(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN6(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN6(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN6(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN6(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN6(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN6(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN6(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN6(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN6(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN6(133,0)= 800000.00, 850000.00, 900000.00,
BIN6( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 85631 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.370 **
/COM, ** Min Kinf: 1.000 **
/COM, ** Ave Age: 24.311 **
/COM, ** Ave Burnup: 29781.140 **
/COM, ** Ave Enrichment: 3.029 **
/COM, ** Ave MTU/assy: 0.177 **
/COM, **
/COM, *****

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*SET,BIN7,
*DIM,BIN7,TABLE,135,1,
BIN7( 1,1)= 165.52, 165.47, 165.42, 165.37, 165.32, 165.27,
BIN7( 7,1)= 165.22, 165.17, 165.12, 165.07, 165.02, 164.78,
BIN7(13,1)= 164.53, 164.29, 164.05, 163.80, 163.57, 163.33,

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BIN7(19,1)= 163.09, 162.86, 162.62, 162.39, 162.16, 161.93,
BIN7(25,1)= 161.70, 161.47, 161.24, 161.02, 160.79, 158.71,
BIN7(31,1)= 156.72, 154.85, 153.05, 151.34, 149.70, 148.15,
BIN7(37,1)= 146.65, 145.09, 143.58, 142.16, 140.80, 139.45,
BIN7(43,1)= 138.13, 136.85, 135.61, 134.42, 133.26, 122.09,
BIN7(49,1)= 112.57, 104.03, 96.51, 89.83, 83.92, 78.50,
BIN7(55,1)= 73.72, 69.42, 65.55, 62.06, 58.91, 56.07,
BIN7(61,1)= 53.51, 51.18, 49.14, 47.16, 45.41, 34.28,
BIN7(67,1)= 28.67, 25.23, 22.80, 20.84, 19.24, 17.90,
BIN7(73,1)= 16.70, 15.58, 14.63, 13.80, 13.02, 12.28,
BIN7(79,1)= 11.62, 11.03, 10.50, 10.03, 9.57, 6.43,
BIN7(85,1)= 4.97, 4.22, 3.82, 3.59, 3.40, 3.28,
BIN7(91,1)= 3.17, 3.04, 2.93, 2.84, 2.75, 2.66,
BIN7(97,1)= 2.58, 2.50, 2.43, 2.37, 2.31, 1.71,
BIN7(103,1)= 1.38, 1.08, 0.889, 0.752, 0.651, 0.573,
BIN7(109,1)= 0.511, 0.448, 0.397, 0.355, 0.321, 0.291,
BIN7(115,1)= 0.267, 0.245, 0.226, 0.210, 0.196, 0.112,
BIN7(121,1)= 0.075, 0.055, 0.043, 0.035, 0.029, 0.025,
BIN7(127,1)= 0.021, 0.019, 0.017, 0.015, 0.013, 0.012,
BIN7(133,1)= 0.011, 0.010, 0.010,
BIN7( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN7( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN7(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN7(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN7(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN7(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN7(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN7(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN7(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN7(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN7(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN7(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN7(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN7(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN7(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN7(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN7(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN7(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN7(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN7(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN7(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN7(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN7(133,0)= 800000.00, 850000.00, 900000.00,
BIN7( 0,1)=1.0
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/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 1927 **
/COM, ** Assemblies/pkg: 24 **
/COM, ** Max Heat (Watts/assy): 520.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.540 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 12.767 **
/COM, ** Ave Burnup: 9163.556 **
/COM, ** Ave Enrichment: 3.550 **
/COM, ** Ave MTU/assy: 0.169 **
/COM, **
/COM, *****
*SET,BIN8,
*DIM,BIN8,TABLE,135,1,
BIN8( 1,1)= 45.63, 45.62, 45.60, 45.59, 45.57, 45.56,
BIN8( 7,1)= 45.54, 45.53, 45.51, 45.50, 45.48, 45.41,
BIN8(13,1)= 45.33, 45.26, 45.19, 45.11, 45.04, 44.97,
BIN8(19,1)= 44.90, 44.82, 44.75, 44.68, 44.61, 44.54,
BIN8(25,1)= 44.47, 44.40, 44.34, 44.27, 44.20, 43.57,
BIN8(31,1)= 42.98, 42.39, 41.84, 41.32, 40.82, 40.34,
BIN8(37,1)= 39.88, 39.40, 38.94, 38.50, 38.07, 37.65,
BIN8(43,1)= 37.25, 36.85, 36.46, 36.07, 35.68, 32.25,

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BIN8(49,1)=	29.28,	26.68,	24.39,	22.36,	20.57,	18.96,
BIN8(55,1)=	17.54,	16.26,	15.13,	14.13,	13.22,	12.42,
BIN8(61,1)=	11.70,	11.07,	10.50,	9.98,	9.52,	6.87,
BIN8(67,1)=	5.77,	5.21,	4.84,	4.54,	4.28,	4.06,
BIN8(73,1)=	3.86,	3.66,	3.48,	3.33,	3.19,	3.05,
BIN8(79,1)=	2.93,	2.82,	2.72,	2.63,	2.54,	1.94,
BIN8(85,1)=	1.67,	1.52,	1.44,	1.38,	1.33,	1.30,
BIN8(91,1)=	1.26,	1.23,	1.19,	1.16,	1.14,	1.11,
BIN8(97,1)=	1.08,	1.05,	1.03,	1.01,	0.990,	0.780,
BIN8(103,1)=	0.659,	0.530,	0.444,	0.382,	0.335,	0.299,
BIN8(109,1)=	0.270,	0.234,	0.206,	0.183,	0.164,	0.148,
BIN8(115,1)=	0.134,	0.123,	0.113,	0.104,	0.096,	0.053,
BIN8(121,1)=	0.034,	0.025,	0.019,	0.015,	0.012,	0.010,
BIN8(127,1)=	0.009,	0.008,	0.007,	0.006,	0.005,	0.005,
BIN8(133,1)=	0.004,	0.004,	0.004,			
BIN8(1,0)=	0.000001,	0.01,	0.02,	0.03,	0.04,	0.05,
BIN8(7,0)=	0.06,	0.07,	0.08,	0.09,	0.10,	0.15,
BIN8(13,0)=	0.20,	0.25,	0.30,	0.35,	0.40,	0.45,
BIN8(19,0)=	0.50,	0.55,	0.60,	0.65,	0.70,	0.75,
BIN8(25,0)=	0.80,	0.85,	0.90,	0.95,	1.00,	1.50,
BIN8(31,0)=	2.00,	2.50,	3.00,	3.50,	4.00,	4.50,
BIN8(37,0)=	5.00,	5.50,	6.00,	6.50,	7.00,	7.50,
BIN8(43,0)=	8.00,	8.50,	9.00,	9.50,	10.00,	15.00,
BIN8(49,0)=	20.00,	25.00,	30.00,	35.00,	40.00,	45.00,
BIN8(55,0)=	50.00,	55.00,	60.00,	65.00,	70.00,	75.00,
BIN8(61,0)=	80.00,	85.00,	90.00,	95.00,	100.00,	150.00,
BIN8(67,0)=	200.00,	250.00,	300.00,	350.00,	400.00,	450.00,
BIN8(73,0)=	500.00,	550.00,	600.00,	650.00,	700.00,	750.00,
BIN8(79,0)=	800.00,	850.00,	900.00,	950.00,	1000.00,	1500.00,
BIN8(85,0)=	2000.00,	2500.00,	3000.00,	3500.00,	4000.00,	4500.00,
BIN8(91,0)=	5000.00,	5500.00,	6000.00,	6500.00,	7000.00,	7500.00,
BIN8(97,0)=	8000.00,	8500.00,	9000.00,	9500.00,	10000.00,	15000.00,
BIN8(103,0)=	20000.00,	25000.00,	30000.00,	35000.00,	40000.00,	45000.00,
BIN8(109,0)=	50000.00,	55000.00,	60000.00,	65000.00,	70000.00,	75000.00,
BIN8(115,0)=	80000.00,	85000.00,	90000.00,	95000.00,	100000.00,	150000.00,
BIN8(121,0)=	200000.00,	250000.00,	300000.00,	350000.00,	400000.00,	450000.00,
BIN8(127,0)=	500000.00,	550000.00,	600000.00,	650000.00,	700000.00,	750000.00,
BIN8(133,0)=	800000.00,	850000.00,	900000.00,			
BIN8(0,1)=1.0						
/COM,	*****					
/EOF						


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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: B00000000-01717-1200-3000X Rev.000 **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case4.wsm **
/COM, ** Output File Name: finalw4.dat **
/COM, ** Execution Date: 08/11/97 **
/COM, *****
/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 28697 **
/COM, ** Assemblies/pkg: 21 **
/COM, ** Max Heat (Watts/assy): 850.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 21.775 **
/COM, ** Ave Burnup: 45791.292 **
/COM, ** Ave Enrichment: 3.833 **
/COM, ** Ave MTU/assy: 0.429 **
/COM, **
/COM, *****
*SET,BIN1,
*DIM,BIN1,TABLE,135,1,
BIN1(1,1)= 575.90, 575.75, 575.60, 575.46, 575.31, 575.16,
BIN1(7,1)= 575.01, 574.86, 574.71, 574.57, 574.42, 573.68,
BIN1(13,1)= 572.95, 572.22, 571.49, 570.77, 570.05, 569.34,
BIN1(19,1)= 568.62, 567.91, 566.21, 565.51, 565.81, 565.11,
BIN1(25,1)= 564.42, 563.72, 563.04, 562.35, 561.67, 555.08,
BIN1(31,1)= 548.76, 542.61, 536.71, 530.99, 525.49, 520.09,
BIN1(37,1)= 514.87, 509.60, 504.50, 499.58, 494.81, 490.07,
BIN1(43,1)= 485.46, 480.89, 476.45, 472.09, 467.84, 427.96,
BIN1(49,1)= 393.35, 362.71, 335.66, 311.58, 290.14, 270.88,
BIN1(55,1)= 253.69, 238.26, 224.37, 211.86, 200.60, 190.42,
BIN1(61,1)= 181.24, 172.95, 165.42, 158.47, 152.17, 112.33,
BIN1(67,1)= 92.29, 80.24, 71.94, 65.38, 60.15, 55.88,
BIN1(73,1)= 52.11, 48.68, 45.73, 43.17, 40.81, 38.58,
BIN1(79,1)= 36.60, 34.83, 33.24, 31.80, 30.42, 21.00,
BIN1(85,1)= 16.59, 14.27, 13.00, 12.23, 11.61, 11.18,
BIN1(91,1)= 10.81, 10.37, 9.99, 9.65, 9.34, 9.02,
BIN1(97,1)= 8.73, 8.47, 8.22, 8.00, 7.79, 5.70,
BIN1(103,1)= 4.56, 3.56, 2.91, 2.45, 2.11, 1.85,
BIN1(109,1)= 1.65, 1.45, 1.29, 1.15, 1.04, 0.951,
BIN1(115,1)= 0.871, 0.802, 0.742, 0.689, 0.643, 0.371,
BIN1(121,1)= 0.251, 0.185, 0.145, 0.117, 0.098, 0.083,
BIN1(127,1)= 0.072, 0.064, 0.056, 0.051, 0.046, 0.042,
BIN1(133,1)= 0.038, 0.035, 0.033, 0.032, 0.03, 0.05,
BIN1(1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN1(7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN1(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN1(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN1(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN1(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN1(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN1(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN1(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN1(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN1(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN1(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN1(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN1(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN1(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN1(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN1(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN1(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN1(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN1(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,

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BIN1(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
 BIN1(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
 BIN1(133,0)= 800000.00, 850000.00, 900000.00,
 BIN1(0,1)=1.0

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/COM, *****
/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 54556 **
/COM, ** Assemblies/pkg: 21 **
/COM, ** Max Heat (Watts/assy): 850.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.130 **
/COM, ** Min Kinf: 1.000 **
/COM, ** Ave Age: 21.782 **
/COM, ** Ave Burnup: 37935.727 **
/COM, ** Ave Enrichment: 3.767 **
/COM, ** Ave MTU/assy: 0.430 **
/COM, **
/COM, *****

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*SET,BIN2,

*DIM,BIN2, TABLE, 135, 1,

BIN2(1,1)=	487.20,	487.04,	486.88,	486.72,	486.56,	486.40,
BIN2(7,1)=	486.24,	486.08,	485.92,	485.76,	485.60,	484.80,
BIN2(13,1)=	484.01,	483.22,	482.44,	481.66,	480.89,	480.12,
BIN2(19,1)=	479.35,	478.59,	477.84,	477.09,	476.34,	475.60,
BIN2(25,1)=	474.86,	474.13,	473.40,	472.67,	471.95,	465.34,
BIN2(31,1)=	459.07,	453.18,	447.56,	442.26,	437.17,	432.40,
BIN2(37,1)=	427.81,	422.94,	418.25,	413.95,	409.81,	405.73,
BIN2(43,1)=	401.78,	397.89,	394.13,	390.59,	387.15,	353.40,
BIN2(49,1)=	325.01,	299.44,	276.99,	256.99,	239.39,	223.15,
BIN2(55,1)=	208.83,	195.96,	184.38,	173.94,	164.52,	156.02,
BIN2(61,1)=	148.32,	141.37,	135.29,	129.42,	124.21,	91.56,
BIN2(67,1)=	75.68,	66.28,	59.83,	54.68,	50.51,	47.04,
BIN2(73,1)=	43.95,	41.09,	38.63,	36.50,	34.51,	32.61,
BIN2(79,1)=	30.93,	29.42,	28.07,	26.85,	25.68,	17.63,
BIN2(85,1)=	13.87,	11.90,	10.84,	10.21,	9.69,	9.34,
BIN2(91,1)=	9.04,	8.69,	8.37,	8.10,	7.85,	7.59,
BIN2(97,1)=	7.35,	7.14,	6.94,	6.76,	6.59,	4.87,
BIN2(103,1)=	3.93,	3.08,	2.52,	2.13,	1.84,	1.62,
BIN2(109,1)=	1.45,	1.27,	1.12,	1.00,	0.902,	0.819,
BIN2(115,1)=	0.748,	0.687,	0.635,	0.588,	0.548,	0.310,
BIN2(121,1)=	0.208,	0.152,	0.118,	0.095,	0.079,	0.067,
BIN2(127,1)=	0.058,	0.051,	0.045,	0.040,	0.036,	0.033,
BIN2(133,1)=	0.030,	0.028,	0.025,			
BIN2(1,0)=	0.000001,	0.01,	0.02,	0.03,	0.04,	0.05,
BIN2(7,0)=	0.06,	0.07,	0.08,	0.09,	0.10,	0.15,
BIN2(13,0)=	0.20,	0.25,	0.30,	0.35,	0.40,	0.45,
BIN2(19,0)=	0.50,	0.55,	0.60,	0.65,	0.70,	0.75,
BIN2(25,0)=	0.80,	0.85,	0.90,	0.95,	1.00,	1.50,
BIN2(31,0)=	2.00,	2.50,	3.00,	3.50,	4.00,	4.50,
BIN2(37,0)=	5.00,	5.50,	6.00,	6.50,	7.00,	7.50,
BIN2(43,0)=	8.00,	8.50,	9.00,	9.50,	10.00,	15.00,
BIN2(49,0)=	20.00,	25.00,	30.00,	35.00,	40.00,	45.00,
BIN2(55,0)=	50.00,	55.00,	60.00,	65.00,	70.00,	75.00,
BIN2(61,0)=	80.00,	85.00,	90.00,	95.00,	100.00,	150.00,
BIN2(67,0)=	200.00,	250.00,	300.00,	350.00,	400.00,	450.00,
BIN2(73,0)=	500.00,	550.00,	600.00,	650.00,	700.00,	750.00,
BIN2(79,0)=	800.00,	850.00,	900.00,	950.00,	1000.00,	1500.00,
BIN2(85,0)=	2000.00,	2500.00,	3000.00,	3500.00,	4000.00,	4500.00,
BIN2(91,0)=	5000.00,	5500.00,	6000.00,	6500.00,	7000.00,	7500.00,
BIN2(97,0)=	8000.00,	8500.00,	9000.00,	9500.00,	10000.00,	15000.00,
BIN2(103,0)=	20000.00,	25000.00,	30000.00,	35000.00,	40000.00,	45000.00,
BIN2(109,0)=	50000.00,	55000.00,	60000.00,	65000.00,	70000.00,	75000.00,
BIN2(115,0)=	80000.00,	85000.00,	90000.00,	95000.00,	100000.00,	150000.00,
BIN2(121,0)=	200000.00,	250000.00,	300000.00,	350000.00,	400000.00,	450000.00,
BIN2(127,0)=	500000.00,	550000.00,	600000.00,	650000.00,	700000.00,	750000.00,
BIN2(133,0)=	800000.00,	850000.00,	900000.00,			
BIN2(0,1)=	1.0					

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/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 3930
/COM, ** Assemblies/pkg: 21
/COM, ** Max Heat (Watts/assy): 850.00
/COM, ** Min Heat (Watts/assy): 0.00
/COM, ** Max Kinf: 1.450
/COM, ** Min Kinf: 1.130
/COM, ** Ave Age: 23.410
/COM, ** Ave Burnup: 17852.651
/COM, ** Ave Enrichment: 3.723
/COM, ** Ave MTU/assy: 0.407
/COM, **
/COM, *****
*SET,BIN3,
*DIM,BIN3, TABLE, 135, 1,
BIN3( 1,1)= 193.29, 193.23, 193.17, 193.10, 193.04, 192.98,
BIN3( 7,1)= 192.92, 192.86, 192.80, 192.74, 192.68, 192.38,
BIN3(13,1)= 192.08, 191.78, 191.49, 191.19, 190.90, 190.61,
BIN3(19,1)= 190.32, 190.04, 189.75, 189.47, 189.18, 188.90,
BIN3(25,1)= 188.62, 188.35, 188.07, 187.80, 187.52, 184.98,
BIN3(31,1)= 182.56, 180.27, 178.09, 176.00, 173.99, 172.06,
BIN3(37,1)= 170.21, 168.30, 166.46, 164.71, 163.03, 161.36,
BIN3(43,1)= 159.75, 158.15, 156.61, 155.10, 153.64, 139.78,
BIN3(49,1)= 127.93, 117.31, 107.92, 99.56, 92.14, 85.36,
BIN3(55,1)= 79.40, 74.03, 69.23, 64.94, 61.06, 57.60,
BIN3(61,1)= 54.49, 51.68, 49.24, 46.94, 44.90, 32.82,
BIN3(67,1)= 27.52, 24.65, 22.72, 21.16, 19.84, 18.71,
BIN3(73,1)= 17.66, 16.66, 15.79, 15.03, 14.31, 13.61,
BIN3(79,1)= 12.99, 12.43, 11.92, 11.46, 11.02, 7.98,
BIN3(85,1)= 6.56, 5.80, 5.38, 5.12, 4.91, 4.76,
BIN3(91,1)= 4.62, 4.47, 4.33, 4.21, 4.09, 3.98,
BIN3(97,1)= 3.87, 3.77, 3.68, 3.60, 3.52, 2.70,
BIN3(103,1)= 2.24, 1.78, 1.48, 1.27, 1.11, 0.980,
BIN3(109,1)= 0.880, 0.765, 0.673, 0.599, 0.537, 0.485,
BIN3(115,1)= 0.441, 0.404, 0.371, 0.343, 0.318, 0.175,
BIN3(121,1)= 0.115, 0.083, 0.063, 0.051, 0.042, 0.035,
BIN3(127,1)= 0.030, 0.026, 0.023, 0.020, 0.018, 0.017,
BIN3(133,1)= 0.015, 0.014, 0.013,
BIN3( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN3( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN3(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN3(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN3(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN3(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN3(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN3(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN3(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN3(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN3(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN3(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN3(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN3(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN3(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN3(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN3(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN3(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN3(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN3(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN3(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN3(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN3(133,0)= 800000.00, 850000.00, 900000.00,
BIN3( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 5750
/COM, ** Assemblies/pkg: 12

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/COM, ** Max Heat (Watts/assy): 1500.00 **
/COM, ** Min Heat (Watts/assy): 850.00 **
/COM, ** Max Kinf: 1.020 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 10.674 **
/COM, ** Ave Burnup: 53710.225 **
/COM, ** Ave Enrichment: 4.227 **
/COM, ** Ave MTU/assy: 0.446 **
/COM, **
/COM, *****
*SET, BIN4,
*DIM, BIN4, TABLE, 135, 1,
BIN4( 1,1)= 932.67, 932.27, 931.87, 931.48, 931.08, 930.69,
BIN4( 7,1)= 930.29, 929.90, 929.51, 929.12, 928.73, 926.78,
BIN4(13,1)= 924.84, 922.92, 921.01, 919.11, 917.23, 915.35,
BIN4(19,1)= 913.50, 911.65, 909.81, 907.99, 906.18, 904.38,
BIN4(25,1)= 902.59, 900.82, 899.05, 897.30, 895.56, 879.86,
BIN4(31,1)= 865.08, 851.35, 838.35, 826.34, 814.91, 804.38,
BIN4(37,1)= 794.32, 783.26, 772.69, 763.52, 754.71, 745.98,
BIN4(43,1)= 737.60, 729.47, 721.64, 714.50, 707.59, 637.96,
BIN4(49,1)= 581.06, 530.20, 486.38, 447.59, 414.05, 382.86,
BIN4(55,1)= 355.83, 331.66, 310.01, 290.59, 273.14, 257.42,
BIN4(61,1)= 243.25, 230.46, 219.58, 208.69, 199.17, 139.58,
BIN4(67,1)= 111.27, 94.65, 83.87, 75.53, 69.00, 63.83,
BIN4(73,1)= 59.45, 55.46, 52.05, 49.09, 46.45, 43.96,
BIN4(79,1)= 41.75, 39.78, 38.00, 36.39, 34.90, 24.45,
BIN4(85,1)= 19.56, 16.94, 15.49, 14.58, 13.85, 13.34,
BIN4(91,1)= 12.89, 12.35, 11.88, 11.46, 11.08, 10.69,
BIN4(97,1)= 10.34, 10.02, 9.72, 9.45, 9.20, 6.65,
BIN4(103,1)= 5.28, 4.11, 3.35, 2.81, 2.42, 2.12,
BIN4(109,1)= 1.88, 1.66, 1.48, 1.34, 1.21, 1.11,
BIN4(115,1)= 1.02, 0.940, 0.873, 0.813, 0.760, 0.447,
BIN4(121,1)= 0.307, 0.229, 0.180, 0.147, 0.124, 0.106,
BIN4(127,1)= 0.092, 0.082, 0.073, 0.066, 0.060, 0.054,
BIN4(133,1)= 0.050, 0.046, 0.043,
BIN4( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN4( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN4(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN4(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN4(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN4(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN4(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN4(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN4(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN4(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN4(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN4(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN4(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN4(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN4(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN4(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN4(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN4(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN4(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN4(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN4(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN4(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN4(133,0)= 800000.00, 850000.00, 900000.00,
BIN4( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: STx **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 1800 **
/COM, ** Assemblies/pkg: 12 **
/COM, ** Max Heat (Watts/assy): 1500.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.130 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 14.427 **

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/COM, ** Ave Burnup: 45973.889 **
/COM, ** Ave Enrichment: 3.952 **
/COM, ** Ave MTU/assy: 0.538 **
/COM, **
/COM, *****
*SET, BIN5,
*DIM, BIN5, TABLE, 135, 1,
BIN5( 1,1)= 919.67, 919.34, 919.01, 918.68, 918.35, 918.02,
BIN5( 7,1)= 917.69, 917.36, 917.03, 916.70, 916.37, 914.74,
BIN5(13,1)= 913.12, 911.51, 909.91, 908.32, 906.74, 905.17,
BIN5(19,1)= 903.61, 902.06, 900.51, 898.98, 897.46, 895.94,
BIN5(25,1)= 894.44, 892.94, 891.45, 889.98, 888.51, 874.98,
BIN5(31,1)= 862.19, 850.26, 838.92, 828.22, 818.00, 808.43,
BIN5(37,1)= 799.25, 789.41, 779.97, 771.44, 763.22, 755.13,
BIN5(43,1)= 747.32, 739.72, 732.39, 725.54, 718.90, 652.87,
BIN5(49,1)= 597.84, 548.51, 505.68, 467.61, 434.56, 403.75,
BIN5(55,1)= 376.97, 352.98, 331.42, 312.04, 294.62, 278.91,
BIN5(61,1)= 264.69, 251.81, 240.83, 229.75, 220.07, 158.71,
BIN5(67,1)= 128.35, 109.96, 97.70, 87.99, 80.37, 74.26,
BIN5(73,1)= 69.01, 64.23, 60.14, 56.60, 53.41, 50.37,
BIN5(79,1)= 47.67, 45.27, 43.12, 41.18, 39.35, 26.71,
BIN5(85,1)= 20.83, 17.77, 16.10, 15.12, 14.32, 13.79,
BIN5(91,1)= 13.32, 12.77, 11.86, 11.48, 11.08, 11.08,
BIN5(97,1)= 10.73, 10.40, 10.10, 9.83, 9.57, 6.97,
BIN5(103,1)= 5.57, 4.36, 3.57, 3.01, 2.60, 2.29,
BIN5(109,1)= 2.04, 1.80, 1.62, 1.46, 1.33, 1.22,
BIN5(115,1)= 1.12, 1.04, 0.966, 0.902, 0.845, 0.505,
BIN5(121,1)= 0.351, 0.264, 0.210, 0.173, 0.146, 0.126,
BIN5(127,1)= 0.110, 0.097, 0.087, 0.079, 0.072, 0.066,
BIN5(133,1)= 0.061, 0.056, 0.052,
BIN5( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN5( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN5(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN5(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN5(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN5(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN5(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN5(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN5(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN5(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN5(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN5(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN5(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN5(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN5(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN5(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN5(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN5(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN5(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN5(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN5(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN5(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN5(133,0)= 800000.00, 850000.00, 900000.00,
BIN5( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 37931 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 14.512 **
/COM, ** Ave Burnup: 44184.476 **
/COM, ** Ave Enrichment: 3.446 **
/COM, ** Ave MTU/assy: 0.174 **
/COM, **
/COM, *****

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*SET,BIN6,
*DIM,BIN6,TABLE,135,1,
BIN6( 1,1)= 293.82, 293.72, 293.61, 293.51, 293.41, 293.31,
BIN6( 7,1)= 293.20, 293.10, 293.00, 292.90, 292.79, 292.29,
BIN6(13,1)= 291.78, 291.28, 290.78, 290.28, 289.79, 289.30,
BIN6(19,1)= 288.81, 288.33, 287.85, 287.37, 286.89, 286.42,
BIN6(25,1)= 285.95, 285.49, 285.02, 284.56, 284.10, 279.83,
BIN6(31,1)= 275.78, 271.99, 268.38, 264.93, 261.64, 258.55,
BIN6(37,1)= 255.59, 252.51, 249.55, 246.81, 244.16, 241.57,
BIN6(43,1)= 239.06, 236.59, 234.20, 231.93, 229.73, 208.56,
BIN6(49,1)= 190.79, 175.00, 161.26, 149.11, 138.50, 128.74,
BIN6(55,1)= 120.23, 112.61, 105.78, 99.64, 94.12, 89.15,
BIN6(61,1)= 84.67, 80.62, 77.13, 73.66, 70.61, 51.29,
BIN6(67,1)= 41.70, 35.84, 31.91, 28.78, 26.31, 24.32,
BIN6(73,1)= 22.61, 21.04, 19.70, 18.54, 17.49, 16.48,
BIN6(79,1)= 15.60, 14.81, 14.10, 13.46, 12.86, 8.69,
BIN6(85,1)= 6.75, 5.74, 5.19, 4.87, 4.61, 4.44,
BIN6(91,1)= 4.29, 4.11, 3.96, 3.82, 3.70, 3.57,
BIN6(97,1)= 3.45, 3.35, 3.25, 3.16, 3.08, 2.24,
BIN6(103,1)= 1.79, 1.40, 1.14, 0.964, 0.832, 0.731,
BIN6(109,1)= 0.650, 0.575, 0.514, 0.464, 0.421, 0.386,
BIN6(115,1)= 0.355, 0.328, 0.305, 0.284, 0.266, 0.158,
BIN6(121,1)= 0.109, 0.082, 0.065, 0.053, 0.045, 0.039,
BIN6(127,1)= 0.034, 0.030, 0.027, 0.024, 0.022, 0.020,
BIN6(133,1)= 0.018, 0.017, 0.016,
BIN6( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN6( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN6(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN6(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN6(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN6(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN6(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN6(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN6(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN6(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN6(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN6(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN6(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN6(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN6(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN6(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN6(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN6(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN6(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN6(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN6(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN6(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN6(133,0)= 800000.00, 850000.00, 900000.00,
BIN6( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 85651 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.370 **
/COM, ** Min Kinf: 1.000 **
/COM, ** Ave Age: 24.312 **
/COM, ** Ave Burnup: 29783.245 **
/COM, ** Ave Enrichment: 3.029 **
/COM, ** Ave MTU/assy: 0.177 **
/COM, **
/COM, *****
*SET,BIN7,
*DIM,BIN7,TABLE,135,1,
BIN7( 1,1)= 165.52, 165.47, 165.42, 165.37, 165.32, 165.27,
BIN7( 7,1)= 165.22, 165.18, 165.13, 165.08, 165.03, 164.78,
BIN7(13,1)= 164.54, 164.29, 164.05, 163.81, 163.57, 163.33,

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BIN7(19,1)= 163.10, 162.86, 162.63, 162.39, 162.16, 161.93,
BIN7(25,1)= 161.70, 161.47, 161.25, 161.02, 160.80, 158.71,
BIN7(31,1)= 156.72, 154.85, 153.06, 151.35, 149.70, 148.15,
BIN7(37,1)= 146.66, 145.09, 143.58, 142.17, 140.81, 139.45,
BIN7(43,1)= 138.14, 136.86, 135.62, 134.42, 133.27, 122.09,
BIN7(49,1)= 112.57, 104.03, 96.52, 89.83, 83.93, 78.50,
BIN7(55,1)= 73.72, 69.42, 65.55, 62.06, 58.92, 56.08,
BIN7(61,1)= 53.51, 51.18, 49.15, 47.17, 45.41, 34.28,
BIN7(67,1)= 28.67, 25.23, 22.81, 20.84, 19.24, 17.91,
BIN7(73,1)= 16.70, 15.59, 14.63, 13.80, 13.02, 12.28,
BIN7(79,1)= 11.62, 11.03, 10.50, 10.03, 9.57, 6.43,
BIN7(85,1)= 4.97, 4.22, 3.82, 3.59, 3.40, 3.28,
BIN7(91,1)= 3.17, 3.04, 2.94, 2.84, 2.75, 2.66,
BIN7(97,1)= 2.58, 2.50, 2.43, 2.37, 2.31, 1.71,
BIN7(103,1)= 1.38, 1.08, 0.889, 0.752, 0.651, 0.573,
BIN7(109,1)= 0.511, 0.448, 0.397, 0.355, 0.321, 0.291,
BIN7(115,1)= 0.267, 0.245, 0.226, 0.210, 0.196, 0.112,
BIN7(121,1)= 0.075, 0.055, 0.043, 0.035, 0.029, 0.025,
BIN7(127,1)= 0.021, 0.019, 0.017, 0.015, 0.013, 0.012,
BIN7(133,1)= 0.011, 0.010, 0.010,
BIN7( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN7( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN7(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN7(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN7(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN7(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN7(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN7(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN7(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN7(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN7(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN7(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN7(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN7(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN7(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN7(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN7(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN7(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN7(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN7(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN7(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN7(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN7(133,0)= 800000.00, 850000.00, 900000.00,
BIN7( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 1927 **
/COM, ** Assemblies/pkg: 24 **
/COM, ** Max Heat (Watts/assy): 520.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.540 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 12.751 **
/COM, ** Ave Burnup: 9163.556 **
/COM, ** Ave Enrichment: 3.550 **
/COM, ** Ave MTU/assy: 0.169 **
/COM, **
/COM, *****
*SET,BIN8,
*DIM,BIN8, TABLE, 135, 1,
BIN8( 1,1)= 45.64, 45.63, 45.61, 45.60, 45.58, 45.57,
BIN8( 7,1)= 45.55, 45.54, 45.52, 45.50, 45.49, 45.41,
BIN8(13,1)= 45.34, 45.27, 45.19, 45.12, 45.05, 44.97,
BIN8(19,1)= 44.90, 44.83, 44.76, 44.69, 44.62, 44.55,
BIN8(25,1)= 44.48, 44.41, 44.34, 44.28, 44.21, 43.58,
BIN8(31,1)= 42.98, 42.40, 41.85, 41.33, 40.83, 40.35,
BIN8(37,1)= 39.88, 39.41, 38.95, 38.51, 38.08, 37.66,
BIN8(43,1)= 37.26, 36.86, 36.47, 36.07, 35.69, 32.26,

```

BIN8(49,1)=	29.29,	26.68,	24.40,	22.36,	20.57,	18.96,
BIN8(55,1)=	17.54,	16.26,	15.13,	14.13,	13.22,	12.42,
BIN8(61,1)=	11.71,	11.07,	10.50,	9.98,	9.52,	6.87,
BIN8(67,1)=	5.77,	5.21,	4.84,	4.54,	4.28,	4.06,
BIN8(73,1)=	3.86,	3.66,	3.48,	3.33,	3.19,	3.05,
BIN8(79,1)=	2.93,	2.82,	2.72,	2.63,	2.54,	1.94,
BIN8(85,1)=	1.67,	1.52,	1.44,	1.38,	1.33,	1.30,
BIN8(91,1)=	1.26,	1.23,	1.19,	1.16,	1.14,	1.11,
BIN8(97,1)=	1.08,	1.05,	1.03,	1.01,	0.990,	0.780,
BIN8(103,1)=	0.659,	0.530,	0.444,	0.382,	0.335,	0.299,
BIN8(109,1)=	0.270,	0.234,	0.206,	0.183,	0.164,	0.148,
BIN8(115,1)=	0.134,	0.123,	0.113,	0.104,	0.096,	0.053,
BIN8(121,1)=	0.034,	0.025,	0.019,	0.015,	0.012,	0.010,
BIN8(127,1)=	0.009,	0.008,	0.007,	0.006,	0.005,	0.005,
BIN8(133,1)=	0.004,	0.004,	0.004,			
BIN8(1,0)=	0.000001,	0.01,	0.02,	0.03,	0.04,	0.05,
BIN8(7,0)=	0.06,	0.07,	0.08,	0.09,	0.10,	0.15,
BIN8(13,0)=	0.20,	0.25,	0.30,	0.35,	0.40,	0.45,
BIN8(19,0)=	0.50,	0.55,	0.60,	0.65,	0.70,	0.75,
BIN8(25,0)=	0.80,	0.85,	0.90,	0.95,	1.00,	1.50,
BIN8(31,0)=	2.00,	2.50,	3.00,	3.50,	4.00,	4.50,
BIN8(37,0)=	5.00,	5.50,	6.00,	6.50,	7.00,	7.50,
BIN8(43,0)=	8.00,	8.50,	9.00,	9.50,	10.00,	15.00,
BIN8(49,0)=	20.00,	25.00,	30.00,	35.00,	40.00,	45.00,
BIN8(55,0)=	50.00,	55.00,	60.00,	65.00,	70.00,	75.00,
BIN8(61,0)=	80.00,	85.00,	90.00,	95.00,	100.00,	150.00,
BIN8(67,0)=	200.00,	250.00,	300.00,	350.00,	400.00,	450.00,
BIN8(73,0)=	500.00,	550.00,	600.00,	650.00,	700.00,	750.00,
BIN8(79,0)=	800.00,	850.00,	900.00,	950.00,	1000.00,	1500.00,
BIN8(85,0)=	2000.00,	2500.00,	3000.00,	3500.00,	4000.00,	4500.00,
BIN8(91,0)=	5000.00,	5500.00,	6000.00,	6500.00,	7000.00,	7500.00,
BIN8(97,0)=	8000.00,	8500.00,	9000.00,	9500.00,	10000.00,	15000.00,
BIN8(103,0)=	20000.00,	25000.00,	30000.00,	35000.00,	40000.00,	45000.00,
BIN8(109,0)=	50000.00,	55000.00,	60000.00,	65000.00,	70000.00,	75000.00,
BIN8(115,0)=	80000.00,	85000.00,	90000.00,	95000.00,	100000.00,	150000.00,
BIN8(121,0)=	200000.00,	250000.00,	300000.00,	350000.00,	400000.00,	450000.00,
BIN8(127,0)=	500000.00,	550000.00,	600000.00,	650000.00,	700000.00,	750000.00,
BIN8(133,0)=	800000.00,	850000.00,	900000.00,			
BIN8(0,1)=	1.0					

/COM, *****
/EOF


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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case5.wsm **
/COM, ** Output File Name: finalw5.dat **
/COM, ** Execution Date: 08/11/97 **
/COM, *****
/COM, *****
/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 33596 **
/COM, ** Assemblies/pkg: 21 **
/COM, ** Max Heat (Watts/assy): 850.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 24.831 **
/COM, ** Ave Burnup: 44901.848 **
/COM, ** Ave Enrichment: 3.765 **
/COM, ** Ave MTU/assy: 0.430 **
/COM, **
/COM, *****
*SET,BIN1,
*DIM,BIN1,TABLE,135,1,
BIN1( 1,1)= 535.94, 535.82, 535.70, 535.58, 535.45, 535.33,
BIN1( 7,1)= 535.21, 535.09, 534.97, 534.84, 534.72, 534.11,
BIN1(13,1)= 533.51, 532.91, 532.31, 531.71, 531.11, 530.52,
BIN1(19,1)= 529.93, 529.34, 528.75, 528.17, 527.59, 527.01,
BIN1(25,1)= 526.43, 525.86, 525.28, 524.71, 524.15, 518.54,
BIN1(31,1)= 513.14, 507.83, 502.70, 497.65, 492.76, 487.92,
BIN1(37,1)= 483.23, 478.57, 474.04, 469.58, 465.25, 460.93,
BIN1(43,1)= 456.73, 452.57, 448.52, 444.50, 440.58, 404.09,
BIN1(49,1)= 371.98, 343.66, 318.59, 296.20, 276.17, 258.30,
BIN1(55,1)= 242.28, 227.88, 214.94, 203.28, 192.73, 183.18,
BIN1(61,1)= 174.58, 166.86, 159.73, 153.24, 147.32, 109.77,
BIN1(67,1)= 90.64, 79.09, 71.01, 64.63, 59.52, 55.33,
BIN1(73,1)= 51.59, 48.21, 45.31, 42.78, 40.42, 38.22,
BIN1(79,1)= 36.26, 34.51, 32.93, 31.50, 30.13, 20.78,
BIN1(85,1)= 16.40, 14.10, 12.84, 12.08, 11.46, 11.05,
BIN1(91,1)= 10.68, 10.25, 9.87, 9.53, 9.23, 8.91,
BIN1(97,1)= 8.63, 8.37, 8.13, 7.91, 7.71, 5.64,
BIN1(103,1)= 4.51, 3.53, 2.88, 2.43, 2.10, 1.84,
BIN1(109,1)= 1.64, 1.44, 1.28, 1.14, 1.03, 0.941,
BIN1(115,1)= 0.861, 0.793, 0.733, 0.681, 0.635, 0.365,
BIN1(121,1)= 0.247, 0.182, 0.142, 0.115, 0.096, 0.082,
BIN1(127,1)= 0.071, 0.062, 0.055, 0.049, 0.045, 0.041,
BIN1(133,1)= 0.037, 0.034, 0.032,
BIN1( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN1( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN1(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN1(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN1(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN1(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN1(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN1(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN1(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN1(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN1(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN1(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN1(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN1(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN1(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN1(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN1(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN1(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN1(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN1(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,

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BIN1(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN1(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN1(133,0)= 800000.00, 850000.00, 900000.00,
BIN1( 0,1)=1.0

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/COM, *****
/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 55652 **
/COM, ** Assemblies/pkg: 21 **
/COM, ** Max Heat (Watts/assy): 850.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.130 **
/COM, ** Min Kinf: 1.000 **
/COM, ** Ave Age: 28.530 **
/COM, ** Ave Burnup: 35777.806 **
/COM, ** Ave Enrichment: 3.568 **
/COM, ** Ave MTU/assy: 0.431 **
/COM, **
/COM, *****

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*SET,BIN2,
*DIM,BIN2, TABLE,135,1,
BIN2( 1,1)= 397.69, 397.60, 397.50, 397.40, 397.31, 397.21,
BIN2( 7,1)= 397.11, 397.02, 396.92, 396.82, 396.73, 396.25,
BIN2(13,1)= 395.77, 395.29, 394.82, 394.35, 393.88, 393.41,
BIN2(19,1)= 392.95, 392.49, 392.03, 391.57, 391.11, 390.66,
BIN2(25,1)= 390.20, 389.75, 389.31, 388.86, 388.41, 384.13,
BIN2(31,1)= 380.01, 376.02, 372.18, 368.44, 364.82, 361.30,
BIN2(37,1)= 357.89, 354.43, 351.07, 347.83, 344.68, 341.55,
BIN2(43,1)= 338.51, 335.51, 332.59, 329.72, 326.91, 300.48,
BIN2(49,1)= 277.36, 256.77, 238.51, 222.20, 207.57, 194.39,
BIN2(55,1)= 182.61, 172.01, 162.47, 153.84, 146.04, 138.98,
BIN2(61,1)= 132.62, 126.90, 121.67, 116.86, 112.50, 85.00,
BIN2(67,1)= 71.17, 62.86, 56.93, 52.20, 48.32, 45.08,
BIN2(73,1)= 42.11, 39.41, 37.09, 35.06, 33.13, 31.32,
BIN2(79,1)= 29.71, 28.27, 26.98, 25.81, 24.67, 16.94,
BIN2(85,1)= 13.32, 11.43, 10.41, 9.80, 9.31, 8.98,
BIN2(91,1)= 8.68, 8.35, 8.05, 7.79, 7.55, 7.30,
BIN2(97,1)= 7.07, 6.87, 6.68, 6.51, 6.34, 4.69,
BIN2(103,1)= 3.79, 2.97, 2.44, 2.06, 1.78, 1.57,
BIN2(109,1)= 1.40, 1.22, 1.08, 0.963, 0.867, 0.787,
BIN2(115,1)= 0.718, 0.659, 0.608, 0.563, 0.523, 0.295,
BIN2(121,1)= 0.196, 0.143, 0.111, 0.089, 0.074, 0.062,
BIN2(127,1)= 0.054, 0.047, 0.042, 0.037, 0.033, 0.030,
BIN2(133,1)= 0.028, 0.025, 0.023,
BIN2( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN2( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN2(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN2(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN2(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN2(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN2(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN2(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN2(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN2(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN2(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN2(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN2(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN2(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN2(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN2(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN2(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN2(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN2(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN2(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN2(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN2(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN2(133,0)= 800000.00, 850000.00, 900000.00,
BIN2( 0,1)=1.0
/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 2606
/COM, ** Assemblies/pkg: 21
/COM, ** Max Heat (Watts/assy): 850.00
/COM, ** Min Heat (Watts/assy): 0.00
/COM, ** Max Kinf: 1.450
/COM, ** Min Kinf: 1.130
/COM, ** Ave Age: 36.991
/COM, ** Ave Burnup: 17240.930
/COM, ** Ave Enrichment: 3.414
/COM, ** Ave MTU/assy: 0.389
/COM, **
/COM, *****

```

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*SET,BIN3,

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*DIM,BIN3,TABLE,135,1,

```

BIN3(1,1)=	134.55,	134.52,	134.49,	134.46,	134.43,	134.40,
BIN3(7,1)=	134.37,	134.34,	134.31,	134.28,	134.25,	134.10,
BIN3(13,1)=	133.95,	133.80,	133.66,	133.51,	133.36,	133.22,
BIN3(19,1)=	133.07,	132.93,	132.79,	132.64,	132.50,	132.36,
BIN3(25,1)=	132.22,	132.08,	131.94,	131.80,	131.66,	130.31,
BIN3(31,1)=	129.01,	127.74,	126.51,	125.33,	124.18,	123.01,
BIN3(37,1)=	121.88,	120.76,	119.67,	118.60,	117.56,	116.53,
BIN3(43,1)=	115.52,	114.54,	113.58,	112.59,	111.63,	102.73,
BIN3(49,1)=	94.88,	87.86,	81.60,	76.00,	70.99,	66.48,
BIN3(55,1)=	62.46,	58.84,	55.60,	52.67,	50.04,	47.67,
BIN3(61,1)=	45.55,	43.62,	41.90,	40.33,	38.92,	30.25,
BIN3(67,1)=	26.09,	23.69,	21.91,	20.46,	19.21,	18.13,
BIN3(73,1)=	17.08,	16.12,	15.30,	14.57,	13.84,	13.17,
BIN3(79,1)=	12.57,	12.03,	11.54,	11.09,	10.66,	7.70,
BIN3(85,1)=	6.32,	5.58,	5.17,	4.92,	4.71,	4.57,
BIN3(91,1)=	4.43,	4.28,	4.15,	4.03,	3.93,	3.81,
BIN3(97,1)=	3.71,	3.61,	3.53,	3.45,	3.37,	2.59,
BIN3(103,1)=	2.14,	1.71,	1.42,	1.21,	1.05,	0.935,
BIN3(109,1)=	0.839,	0.728,	0.639,	0.567,	0.508,	0.458,
BIN3(115,1)=	0.416,	0.380,	0.349,	0.322,	0.298,	0.163,
BIN3(121,1)=	0.106,	0.076,	0.058,	0.046,	0.038,	0.032,
BIN3(127,1)=	0.027,	0.024,	0.021,	0.018,	0.017,	0.015,
BIN3(133,1)=	0.014,	0.012,	0.011,			
BIN3(1,0)=	0.000001,	0.01,	0.02,	0.03,	0.04,	0.05,
BIN3(7,0)=	0.06,	0.07,	0.08,	0.09,	0.10,	0.15,
BIN3(13,0)=	0.20,	0.25,	0.30,	0.35,	0.40,	0.45,
BIN3(19,0)=	0.50,	0.55,	0.60,	0.65,	0.70,	0.75,
BIN3(25,0)=	0.80,	0.85,	0.90,	0.95,	1.00,	1.50,
BIN3(31,0)=	2.00,	2.50,	3.00,	3.50,	4.00,	4.50,
BIN3(37,0)=	5.00,	5.50,	6.00,	6.50,	7.00,	7.50,
BIN3(43,0)=	8.00,	8.50,	9.00,	9.50,	10.00,	15.00,
BIN3(49,0)=	20.00,	25.00,	30.00,	35.00,	40.00,	45.00,
BIN3(55,0)=	50.00,	55.00,	60.00,	65.00,	70.00,	75.00,
BIN3(61,0)=	80.00,	85.00,	90.00,	95.00,	100.00,	150.00,
BIN3(67,0)=	200.00,	250.00,	300.00,	350.00,	400.00,	450.00,
BIN3(73,0)=	500.00,	550.00,	600.00,	650.00,	700.00,	750.00,
BIN3(79,0)=	800.00,	850.00,	900.00,	950.00,	1000.00,	1500.00,
BIN3(85,0)=	2000.00,	2500.00,	3000.00,	3500.00,	4000.00,	4500.00,
BIN3(91,0)=	5000.00,	5500.00,	6000.00,	6500.00,	7000.00,	7500.00,
BIN3(97,0)=	8000.00,	8500.00,	9000.00,	9500.00,	10000.00,	15000.00,
BIN3(103,0)=	20000.00,	25000.00,	30000.00,	35000.00,	40000.00,	45000.00,
BIN3(109,0)=	50000.00,	55000.00,	60000.00,	65000.00,	70000.00,	75000.00,
BIN3(115,0)=	80000.00,	85000.00,	90000.00,	95000.00,	100000.00,	150000.00,
BIN3(121,0)=	200000.00,	250000.00,	300000.00,	350000.00,	400000.00,	450000.00,
BIN3(127,0)=	500000.00,	550000.00,	600000.00,	650000.00,	700000.00,	750000.00,
BIN3(133,0)=	800000.00,	850000.00,	900000.00,			
BIN3(0,1)=	1.0					

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/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 1196
/COM, ** Assemblies/pkg: 12

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/COM, **      Max Heat (Watts/assy): 1500.00      **
/COM, **      Min Heat (Watts/assy): 850.00       **
/COM, **      Max Kinf: 1.020                    **
/COM, **      Min Kinf: 0.000                     **
/COM, **      Ave Age: 11.728                     **
/COM, **      Ave Burnup: 52771.906               **
/COM, **      Ave Enrichment: 4.244                **
/COM, **      Ave MTU/assy: 0.468                 **
/COM, **
/COM, *****
*SET, BIN4,
*DIM, BIN4, TABLE, 135, 1,
BIN4( 1,1)= 912.02, 911.66, 911.30, 910.94, 910.58, 910.22,
BIN4( 7,1)= 909.87, 909.51, 909.15, 908.80, 908.44, 906.67,
BIN4(13,1)= 904.92, 903.17, 901.43, 899.71, 898.00, 896.30,
BIN4(19,1)= 894.60, 892.92, 891.25, 889.59, 887.94, 886.31,
BIN4(25,1)= 884.68, 883.06, 881.45, 879.85, 878.26, 863.91,
BIN4(31,1)= 850.34, 837.77, 825.83, 814.77, 804.23, 794.28,
BIN4(37,1)= 784.76, 774.37, 764.42, 755.56, 747.04, 738.66,
BIN4(43,1)= 730.59, 722.88, 715.44, 708.33, 701.45, 634.30,
BIN4(49,1)= 578.32, 528.68, 485.54, 447.57, 414.16, 383.54,
BIN4(55,1)= 356.82, 332.90, 311.45, 292.20, 274.88, 259.27,
BIN4(61,1)= 245.19, 232.64, 221.57, 210.82, 201.34, 141.93,
BIN4(67,1)= 113.53, 96.84, 85.95, 77.50, 70.87, 65.60,
BIN4(73,1)= 61.11, 57.02, 53.52, 50.49, 47.78, 45.21,
BIN4(79,1)= 42.93, 40.89, 39.06, 37.40, 35.86, 25.08,
BIN4(85,1)= 20.04, 17.34, 15.85, 14.92, 14.17, 13.65,
BIN4(91,1)= 13.19, 12.64, 12.16, 11.73, 11.35, 10.95,
BIN4(97,1)= 10.59, 10.26, 9.96, 9.69, 9.43, 6.83,
BIN4(103,1)= 5.43, 4.23, 3.45, 2.90, 2.50, 2.19,
BIN4(109,1)= 1.94, 1.72, 1.53, 1.38, 1.25, 1.14,
BIN4(115,1)= 1.05, 0.967, 0.897, 0.836, 0.781, 0.458,
BIN4(121,1)= 0.314, 0.234, 0.184, 0.150, 0.126, 0.108,
BIN4(127,1)= 0.094, 0.083, 0.074, 0.067, 0.061, 0.055,
BIN4(133,1)= 0.051, 0.047, 0.044,
BIN4( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN4( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN4(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN4(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN4(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN4(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN4(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN4(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN4(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN4(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN4(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN4(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN4(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN4(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN4(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN4(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN4(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN4(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN4(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN4(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN4(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN4(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN4(133,0)= 800000.00, 850000.00, 900000.00,
BIN4( 0,1)=1.0
/COM, *****
/COM, **
/COM, **      Assembly Type: STx                    **
/COM, **      Decay Period (years): 900000         **
/COM, **      Number of assemblies: 1757           **
/COM, **      Assemblies/pkg: 12                   **
/COM, **      Max Heat (Watts/assy): 1500.00       **
/COM, **      Min Heat (Watts/assy): 0.00          **
/COM, **      Max Kinf: 1.130                      **
/COM, **      Min Kinf: 0.000                      **
/COM, **      Ave Age: 19.450                      **

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/COM, ** Ave Burnup: 40410.796 **
/COM, ** Ave Enrichment: 3.582 **
/COM, ** Ave MTU/assy: 0.539 **
/COM, **
/COM, *****
*SET,BIN5,
*DIM,BIN5,TABLE,135,1,
BIN5( 1,1)= 698.81, 698.65, 698.50, 698.34, 698.18, 698.03,
BIN5( 7,1)= 697.87, 697.72, 697.56, 697.40, 697.25, 696.48,
BIN5(13,1)= 695.70, 694.94, 694.17, 693.41, 692.65, 691.89,
BIN5(19,1)= 691.14, 690.39, 689.64, 688.90, 688.15, 687.42,
BIN5(25,1)= 686.68, 685.95, 685.21, 684.49, 683.76, 676.64,
BIN5(31,1)= 669.78, 662.92, 656.30, 649.74, 643.40, 637.07,
BIN5(37,1)= 630.94, 624.77, 618.79, 612.91, 607.20, 601.51,
BIN5(43,1)= 595.98, 590.52, 585.21, 579.95, 574.84, 526.35,
BIN5(49,1)= 483.78, 446.29, 413.30, 383.59, 357.17, 333.68,
BIN5(55,1)= 312.62, 293.70, 276.69, 261.36, 247.52, 235.02,
BIN5(61,1)= 223.92, 213.87, 204.44, 195.96, 188.22, 138.96,
BIN5(67,1)= 113.90, 98.60, 88.11, 79.75, 73.11, 67.72,
BIN5(73,1)= 63.00, 58.70, 55.01, 51.82, 48.89, 46.10,
BIN5(79,1)= 43.64, 41.44, 39.47, 37.69, 36.00, 24.36,
BIN5(85,1)= 18.95, 16.13, 14.61, 13.72, 12.99, 12.51,
BIN5(91,1)= 12.10, 11.60, 11.17, 10.79, 10.44, 10.09,
BIN5(97,1)= 9.77, 9.47, 9.21, 8.96, 8.73, 6.38,
BIN5(103,1)= 5.11, 4.00, 3.28, 2.77, 2.39, 2.10,
BIN5(109,1)= 1.87, 1.66, 1.48, 1.33, 1.21, 1.10,
BIN5(115,1)= 1.02, 0.939, 0.872, 0.812, 0.760, 0.449,
BIN5(121,1)= 0.309, 0.231, 0.183, 0.150, 0.126, 0.108,
BIN5(127,1)= 0.094, 0.083, 0.074, 0.067, 0.061, 0.056,
BIN5(133,1)= 0.051, 0.048, 0.044,
BIN5( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN5( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN5(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN5(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN5(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN5(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN5(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN5(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN5(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN5(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN5(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN5(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN5(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN5(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN5(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN5(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN5(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN5(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN5(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN5(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN5(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN5(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN5(133,0)= 800000.00, 850000.00, 900000.00,
BIN5( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 28493 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 18.862 **
/COM, ** Ave Burnup: 41588.594 **
/COM, ** Ave Enrichment: 3.274 **
/COM, ** Ave MTU/assy: 0.174 **
/COM, **
/COM, *****

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*SET,BIN6,
*DIM,BIN6,TABLE,135,1,
BIN6( 1,1)= 251.87, 251.80, 251.73, 251.66, 251.59, 251.52,
BIN6( 7,1)= 251.46, 251.39, 251.32, 251.25, 251.18, 250.85,
BIN6(13,1)= 250.51, 250.17, 249.84, 249.51, 249.18, 248.85,
BIN6(19,1)= 248.52, 248.20, 247.87, 247.55, 247.23, 246.91,
BIN6(25,1)= 246.59, 246.28, 245.96, 245.65, 245.34, 242.32,
BIN6(31,1)= 239.44, 236.66, 233.99, 231.42, 228.94, 226.51,
BIN6(37,1)= 224.17, 221.79, 219.49, 217.25, 215.09, 212.96,
BIN6(43,1)= 210.90, 208.86, 206.88, 204.94, 203.06, 185.39,
BIN6(49,1)= 170.03, 156.55, 144.70, 134.21, 124.86, 116.50,
BIN6(55,1)= 109.08, 102.43, 96.47, 91.10, 86.26, 81.89,
BIN6(61,1)= 77.96, 74.48, 71.25, 68.27, 65.58, 48.44,
BIN6(67,1)= 39.74, 34.38, 30.71, 27.78, 25.45, 23.56,
BIN6(73,1)= 21.91, 20.40, 19.11, 17.99, 16.97, 16.00,
BIN6(79,1)= 15.14, 14.37, 13.68, 13.06, 12.47, 8.41,
BIN6(85,1)= 6.52, 5.54, 5.01, 4.70, 4.45, 4.28,
BIN6(91,1)= 4.14, 3.97, 3.82, 3.69, 3.57, 3.44,
BIN6(97,1)= 3.33, 3.23, 3.14, 3.06, 2.98, 2.17,
BIN6(103,1)= 1.73, 1.36, 1.11, 0.935, 0.807, 0.708,
BIN6(109,1)= 0.631, 0.557, 0.497, 0.448, 0.406, 0.371,
BIN6(115,1)= 0.341, 0.315, 0.293, 0.273, 0.255, 0.150,
BIN6(121,1)= 0.103, 0.077, 0.061, 0.050, 0.042, 0.036,
BIN6(127,1)= 0.031, 0.028, 0.025, 0.022, 0.020, 0.019,
BIN6(133,1)= 0.017, 0.016, 0.015,
BIN6( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN6( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN6(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN6(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN6(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN6(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN6(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN6(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN6(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN6(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN6(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN6(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN6(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN6(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN6(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN6(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN6(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN6(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN6(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN6(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN6(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN6(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN6(133,0)= 800000.00, 850000.00, 900000.00,
BIN6( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 94639 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.370 **
/COM, ** Min Kinf: 1.000 **
/COM, ** Ave Age: 30.205 **
/COM, ** Ave Burnup: 29049.082 **
/COM, ** Ave Enrichment: 2.884 **
/COM, ** Ave MTU/assy: 0.179 **
/COM, **
/COM, *****

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*SET,BIN7,
*DIM,BIN7,TABLE,135,1,
BIN7( 1,1)= 143.99, 143.96, 143.92, 143.89, 143.86, 143.82,
BIN7( 7,1)= 143.79, 143.76, 143.72, 143.69, 143.66, 143.49,
BIN7(13,1)= 143.32, 143.16, 143.00, 142.83, 142.67, 142.51,

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B1N7(19,1)=	142.35,	142.19,	142.03,	141.87,	141.71,	141.55,
B1N7(25,1)=	141.40,	141.24,	141.09,	140.93,	140.78,	139.27,
B1N7(31,1)=	137.83,	136.42,	135.07,	133.75,	132.48,	131.23,
B1N7(37,1)=	130.02,	128.81,	127.64,	126.49,	125.37,	124.26,
B1N7(43,1)=	123.19,	122.12,	121.08,	120.06,	119.06,	109.70,
B1N7(49,1)=	101.49,	94.20,	87.73,	81.95,	76.76,	72.11,
B1N7(55,1)=	67.95,	64.22,	60.86,	57.82,	55.06,	52.56,
B1N7(61,1)=	50.31,	48.29,	46.44,	44.73,	43.17,	41.56,
B1N7(67,1)=	28.07,	24.86,	22.52,	20.63,	19.07,	17.77,
B1N7(73,1)=	16.57,	15.47,	14.53,	13.72,	12.93,	12.20,
B1N7(79,1)=	11.54,	10.96,	10.44,	9.97,	9.51,	6.39,
B1N7(85,1)=	4.93,	4.19,	3.79,	3.56,	3.37,	3.25,
B1N7(91,1)=	3.14,	3.02,	2.91,	2.81,	2.73,	2.64,
B1N7(97,1)=	2.56,	2.48,	2.41,	2.35,	2.29,	1.70,
B1N7(103,1)=	1.37,	1.08,	0.882,	0.746,	0.646,	0.568,
B1N7(109,1)=	0.507,	0.443,	0.393,	0.351,	0.317,	0.288,
B1N7(115,1)=	0.263,	0.242,	0.223,	0.207,	0.193,	0.109,
B1N7(121,1)=	0.073,	0.054,	0.042,	0.034,	0.028,	0.024,
B1N7(127,1)=	0.021,	0.018,	0.016,	0.014,	0.013,	0.012,
B1N7(133,1)=	0.011,	0.010,	0.009,			
B1N7(1,0)=	0.000001,	0.01,	0.02,	0.03,	0.04,	0.05,
B1N7(7,0)=	0.06,	0.07,	0.08,	0.09,	0.10,	0.15,
B1N7(13,0)=	0.20,	0.25,	0.30,	0.35,	0.40,	0.45,
B1N7(19,0)=	0.50,	0.55,	0.60,	0.65,	0.70,	0.75,
B1N7(25,0)=	0.80,	0.85,	0.90,	0.95,	1.00,	1.50,
B1N7(31,0)=	2.00,	2.50,	3.00,	3.50,	4.00,	4.50,
B1N7(37,0)=	5.00,	5.50,	6.00,	6.50,	7.00,	7.50,
B1N7(43,0)=	8.00,	8.50,	9.00,	9.50,	10.00,	15.00,
B1N7(49,0)=	20.00,	25.00,	30.00,	35.00,	40.00,	45.00,
B1N7(55,0)=	50.00,	55.00,	60.00,	65.00,	70.00,	75.00,
B1N7(61,0)=	80.00,	85.00,	90.00,	95.00,	100.00,	150.00,
B1N7(67,0)=	200.00,	250.00,	300.00,	350.00,	400.00,	450.00,
B1N7(73,0)=	500.00,	550.00,	600.00,	650.00,	700.00,	750.00,
B1N7(79,0)=	800.00,	850.00,	900.00,	950.00,	1000.00,	1500.00,
B1N7(85,0)=	2000.00,	2500.00,	3000.00,	3500.00,	4000.00,	4500.00,
B1N7(91,0)=	5000.00,	5500.00,	6000.00,	6500.00,	7000.00,	7500.00,
B1N7(97,0)=	8000.00,	8500.00,	9000.00,	9500.00,	10000.00,	15000.00,
B1N7(103,0)=	20000.00,	25000.00,	30000.00,	35000.00,	40000.00,	45000.00,
B1N7(109,0)=	50000.00,	55000.00,	60000.00,	65000.00,	70000.00,	75000.00,
B1N7(115,0)=	80000.00,	85000.00,	90000.00,	95000.00,	100000.00,	150000.00,
B1N7(121,0)=	200000.00,	250000.00,	300000.00,	350000.00,	400000.00,	450000.00,
B1N7(127,0)=	500000.00,	550000.00,	600000.00,	650000.00,	700000.00,	750000.00,
B1N7(133,0)=	800000.00,	850000.00,	900000.00,			
B1N7(0,1)=1.0						
/COM, *****						
/COM, **						**
/COM, **	Assembly Type:		BUR			**
/COM, **	Decay Period (years):		9000000			**
/COM, **	Number of assemblies:		993			**
/COM, **	Assemblies/pkg:		24			**
/COM, **	Max Heat (Watts/assy):		520.00			**
/COM, **	Min Heat (Watts/assy):		0.00			**
/COM, **	Max Kinf:		1.540			**
/COM, **	Min Kinf:		0.000			**
/COM, **	Ave Age:		18.118			**
/COM, **	Ave Burnup:		8835.600			**
/COM, **	Ave Enrichment:		3.46			

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BIN8(49,1)= 25.55, 23.33, 21.37, 19.64, 18.09, 16.72,
BIN8(55,1)= 15.50, 14.41, 13.44, 12.58, 11.80, 11.12,
BIN8(61,1)= 10.51, 9.96, 9.47, 9.03, 8.63, 8.36,
BIN8(67,1)= 5.40, 4.90, 4.56, 4.29, 4.06, 3.85,
BIN8(73,1)= 3.66, 3.48, 3.31, 3.17, 3.04, 2.92,
BIN8(79,1)= 2.80, 2.70, 2.60, 2.52, 2.44, 1.88,
BIN8(85,1)= 1.62, 1.48, 1.40, 1.35, 1.30, 1.26,
BIN8(91,1)= 1.23, 1.20, 1.16, 1.13, 1.11, 1.08,
BIN8(97,1)= 1.05, 1.03, 1.01, 0.986, 0.966, 0.762,
BIN8(103,1)= 0.644, 0.518, 0.434, 0.373, 0.328, 0.292,
BIN8(109,1)= 0.264, 0.229, 0.201, 0.178, 0.160, 0.144,
BIN8(115,1)= 0.131, 0.119, 0.110, 0.101, 0.094, 0.051,
BIN8(121,1)= 0.033, 0.024, 0.018, 0.014, 0.012, 0.010,
BIN8(127,1)= 0.008, 0.007, 0.006, 0.006, 0.005, 0.005,
BIN8(133,1)= 0.004, 0.004, 0.004,
BIN8( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN8( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN8(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN8(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN8(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN8(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN8(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN8(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN8(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN8(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN8(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN8(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN8(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN8(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN8(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN8(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN8(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN8(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN8(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN8(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN8(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN8(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN8(133,0)= 800000.00, 850000.00, 900000.00,
BIN8( 0,1)=1.0
/COM, *****
/EOF

```



```

/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: B000000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case6.wsm **
/COM, ** Output File Name: finalw6.dat **
/COM, ** Execution Date: 08/11/97 **
/COM, *****
/COM, *****
/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 33551 **
/COM, ** Assemblies/pkg: 21 **
/COM, ** Max Heat (Watts/assy): 850.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 24.498 **
/COM, ** Ave Burnup: 44913.941 **
/COM, ** Ave Enrichment: 3.760 **
/COM, ** Ave MTU/assy: 0.430 **
/COM, *****
/COM, *****
*SET, BIN1,
*DIM, BIN1, TABLE, 135, 1,
BIN1( 1,1)= 539.73, 539.60, 539.47, 539.35, 539.22, 539.10,
BIN1( 7,1)= 538.97, 538.85, 538.72, 538.60, 538.47, 537.85,
BIN1(13,1)= 537.24, 536.62, 536.01, 535.39, 534.79, 534.18,
BIN1(19,1)= 533.58, 532.97, 532.38, 531.78, 531.19, 530.59,
BIN1(25,1)= 530.00, 529.42, 528.83, 528.25, 527.67, 521.96,
BIN1(31,1)= 516.47, 511.09, 505.90, 500.78, 495.83, 490.93,
BIN1(37,1)= 486.18, 481.45, 476.87, 472.36, 467.99, 463.63,
BIN1(43,1)= 459.40, 455.20, 451.11, 447.05, 443.09, 406.29,
BIN1(49,1)= 373.94, 345.40, 320.14, 297.60, 277.44, 259.45,
BIN1(55,1)= 243.32, 228.83, 215.81, 204.08, 193.46, 183.85,
BIN1(61,1)= 175.21, 167.45, 160.27, 153.75, 147.80, 110.05,
BIN1(67,1)= 90.85, 79.26, 71.16, 64.76, 59.63, 55.43,
BIN1(73,1)= 51.69, 48.30, 45.39, 42.86, 40.50, 38.28,
BIN1(79,1)= 36.32, 34.56, 32.98, 31.55, 30.18, 20.81,
BIN1(85,1)= 16.42, 14.11, 12.85, 12.09, 11.48, 11.06,
BIN1(91,1)= 10.69, 10.26, 9.88, 9.54, 9.24, 8.92,
BIN1(97,1)= 8.64, 8.38, 8.14, 7.92, 7.71, 5.64,
BIN1(103,1)= 4.52, 3.53, 2.88, 2.43, 2.10, 1.84,
BIN1(109,1)= 1.64, 1.44, 1.28, 1.14, 1.03, 0.941,
BIN1(115,1)= 0.862, 0.793, 0.734, 0.681, 0.635, 0.365,
BIN1(121,1)= 0.247, 0.182, 0.142, 0.115, 0.096, 0.082,
BIN1(127,1)= 0.071, 0.062, 0.055, 0.049, 0.045, 0.041,
BIN1(133,1)= 0.037, 0.034, 0.032,
BIN1( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN1( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN1(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN1(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN1(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN1(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN1(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN1(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN1(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN1(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN1(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN1(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN1(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN1(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN1(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN1(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN1(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN1(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN1(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN1(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,

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BIN1( 0,1)=1.0
```

Ave MTU/assy:

```
*SET,BIN2,
```

/COM,

```

/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 2910
/COM, ** Assemblies/pkg: 21
/COM, ** Max Heat (Watts/assy): 850.00
/COM, ** Min Heat (Watts/assy): 0.00
/COM, ** Max Kinf: 1.450
/COM, ** Min Kinf: 1.130
/COM, ** Ave Age: 34.559
/COM, ** Ave Burnup: 17623.981
/COM, ** Ave Enrichment: 3.506
/COM, ** Ave MTU/assy: 0.390
/COM, **
/COM, *****

```

```

*SET,BIN3,

```

```

*DIM,BIN3, TABLE, 135, 1,

```

```

BIN3( 1,1)= 148.91, 148.87, 148.83, 148.79, 148.75, 148.72,
BIN3( 7,1)= 148.68, 148.64, 148.60, 148.56, 148.52, 148.33,
BIN3(13,1)= 148.14, 147.95, 147.76, 147.57, 147.38, 147.19,
BIN3(19,1)= 147.01, 146.82, 146.64, 146.45, 146.27, 146.09,
BIN3(25,1)= 145.91, 145.73, 145.55, 145.37, 145.20, 143.52,
BIN3(31,1)= 141.91, 140.36, 138.88, 137.44, 136.05, 134.70,
BIN3(37,1)= 133.40, 132.07, 130.79, 129.55, 128.34, 127.16,
BIN3(43,1)= 126.01, 124.87, 123.76, 122.65, 121.57, 111.48,
BIN3(49,1)= 102.70, 94.83, 87.84, 81.59, 76.03, 70.99,
BIN3(55,1)= 66.52, 62.50, 58.89, 55.65, 52.73, 50.10,
BIN3(61,1)= 47.75, 45.62, 43.74, 41.99, 40.43, 30.94,
BIN3(67,1)= 26.51, 24.00, 22.16, 20.69, 19.41, 18.32,
BIN3(73,1)= 17.26, 16.29, 15.45, 14.71, 13.98, 13.30,
BIN3(79,1)= 12.69, 12.14, 11.65, 11.20, 10.76, 7.77,
BIN3(85,1)= 6.37, 5.63, 5.21, 4.96, 4.75, 4.61,
BIN3(91,1)= 4.47, 4.32, 4.19, 4.07, 3.96, 3.84,
BIN3(97,1)= 3.74, 3.64, 3.56, 3.48, 3.40, 2.61,
BIN3(103,1)= 2.16, 1.72, 1.43, 1.22, 1.06, 0.942,
BIN3(109,1)= 0.845, 0.734, 0.645, 0.572, 0.513, 0.463,
BIN3(115,1)= 0.421, 0.384, 0.353, 0.326, 0.302, 0.165,
BIN3(121,1)= 0.108, 0.078, 0.059, 0.047, 0.039, 0.033,
BIN3(127,1)= 0.028, 0.024, 0.021, 0.019, 0.017, 0.015,
BIN3(133,1)= 0.014, 0.013, 0.012,
BIN3( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN3( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN3(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN3(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN3(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN3(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN3(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN3(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN3(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN3(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN3(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN3(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN3(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN3(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN3(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN3(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN3(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN3(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN3(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN3(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN3(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN3(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN3(133,0)= 800000.00, 850000.00, 900000.00,
BIN3( 0,1)=1.0

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/COM, *****

```

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/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 971
/COM, ** Assemblies/pkg: 12
/COM, **

```

```

/COM, ** Max Heat (Watts/assy): 1500.00 **
/COM, ** Min Heat (Watts/assy): 850.00 **
/COM, ** Max Kinf: 1.020 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 12.057 **
/COM, ** Ave Burnup: 54174.739 **
/COM, ** Ave Enrichment: 4.367 **
/COM, ** Ave MTU/assy: 0.458 **
/COM, **
/COM, *****
*SET,BIN4,
*DIN,BIN4, TABLE, 135, 1,
BIN4( 1,1)= 915.39, 915.04, 914.69, 914.34, 913.99, 913.65,
BIN4( 7,1)= 913.30, 912.96, 912.61, 912.26, 911.92, 910.20,
BIN4(13,1)= 908.50, 906.80, 905.12, 903.44, 901.78, 900.12,
BIN4(19,1)= 898.48, 896.85, 895.22, 893.61, 892.01, 890.41,
BIN4(25,1)= 888.83, 887.25, 885.69, 884.13, 882.58, 868.50,
BIN4(31,1)= 855.18, 842.87, 831.17, 820.08, 809.50, 799.55,
BIN4(37,1)= 790.02, 779.74, 769.89, 761.01, 752.46, 744.14,
BIN4(43,1)= 736.13, 728.33, 720.81, 713.55, 706.53, 639.04,
BIN4(49,1)= 582.32, 532.28, 488.68, 450.35, 416.43, 385.62,
BIN4(55,1)= 358.63, 334.46, 312.80, 293.37, 275.87, 260.12,
BIN4(61,1)= 245.90, 233.26, 221.99, 211.19, 201.62, 141.61,
BIN4(67,1)= 112.91, 96.07, 85.12, 76.65, 70.03, 64.80,
BIN4(73,1)= 60.35, 56.32, 52.86, 49.87, 47.20, 44.68,
BIN4(79,1)= 42.45, 40.45, 38.65, 37.03, 35.51, 24.95,
BIN4(85,1)= 20.00, 17.35, 15.87, 14.95, 14.19, 13.67,
BIN4(91,1)= 13.21, 12.66, 12.18, 11.75, 11.36, 10.96,
BIN4(97,1)= 10.60, 10.27, 9.97, 9.69, 9.43, 6.82,
BIN4(103,1)= 5.41, 4.21, 3.43, 2.89, 2.48, 2.18,
BIN4(109,1)= 1.93, 1.71, 1.52, 1.37, 1.25, 1.14,
BIN4(115,1)= 1.05, 0.968, 0.898, 0.837, 0.783, 0.461,
BIN4(121,1)= 0.317, 0.237, 0.187, 0.153, 0.128, 0.110,
BIN4(127,1)= 0.096, 0.085, 0.076, 0.068, 0.062, 0.057,
BIN4(133,1)= 0.052, 0.048, 0.045,
BIN4( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN4( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN4(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN4(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN4(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN4(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN4(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN4(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN4(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN4(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN4(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN4(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN4(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN4(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN4(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN4(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN4(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN4(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN4(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN4(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN4(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN4(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN4(133,0)= 800000.00, 850000.00, 900000.00,
BIN4( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: STx **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 1757 **
/COM, ** Assemblies/pkg: 12 **
/COM, ** Max Heat (Watts/assy): 1500.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.130 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 19.450 **

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/COM, ** Ave Burnup: 40410.796 **
/COM, ** Ave Enrichment: 3.582 **
/COM, ** Ave MTU/assy: 0.539 **
/COM, **
/COM, *****
*SET, BIN5,
*DIM, BIN5, TABLE, 135, 1,
BIN5( 1,1)= 698.81, 698.65, 698.50, 698.34, 698.18, 698.03,
BIN5( 7,1)= 697.87, 697.72, 697.56, 697.40, 697.25, 696.48,
BIN5(13,1)= 695.70, 694.94, 694.17, 693.41, 692.65, 691.89,
BIN5(19,1)= 691.14, 690.39, 689.64, 688.90, 688.15, 687.42,
BIN5(25,1)= 686.68, 685.95, 685.21, 684.49, 683.76, 676.64,
BIN5(31,1)= 669.78, 662.92, 656.30, 649.74, 643.40, 637.07,
BIN5(37,1)= 630.94, 624.77, 618.79, 612.91, 607.20, 601.51,
BIN5(43,1)= 595.98, 590.52, 585.21, 579.95, 574.84, 526.35,
BIN5(49,1)= 483.78, 446.29, 413.30, 383.59, 357.17, 333.68,
BIN5(55,1)= 312.62, 293.70, 276.69, 261.36, 247.52, 235.02,
BIN5(61,1)= 223.92, 213.87, 204.44, 195.96, 188.22, 138.96,
BIN5(67,1)= 113.90, 98.60, 88.11, 79.75, 73.11, 67.72,
BIN5(73,1)= 63.00, 58.70, 55.01, 51.82, 48.89, 46.10,
BIN5(79,1)= 43.64, 41.44, 39.47, 37.69, 36.00, 24.36,
BIN5(85,1)= 18.95, 16.13, 14.61, 13.72, 12.99, 12.51,
BIN5(91,1)= 12.10, 11.60, 11.17, 10.79, 10.44, 10.09,
BIN5(97,1)= 9.77, 9.47, 9.21, 8.96, 8.73, 6.38,
BIN5(103,1)= 5.11, 4.00, 3.28, 2.77, 2.39, 2.10,
BIN5(109,1)= 1.87, 1.66, 1.48, 1.33, 1.21, 1.10,
BIN5(115,1)= 1.02, 0.939, 0.872, 0.812, 0.760, 0.449,
BIN5(121,1)= 0.309, 0.231, 0.183, 0.150, 0.126, 0.108,
BIN5(127,1)= 0.094, 0.083, 0.074, 0.067, 0.061, 0.056,
BIN5(133,1)= 0.051, 0.048, 0.044,
BIN5( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN5( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN5(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN5(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN5(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN5(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN5(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN5(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN5(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN5(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN5(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN5(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN5(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN5(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN5(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN5(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN5(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN5(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN5(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN5(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN5(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN5(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN5(133,0)= 800000.00, 850000.00, 900000.00,
BIN5( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 30085 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 18.284 **
/COM, ** Ave Burnup: 41772.546 **
/COM, ** Ave Enrichment: 3.284 **
/COM, ** Ave MTU/assy: 0.174 **
/COM, **
/COM, *****

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*SET,BIN6,
*DIM,BIN6, TABLE, 135, 1,
BIN6( 1,1)= 255.99, 255.92, 255.85, 255.78, 255.70, 255.63,
BIN6( 7,1)= 255.56, 255.49, 255.42, 255.35, 255.28, 254.93,
BIN6(13,1)= 254.57, 254.22, 253.88, 253.53, 253.19, 252.85,
BIN6(19,1)= 252.50, 252.17, 251.83, 251.49, 251.16, 250.83,
BIN6(25,1)= 250.50, 250.17, 249.84, 249.51, 249.19, 246.05,
BIN6(31,1)= 243.05, 240.16, 237.40, 234.73, 232.16, 229.65,
BIN6(37,1)= 227.22, 224.80, 222.45, 220.17, 217.97, 215.79,
BIN6(43,1)= 213.69, 211.60, 209.58, 207.59, 205.66, 187.63,
BIN6(49,1)= 172.04, 158.34, 146.29, 135.63, 126.15, 117.66,
BIN6(55,1)= 110.13, 103.39, 97.34, 91.89, 86.99, 82.56,
BIN6(61,1)= 78.57, 75.02, 71.77, 68.74, 66.02, 48.67,
BIN6(67,1)= 39.89, 34.48, 30.79, 27.85, 25.51, 23.61,
BIN6(73,1)= 21.95, 20.44, 19.15, 18.03, 17.00, 16.03,
BIN6(79,1)= 15.16, 14.40, 13.71, 13.08, 12.49, 8.42,
BIN6(85,1)= 6.53, 5.55, 5.02, 4.71, 4.46, 4.29,
BIN6(91,1)= 4.15, 3.98, 3.83, 3.69, 3.57, 3.45,
BIN6(97,1)= 3.34, 3.24, 3.15, 3.06, 2.98, 2.17,
BIN6(103,1)= 1.74, 1.36, 1.11, 0.936, 0.808, 0.710,
BIN6(109,1)= 0.632, 0.558, 0.498, 0.448, 0.407, 0.372,
BIN6(115,1)= 0.342, 0.316, 0.293, 0.273, 0.256, 0.151,
BIN6(121,1)= 0.104, 0.078, 0.061, 0.050, 0.042, 0.036,
BIN6(127,1)= 0.032, 0.028, 0.025, 0.022, 0.020, 0.019,
BIN6(133,1)= 0.017, 0.016, 0.015,
BIN6( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN6( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN6(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN6(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN6(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN6(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN6(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN6(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN6(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN6(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN6(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN6(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN6(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN6(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN6(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN6(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN6(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN6(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN6(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN6(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN6(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN6(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN6(133,0)= 800000.00, 850000.00, 900000.00,
BIN6( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 93749 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.370 **
/COM, ** Min Kinf: 1.000 **
/COM, ** Ave Age: 29.375 **
/COM, ** Ave Burnup: 29338.962 **
/COM, ** Ave Enrichment: 2.915 **
/COM, ** Ave MTU/assy: 0.178 **
/COM, *****
*SET,BIN7,
*DIM,BIN7, TABLE, 135, 1,
BIN7( 1,1)= 148.21, 148.18, 148.14, 148.11, 148.07, 148.03,
BIN7( 7,1)= 148.00, 147.96, 147.93, 147.89, 147.85, 147.67,
BIN7(13,1)= 147.49, 147.32, 147.14, 146.96, 146.79, 146.61,

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BIN7(19,1)= 146.44, 146.26, 146.09, 145.92, 145.75, 145.58,
BIN7(25,1)= 145.41, 145.24, 145.07, 144.90, 144.74, 143.13,
BIN7(31,1)= 141.58, 140.10, 138.66, 137.28, 135.93, 134.62,
BIN7(37,1)= 133.35, 132.08, 130.85, 129.65, 128.49, 127.33,
BIN7(43,1)= 126.21, 125.11, 124.04, 122.97, 121.94, 112.24,
BIN7(49,1)= 103.78, 96.25, 89.58, 83.63, 78.30, 73.50,
BIN7(55,1)= 69.22, 65.38, 61.92, 58.80, 55.96, 53.40,
BIN7(61,1)= 51.09, 49.00, 47.11, 45.35, 43.76, 33.58,
BIN7(67,1)= 28.31, 25.05, 22.67, 20.77, 19.19, 17.87,
BIN7(73,1)= 16.66, 15.56, 14.62, 13.79, 13.01, 12.26,
BIN7(79,1)= 11.61, 11.02, 10.50, 10.02, 9.56, 6.42,
BIN7(85,1)= 4.96, 4.21, 3.81, 3.58, 3.39, 3.27,
BIN7(91,1)= 3.16, 3.03, 2.93, 2.83, 2.74, 2.65,
BIN7(97,1)= 2.57, 2.50, 2.43, 2.36, 2.30, 1.71,
BIN7(103,1)= 1.38, 1.08, 0.887, 0.750, 0.649, 0.571,
BIN7(109,1)= 0.509, 0.446, 0.395, 0.353, 0.318, 0.289,
BIN7(115,1)= 0.264, 0.243, 0.224, 0.208, 0.194, 0.110,
BIN7(121,1)= 0.074, 0.054, 0.042, 0.034, 0.028, 0.024,
BIN7(127,1)= 0.021, 0.018, 0.016, 0.015, 0.013, 0.012,
BIN7(133,1)= 0.011, 0.010, 0.009,
BIN7( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN7( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN7(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN7(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN7(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN7(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN7(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN7(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN7(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN7(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN7(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN7(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN7(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN7(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN7(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN7(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN7(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN7(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN7(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN7(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN7(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN7(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN7(133,0)= 800000.00, 850000.00, 900000.00,
BIN7( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 1250 **
/COM, ** Assemblies/pkg: 24 **
/COM, ** Max Heat (Watts/assy): 520.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.540 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 15.734 **
/COM, ** Ave Burnup: 10301.713 **
/COM, ** Ave Enrichment: 3.612 **
/COM, ** Ave MTU/assy: 0.166 **
/COM, **
/COM, *****
*SET,BIN8,
*DIM,BIN8,TABLE,135,1,
BIN8( 1,1)= 48.84, 48.82, 48.81, 48.79, 48.78, 48.76,
BIN8( 7,1)= 48.75, 48.74, 48.72, 48.71, 48.69, 48.62,
BIN8(13,1)= 48.55, 48.47, 48.40, 48.33, 48.26, 48.19,
BIN8(19,1)= 48.12, 48.05, 47.98, 47.91, 47.84, 47.78,
BIN8(25,1)= 47.71, 47.64, 47.57, 47.51, 47.44, 46.80,
BIN8(31,1)= 46.20, 45.61, 45.05, 44.52, 44.01, 43.49,
BIN8(37,1)= 43.00, 42.51, 42.05, 41.59, 41.15, 40.71,
BIN8(43,1)= 40.29, 39.87, 39.46, 39.04, 38.63, 35.02,

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BIN8(49,1)= 31.87, 29.10, 26.66, 24.48, 22.56, 20.84,
BIN8(55,1)= 19.31, 17.93, 16.71, 15.62, 14.64, 13.77,
BIN8(61,1)= 13.00, 12.30, 11.68, 11.12, 10.61, 7.72,
BIN8(67,1)= 6.50, 5.86, 5.43, 5.09, 4.80, 4.54,
BIN8(73,1)= 4.31, 4.08, 3.88, 3.71, 3.55, 3.39,
BIN8(79,1)= 3.25, 3.12, 3.01, 2.90, 2.80, 2.11,
BIN8(85,1)= 1.79, 1.62, 1.53, 1.47, 1.41, 1.37,
BIN8(91,1)= 1.34, 1.30, 1.26, 1.23, 1.20, 1.17,
BIN8(97,1)= 1.14, 1.11, 1.09, 1.06, 1.04, 0.817,
BIN8(103,1)= 0.687, 0.552, 0.461, 0.397, 0.348, 0.310,
BIN8(109,1)= 0.279, 0.242, 0.213, 0.189, 0.170, 0.153,
BIN8(115,1)= 0.139, 0.127, 0.117, 0.108, 0.100, 0.055,
BIN8(121,1)= 0.036, 0.026, 0.020, 0.016, 0.013, 0.011,
BIN8(127,1)= 0.009, 0.008, 0.007, 0.006, 0.006, 0.005,
BIN8(133,1)= 0.005, 0.004, 0.004,
BIN8( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN8( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN8(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN8(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN8(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN8(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN8(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN8(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN8(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN8(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN8(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN8(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN8(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN8(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN8(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN8(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN8(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN8(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN8(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN8(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN8(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN8(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN8(133,0)= 800000.00, 850000.00, 900000.00,
BIN8( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case7.wsm **
/COM, ** Output File Name: finalw7.dat **
/COM, ** Execution Date: 08/11/97 **
/COM, *****
/COM, *****
/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 38290 **
/COM, ** Assemblies/pkg: 21 **
/COM, ** Max Heat (Watts/assy): 850.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 21.706 **
/COM, ** Ave Burnup: 45820.620 **
/COM, ** Ave Enrichment: 3.842 **
/COM, ** Ave MTU/assy: 0.430 **
/COM, **
/COM, *****
*SET,BIN1,
*DIM,BIN1, TABLE, 135, 1,
BIN1( 1,1)= 565.13, 565.00, 564.87, 564.74, 564.61, 564.48,
BIN1( 7,1)= 564.36, 564.23, 564.10, 563.97, 563.85, 563.21,
BIN1(13,1)= 562.58, 561.95, 561.32, 560.69, 560.07, 559.45,
BIN1(19,1)= 558.83, 558.21, 557.59, 556.98, 556.37, 555.77,
BIN1(25,1)= 555.16, 554.56, 553.96, 553.36, 552.76, 546.87,
BIN1(31,1)= 541.19, 535.60, 530.20, 524.86, 519.69, 514.56,
BIN1(37,1)= 509.59, 504.66, 499.86, 495.13, 490.54, 485.96,
BIN1(43,1)= 481.50, 477.06, 472.75, 468.45, 464.26, 425.29,
BIN1(49,1)= 391.08, 360.90, 334.12, 310.27, 288.97, 269.94,
BIN1(55,1)= 252.89, 237.56, 223.77, 211.34, 200.14, 190.07,
BIN1(61,1)= 180.97, 172.74, 165.18, 158.30, 152.04, 112.42,
BIN1(67,1)= 92.39, 80.35, 72.03, 65.47, 60.24, 55.96,
BIN1(73,1)= 52.18, 48.75, 45.80, 43.24, 40.87, 38.64,
BIN1(79,1)= 36.66, 34.89, 33.30, 31.86, 30.48, 21.05,
BIN1(85,1)= 16.64, 14.31, 13.04, 12.27, 11.64, 11.22,
BIN1(91,1)= 10.85, 10.41, 10.02, 9.68, 9.37, 9.05,
BIN1(97,1)= 8.76, 8.49, 8.25, 8.03, 7.82, 5.71,
BIN1(103,1)= 4.57, 3.57, 2.92, 2.46, 2.12, 1.86,
BIN1(109,1)= 1.65, 1.45, 1.29, 1.16, 1.05, 0.954,
BIN1(115,1)= 0.874, 0.805, 0.744, 0.692, 0.645, 0.372,
BIN1(121,1)= 0.252, 0.186, 0.145, 0.118, 0.098, 0.084,
BIN1(127,1)= 0.073, 0.064, 0.057, 0.051, 0.046, 0.042,
BIN1(133,1)= 0.038, 0.035, 0.033,
BIN1( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN1( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN1(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN1(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN1(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN1(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN1(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN1(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN1(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN1(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN1(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN1(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN1(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN1(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN1(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN1(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN1(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN1(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN1(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN1(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,

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BIN1(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
 BIN1(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
 BIN1(133,0)= 800000.00, 850000.00, 900000.00,
 BIN1(0,1)=1.0

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/COM, *****
/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 50617
/COM, ** Assemblies/pkg: 21
/COM, ** Max Heat (Watts/assy): 850.00
/COM, ** Min Heat (Watts/assy): 0.00
/COM, ** Max Kinf: 1.130
/COM, ** Min Kinf: 1.000
/COM, ** Ave Age: 24.763
/COM, ** Ave Burnup: 36377.288
/COM, ** Ave Enrichment: 3.665
/COM, ** Ave MTU/assy: 0.430
/COM, **
/COM, *****

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*SET, BIN2,

*DIM, BIN2, TABLE, 135, 1,

BIN2(1,1)=	419.25,	419.15,	419.05,	418.95,	418.85,	418.75,
BIN2(7,1)=	418.65,	418.55,	418.45,	418.35,	418.25,	417.76,
BIN2(13,1)=	417.26,	416.77,	416.28,	415.79,	415.31,	414.82,
BIN2(19,1)=	414.34,	413.86,	413.39,	412.91,	412.44,	411.97,
BIN2(25,1)=	411.50,	411.03,	410.57,	410.10,	409.64,	405.16,
BIN2(31,1)=	400.85,	396.66,	392.62,	388.67,	384.85,	381.11,
BIN2(37,1)=	377.48,	373.84,	370.31,	366.87,	363.52,	360.21,
BIN2(43,1)=	356.99,	353.78,	350.65,	347.57,	344.58,	316.36,
BIN2(49,1)=	291.69,	269.71,	250.21,	232.75,	217.14,	203.08,
BIN2(55,1)=	190.49,	179.15,	168.94,	159.74,	151.44,	143.94,
BIN2(61,1)=	137.18,	131.06,	125.50,	120.39,	115.76,	86.72,
BIN2(67,1)=	72.25,	63.61,	57.55,	52.71,	48.76,	45.47,
BIN2(73,1)=	42.49,	39.75,	37.39,	35.34,	33.41,	31.58,
BIN2(79,1)=	29.95,	28.50,	27.19,	26.01,	24.87,	17.08,
BIN2(85,1)=	13.43,	11.52,	10.50,	9.88,	9.39,	9.05,
BIN2(91,1)=	8.76,	8.42,	8.12,	7.85,	7.61,	7.36,
BIN2(97,1)=	7.13,	6.92,	6.73,	6.56,	6.39,	4.73,
BIN2(103,1)=	3.82,	3.00,	2.46,	2.08,	1.80,	1.58,
BIN2(109,1)=	1.41,	1.23,	1.09,	0.973,	0.876,	0.795,
BIN2(115,1)=	0.726,	0.666,	0.615,	0.570,	0.530,	0.299,
BIN2(121,1)=	0.199,	0.146,	0.113,	0.091,	0.075,	0.064,
BIN2(127,1)=	0.055,	0.048,	0.042,	0.038,	0.034,	0.031,
BIN2(133,1)=	0.028,	0.026,	0.024,			
BIN2(1,0)=	0.000001,	0.01,	0.02,	0.03,	0.04,	0.05,
BIN2(7,0)=	0.06,	0.07,	0.08,	0.09,	0.10,	0.15,
BIN2(13,0)=	0.20,	0.25,	0.30,	0.35,	0.40,	0.45,
BIN2(19,0)=	0.50,	0.55,	0.60,	0.65,	0.70,	0.75,
BIN2(25,0)=	0.80,	0.85,	0.90,	0.95,	1.00,	1.50,
BIN2(31,0)=	2.00,	2.50,	3.00,	3.50,	4.00,	4.50,
BIN2(37,0)=	5.00,	5.50,	6.00,	6.50,	7.00,	7.50,
BIN2(43,0)=	8.00,	8.50,	9.00,	9.50,	10.00,	15.00,
BIN2(49,0)=	20.00,	25.00,	30.00,	35.00,	40.00,	45.00,
BIN2(55,0)=	50.00,	55.00,	60.00,	65.00,	70.00,	75.00,
BIN2(61,0)=	80.00,	85.00,	90.00,	95.00,	100.00,	150.00,
BIN2(67,0)=	200.00,	250.00,	300.00,	350.00,	400.00,	450.00,
BIN2(73,0)=	500.00,	550.00,	600.00,	650.00,	700.00,	750.00,
BIN2(79,0)=	800.00,	850.00,	900.00,	950.00,	1000.00,	1500.00,
BIN2(85,0)=	2000.00,	2500.00,	3000.00,	3500.00,	4000.00,	4500.00,
BIN2(91,0)=	5000.00,	5500.00,	6000.00,	6500.00,	7000.00,	7500.00,
BIN2(97,0)=	8000.00,	8500.00,	9000.00,	9500.00,	10000.00,	15000.00,
BIN2(103,0)=	20000.00,	25000.00,	30000.00,	35000.00,	40000.00,	45000.00,
BIN2(109,0)=	50000.00,	55000.00,	60000.00,	65000.00,	70000.00,	75000.00,
BIN2(115,0)=	80000.00,	85000.00,	90000.00,	95000.00,	100000.00,	150000.00,
BIN2(121,0)=	200000.00,	250000.00,	300000.00,	350000.00,	400000.00,	450000.00,
BIN2(127,0)=	500000.00,	550000.00,	600000.00,	650000.00,	700000.00,	750000.00,
BIN2(133,0)=	800000.00,	850000.00,	900000.00,			
BIN2(0,1)=	1.0					

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/COM, *****

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/COM, ** Assembly Type: PUR
/COM, ** Decay Period (Years): 900000
/COM, ** Number of assemblies: 3043
/COM, ** Assemblies/pkg: 21
/COM, ** Max Heat (Watts/assy): 850.00
/COM, ** Min Heat (Watts/assy): 0.00
/COM, ** Max Kinf: 1.450
/COM, ** Min Kinf: 1.130
/COM, ** Ave Age: 28.679
/COM, ** Ave Burnup: 17933.069
/COM, ** Ave Enrichment: 3.597
/COM, ** Ave MTU/assy: 0.396
/COM, **

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/COM, *****
/COM, ** *SET, BIN3,
/COM, ** *DIM, BIN3, TABLE, 135, 1,
/COM, ** BIN3( 1, 1)= 168.82, 168.78, 168.74, 168.82, 168.78, 168.69, 168.65, 168.61,
/COM, ** BIN3( 7, 1)= 168.57, 168.52, 168.48, 168.52, 168.44, 168.39, 168.18,
/COM, ** BIN3(13, 1)= 167.97, 167.76, 167.55, 167.34, 167.14, 166.93,
/COM, ** BIN3(19, 1)= 166.73, 166.52, 166.32, 166.12, 165.91, 165.71,
/COM, ** BIN3(25, 1)= 165.52, 165.32, 165.12, 164.92, 164.73, 162.81,
/COM, ** BIN3(31, 1)= 160.97, 159.21, 155.87, 154.28, 152.71,
/COM, ** BIN3(37, 1)= 151.18, 149.66, 148.20, 146.76, 145.36, 143.98,
/COM, ** BIN3(43, 1)= 142.64, 141.32, 140.04, 138.74, 137.47, 125.77,
/COM, ** BIN3(49, 1)= 115.52, 106.37, 98.23, 90.97, 84.48, 78.63,
/COM, ** BIN3(55, 1)= 73.41, 68.73, 64.54, 60.77, 57.38, 54.34,
/COM, ** BIN3(61, 1)= 51.61, 49.15, 46.95, 44.94, 43.15, 32.35,
/COM, ** BIN3(67, 1)= 27.41, 24.68, 22.76, 21.21, 19.89, 18.76,
/COM, ** BIN3(73, 1)= 17.68, 16.68, 15.81, 15.05, 14.31, 13.61,
/COM, ** BIN3(79, 1)= 12.99, 12.42, 11.91, 11.45, 11.00, 7.94,
/COM, ** BIN3(85, 1)= 6.51, 5.74, 5.32, 5.06, 4.85, 4.70,
/COM, ** BIN3(91, 1)= 4.56, 4.41, 4.27, 4.15, 4.04, 3.92,
/COM, ** BIN3(97, 1)= 3.81, 3.72, 3.63, 3.54, 3.47, 2.66,
/COM, ** BIN3(103, 1)= 2.20, 1.75, 1.46, 1.24, 1.08, 0.961,
/COM, ** BIN3(109, 1)= 0.863, 0.749, 0.659, 0.585, 0.524, 0.474,
/COM, ** BIN3(115, 1)= 0.430, 0.394, 0.362, 0.334, 0.310, 0.170,
/COM, ** BIN3(121, 1)= 0.111, 0.080, 0.061, 0.049, 0.040, 0.034,
/COM, ** BIN3(127, 1)= 0.029, 0.025, 0.022, 0.020, 0.018, 0.016,
/COM, ** BIN3(133, 1)= 0.014, 0.013, 0.012, 0.012, 0.018, 0.016,
/COM, ** BIN3( 1, 0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
/COM, ** BIN3( 7, 0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
/COM, ** BIN3(13, 0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
/COM, ** BIN3(19, 0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
/COM, ** BIN3(25, 0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
/COM, ** BIN3(31, 0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
/COM, ** BIN3(37, 0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
/COM, ** BIN3(43, 0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
/COM, ** BIN3(49, 0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
/COM, ** BIN3(55, 0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
/COM, ** BIN3(61, 0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
/COM, ** BIN3(67, 0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
/COM, ** BIN3(73, 0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
/COM, ** BIN3(79, 0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
/COM, ** BIN3(85, 0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
/COM, ** BIN3(91, 0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
/COM, ** BIN3(97, 0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
/COM, ** BIN3(103, 0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
/COM, ** BIN3(109, 0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
/COM, ** BIN3(115, 0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
/COM, ** BIN3(121, 0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
/COM, ** BIN3(127, 0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
/COM, ** BIN3(133, 0)= 800000.00, 850000.00, 900000.00,
/COM, ** BIN3( 0, 1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: PUR
/COM, ** Decay Period (Years): 900000
/COM, ** Number of assemblies: 942
/COM, ** Assemblies/pkg: 12
/COM, **

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/COM, ** Max Heat (Watts/assy): 1500.00 **
/COM, ** Min Heat (Watts/assy): 850.00 **
/COM, ** Max Kinf: 1.020 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 11.655 **
/COM, ** Ave Burnup: 54153.206 **
/COM, ** Ave Enrichment: 4.362 **
/COM, ** Ave MTU/assy: 0.452 **
/COM, ** *****

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*SET, BIN4,

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*DIM, BIN4, TABLE, 135, 1,

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BIN4(1,1)=	912.58,	912.23,	911.88,	911.54,	911.19,	910.85,
BIN4(7,1)=	910.50,	910.16,	909.81,	909.47,	909.13,	907.42,
BIN4(13,1)=	905.72,	904.04,	902.36,	900.70,	899.04,	897.40,
BIN4(19,1)=	895.76,	894.14,	892.53,	890.92,	889.33,	887.74,
BIN4(25,1)=	886.17,	884.60,	883.05,	881.50,	879.96,	865.78,
BIN4(31,1)=	852.36,	839.84,	827.93,	816.60,	805.78,	795.47,
BIN4(37,1)=	785.60,	775.57,	765.96,	757.17,	748.71,	740.46,
BIN4(43,1)=	732.51,	724.63,	717.03,	709.63,	702.47,	634.93,
BIN4(49,1)=	578.56,	528.69,	485.24,	446.89,	413.23,	382.62,
BIN4(55,1)=	355.75,	331.71,	310.15,	290.81,	273.41,	257.75,
BIN4(61,1)=	243.61,	230.89,	219.82,	209.10,	199.59,	139.99,
BIN4(67,1)=	111.55,	94.88,	84.05,	75.68,	69.13,	63.97,
BIN4(73,1)=	59.57,	55.59,	52.18,	49.22,	46.58,	44.10,
BIN4(79,1)=	41.89,	39.92,	38.14,	36.54,	35.04,	24.61,
BIN4(85,1)=	19.73,	17.11,	15.65,	14.74,	14.00,	13.48,
BIN4(91,1)=	13.03,	12.48,	12.01,	11.58,	11.20,	10.81,
BIN4(97,1)=	10.45,	10.12,	9.83,	9.55,	9.30,	6.72,
BIN4(103,1)=	5.34,	4.16,	3.39,	2.85,	2.45,	2.15,
BIN4(109,1)=	1.91,	1.68,	1.50,	1.35,	1.23,	1.12,
BIN4(115,1)=	1.03,	0.954,	0.886,	0.825,	0.772,	0.455,
BIN4(121,1)=	0.313,	0.234,	0.184,	0.151,	0.127,	0.109,
BIN4(127,1)=	0.095,	0.084,	0.075,	0.067,	0.061,	0.056,
BIN4(133,1)=	0.051,	0.047,	0.044,			
BIN4(1,0)=	0.000001,	0.01,	0.02,	0.03,	0.04,	0.05,
BIN4(7,0)=	0.06,	0.07,	0.08,	0.09,	0.10,	0.15,
BIN4(13,0)=	0.20,	0.25,	0.30,	0.35,	0.40,	0.45,
BIN4(19,0)=	0.50,	0.55,	0.60,	0.65,	0.70,	0.75,
BIN4(25,0)=	0.80,	0.85,	0.90,	0.95,	1.00,	1.50,
BIN4(31,0)=	2.00,	2.50,	3.00,	3.50,	4.00,	4.50,
BIN4(37,0)=	5.00,	5.50,	6.00,	6.50,	7.00,	7.50,
BIN4(43,0)=	8.00,	8.50,	9.00,	9.50,	10.00,	15.00,
BIN4(49,0)=	20.00,	25.00,	30.00,	35.00,	40.00,	45.00,
BIN4(55,0)=	50.00,	55.00,	60.00,	65.00,	70.00,	75.00,
BIN4(61,0)=	80.00,	85.00,	90.00,	95.00,	100.00,	150.00,
BIN4(67,0)=	200.00,	250.00,	300.00,	350.00,	400.00,	450.00,
BIN4(73,0)=	500.00,	550.00,	600.00,	650.00,	700.00,	750.00,
BIN4(79,0)=	800.00,	850.00,	900.00,	950.00,	1000.00,	1500.00,
BIN4(85,0)=	2000.00,	2500.00,	3000.00,	3500.00,	4000.00,	4500.00,
BIN4(91,0)=	5000.00,	5500.00,	6000.00,	6500.00,	7000.00,	7500.00,
BIN4(97,0)=	8000.00,	8500.00,	9000.00,	9500.00,	10000.00,	15000.00,
BIN4(103,0)=	20000.00,	25000.00,	30000.00,	35000.00,	40000.00,	45000.00,
BIN4(109,0)=	50000.00,	55000.00,	60000.00,	65000.00,	70000.00,	75000.00,
BIN4(115,0)=	80000.00,	85000.00,	90000.00,	95000.00,	100000.00,	150000.00,
BIN4(121,0)=	200000.00,	250000.00,	300000.00,	350000.00,	400000.00,	450000.00,
BIN4(127,0)=	500000.00,	550000.00,	600000.00,	650000.00,	700000.00,	750000.00,
BIN4(133,0)=	800000.00,	850000.00,	900000.00,			

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BIN4( 0,1)=1.0

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/COM, *****

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/COM, **
/COM, ** Assembly Type: STx **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 1793 **
/COM, ** Assemblies/pkg: 12 **
/COM, ** Max Heat (Watts/assy): 1500.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.130 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 26.360 **

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/COM, ** Ave Burnup: 39860.439 **
/COM, ** Ave Enrichment: 3.552 **
/COM, ** Ave MTU/assy: 0.539 **
/COM, **
/COM, *****
*SET, BIN5,
*DIM, BIN5, TABLE, 135, 1,
BIN5( 1,1)= 591.23, 591.12, 591.01, 590.90, 590.79, 590.68,
BIN5( 7,1)= 590.57, 590.46, 590.35, 590.24, 590.13, 589.58,
BIN5(13,1)= 589.04, 588.49, 587.95, 587.41, 586.87, 586.33,
BIN5(19,1)= 585.79, 585.26, 584.72, 584.19, 583.66, 583.13,
BIN5(25,1)= 582.60, 582.08, 581.55, 581.03, 580.50, 575.23,
BIN5(31,1)= 570.10, 565.05, 560.14, 555.14, 550.28, 545.34,
BIN5(37,1)= 540.52, 535.77, 531.13, 526.55, 522.08, 517.53,
BIN5(43,1)= 513.09, 508.69, 504.39, 500.12, 495.96, 456.91,
BIN5(49,1)= 422.28, 391.66, 364.12, 339.73, 317.89, 298.28,
BIN5(55,1)= 280.65, 264.78, 250.47, 237.54, 225.85, 215.64,
BIN5(61,1)= 205.97, 197.23, 189.26, 181.99, 175.33, 132.52,
BIN5(67,1)= 109.72, 95.68, 85.69, 77.74, 71.42, 66.24,
BIN5(73,1)= 61.62, 57.47, 53.90, 50.81, 47.92, 45.22,
BIN5(79,1)= 42.83, 40.69, 38.77, 37.03, 35.36, 24.00,
BIN5(85,1)= 18.70, 15.94, 14.45, 13.56, 12.85, 12.38,
BIN5(91,1)= 11.96, 11.48, 11.05, 10.67, 10.33, 9.98,
BIN5(97,1)= 9.66, 9.38, 9.11, 8.87, 8.64, 6.32,
BIN5(103,1)= 5.07, 3.97, 3.25, 2.75, 2.37, 2.09,
BIN5(109,1)= 1.86, 1.64, 1.46, 1.32, 1.20, 1.09,
BIN5(115,1)= 1.01, 0.929, 0.863, 0.804, 0.752, 0.444,
BIN5(121,1)= 0.305, 0.228, 0.180, 0.148, 0.124, 0.107,
BIN5(127,1)= 0.093, 0.082, 0.073, 0.066, 0.060, 0.055,
BIN5(133,1)= 0.051, 0.047, 0.043,
BIN5( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN5( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN5(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN5(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN5(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN5(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN5(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN5(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN5(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN5(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN5(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN5(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN5(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN5(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN5(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN5(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN5(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN5(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN5(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN5(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN5(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN5(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN5(133,0)= 800000.00, 850000.00, 900000.00,
BIN5( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 33968 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 18.875 **
/COM, ** Ave Burnup: 43073.142 **
/COM, ** Ave Enrichment: 3.357 **
/COM, ** Ave MTU/assy: 0.174 **
/COM, **
/COM, *****

```

*SET,BIN6,

*DIM,BIN6,TABLE,135,1,

BIN6(1,1)=	254.95,	254.88,	254.81,	254.75,	254.68,	254.62,
BIN6(7,1)=	254.55,	254.48,	254.42,	254.35,	254.29,	253.96,
BIN6(13,1)=	253.63,	253.31,	252.98,	252.66,	252.34,	252.02,
BIN6(19,1)=	251.71,	251.39,	251.07,	250.76,	250.45,	250.14,
BIN6(25,1)=	249.83,	249.52,	249.22,	248.91,	248.61,	245.65,
BIN6(31,1)=	242.82,	240.07,	237.42,	234.84,	232.35,	229.91,
BIN6(37,1)=	227.54,	225.21,	222.94,	220.72,	218.57,	216.43,
BIN6(43,1)=	214.35,	212.29,	210.29,	208.30,	206.36,	188.47,
BIN6(49,1)=	172.94,	159.31,	147.25,	136.60,	127.11,	118.65,
BIN6(55,1)=	111.11,	104.35,	98.28,	92.82,	87.90,	83.50,
BIN6(61,1)=	79.50,	75.90,	72.63,	69.61,	66.87,	49.38,
BIN6(67,1)=	40.46,	34.96,	31.19,	28.19,	25.82,	23.89,
BIN6(73,1)=	22.21,	20.68,	19.37,	18.24,	17.20,	16.22,
BIN6(79,1)=	15.35,	14.58,	13.88,	13.25,	12.65,	8.55,
BIN6(85,1)=	6.64,	5.65,	5.11,	4.80,	4.54,	4.37,
BIN6(91,1)=	4.22,	4.05,	3.90,	3.76,	3.64,	3.51,
BIN6(97,1)=	3.40,	3.30,	3.20,	3.12,	3.03,	2.21,
BIN6(103,1)=	1.76,	1.38,	1.13,	0.951,	0.821,	0.720,
BIN6(109,1)=	0.641,	0.567,	0.506,	0.456,	0.415,	0.379,
BIN6(115,1)=	0.349,	0.322,	0.299,	0.279,	0.261,	0.155,
BIN6(121,1)=	0.107,	0.080,	0.063,	0.052,	0.044,	0.037,
BIN6(127,1)=	0.033,	0.029,	0.026,	0.023,	0.021,	0.019,
BIN6(133,1)=	0.018,	0.016,	0.015,			
BIN6(1,0)=	0.000001,	0.01,	0.02,	0.03,	0.04,	0.05,
BIN6(7,0)=	0.06,	0.07,	0.08,	0.09,	0.10,	0.15,
BIN6(13,0)=	0.20,	0.25,	0.30,	0.35,	0.40,	0.45,
BIN6(19,0)=	0.50,	0.55,	0.60,	0.65,	0.70,	0.75,
BIN6(25,0)=	0.80,	0.85,	0.90,	0.95,	1.00,	1.50,
BIN6(31,0)=	2.00,	2.50,	3.00,	3.50,	4.00,	4.50,
BIN6(37,0)=	5.00,	5.50,	6.00,	6.50,	7.00,	7.50,
BIN6(43,0)=	8.00,	8.50,	9.00,	9.50,	10.00,	15.00,
BIN6(49,0)=	20.00,	25.00,	30.00,	35.00,	40.00,	45.00,
BIN6(55,0)=	50.00,	55.00,	60.00,	65.00,	70.00,	75.00,
BIN6(61,0)=	80.00,	85.00,	90.00,	95.00,	100.00,	150.00,
BIN6(67,0)=	200.00,	250.00,	300.00,	350.00,	400.00,	450.00,
BIN6(73,0)=	500.00,	550.00,	600.00,	650.00,	700.00,	750.00,
BIN6(79,0)=	800.00,	850.00,	900.00,	950.00,	1000.00,	1500.00,
BIN6(85,0)=	2000.00,	2500.00,	3000.00,	3500.00,	4000.00,	4500.00,
BIN6(91,0)=	5000.00,	5500.00,	6000.00,	6500.00,	7000.00,	7500.00,
BIN6(97,0)=	8000.00,	8500.00,	9000.00,	9500.00,	10000.00,	15000.00,
BIN6(103,0)=	20000.00,	25000.00,	30000.00,	35000.00,	40000.00,	45000.00,
BIN6(109,0)=	50000.00,	55000.00,	60000.00,	65000.00,	70000.00,	75000.00,
BIN6(115,0)=	80000.00,	85000.00,	90000.00,	95000.00,	100000.00,	150000.00,
BIN6(121,0)=	200000.00,	250000.00,	300000.00,	350000.00,	400000.00,	450000.00,
BIN6(127,0)=	500000.00,	550000.00,	600000.00,	650000.00,	700000.00,	750000.00,
BIN6(133,0)=	800000.00,	850000.00,	900000.00,			
BIN6(0,1)=	1.0					

```

/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 89742 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.370 **
/COM, ** Min Kinf: 1.000 **
/COM, ** Ave Age: 24.666 **
/COM, ** Ave Burnup: 29387.381 **
/COM, ** Ave Enrichment: 2.976 **
/COM, ** Ave MTU/assy: 0.178 **
/COM, *****

```

*SET,BIN7,

*DIM,BIN7,TABLE,135,1,

BIN7(1,1)=	155.25,	155.22,	155.18,	155.14,	155.11,	155.07,
BIN7(7,1)=	155.04,	155.00,	154.96,	154.93,	154.89,	154.71,
BIN7(13,1)=	154.53,	154.36,	154.18,	154.00,	153.83,	153.65,

```

BIN7(19,1)= 153.48, 153.30, 153.13, 152.96, 152.79, 152.62,
BIN7(25,1)= 152.45, 152.28, 152.11, 151.94, 151.78, 150.15,
BIN7(31,1)= 148.58, 147.06, 145.59, 144.14, 142.75, 141.37,
BIN7(37,1)= 140.05, 138.72, 137.43, 136.17, 134.95, 133.73,
BIN7(43,1)= 132.55, 131.38, 130.24, 129.10, 128.00, 117.68,
BIN7(49,1)= 108.64, 100.61, 93.49, 87.12, 81.43, 76.33,
BIN7(55,1)= 71.76, 67.64, 63.94, 60.60, 57.59, 54.87,
BIN7(61,1)= 52.43, 50.21, 48.18, 46.32, 44.63, 33.92,
BIN7(67,1)= 28.45, 25.08, 22.68, 20.75, 19.16, 17.83,
BIN7(73,1)= 16.63, 15.53, 14.58, 13.75, 12.98, 12.23,
BIN7(79,1)= 11.58, 10.99, 10.47, 9.99, 9.53, 6.41,
BIN7(85,1)= 4.95, 4.20, 3.80, 3.57, 3.38, 3.26,
BIN7(91,1)= 3.15, 3.03, 2.92, 2.82, 2.74, 2.65,
BIN7(97,1)= 2.57, 2.49, 2.42, 2.36, 2.30, 1.70,
BIN7(103,1)= 1.38, 1.08, 0.886, 0.749, 0.648, 0.571,
BIN7(109,1)= 0.509, 0.446, 0.395, 0.353, 0.319, 0.290,
BIN7(115,1)= 0.265, 0.244, 0.225, 0.209, 0.194, 0.111,
BIN7(121,1)= 0.074, 0.055, 0.043, 0.034, 0.029, 0.024,
BIN7(127,1)= 0.021, 0.018, 0.016, 0.015, 0.013, 0.012,
BIN7(133,1)= 0.011, 0.010, 0.009,
BIN7( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN7( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN7(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN7(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN7(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN7(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN7(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN7(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN7(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN7(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN7(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN7(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN7(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN7(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN7(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN7(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN7(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN7(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN7(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN7(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN7(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN7(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN7(133,0)= 800000.00, 850000.00, 900000.00,
BIN7( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 1610 **
/COM, ** Assemblies/pkg: 24 **
/COM, ** Max Heat (Watts/assy): 520.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.540 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 17.679 **
/COM, ** Ave Burnup: 9685.796 **
/COM, ** Ave Enrichment: 3.569 **
/COM, ** Ave MTU/assy: 0.168 **
/COM, **
/COM, *****
*SET,BIN8,
*DIM,BIN8,TABLE,135,1,
BIN8( 1,1)= 42.69, 42.68, 42.67, 42.66, 42.65, 42.64,
BIN8( 7,1)= 42.63, 42.62, 42.61, 42.60, 42.59, 42.53,
BIN8(13,1)= 42.48, 42.42, 42.37, 42.32, 42.26, 42.21,
BIN8(19,1)= 42.16, 42.11, 42.05, 42.00, 41.95, 41.90,
BIN8(25,1)= 41.85, 41.80, 41.75, 41.70, 41.65, 41.17,
BIN8(31,1)= 40.70, 40.24, 39.80, 39.35, 38.93, 38.51,
BIN8(37,1)= 38.10, 37.70, 37.31, 36.92, 36.55, 36.18,
BIN8(43,1)= 35.82, 35.45, 35.10, 34.75, 34.41, 31.26,

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BIN8(49,1)=	28.48,	26.05,	23.90,	21.98,	20.28,	18.76,
BIN8(55,1)=	17.40,	16.20,	15.12,	14.15,	13.29,	12.53,
BIN8(61,1)=	11.84,	11.23,	10.68,	10.19,	9.74,	7.19,
BIN8(67,1)=	6.09,	5.51,	5.12,	4.80,	4.53,	4.29,
BIN8(73,1)=	4.08,	3.86,	3.68,	3.52,	3.37,	3.22,
BIN8(79,1)=	3.09,	2.97,	2.87,	2.77,	2.68,	2.03,
BIN8(85,1)=	1.74,	1.58,	1.49,	1.43,	1.38,	1.34,
BIN8(91,1)=	1.31,	1.27,	1.23,	1.20,	1.17,	1.14,
BIN8(97,1)=	1.11,	1.09,	1.06,	1.04,	1.02,	0.803,
BIN8(103,1)=	0.677,	0.544,	0.455,	0.391,	0.343,	0.306,
BIN8(109,1)=	0.276,	0.239,	0.210,	0.187,	0.167,	0.151,
BIN8(115,1)=	0.137,	0.125,	0.115,	0.106,	0.099,	0.054,
BIN8(121,1)=	0.035,	0.025,	0.019,	0.015,	0.013,	0.011,
BIN8(127,1)=	0.009,	0.008,	0.007,	0.006,	0.005,	0.005,
BIN8(133,1)=	0.004,	0.004,	0.004,			
BIN8(1,0)=	0.000001,	0.01,	0.02,	0.03,	0.04,	0.05,
BIN8(7,0)=	0.06,	0.07,	0.08,	0.09,	0.10,	0.15,
BIN8(13,0)=	0.20,	0.25,	0.30,	0.35,	0.40,	0.45,
BIN8(19,0)=	0.50,	0.55,	0.60,	0.65,	0.70,	0.75,
BIN8(25,0)=	0.80,	0.85,	0.90,	0.95,	1.00,	1.50,
BIN8(31,0)=	2.00,	2.50,	3.00,	3.50,	4.00,	4.50,
BIN8(37,0)=	5.00,	5.50,	6.00,	6.50,	7.00,	7.50,
BIN8(43,0)=	8.00,	8.50,	9.00,	9.50,	10.00,	15.00,
BIN8(49,0)=	20.00,	25.00,	30.00,	35.00,	40.00,	45.00,
BIN8(55,0)=	50.00,	55.00,	60.00,	65.00,	70.00,	75.00,
BIN8(61,0)=	80.00,	85.00,	90.00,	95.00,	100.00,	150.00,
BIN8(67,0)=	200.00,	250.00,	300.00,	350.00,	400.00,	450.00,
BIN8(73,0)=	500.00,	550.00,	600.00,	650.00,	700.00,	750.00,
BIN8(79,0)=	800.00,	850.00,	900.00,	950.00,	1000.00,	1500.00,
BIN8(85,0)=	2000.00,	2500.00,	3000.00,	3500.00,	4000.00,	4500.00,
BIN8(91,0)=	5000.00,	5500.00,	6000.00,	6500.00,	7000.00,	7500.00,
BIN8(97,0)=	8000.00,	8500.00,	9000.00,	9500.00,	10000.00,	15000.00,
BIN8(103,0)=	20000.00,	25000.00,	30000.00,	35000.00,	40000.00,	45000.00,
BIN8(109,0)=	50000.00,	55000.00,	60000.00,	65000.00,	70000.00,	75000.00,
BIN8(115,0)=	80000.00,	85000.00,	90000.00,	95000.00,	100000.00,	150000.00,
BIN8(121,0)=	200000.00,	250000.00,	300000.00,	350000.00,	400000.00,	450000.00,
BIN8(127,0)=	500000.00,	550000.00,	600000.00,	650000.00,	700000.00,	750000.00,
BIN8(133,0)=	800000.00,	850000.00,	900000.00,			
BIN8(0,1)=	1.0					
/COM,	*****					
/EOF						


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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case8.wsm **
/COM, ** Output File Name: finalw8.dat **
/COM, ** Execution Date: 08/11/97 **
/COM, *****
/COM, *****
/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 38305 **
/COM, ** Assemblies/pkg: 21 **
/COM, ** Max Heat (Watts/assy): 850.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 21.712 **
/COM, ** Ave Burnup: 45829.250 **
/COM, ** Ave Enrichment: 3.843 **
/COM, ** Ave MTU/assy: 0.430 **
/COM, **
/COM, *****
/COM, *SET,BIN1,
/COM, *DIM,BIN1, TABLE,135,1,
BIN1( 1,1)= 565.20, 565.07, 564.94, 564.81, 564.68, 564.55,
BIN1( 7,1)= 564.43, 564.30, 564.17, 564.05, 563.92, 563.28,
BIN1(13,1)= 562.65, 562.02, 561.39, 560.76, 560.14, 559.52,
BIN1(19,1)= 558.90, 558.28, 557.66, 557.05, 556.44, 555.84,
BIN1(25,1)= 555.23, 554.63, 554.03, 553.43, 552.83, 546.94,
BIN1(31,1)= 541.26, 535.67, 530.27, 524.93, 519.75, 514.63,
BIN1(37,1)= 509.66, 504.72, 499.93, 495.20, 490.60, 486.02,
BIN1(43,1)= 481.57, 477.13, 472.81, 468.51, 464.33, 425.34,
BIN1(49,1)= 391.13, 360.94, 334.16, 310.31, 289.00, 269.98,
BIN1(55,1)= 252.92, 237.59, 223.79, 211.36, 200.16, 190.09,
BIN1(61,1)= 181.00, 172.76, 165.20, 158.32, 152.06, 112.43,
BIN1(67,1)= 92.40, 80.35, 72.04, 65.47, 60.24, 55.97,
BIN1(73,1)= 52.19, 48.75, 45.80, 43.24, 40.87, 38.64,
BIN1(79,1)= 36.66, 34.89, 33.30, 31.86, 30.49, 21.06,
BIN1(85,1)= 16.64, 14.31, 13.04, 12.27, 11.65, 11.22,
BIN1(91,1)= 10.85, 10.41, 10.02, 9.68, 9.37, 9.05,
BIN1(97,1)= 8.76, 8.49, 8.25, 8.03, 7.82, 5.71,
BIN1(103,1)= 4.57, 3.57, 2.92, 2.46, 2.12, 1.86,
BIN1(109,1)= 1.66, 1.45, 1.29, 1.16, 1.05, 0.954,
BIN1(115,1)= 0.874, 0.805, 0.745, 0.692, 0.645, 0.372,
BIN1(121,1)= 0.252, 0.186, 0.145, 0.118, 0.098, 0.084,
BIN1(127,1)= 0.073, 0.064, 0.057, 0.051, 0.046, 0.042,
BIN1(133,1)= 0.038, 0.035, 0.033,
BIN1( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN1( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN1(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN1(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN1(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN1(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN1(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN1(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN1(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN1(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN1(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN1(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN1(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN1(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN1(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN1(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN1(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN1(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN1(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN1(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,

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BIN1(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
 BIN1(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
 BIN1(133,0)= 800000.00, 850000.00, 900000.00,
 BIN1(0,1)=1.0

```

/COM, *****
/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 50578 **
/COM, ** Assemblies/pkg: 21 **
/COM, ** Max Heat (Watts/assy): 850.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.130 **
/COM, ** Min Kinf: 1.000 **
/COM, ** Ave Age: 24.764 **
/COM, ** Ave Burnup: 36380.228 **
/COM, ** Ave Enrichment: 3.665 **
/COM, ** Ave MTU/assy: 0.430 **
/COM, **
/COM, *****

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*SET,BIN2,

*DIM,BIN2, TABLE, 135, 1,

BIN2(1,1)=	419.29,	419.19,	419.09,	418.99,	418.89,	418.79,
BIN2(7,1)=	418.69,	418.59,	418.49,	418.39,	418.30,	417.80,
BIN2(13,1)=	417.30,	416.81,	416.32,	415.84,	415.35,	414.87,
BIN2(19,1)=	414.38,	413.91,	413.43,	412.95,	412.48,	412.01,
BIN2(25,1)=	411.54,	411.07,	410.61,	410.14,	409.68,	405.20,
BIN2(31,1)=	400.89,	396.70,	392.66,	388.71,	384.89,	381.14,
BIN2(37,1)=	377.51,	373.88,	370.35,	366.90,	363.55,	360.24,
BIN2(43,1)=	357.02,	353.81,	350.68,	347.61,	344.61,	316.39,
BIN2(49,1)=	291.72,	269.74,	250.23,	232.78,	217.17,	203.10,
BIN2(55,1)=	190.51,	179.17,	168.96,	159.76,	151.46,	143.96,
BIN2(61,1)=	137.20,	131.08,	125.52,	120.41,	115.78,	86.73,
BIN2(67,1)=	72.26,	63.62,	57.56,	52.72,	48.77,	45.48,
BIN2(73,1)=	42.49,	39.75,	37.40,	35.35,	33.41,	31.58,
BIN2(79,1)=	29.96,	28.50,	27.20,	26.01,	24.87,	17.08,
BIN2(85,1)=	13.43,	11.53,	10.50,	9.89,	9.39,	9.05,
BIN2(91,1)=	8.76,	8.42,	8.12,	7.85,	7.61,	7.36,
BIN2(97,1)=	7.13,	6.92,	6.73,	6.56,	6.39,	4.73,
BIN2(103,1)=	3.82,	3.00,	2.46,	2.08,	1.80,	1.58,
BIN2(109,1)=	1.41,	1.23,	1.09,	0.973,	0.876,	0.795,
BIN2(115,1)=	0.726,	0.666,	0.615,	0.570,	0.530,	0.299,
BIN2(121,1)=	0.199,	0.146,	0.113,	0.091,	0.075,	0.064,
BIN2(127,1)=	0.055,	0.048,	0.043,	0.038,	0.034,	0.031,
BIN2(133,1)=	0.028,	0.026,	0.024,			
BIN2(1,0)=	0.000001,	0.01,	0.02,	0.03,	0.04,	0.05,
BIN2(7,0)=	0.06,	0.07,	0.08,	0.09,	0.10,	0.15,
BIN2(13,0)=	0.20,	0.25,	0.30,	0.35,	0.40,	0.45,
BIN2(19,0)=	0.50,	0.55,	0.60,	0.65,	0.70,	0.75,
BIN2(25,0)=	0.80,	0.85,	0.90,	0.95,	1.00,	1.50,
BIN2(31,0)=	2.00,	2.50,	3.00,	3.50,	4.00,	4.50,
BIN2(37,0)=	5.00,	5.50,	6.00,	6.50,	7.00,	7.50,
BIN2(43,0)=	8.00,	8.50,	9.00,	9.50,	10.00,	15.00,
BIN2(49,0)=	20.00,	25.00,	30.00,	35.00,	40.00,	45.00,
BIN2(55,0)=	50.00,	55.00,	60.00,	65.00,	70.00,	75.00,
BIN2(61,0)=	80.00,	85.00,	90.00,	95.00,	100.00,	150.00,
BIN2(67,0)=	200.00,	250.00,	300.00,	350.00,	400.00,	450.00,
BIN2(73,0)=	500.00,	550.00,	600.00,	650.00,	700.00,	750.00,
BIN2(79,0)=	800.00,	850.00,	900.00,	950.00,	1000.00,	1500.00,
BIN2(85,0)=	2000.00,	2500.00,	3000.00,	3500.00,	4000.00,	4500.00,
BIN2(91,0)=	5000.00,	5500.00,	6000.00,	6500.00,	7000.00,	7500.00,
BIN2(97,0)=	8000.00,	8500.00,	9000.00,	9500.00,	10000.00,	15000.00,
BIN2(103,0)=	20000.00,	25000.00,	30000.00,	35000.00,	40000.00,	45000.00,
BIN2(109,0)=	50000.00,	55000.00,	60000.00,	65000.00,	70000.00,	75000.00,
BIN2(115,0)=	80000.00,	85000.00,	90000.00,	95000.00,	100000.00,	150000.00,
BIN2(121,0)=	200000.00,	250000.00,	300000.00,	350000.00,	400000.00,	450000.00,
BIN2(127,0)=	500000.00,	550000.00,	600000.00,	650000.00,	700000.00,	750000.00,
BIN2(133,0)=	800000.00,	850000.00,	900000.00,			
BIN2(0,1)=	1.0					

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/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 3050
/COM, ** Assemblies/pkg: 21
/COM, ** Max Heat (Watts/assy): 850.00
/COM, ** Min Heat (Watts/assy): 0.00
/COM, ** Max Kinf: 1.450
/COM, ** Min Kinf: 1.130
/COM, ** Ave Age: 28.670
/COM, ** Ave Burnup: 17951.578
/COM, ** Ave Enrichment: 3.598
/COM, ** Ave MTU/assy: 0.395
/COM, **
/COM, *****
*SET, BIN3,
*DIM, BIN3, TABLE, 135, 1,
BIN3( 1,1)= 168.81, 168.77, 168.72, 168.68, 168.64, 168.60,
BIN3( 7,1)= 168.55, 168.51, 168.47, 168.43, 168.38, 168.17,
BIN3(13,1)= 167.96, 167.75, 167.54, 167.33, 167.12, 166.92,
BIN3(19,1)= 166.71, 166.51, 166.30, 166.10, 165.90, 165.70,
BIN3(25,1)= 165.50, 165.30, 165.10, 164.91, 164.71, 162.79,
BIN3(31,1)= 160.95, 159.19, 157.50, 155.85, 154.26, 152.68,
BIN3(37,1)= 151.16, 149.64, 148.17, 146.73, 145.34, 143.96,
BIN3(43,1)= 142.62, 141.30, 140.02, 138.71, 137.45, 125.75,
BIN3(49,1)= 115.50, 106.35, 98.22, 90.96, 84.46, 78.62,
BIN3(55,1)= 73.40, 68.72, 64.53, 60.76, 57.37, 54.33,
BIN3(61,1)= 51.60, 49.14, 46.95, 44.93, 43.14, 32.34,
BIN3(67,1)= 27.41, 24.67, 22.75, 21.20, 19.89, 18.75,
BIN3(73,1)= 17.68, 16.68, 15.81, 15.04, 14.31, 13.61,
BIN3(79,1)= 12.98, 12.42, 11.91, 11.45, 11.00, 7.94,
BIN3(85,1)= 6.50, 5.74, 5.32, 5.06, 4.85, 4.70,
BIN3(91,1)= 4.56, 4.41, 4.27, 4.15, 4.04, 3.92,
BIN3(97,1)= 3.81, 3.71, 3.62, 3.54, 3.46, 2.66,
BIN3(103,1)= 2.20, 1.75, 1.45, 1.24, 1.08, 0.960,
BIN3(109,1)= 0.862, 0.749, 0.658, 0.585, 0.524, 0.473,
BIN3(115,1)= 0.430, 0.393, 0.361, 0.334, 0.309, 0.170,
BIN3(121,1)= 0.111, 0.080, 0.061, 0.049, 0.040, 0.034,
BIN3(127,1)= 0.029, 0.025, 0.022, 0.020, 0.018, 0.016,
BIN3(133,1)= 0.014, 0.013, 0.012,
BIN3( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN3( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN3(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN3(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN3(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN3(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN3(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN3(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN3(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN3(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN3(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN3(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN3(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN3(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN3(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN3(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN3(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN3(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN3(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN3(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN3(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN3(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN3(133,0)= 800000.00, 850000.00, 900000.00,
BIN3( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 935
/COM, ** Assemblies/pkg: 12

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/COM, **      Max Heat (Watts/assy): 1500.00      **
/COM, **      Min Heat (Watts/assy): 850.00      **
/COM, **      Max Kinf: 1.020                    **
/COM, **      Min Kinf: 0.000                    **
/COM, **      Ave Age: 11.660                    **
/COM, **      Ave Burnup: 54184.295              **
/COM, **      Ave Enrichment: 4.365              **
/COM, **      Ave MTU/assy: 0.451                **
/COM, **
/COM, *****
*SET, BIN4,
*DIM, BIN4, TABLE, 135, 1,
BIN4( 1,1)= 912.88, 912.53, 912.19, 911.84, 911.50, 911.15,
BIN4( 7,1)= 910.81, 910.46, 910.12, 909.77, 909.43, 907.72,
BIN4(13,1)= 906.03, 904.34, 902.66, 901.00, 899.34, 897.70,
BIN4(19,1)= 896.06, 894.44, 892.83, 891.22, 889.63, 888.04,
BIN4(25,1)= 886.46, 884.90, 883.34, 881.79, 880.26, 866.07,
BIN4(31,1)= 852.65, 840.12, 828.22, 816.87, 806.05, 795.74,
BIN4(37,1)= 785.88, 775.85, 766.23, 757.43, 748.97, 740.72,
BIN4(43,1)= 732.77, 724.88, 717.27, 709.87, 702.72, 635.15,
BIN4(49,1)= 578.75, 528.86, 485.40, 447.03, 413.36, 382.73,
BIN4(55,1)= 355.85, 331.80, 310.24, 290.89, 273.49, 257.82,
BIN4(61,1)= 243.68, 230.95, 219.87, 209.15, 199.64, 140.01,
BIN4(67,1)= 111.56, 94.88, 84.05, 75.68, 69.13, 63.96,
BIN4(73,1)= 59.56, 55.58, 52.17, 49.22, 46.58, 44.09,
BIN4(79,1)= 41.89, 39.92, 38.14, 36.54, 35.04, 24.61,
BIN4(85,1)= 19.73, 17.11, 15.65, 14.74, 14.00, 13.48,
BIN4(91,1)= 13.03, 12.49, 12.01, 11.59, 11.21, 10.81,
BIN4(97,1)= 10.45, 10.13, 9.83, 9.56, 9.30, 6.72,
BIN4(103,1)= 5.34, 4.16, 3.39, 2.85, 2.45, 2.15,
BIN4(109,1)= 1.91, 1.68, 1.50, 1.35, 1.23, 1.12,
BIN4(115,1)= 1.03, 0.955, 0.886, 0.826, 0.772, 0.455,
BIN4(121,1)= 0.313, 0.234, 0.184, 0.151, 0.127, 0.109,
BIN4(127,1)= 0.095, 0.084, 0.075, 0.067, 0.061, 0.056,
BIN4(133,1)= 0.051, 0.047, 0.044,
BIN4( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN4( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN4(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN4(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN4(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN4(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN4(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN4(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN4(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN4(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN4(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN4(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN4(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN4(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN4(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN4(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN4(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN4(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN4(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN4(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN4(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN4(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN4(133,0)= 800000.00, 850000.00, 900000.00,
BIN4( 0,1)=1.0
/COM, *****
/COM, **
/COM, **      Assembly Type: STx                    **
/COM, **      Decay Period (years): 900000          **
/COM, **      Number of assemblies: 1793            **
/COM, **      Assemblies/pkg: 12                    **
/COM, **      Max Heat (Watts/assy): 1500.00        **
/COM, **      Min Heat (Watts/assy): 0.00           **
/COM, **      Max Kinf: 1.130                       **
/COM, **      Min Kinf: 0.000                       **
/COM, **      Ave Age: 26.360                       **

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/COM, ** Ave Burnup: 39860.439 **
/COM, ** Ave Enrichment: 3.552 **
/COM, ** Ave MTU/assy: 0.539 **
/COM, **
/COM, *****
*SET,BIN5,
*DIM,BIN5,TABLE,135,1,
BIN5( 1,1)= 591.23, 591.12, 591.01, 590.90, 590.79, 590.68,
BIN5( 7,1)= 590.57, 590.46, 590.35, 590.24, 590.13, 589.58,
BIN5(13,1)= 589.04, 588.49, 587.95, 587.41, 586.87, 586.33,
BIN5(19,1)= 585.79, 585.26, 584.72, 584.19, 583.66, 583.13,
BIN5(25,1)= 582.60, 582.08, 581.55, 581.03, 580.50, 575.23,
BIN5(31,1)= 570.10, 565.05, 560.14, 555.14, 550.28, 545.34,
BIN5(37,1)= 540.52, 535.77, 531.13, 526.55, 522.08, 517.53,
BIN5(43,1)= 513.09, 508.69, 504.39, 500.12, 495.96, 456.91,
BIN5(49,1)= 422.28, 391.66, 364.12, 339.73, 317.89, 298.28,
BIN5(55,1)= 280.65, 264.78, 250.47, 237.54, 225.85, 215.64,
BIN5(61,1)= 205.97, 197.23, 189.26, 181.99, 175.33, 132.52,
BIN5(67,1)= 109.72, 95.68, 85.69, 77.74, 71.42, 66.24,
BIN5(73,1)= 61.62, 57.47, 53.90, 50.81, 47.92, 45.22,
BIN5(79,1)= 42.83, 40.69, 38.77, 37.03, 35.36, 24.00,
BIN5(85,1)= 18.70, 15.94, 14.45, 13.56, 12.85, 12.38,
BIN5(91,1)= 11.96, 11.48, 11.05, 10.67, 10.33, 9.98,
BIN5(97,1)= 9.66, 9.38, 9.11, 8.87, 8.64, 6.32,
BIN5(103,1)= 5.07, 3.97, 3.25, 2.75, 2.37, 2.09,
BIN5(109,1)= 1.86, 1.64, 1.46, 1.32, 1.20, 1.09,
BIN5(115,1)= 1.01, 0.929, 0.863, 0.804, 0.752, 0.444,
BIN5(121,1)= 0.305, 0.228, 0.180, 0.148, 0.124, 0.107,
BIN5(127,1)= 0.093, 0.082, 0.073, 0.066, 0.060, 0.055,
BIN5(133,1)= 0.051, 0.047, 0.043,
BIN5( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN5( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN5(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN5(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN5(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN5(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN5(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN5(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN5(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN5(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN5(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN5(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN5(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN5(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN5(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN5(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN5(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN5(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN5(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN5(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN5(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN5(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN5(133,0)= 800000.00, 850000.00, 900000.00,
BIN5( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 33968 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 18.874 **
/COM, ** Ave Burnup: 43073.183 **
/COM, ** Ave Enrichment: 3.357 **
/COM, ** Ave MTU/assy: 0.174 **
/COM, **
/COM, *****

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*SET,BIN6,
*DIM,BIN6,TABLE,135,1,
BIN6( 1,1)= 254.94, 254.88, 254.81, 254.74, 254.68, 254.61,
BIN6( 7,1)= 254.55, 254.48, 254.41, 254.35, 254.28, 253.95,
BIN6(13,1)= 253.63, 253.30, 252.98, 252.66, 252.34, 252.02,
BIN6(19,1)= 251.70, 251.39, 251.07, 250.76, 250.45, 250.14,
BIN6(25,1)= 249.83, 249.52, 249.21, 248.91, 248.61, 245.65,
BIN6(31,1)= 242.82, 240.06, 237.41, 234.83, 232.35, 229.90,
BIN6(37,1)= 227.54, 225.20, 222.94, 220.72, 218.57, 216.43,
BIN6(43,1)= 214.35, 212.29, 210.29, 208.30, 206.36, 188.47,
BIN6(49,1)= 172.94, 159.31, 147.25, 136.60, 127.11, 118.65,
BIN6(55,1)= 111.11, 104.35, 98.28, 92.82, 87.90, 83.50,
BIN6(61,1)= 79.50, 75.90, 72.63, 69.61, 66.87, 49.38,
BIN6(67,1)= 40.46, 34.96, 31.19, 28.19, 25.82, 23.89,
BIN6(73,1)= 22.21, 20.68, 19.37, 18.24, 17.20, 16.22,
BIN6(79,1)= 15.35, 14.58, 13.88, 13.25, 12.65, 8.55,
BIN6(85,1)= 6.64, 5.65, 5.11, 4.80, 4.54, 4.37,
BIN6(91,1)= 4.22, 4.05, 3.90, 3.76, 3.64, 3.51,
BIN6(97,1)= 3.40, 3.30, 3.20, 3.12, 3.03, 2.21,
BIN6(103,1)= 1.76, 1.38, 1.13, 0.951, 0.821, 0.720,
BIN6(109,1)= 0.641, 0.567, 0.506, 0.456, 0.415, 0.379,
BIN6(115,1)= 0.349, 0.322, 0.299, 0.279, 0.261, 0.155,
BIN6(121,1)= 0.107, 0.080, 0.063, 0.052, 0.044, 0.037,
BIN6(127,1)= 0.033, 0.029, 0.026, 0.023, 0.021, 0.019,
BIN6(133,1)= 0.018, 0.016, 0.015,
BIN6( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN6( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN6(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN6(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN6(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN6(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN6(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN6(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN6(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN6(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN6(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN6(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN6(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN6(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN6(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN6(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN6(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN6(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN6(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN6(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN6(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN6(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN6(133,0)= 800000.00, 850000.00, 900000.00,
BIN6( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 89765 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.370 **
/COM, ** Min Kinf: 1.000 **
/COM, ** Ave Age: 24.658 **
/COM, ** Ave Burnup: 29390.662 **
/COM, ** Ave Enrichment: 2.976 **
/COM, ** Ave MTU/assy: 0.178 **
/COM, **
/COM, *****
*SET,BIN7,
*DIM,BIN7,TABLE,135,1,
BIN7( 1,1)= 155.29, 155.25, 155.21, 155.18, 155.14, 155.11,
BIN7( 7,1)= 155.07, 155.03, 155.00, 154.96, 154.93, 154.75,
BIN7(13,1)= 154.57, 154.39, 154.21, 154.04, 153.86, 153.69,

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BIN7(19,1)= 153.51, 153.34, 153.16, 152.99, 152.82, 152.65,
BIN7(25,1)= 152.48, 152.31, 152.14, 151.98, 151.81, 150.18,
BIN7(31,1)= 148.61, 147.09, 145.62, 144.18, 142.78, 141.41,
BIN7(37,1)= 140.08, 138.75, 137.46, 136.20, 134.98, 133.76,
BIN7(43,1)= 132.58, 131.40, 130.27, 129.13, 128.03, 117.71,
BIN7(49,1)= 108.67, 100.63, 93.51, 87.14, 81.45, 76.34,
BIN7(55,1)= 71.77, 67.66, 63.95, 60.61, 57.60, 54.88,
BIN7(61,1)= 52.43, 50.22, 48.19, 46.33, 44.64, 33.93,
BIN7(67,1)= 28.45, 25.08, 22.68, 20.75, 19.16, 17.84,
BIN7(73,1)= 16.64, 15.53, 14.58, 13.75, 12.98, 12.23,
BIN7(79,1)= 11.58, 10.99, 10.47, 9.99, 9.54, 6.41,
BIN7(85,1)= 4.95, 4.20, 3.80, 3.57, 3.38, 3.26,
BIN7(91,1)= 3.15, 3.03, 2.92, 2.82, 2.74, 2.65,
BIN7(97,1)= 2.57, 2.49, 2.42, 2.36, 2.30, 1.70,
BIN7(103,1)= 1.38, 1.08, 0.886, 0.749, 0.648, 0.571,
BIN7(109,1)= 0.509, 0.446, 0.395, 0.353, 0.319, 0.290,
BIN7(115,1)= 0.265, 0.244, 0.225, 0.209, 0.194, 0.111,
BIN7(121,1)= 0.074, 0.055, 0.043, 0.034, 0.029, 0.024,
BIN7(127,1)= 0.021, 0.018, 0.016, 0.015, 0.013, 0.012,
BIN7(133,1)= 0.011, 0.010, 0.009,
BIN7( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN7( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN7(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN7(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN7(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN7(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN7(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN7(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN7(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN7(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN7(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN7(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN7(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN7(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN7(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN7(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN7(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN7(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN7(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN7(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN7(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN7(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN7(133,0)= 800000.00, 850000.00, 900000.00,
BIN7( 0,1)=1.0
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/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 1610 **
/COM, ** Assemblies/pkg: 24 **
/COM, ** Max Heat (Watts/assy): 520.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.540 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 17.675 **
/COM, ** Ave Burnup: 9685.796 **
/COM, ** Ave Enrichment: 3.569 **
/COM, ** Ave MTU/assy: 0.168 **
/COM, **
/COM, *****
*SET,BIN8,
*DIM,BIN8,TABLE,135,1,
BIN8( 1,1)= 42.69, 42.68, 42.67, 42.66, 42.65, 42.64,
BIN8( 7,1)= 42.63, 42.62, 42.61, 42.59, 42.58, 42.53,
BIN8(13,1)= 42.48, 42.42, 42.37, 42.32, 42.26, 42.21,
BIN8(19,1)= 42.16, 42.11, 42.05, 42.00, 41.95, 41.90,
BIN8(25,1)= 41.85, 41.80, 41.75, 41.70, 41.65, 41.16,
BIN8(31,1)= 40.70, 40.24, 39.80, 39.35, 38.93, 38.51,
BIN8(37,1)= 38.10, 37.70, 37.31, 36.92, 36.55, 36.18,
BIN8(43,1)= 35.82, 35.45, 35.10, 34.75, 34.41, 31.26,

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BIN8(49,1)=	28.48,	26.05,	23.90,	21.98,	20.28,	18.76,
BIN8(55,1)=	17.40,	16.20,	15.12,	14.15,	13.29,	12.53,
BIN8(61,1)=	11.84,	11.23,	10.68,	10.19,	9.74,	7.19,
BIN8(67,1)=	6.09,	5.51,	5.12,	4.80,	4.53,	4.29,
BIN8(73,1)=	4.08,	3.86,	3.68,	3.52,	3.37,	3.22,
BIN8(79,1)=	3.09,	2.97,	2.87,	2.77,	2.68,	2.03,
BIN8(85,1)=	1.74,	1.58,	1.49,	1.43,	1.38,	1.34,
BIN8(91,1)=	1.31,	1.27,	1.23,	1.20,	1.17,	1.14,
BIN8(97,1)=	1.11,	1.09,	1.06,	1.04,	1.02,	0.803,
BIN8(103,1)=	0.677,	0.544,	0.455,	0.391,	0.343,	0.306,
BIN8(109,1)=	0.276,	0.239,	0.210,	0.187,	0.167,	0.151,
BIN8(115,1)=	0.137,	0.125,	0.115,	0.106,	0.099,	0.054,
BIN8(121,1)=	0.035,	0.025,	0.019,	0.015,	0.013,	0.011,
BIN8(127,1)=	0.009,	0.008,	0.007,	0.006,	0.005,	0.005,
BIN8(133,1)=	0.004,	0.004,	0.004,			
BIN8(1,0)=	0.000001,	0.01,	0.02,	0.03,	0.04,	0.05,
BIN8(7,0)=	0.06,	0.07,	0.08,	0.09,	0.10,	0.15,
BIN8(13,0)=	0.20,	0.25,	0.30,	0.35,	0.40,	0.45,
BIN8(19,0)=	0.50,	0.55,	0.60,	0.65,	0.70,	0.75,
BIN8(25,0)=	0.80,	0.85,	0.90,	0.95,	1.00,	1.50,
BIN8(31,0)=	2.00,	2.50,	3.00,	3.50,	4.00,	4.50,
BIN8(37,0)=	5.00,	5.50,	6.00,	6.50,	7.00,	7.50,
BIN8(43,0)=	8.00,	8.50,	9.00,	9.50,	10.00,	15.00,
BIN8(49,0)=	20.00,	25.00,	30.00,	35.00,	40.00,	45.00,
BIN8(55,0)=	50.00,	55.00,	60.00,	65.00,	70.00,	75.00,
BIN8(61,0)=	80.00,	85.00,	90.00,	95.00,	100.00,	150.00,
BIN8(67,0)=	200.00,	250.00,	300.00,	350.00,	400.00,	450.00,
BIN8(73,0)=	500.00,	550.00,	600.00,	650.00,	700.00,	750.00,
BIN8(79,0)=	800.00,	850.00,	900.00,	950.00,	1000.00,	1500.00,
BIN8(85,0)=	2000.00,	2500.00,	3000.00,	3500.00,	4000.00,	4500.00,
BIN8(91,0)=	5000.00,	5500.00,	6000.00,	6500.00,	7000.00,	7500.00,
BIN8(97,0)=	8000.00,	8500.00,	9000.00,	9500.00,	10000.00,	15000.00,
BIN8(103,0)=	20000.00,	25000.00,	30000.00,	35000.00,	40000.00,	45000.00,
BIN8(109,0)=	50000.00,	55000.00,	60000.00,	65000.00,	70000.00,	75000.00,
BIN8(115,0)=	80000.00,	85000.00,	90000.00,	95000.00,	100000.00,	150000.00,
BIN8(121,0)=	200000.00,	250000.00,	300000.00,	350000.00,	400000.00,	450000.00,
BIN8(127,0)=	500000.00,	550000.00,	600000.00,	650000.00,	700000.00,	750000.00,
BIN8(133,0)=	800000.00,	850000.00,	900000.00,			
BIN8(0,1)=	1.0					
/COM,	*****					
/EOF						


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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: B00000000-01717-1200-3000X Rev.000 **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case9.wsm **
/COM, ** Output File Name: finalw9.dat **
/COM, ** Execution Date: 08/11/97 **
/COM, *****
/COM, *****
/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 34926 **
/COM, ** Assemblies/pkg: 21 **
/COM, ** Max Heat (Watts/assy): 850.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 28.779 **
/COM, ** Ave Burnup: 44738.206 **
/COM, ** Ave Enrichment: 3.731 **
/COM, ** Ave MTU/assy: 0.429 **
/COM, **
/COM, *****
*SET,BIN1,
*DIM,BIN1,TABLE,135,1,
BIN1( 1,1)= 506.06, 505.93, 505.81, 505.69, 505.56, 505.44,
BIN1( 7,1)= 505.32, 505.19, 505.07, 504.95, 504.83, 504.21,
BIN1(13,1)= 503.61, 503.00, 502.40, 501.80, 501.20, 500.60,
BIN1(19,1)= 500.01, 499.42, 498.83, 498.25, 497.67, 497.09,
BIN1(25,1)= 496.51, 495.93, 495.36, 494.79, 494.23, 488.71,
BIN1(31,1)= 483.40, 478.27, 473.33, 468.52, 463.88, 459.35,
BIN1(37,1)= 454.95, 450.53, 446.24, 442.07, 438.02, 434.00,
BIN1(43,1)= 430.10, 426.23, 422.46, 418.75, 415.13, 381.14,
BIN1(49,1)= 351.56, 325.32, 302.08, 281.37, 262.86, 246.23,
BIN1(55,1)= 231.37, 218.01, 206.03, 195.17, 185.36, 176.48,
BIN1(61,1)= 168.45, 161.20, 154.60, 148.51, 142.97, 107.60,
BIN1(67,1)= 89.31, 78.20, 70.29, 64.05, 59.03, 54.91,
BIN1(73,1)= 51.19, 47.86, 44.99, 42.50, 40.15, 37.96,
BIN1(79,1)= 36.02, 34.29, 32.73, 31.31, 29.94, 20.67,
BIN1(85,1)= 16.32, 14.03, 12.78, 12.02, 11.41, 10.99,
BIN1(91,1)= 10.63, 10.20, 9.82, 9.49, 9.19, 8.87,
BIN1(97,1)= 8.59, 8.33, 8.09, 7.88, 7.67, 5.61,
BIN1(103,1)= 4.49, 3.51, 2.87, 2.42, 2.09, 1.83,
BIN1(109,1)= 1.63, 1.43, 1.27, 1.14, 1.03, 0.935,
BIN1(115,1)= 0.856, 0.788, 0.729, 0.677, 0.631, 0.363,
BIN1(121,1)= 0.245, 0.181, 0.141, 0.114, 0.095, 0.081,
BIN1(127,1)= 0.070, 0.062, 0.055, 0.049, 0.044, 0.040,
BIN1(133,1)= 0.037, 0.034, 0.031,
BIN1( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN1( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN1(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN1(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN1(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN1(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN1(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN1(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN1(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN1(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN1(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN1(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN1(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN1(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN1(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN1(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN1(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN1(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN1(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN1(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,

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BIN1(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
 BIN1(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
 BIN1(133,0)= 800000.00, 850000.00, 900000.00,
 BIN1(0,1)=1.0

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/COM, *****
/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 75739 **
/COM, ** Assemblies/pkg: 21 **
/COM, ** Max Heat (Watts/assy): 850.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.130 **
/COM, ** Min Kinf: 1.000 **
/COM, ** Ave Age: 26.649 **
/COM, ** Ave Burnup: 36936.948 **
/COM, ** Ave Enrichment: 3.678 **
/COM, ** Ave MTU/assy: 0.431 **
/COM, **
/COM, *****

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*SET,BIN2,

*DIM,BIN2,TABLE,135,1,

BIN2(1,1)=	446.59,	446.43,	446.28,	446.12,	445.97,	445.82,
BIN2(7,1)=	445.67,	445.51,	445.36,	445.21,	445.05,	444.30,
BIN2(13,1)=	443.54,	442.80,	442.06,	441.32,	440.58,	439.86,
BIN2(19,1)=	439.13,	438.41,	437.70,	436.99,	436.28,	435.58,
BIN2(25,1)=	434.89,	434.19,	433.51,	432.82,	432.14,	425.96,
BIN2(31,1)=	420.12,	414.69,	409.53,	404.68,	400.03,	395.68,
BIN2(37,1)=	391.49,	387.14,	382.95,	379.06,	375.31,	371.64,
BIN2(43,1)=	368.09,	364.60,	361.22,	358.01,	354.89,	324.66,
BIN2(49,1)=	299.13,	276.21,	256.02,	238.02,	222.13,	207.54,
BIN2(55,1)=	194.62,	183.00,	172.56,	163.13,	154.61,	146.90,
BIN2(61,1)=	139.93,	133.62,	128.07,	122.77,	118.03,	88.17,
BIN2(67,1)=	73.41,	64.60,	58.41,	53.48,	49.46,	46.11,
BIN2(73,1)=	43.07,	40.30,	37.91,	35.83,	33.87,	32.01,
BIN2(79,1)=	30.37,	28.90,	27.57,	26.38,	25.22,	17.33,
BIN2(85,1)=	13.64,	11.71,	10.66,	10.04,	9.54,	9.20,
BIN2(91,1)=	8.90,	8.55,	8.24,	7.97,	7.73,	7.47,
BIN2(97,1)=	7.24,	7.03,	6.84,	6.66,	6.49,	4.80,
BIN2(103,1)=	3.87,	3.04,	2.49,	2.11,	1.82,	1.60,
BIN2(109,1)=	1.43,	1.25,	1.10,	0.986,	0.889,	0.806,
BIN2(115,1)=	0.736,	0.676,	0.624,	0.578,	0.538,	0.304,
BIN2(121,1)=	0.203,	0.148,	0.115,	0.093,	0.077,	0.065,
BIN2(127,1)=	0.056,	0.049,	0.043,	0.039,	0.035,	0.032,
BIN2(133,1)=	0.029,	0.027,	0.025,			
BIN2(1,0)=	0.000001,	0.01,	0.02,	0.03,	0.04,	0.05,
BIN2(7,0)=	0.06,	0.07,	0.08,	0.09,	0.10,	0.15,
BIN2(13,0)=	0.20,	0.25,	0.30,	0.35,	0.40,	0.45,
BIN2(19,0)=	0.50,	0.55,	0.60,	0.65,	0.70,	0.75,
BIN2(25,0)=	0.80,	0.85,	0.90,	0.95,	1.00,	1.50,
BIN2(31,0)=	2.00,	2.50,	3.00,	3.50,	4.00,	4.50,
BIN2(37,0)=	5.00,	5.50,	6.00,	6.50,	7.00,	7.50,
BIN2(43,0)=	8.00,	8.50,	9.00,	9.50,	10.00,	15.00,
BIN2(49,0)=	20.00,	25.00,	30.00,	35.00,	40.00,	45.00,
BIN2(55,0)=	50.00,	55.00,	60.00,	65.00,	70.00,	75.00,
BIN2(61,0)=	80.00,	85.00,	90.00,	95.00,	100.00,	150.00,
BIN2(67,0)=	200.00,	250.00,	300.00,	350.00,	400.00,	450.00,
BIN2(73,0)=	500.00,	550.00,	600.00,	650.00,	700.00,	750.00,
BIN2(79,0)=	800.00,	850.00,	900.00,	950.00,	1000.00,	1500.00,
BIN2(85,0)=	2000.00,	2500.00,	3000.00,	3500.00,	4000.00,	4500.00,
BIN2(91,0)=	5000.00,	5500.00,	6000.00,	6500.00,	7000.00,	7500.00,
BIN2(97,0)=	8000.00,	8500.00,	9000.00,	9500.00,	10000.00,	15000.00,
BIN2(103,0)=	20000.00,	25000.00,	30000.00,	35000.00,	40000.00,	45000.00,
BIN2(109,0)=	50000.00,	55000.00,	60000.00,	65000.00,	70000.00,	75000.00,
BIN2(115,0)=	80000.00,	85000.00,	90000.00,	95000.00,	100000.00,	150000.00,
BIN2(121,0)=	200000.00,	250000.00,	300000.00,	350000.00,	400000.00,	450000.00,
BIN2(127,0)=	500000.00,	550000.00,	600000.00,	650000.00,	700000.00,	750000.00,
BIN2(133,0)=	800000.00,	850000.00,	900000.00,			
BIN2(0,1)=	1.0					

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/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 5424
/COM, ** Assemblies/pkg: 21
/COM, ** Max Heat (Watts/assy): 850.00
/COM, ** Min Heat (Watts/assy): 0.00
/COM, ** Max Kinf: 1.450
/COM, ** Min Kinf: 1.130
/COM, ** Ave Age: 24.356
/COM, ** Ave Burnup: 18566.758
/COM, ** Ave Enrichment: 3.747
/COM, ** Ave MTU/assy: 0.412
/COM, **
/COM, *****
/COM, *SET,BIN3,
/COM, *DIM,BIN3,TABLE,135,1,
BIN3( 1,1)= 216.20, 216.08, 215.96, 215.84, 215.72, 215.60,
BIN3( 7,1)= 215.47, 215.35, 215.23, 215.11, 214.99, 214.40,
BIN3(13,1)= 213.81, 213.23, 212.66, 212.09, 211.53, 210.98,
BIN3(19,1)= 210.43, 209.89, 209.35, 208.82, 208.30, 207.78,
BIN3(25,1)= 207.27, 206.76, 206.26, 205.76, 205.27, 201.16,
BIN3(31,1)= 197.38, 194.18, 191.18, 188.47, 185.90, 183.55,
BIN3(37,1)= 181.31, 179.14, 177.06, 175.05, 173.12, 171.25,
BIN3(43,1)= 169.46, 167.67, 165.96, 164.29, 162.67, 147.84,
BIN3(49,1)= 135.15, 123.96, 114.02, 105.18, 97.28, 90.20,
BIN3(55,1)= 83.87, 78.21, 73.14, 68.58, 64.50, 60.83,
BIN3(61,1)= 57.54, 54.57, 51.95, 49.57, 47.41, 34.57,
BIN3(67,1)= 28.95, 25.92, 23.87, 22.22, 20.83, 19.63,
BIN3(73,1)= 18.52, 17.46, 16.55, 15.74, 14.98, 14.25,
BIN3(79,1)= 13.59, 13.00, 12.47, 11.99, 11.52, 8.32,
BIN3(85,1)= 6.82, 6.03, 5.59, 5.32, 5.09, 4.93,
BIN3(91,1)= 4.79, 4.63, 4.48, 4.36, 4.24, 4.12,
BIN3(97,1)= 4.00, 3.90, 3.81, 3.72, 3.64, 2.79,
BIN3(103,1)= 2.31, 1.84, 1.53, 1.30, 1.14, 1.01,
BIN3(109,1)= 0.905, 0.787, 0.693, 0.616, 0.552, 0.499,
BIN3(115,1)= 0.454, 0.415, 0.382, 0.353, 0.327, 0.180,
BIN3(121,1)= 0.118, 0.085, 0.065, 0.052, 0.043, 0.036,
BIN3(127,1)= 0.031, 0.027, 0.024, 0.021, 0.019, 0.017,
BIN3(133,1)= 0.016, 0.014, 0.013,
BIN3( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN3( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN3(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN3(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN3(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN3(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN3(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN3(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN3(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN3(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN3(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN3(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN3(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN3(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN3(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN3(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN3(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN3(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN3(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN3(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN3(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN3(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN3(133,0)= 800000.00, 850000.00, 900000.00,
BIN3( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 10372
/COM, ** Assemblies/pkg: 12

```

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/COM, ** Max Heat (Watts/assy): 1500.00 **
/COM, ** Min Heat (Watts/assy): 850.00 **
/COM, ** Max Kinf: 1.020 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 9.889 **
/COM, ** Ave Burnup: 53844.819 **
/COM, ** Ave Enrichment: 4.255 **
/COM, ** Ave MTU/assy: 0.446 **
/COM, ** *****

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*SET, BIN4,

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*DIM, BIN4, TABLE, 135, 1,

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BIN4(1,1)=	981.61,	981.09,	980.57,	980.05,	979.53,	979.01,
BIN4(7,1)=	978.50,	977.98,	977.47,	976.95,	976.44,	973.89,
BIN4(13,1)=	971.36,	968.86,	966.37,	963.91,	961.47,	959.05,
BIN4(19,1)=	956.65,	954.27,	951.91,	949.57,	947.26,	944.95,
BIN4(25,1)=	942.67,	940.41,	938.16,	935.93,	933.73,	914.27,
BIN4(31,1)=	896.15,	879.88,	864.60,	850.68,	837.53,	825.62,
BIN4(37,1)=	814.29,	802.49,	791.25,	781.24,	771.67,	762.26,
BIN4(43,1)=	753.23,	744.51,	736.12,	728.43,	721.01,	649.18,
BIN4(49,1)=	590.40,	538.57,	493.67,	454.05,	419.61,	387.95,
BIN4(55,1)=	360.33,	335.67,	313.60,	293.80,	276.01,	259.99,
BIN4(61,1)=	245.56,	232.53,	221.28,	210.38,	200.67,	140.08,
BIN4(67,1)=	111.45,	94.68,	83.85,	75.48,	68.92,	63.75,
BIN4(73,1)=	59.37,	55.38,	51.97,	49.02,	46.39,	43.90,
BIN4(79,1)=	41.70,	39.73,	37.95,	36.34,	34.86,	24.43,
BIN4(85,1)=	19.56,	16.95,	15.49,	14.59,	13.85,	13.34,
BIN4(91,1)=	12.90,	12.36,	11.88,	11.46,	11.09,	10.70,
BIN4(97,1)=	10.34,	10.02,	9.73,	9.45,	9.20,	6.65,
BIN4(103,1)=	5.28,	4.11,	3.35,	2.81,	2.42,	2.12,
BIN4(109,1)=	1.88,	1.66,	1.48,	1.34,	1.21,	1.11,
BIN4(115,1)=	1.02,	0.941,	0.873,	0.814,	0.761,	0.448,
BIN4(121,1)=	0.307,	0.230,	0.181,	0.148,	0.124,	0.107,
BIN4(127,1)=	0.093,	0.082,	0.073,	0.066,	0.060,	0.055,
BIN4(133,1)=	0.050,	0.046,	0.043,			
BIN4(1,0)=	0.000001,	0.01,	0.02,	0.03,	0.04,	0.05,
BIN4(7,0)=	0.06,	0.07,	0.08,	0.09,	0.10,	0.15,
BIN4(13,0)=	0.20,	0.25,	0.30,	0.35,	0.40,	0.45,
BIN4(19,0)=	0.50,	0.55,	0.60,	0.65,	0.70,	0.75,
BIN4(25,0)=	0.80,	0.85,	0.90,	0.95,	1.00,	1.50,
BIN4(31,0)=	2.00,	2.50,	3.00,	3.50,	4.00,	4.50,
BIN4(37,0)=	5.00,	5.50,	6.00,	6.50,	7.00,	7.50,
BIN4(43,0)=	8.00,	8.50,	9.00,	9.50,	10.00,	15.00,
BIN4(49,0)=	20.00,	25.00,	30.00,	35.00,	40.00,	45.00,
BIN4(55,0)=	50.00,	55.00,	60.00,	65.00,	70.00,	75.00,
BIN4(61,0)=	80.00,	85.00,	90.00,	95.00,	100.00,	150.00,
BIN4(67,0)=	200.00,	250.00,	300.00,	350.00,	400.00,	450.00,
BIN4(73,0)=	500.00,	550.00,	600.00,	650.00,	700.00,	750.00,
BIN4(79,0)=	800.00,	850.00,	900.00,	950.00,	1000.00,	1500.00,
BIN4(85,0)=	2000.00,	2500.00,	3000.00,	3500.00,	4000.00,	4500.00,
BIN4(91,0)=	5000.00,	5500.00,	6000.00,	6500.00,	7000.00,	7500.00,
BIN4(97,0)=	8000.00,	8500.00,	9000.00,	9500.00,	10000.00,	15000.00,
BIN4(103,0)=	20000.00,	25000.00,	30000.00,	35000.00,	40000.00,	45000.00,
BIN4(109,0)=	50000.00,	55000.00,	60000.00,	65000.00,	70000.00,	75000.00,
BIN4(115,0)=	80000.00,	85000.00,	90000.00,	95000.00,	100000.00,	150000.00,
BIN4(121,0)=	200000.00,	250000.00,	300000.00,	350000.00,	400000.00,	450000.00,
BIN4(127,0)=	500000.00,	550000.00,	600000.00,	650000.00,	700000.00,	750000.00,
BIN4(133,0)=	800000.00,	850000.00,	900000.00,			

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BIN4( 0,1)=1.0

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/COM, *****
/COM, **
/COM, ** Assembly Type: STx **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 3329 **
/COM, ** Assemblies/pkg: 12 **
/COM, ** Max Heat (Watts/assy): 1500.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.130 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 15.783 **

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/COM, ** Ave Burnup: 42730.780 **
/COM, ** Ave Enrichment: 3.767 **
/COM, ** Ave MTU/assy: 0.539 **
/COM, **
/COM, *****
*SET, BINS,
*DIM, BINS, TABLE, 135, 1,
BINS( 1,1)= 891.65, 891.20, 890.76, 890.32, 889.87, 889.43,
BINS( 7,1)= 888.99, 888.55, 888.12, 887.68, 887.24, 885.07,
BINS(13,1)= 882.93, 880.80, 878.69, 876.60, 874.53, 872.48,
BINS(19,1)= 870.45, 868.43, 866.44, 864.46, 862.49, 860.55,
BINS(25,1)= 858.62, 856.71, 854.81, 852.93, 851.07, 834.57,
BINS(31,1)= 819.23, 805.58, 792.75, 781.08, 770.02, 759.87,
BINS(37,1)= 750.20, 740.46, 731.15, 722.56, 714.32, 706.33,
BINS(43,1)= 698.66, 691.21, 684.04, 677.26, 670.71, 608.57,
BINS(49,1)= 556.78, 511.03, 471.07, 435.63, 404.68, 376.24,
BINS(55,1)= 351.25, 328.93, 308.91, 290.89, 274.67, 260.02,
BINS(61,1)= 246.81, 234.83, 224.45, 214.40, 205.38, 148.48,
BINS(67,1)= 120.51, 103.57, 92.25, 83.26, 76.16, 70.44,
BINS(73,1)= 65.50, 60.98, 57.11, 53.77, 50.74, 47.84,
BINS(79,1)= 45.28, 43.00, 40.95, 39.10, 37.36, 25.30,
BINS(85,1)= 19.70, 16.78, 15.20, 14.27, 13.52, 13.02,
BINS(91,1)= 12.58, 12.07, 11.61, 11.21, 10.85, 10.48,
BINS(97,1)= 10.15, 9.84, 9.56, 9.30, 9.06, 6.62,
BINS(103,1)= 5.29, 4.14, 3.39, 2.87, 2.48, 2.18,
BINS(109,1)= 1.94, 1.71, 1.53, 1.38, 1.26, 1.15,
BINS(115,1)= 1.06, 0.979, 0.910, 0.849, 0.795, 0.472,
BINS(121,1)= 0.326, 0.245, 0.194, 0.159, 0.134, 0.115,
BINS(127,1)= 0.101, 0.089, 0.080, 0.072, 0.065, 0.060,
BINS(133,1)= 0.055, 0.051, 0.047,
BINS( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BINS( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BINS(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BINS(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BINS(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BINS(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BINS(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BINS(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BINS(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BINS(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BINS(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BINS(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BINS(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BINS(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BINS(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BINS(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BINS(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BINS(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BINS(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BINS(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BINS(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BINS(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BINS(133,0)= 800000.00, 850000.00, 900000.00,
BINS( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 43823 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 18.241 **
/COM, ** Ave Burnup: 43175.618 **
/COM, ** Ave Enrichment: 3.366 **
/COM, ** Ave MTU/assy: 0.174 **
/COM, **
/COM, *****

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*SET,BIN6,
*DIM,BIN6, TABLE, 135, 1,
BIN6( 1,1)= 276.48, 276.38, 276.28, 276.18, 276.08, 275.98,
BIN6( 7,1)= 275.88, 275.79, 275.69, 275.59, 275.49, 275.00,
BIN6(13,1)= 274.52, 274.03, 273.55, 273.08, 272.60, 272.13,
BIN6(19,1)= 271.66, 271.20, 270.74, 270.28, 269.82, 269.37,
BIN6(25,1)= 268.91, 268.47, 268.02, 267.58, 267.14, 263.04,
BIN6(31,1)= 259.16, 255.55, 252.11, 248.89, 245.81, 242.91,
BIN6(37,1)= 240.14, 237.27, 234.51, 231.92, 229.42, 226.97,
BIN6(43,1)= 224.62, 222.33, 220.12, 218.03, 216.01, 196.32,
BIN6(49,1)= 179.86, 165.18, 152.44, 141.15, 131.29, 122.20,
BIN6(55,1)= 114.27, 107.18, 100.82, 95.10, 89.95, 85.31,
BIN6(61,1)= 81.11, 77.33, 74.06, 70.81, 67.96, 49.79,
BIN6(67,1)= 40.68, 35.08, 31.28, 28.26, 25.86, 23.93,
BIN6(73,1)= 22.24, 20.71, 19.39, 18.26, 17.22, 16.23,
BIN6(79,1)= 15.36, 14.59, 13.89, 13.26, 12.66, 8.55,
BIN6(85,1)= 6.64, 5.65, 5.11, 4.80, 4.54, 4.37,
BIN6(91,1)= 4.23, 4.05, 3.90, 3.76, 3.64, 3.52,
BIN6(97,1)= 3.40, 3.30, 3.20, 3.12, 3.04, 2.21,
BIN6(103,1)= 1.77, 1.38, 1.13, 0.951, 0.821, 0.721,
BIN6(109,1)= 0.642, 0.567, 0.507, 0.457, 0.415, 0.379,
BIN6(115,1)= 0.349, 0.323, 0.300, 0.279, 0.261, 0.155,
BIN6(121,1)= 0.107, 0.080, 0.063, 0.052, 0.044, 0.037,
BIN6(127,1)= 0.033, 0.029, 0.026, 0.023, 0.021, 0.019,
BIN6(133,1)= 0.018, 0.017, 0.015,
BIN6( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN6( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN6(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN6(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN6(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN6(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN6(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN6(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN6(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN6(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN6(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN6(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN6(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN6(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN6(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN6(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN6(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN6(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN6(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN6(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN6(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN6(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN6(133,0)= 800000.00, 850000.00, 900000.00,
BIN6( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 119152 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.370 **
/COM, ** Min Kinf: 1.000 **
/COM, ** Ave Age: 29.844 **
/COM, ** Ave Burnup: 28850.353 **
/COM, ** Ave Enrichment: 2.966 **
/COM, ** Ave MTU/assy: 0.178 **
/COM, **
/COM, *****

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*SET,BIN7,
*DIM,BIN7, TABLE, 135, 1,
BIN7( 1,1)= 145.89, 145.85, 145.80, 145.76, 145.71, 145.67,
BIN7( 7,1)= 145.62, 145.58, 145.54, 145.49, 145.45, 145.23,
BIN7(13,1)= 145.01, 144.79, 144.57, 144.36, 144.14, 143.93,

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BIN7(19,1)= 143.72, 143.51, 143.30, 143.10, 142.89, 142.68,
BIN7(25,1)= 142.48, 142.28, 142.08, 141.88, 141.68, 139.83,
BIN7(31,1)= 138.08, 136.45, 134.90, 133.42, 132.00, 130.67,
BIN7(37,1)= 129.38, 128.07, 126.80, 125.59, 124.42, 123.27,
BIN7(43,1)= 122.15, 121.05, 119.98, 118.96, 117.97, 108.47,
BIN7(49,1)= 100.33, 93.04, 86.60, 80.86, 75.77, 71.11,
BIN7(55,1)= 66.98, 63.26, 59.93, 56.91, 54.18, 51.70,
BIN7(61,1)= 49.46, 47.44, 45.64, 43.92, 42.39, 32.56,
BIN7(67,1)= 27.48, 24.33, 22.05, 20.20, 18.68, 17.41,
BIN7(73,1)= 16.23, 15.16, 14.25, 13.45, 12.68, 11.96,
BIN7(79,1)= 11.32, 10.76, 10.25, 9.78, 9.33, 6.28,
BIN7(85,1)= 4.86, 4.13, 3.74, 3.51, 3.33, 3.21,
BIN7(91,1)= 3.10, 2.98, 2.87, 2.78, 2.70, 2.61,
BIN7(97,1)= 2.53, 2.45, 2.39, 2.33, 2.27, 1.68,
BIN7(103,1)= 1.36, 1.07, 0.874, 0.740, 0.640, 0.564,
BIN7(109,1)= 0.503, 0.440, 0.390, 0.349, 0.314, 0.286,
BIN7(115,1)= 0.261, 0.240, 0.222, 0.205, 0.191, 0.109,
BIN7(121,1)= 0.073, 0.054, 0.042, 0.034, 0.028, 0.024,
BIN7(127,1)= 0.021, 0.018, 0.016, 0.014, 0.013, 0.012,
BIN7(133,1)= 0.011, 0.010, 0.009,
BIN7( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN7( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN7(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN7(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN7(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN7(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN7(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN7(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN7(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN7(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN7(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN7(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN7(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN7(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN7(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN7(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN7(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN7(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN7(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN7(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN7(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN7(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN7(133,0)= 800000.00, 850000.00, 900000.00,
BIN7( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 4777 **
/COM, ** Assemblies/pkg: 24 **
/COM, ** Max Heat (Watts/assy): 520.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.540 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 10.609 **
/COM, ** Ave Burnup: 33083.773 **
/COM, ** Ave Enrichment: 3.760 **
/COM, ** Ave MTU/assy: 0.171 **
/COM, **
/COM, *****
*SET,BIN8,
*DIM,BIN8,TABLE,135,1,
BIN8( 1,1)= 253.28, 253.08, 252.89, 252.69, 252.50, 252.30,
BIN8( 7,1)= 252.11, 251.92, 251.73, 251.54, 251.35, 250.40,
BIN8(13,1)= 249.46, 248.54, 247.62, 246.72, 245.83, 244.95,
BIN8(19,1)= 244.07, 243.21, 242.36, 241.51, 240.68, 239.86,
BIN8(25,1)= 239.04, 238.23, 237.44, 236.65, 235.87, 229.18,
BIN8(31,1)= 223.09, 217.96, 213.22, 208.97, 205.00, 201.46,
BIN8(37,1)= 198.13, 195.00, 192.04, 189.26, 186.63, 184.16,
BIN8(43,1)= 181.80, 179.47, 177.24, 175.14, 173.13, 155.49,

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BIN8(49,1)= 140.87, 128.41, 117.49, 107.91, 99.50, 92.05,
BIN8(55,1)= 85.38, 79.49, 74.23, 69.51, 65.29, 61.49,
BIN8(61,1)= 58.07, 54.99, 52.22, 49.80, 47.47, 33.19,
BIN8(67,1)= 26.46, 22.45, 19.88, 17.87, 16.29, 15.05,
BIN8(73,1)= 14.01, 13.05, 12.23, 11.53, 10.90, 10.31,
BIN8(79,1)= 9.78, 9.31, 8.89, 8.51, 8.16, 5.69,
BIN8(85,1)= 4.54, 3.94, 3.61, 3.40, 3.24, 3.12,
BIN8(91,1)= 3.02, 2.90, 2.80, 2.70, 2.62, 2.53,
BIN8(97,1)= 2.45, 2.38, 2.31, 2.25, 2.20, 1.62,
BIN8(103,1)= 1.30, 1.03, 0.843, 0.714, 0.619, 0.545,
BIN8(109,1)= 0.487, 0.430, 0.385, 0.347, 0.315, 0.288,
BIN8(115,1)= 0.265, 0.246, 0.228, 0.213, 0.199, 0.118,
BIN8(121,1)= 0.082, 0.062, 0.049, 0.040, 0.034, 0.029,
BIN8(127,1)= 0.026, 0.023, 0.020, 0.018, 0.017, 0.015,
BIN8(133,1)= 0.014, 0.013, 0.012,
BIN8( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN8( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN8(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN8(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN8(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN8(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN8(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN8(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN8(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN8(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN8(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN8(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN8(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN8(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN8(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN8(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN8(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN8(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN8(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN8(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN8(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN8(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN8(133,0)= 800000.00, 850000.00, 900000.00,
BIN8( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: 800000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case10.wsm **
/COM, ** Output File Name: finalw10.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, *****
/COM, *****
/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 38744 **
/COM, ** Assemblies/pkg: 21 **
/COM, ** Max Heat (Watts/assy): 850.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 25.921 **
/COM, ** Ave Burnup: 45421.473 **
/COM, ** Ave Enrichment: 3.795 **
/COM, ** Ave MTU/assy: 0.431 **
/COM, **
/COM, *****
/COM, *SET, BIN1,
/COM, *DIM, BIN1, TABLE, 135, 1,
BIN1( 1,1)= 539.36, 539.22, 539.09, 538.96, 538.82, 538.69,
BIN1( 7,1)= 538.56, 538.43, 538.29, 538.16, 538.03, 537.37,
BIN1(13,1)= 536.72, 536.06, 535.41, 534.77, 534.12, 533.48,
BIN1(19,1)= 532.84, 532.21, 531.58, 530.94, 530.32, 529.69,
BIN1(25,1)= 529.07, 528.45, 527.83, 527.22, 526.61, 520.67,
BIN1(31,1)= 514.97, 509.41, 504.06, 498.87, 493.85, 488.93,
BIN1(37,1)= 484.17, 479.37, 474.72, 470.21, 465.84, 461.49,
BIN1(43,1)= 457.27, 453.07, 448.98, 444.97, 441.05, 404.31,
BIN1(49,1)= 372.33, 343.98, 318.92, 296.58, 276.66, 258.76,
BIN1(55,1)= 242.78, 228.43, 215.51, 203.84, 193.33, 183.82,
BIN1(61,1)= 175.23, 167.47, 160.41, 153.89, 147.98, 110.37,
BIN1(67,1)= 91.16, 79.55, 71.41, 64.98, 59.84, 55.63,
BIN1(73,1)= 51.86, 48.47, 45.55, 43.02, 40.65, 38.44,
BIN1(79,1)= 36.47, 34.72, 33.14, 31.70, 30.33, 20.95,
BIN1(85,1)= 16.55, 14.24, 12.97, 12.21, 11.59, 11.16,
BIN1(91,1)= 10.79, 10.36, 9.97, 9.63, 9.32, 9.00,
BIN1(97,1)= 8.72, 8.45, 8.21, 7.99, 7.78, 5.69,
BIN1(103,1)= 4.55, 3.56, 2.91, 2.45, 2.11, 1.85,
BIN1(109,1)= 1.65, 1.45, 1.29, 1.15, 1.04, 0.949,
BIN1(115,1)= 0.869, 0.800, 0.741, 0.688, 0.642, 0.369,
BIN1(121,1)= 0.250, 0.184, 0.144, 0.117, 0.097, 0.083,
BIN1(127,1)= 0.072, 0.063, 0.056, 0.050, 0.046, 0.041,
BIN1(133,1)= 0.038, 0.035, 0.032,
BIN1( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN1( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN1(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN1(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN1(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN1(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN1(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN1(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN1(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN1(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN1(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN1(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN1(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN1(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN1(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN1(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN1(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN1(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN1(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN1(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,

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BIN1(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
 BIN1(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
 BIN1(133,0)= 800000.00, 850000.00, 900000.00,
 BIN1(0,1)=1.0

/COM, *****
 /COM, **
 /COM, ** Assembly Type: PWR **
 /COM, ** Decay Period (years): 900000 **
 /COM, ** Number of assemblies: 76081 **
 /COM, ** Assemblies/pkg: 21 **
 /COM, ** Max Heat (Watts/assy): 850.00 **
 /COM, ** Min Heat (Watts/assy): 0.00 **
 /COM, ** Max Kinf: 1.130 **
 /COM, ** Min Kinf: 1.000 **
 /COM, ** Ave Age: 26.915 **
 /COM, ** Ave Burnup: 36869.327 **
 /COM, ** Ave Enrichment: 3.674 **
 /COM, ** Ave MTU/assy: 0.431 **
 /COM, **
 /COM, *****

*SET,BIN2,

*DIM,BIN2, TABLE,135,1,

BIN2(1,1)=	440.81,	440.67,	440.53,	440.40,	440.26,	440.12,
BIN2(7,1)=	439.98,	439.84,	439.71,	439.57,	439.43,	438.75,
BIN2(13,1)=	438.07,	437.39,	436.72,	436.05,	435.38,	434.72,
BIN2(19,1)=	434.06,	433.41,	432.76,	432.11,	431.47,	430.83,
BIN2(25,1)=	430.20,	429.56,	428.93,	428.31,	427.69,	421.96,
BIN2(31,1)=	416.52,	411.40,	406.50,	401.87,	397.42,	393.22,
BIN2(37,1)=	389.19,	384.92,	380.81,	377.03,	373.37,	369.76,
BIN2(43,1)=	366.27,	362.83,	359.50,	356.34,	353.27,	323.30,
BIN2(49,1)=	297.96,	275.13,	255.04,	237.13,	221.32,	206.78,
BIN2(55,1)=	193.93,	182.38,	171.96,	162.56,	154.08,	146.41,
BIN2(61,1)=	139.47,	133.20,	127.68,	122.38,	117.67,	87.93,
BIN2(67,1)=	73.23,	64.45,	58.28,	53.37,	49.35,	46.01,
BIN2(73,1)=	42.98,	40.21,	37.83,	35.76,	33.79,	31.95,
BIN2(79,1)=	30.30,	28.84,	27.52,	26.32,	25.17,	17.29,
BIN2(85,1)=	13.60,	11.68,	10.64,	10.02,	9.52,	9.18,
BIN2(91,1)=	8.88,	8.53,	8.23,	7.95,	7.71,	7.46,
BIN2(97,1)=	7.22,	7.01,	6.82,	6.64,	6.47,	4.79,
BIN2(103,1)=	3.86,	3.03,	2.49,	2.10,	1.82,	1.60,
BIN2(109,1)=	1.42,	1.25,	1.10,	0.984,	0.887,	0.805,
BIN2(115,1)=	0.735,	0.675,	0.622,	0.577,	0.537,	0.303,
BIN2(121,1)=	0.202,	0.148,	0.115,	0.092,	0.076,	0.065,
BIN2(127,1)=	0.056,	0.049,	0.043,	0.039,	0.035,	0.032,
BIN2(133,1)=	0.029,	0.027,	0.025,			
BIN2(1,0)=	0.000001,	0.01,	0.02,	0.03,	0.04,	0.05,
BIN2(7,0)=	0.06,	0.07,	0.08,	0.09,	0.10,	0.15,
BIN2(13,0)=	0.20,	0.25,	0.30,	0.35,	0.40,	0.45,
BIN2(19,0)=	0.50,	0.55,	0.60,	0.65,	0.70,	0.75,
BIN2(25,0)=	0.80,	0.85,	0.90,	0.95,	1.00,	1.50,
BIN2(31,0)=	2.00,	2.50,	3.00,	3.50,	4.00,	4.50,
BIN2(37,0)=	5.00,	5.50,	6.00,	6.50,	7.00,	7.50,
BIN2(43,0)=	8.00,	8.50,	9.00,	9.50,	10.00,	15.00,
BIN2(49,0)=	20.00,	25.00,	30.00,	35.00,	40.00,	45.00,
BIN2(55,0)=	50.00,	55.00,	60.00,	65.00,	70.00,	75.00,
BIN2(61,0)=	80.00,	85.00,	90.00,	95.00,	100.00,	150.00,
BIN2(67,0)=	200.00,	250.00,	300.00,	350.00,	400.00,	450.00,
BIN2(73,0)=	500.00,	550.00,	600.00,	650.00,	700.00,	750.00,
BIN2(79,0)=	800.00,	850.00,	900.00,	950.00,	1000.00,	1500.00,
BIN2(85,0)=	2000.00,	2500.00,	3000.00,	3500.00,	4000.00,	4500.00,
BIN2(91,0)=	5000.00,	5500.00,	6000.00,	6500.00,	7000.00,	7500.00,
BIN2(97,0)=	8000.00,	8500.00,	9000.00,	9500.00,	10000.00,	15000.00,
BIN2(103,0)=	20000.00,	25000.00,	30000.00,	35000.00,	40000.00,	45000.00,
BIN2(109,0)=	50000.00,	55000.00,	60000.00,	65000.00,	70000.00,	75000.00,
BIN2(115,0)=	80000.00,	85000.00,	90000.00,	95000.00,	100000.00,	150000.00,
BIN2(121,0)=	200000.00,	250000.00,	300000.00,	350000.00,	400000.00,	450000.00,
BIN2(127,0)=	500000.00,	550000.00,	600000.00,	650000.00,	700000.00,	750000.00,
BIN2(133,0)=	800000.00,	850000.00,	900000.00,			
BIN2(0,1)=	1.0					

/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 5315
/COM, ** Assemblies/pkg: 21
/COM, ** Max Heat (Watts/assy): 850.00
/COM, ** Min Heat (Watts/assy): 0.00
/COM, ** Max Kinf: 1.450
/COM, ** Min Kinf: 1.130
/COM, ** Ave Age: 23.263
/COM, ** Ave Burnup: 18334.278
/COM, ** Ave Enrichment: 3.739
/COM, ** Ave MTU/assy: 0.414
/COM, **
/COM, *****

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*SET, BIN3,

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*DIM, BIN3, TABLE, 135, 1,

```

BIN3(1,1)=	206.44,	206.36,	206.28,	206.21,	206.13,	206.05,
BIN3(7,1)=	205.98,	205.90,	205.83,	205.75,	205.67,	205.30,
BIN3(13,1)=	204.92,	204.55,	204.18,	203.81,	203.45,	203.09,
BIN3(19,1)=	202.73,	202.38,	202.03,	201.68,	201.33,	200.99,
BIN3(25,1)=	200.64,	200.31,	199.97,	199.63,	199.30,	196.32,
BIN3(31,1)=	193.51,	190.92,	188.47,	186.15,	183.94,	181.84,
BIN3(37,1)=	179.83,	177.76,	175.78,	173.91,	172.10,	170.31,
BIN3(43,1)=	168.58,	166.89,	165.24,	163.63,	162.07,	147.40,
BIN3(49,1)=	134.86,	123.65,	113.74,	104.92,	97.09,	89.94,
BIN3(55,1)=	83.65,	77.98,	72.92,	68.39,	64.30,	60.64,
BIN3(61,1)=	57.36,	54.39,	51.82,	49.38,	47.23,	34.46,
BIN3(67,1)=	28.86,	25.84,	23.80,	22.16,	20.78,	19.58,
BIN3(73,1)=	18.47,	17.42,	16.51,	15.71,	14.95,	14.22,
BIN3(79,1)=	13.57,	12.98,	12.45,	11.96,	11.50,	8.31,
BIN3(85,1)=	6.82,	6.02,	5.58,	5.31,	5.09,	4.93,
BIN3(91,1)=	4.79,	4.63,	4.48,	4.36,	4.24,	4.12,
BIN3(97,1)=	4.00,	3.90,	3.81,	3.72,	3.64,	2.79,
BIN3(103,1)=	2.31,	1.84,	1.53,	1.31,	1.14,	1.01,
BIN3(109,1)=	0.907,	0.788,	0.694,	0.617,	0.553,	0.500,
BIN3(115,1)=	0.455,	0.416,	0.382,	0.353,	0.328,	0.181,
BIN3(121,1)=	0.118,	0.085,	0.065,	0.052,	0.043,	0.036,
BIN3(127,1)=	0.031,	0.027,	0.024,	0.021,	0.019,	0.017,
BIN3(133,1)=	0.016,	0.014,	0.013,			
BIN3(1,0)=	0.000001,	0.01,	0.02,	0.03,	0.04,	0.05,
BIN3(7,0)=	0.06,	0.07,	0.08,	0.09,	0.10,	0.15,
BIN3(13,0)=	0.20,	0.25,	0.30,	0.35,	0.40,	0.45,
BIN3(19,0)=	0.50,	0.55,	0.60,	0.65,	0.70,	0.75,
BIN3(25,0)=	0.80,	0.85,	0.90,	0.95,	1.00,	1.50,
BIN3(31,0)=	2.00,	2.50,	3.00,	3.50,	4.00,	4.50,
BIN3(37,0)=	5.00,	5.50,	6.00,	6.50,	7.00,	7.50,
BIN3(43,0)=	8.00,	8.50,	9.00,	9.50,	10.00,	15.00,
BIN3(49,0)=	20.00,	25.00,	30.00,	35.00,	40.00,	45.00,
BIN3(55,0)=	50.00,	55.00,	60.00,	65.00,	70.00,	75.00,
BIN3(61,0)=	80.00,	85.00,	90.00,	95.00,	100.00,	150.00,
BIN3(67,0)=	200.00,	250.00,	300.00,	350.00,	400.00,	450.00,
BIN3(73,0)=	500.00,	550.00,	600.00,	650.00,	700.00,	750.00,
BIN3(79,0)=	800.00,	850.00,	900.00,	950.00,	1000.00,	1500.00,
BIN3(85,0)=	2000.00,	2500.00,	3000.00,	3500.00,	4000.00,	4500.00,
BIN3(91,0)=	5000.00,	5500.00,	6000.00,	6500.00,	7000.00,	7500.00,
BIN3(97,0)=	8000.00,	8500.00,	9000.00,	9500.00,	10000.00,	15000.00,
BIN3(103,0)=	20000.00,	25000.00,	30000.00,	35000.00,	40000.00,	45000.00,
BIN3(109,0)=	50000.00,	55000.00,	60000.00,	65000.00,	70000.00,	75000.00,
BIN3(115,0)=	80000.00,	85000.00,	90000.00,	95000.00,	100000.00,	150000.00,
BIN3(121,0)=	200000.00,	250000.00,	300000.00,	350000.00,	400000.00,	450000.00,
BIN3(127,0)=	500000.00,	550000.00,	600000.00,	650000.00,	700000.00,	750000.00,
BIN3(133,0)=	800000.00,	850000.00,	900000.00,			
BIN3(0,1)=	1.0					

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/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 7660
/COM, ** Assemblies/pkg: 12
/COM, **

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/COM, ** Max Heat (Watts/assy): 1500.00 **
/COM, ** Min Heat (Watts/assy): 850.00 **
/COM, ** Max Kinf: 1.020 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 11.051 **
/COM, ** Ave Burnup: 54669.393 **
/COM, ** Ave Enrichment: 4.263 **
/COM, ** Ave MTU/assy: 0.446 **
/COM, **
/COM, *****
*SET,BIN4,
*DIM,BIN4, TABLE, 135, 1,
BIN4( 1,1)= 940.85, 940.47, 940.08, 939.70, 939.31, 938.93,
BIN4( 7,1)= 938.54, 938.16, 937.78, 937.39, 937.01, 935.11,
BIN4(13,1)= 933.22, 931.34, 929.48, 927.63, 925.79, 923.96,
BIN4(19,1)= 922.15, 920.35, 918.55, 916.77, 915.01, 913.25,
BIN4(25,1)= 911.50, 909.77, 908.04, 906.33, 904.62, 889.13,
BIN4(31,1)= 874.52, 860.92, 848.02, 836.03, 824.60, 813.99,
BIN4(37,1)= 803.85, 792.96, 782.55, 773.31, 764.44, 755.67,
BIN4(43,1)= 747.24, 739.01, 731.08, 723.72, 716.61, 646.40,
BIN4(49,1)= 588.59, 537.15, 492.69, 453.40, 419.26, 387.77,
BIN4(55,1)= 360.38, 335.88, 313.94, 294.27, 276.59, 260.66,
BIN4(61,1)= 246.31, 233.37, 222.25, 211.29, 201.64, 141.21,
BIN4(67,1)= 112.42, 95.52, 84.55, 76.09, 69.47, 64.26,
BIN4(73,1)= 59.83, 55.82, 52.39, 49.42, 46.77, 44.28,
BIN4(79,1)= 42.06, 40.08, 38.30, 36.69, 35.19, 24.73,
BIN4(85,1)= 19.83, 17.20, 15.73, 14.82, 14.07, 13.55,
BIN4(91,1)= 13.10, 12.55, 12.06, 11.64, 11.25, 10.85,
BIN4(97,1)= 10.49, 10.17, 9.87, 9.59, 9.33, 6.74,
BIN4(103,1)= 5.34, 4.16, 3.38, 2.84, 2.45, 2.14,
BIN4(109,1)= 1.90, 1.68, 1.50, 1.35, 1.23, 1.12,
BIN4(115,1)= 1.03, 0.953, 0.884, 0.824, 0.771, 0.454,
BIN4(121,1)= 0.312, 0.234, 0.184, 0.151, 0.127, 0.109,
BIN4(127,1)= 0.095, 0.084, 0.075, 0.067, 0.061, 0.056,
BIN4(133,1)= 0.051, 0.047, 0.044,
BIN4( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN4( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN4(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN4(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN4(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN4(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN4(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN4(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN4(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN4(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN4(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN4(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN4(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN4(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN4(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN4(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN4(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN4(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN4(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN4(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN4(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN4(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN4(133,0)= 800000.00, 850000.00, 900000.00,
BIN4( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: STx **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 3329 **
/COM, ** Assemblies/pkg: 12 **
/COM, ** Max Heat (Watts/assy): 1500.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.130 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 21.952 **

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/COM, ** Ave Burnup: 42730.785 **
/COM, ** Ave Enrichment: 3.767 **
/COM, ** Ave MTU/assy: 0.539 **
/COM, **
/COM, *****
*SET, BIN5,
*DIM, BIN5, TABLE, 135, 1,
BIN5( 1,1)= 780.47, 780.20, 779.93, 779.66, 779.39, 779.13,
BIN5( 7,1)= 778.86, 778.59, 778.32, 778.06, 777.79, 776.47,
BIN5(13,1)= 775.15, 773.84, 772.54, 771.24, 769.96, 768.68,
BIN5(19,1)= 767.41, 766.14, 764.89, 763.64, 762.40, 761.17,
BIN5(25,1)= 759.94, 758.72, 757.51, 756.31, 755.11, 744.09,
BIN5(31,1)= 733.64, 723.88, 714.59, 705.85, 697.49, 689.65,
BIN5(37,1)= 682.13, 674.02, 666.24, 659.22, 652.44, 645.75,
BIN5(43,1)= 639.28, 633.01, 626.94, 621.27, 615.77, 560.99,
BIN5(49,1)= 515.18, 474.02, 438.21, 406.33, 378.60, 352.73,
BIN5(55,1)= 330.21, 310.02, 291.87, 275.51, 260.76, 247.45,
BIN5(61,1)= 235.38, 224.45, 215.09, 205.69, 197.44, 144.88,
BIN5(67,1)= 118.36, 102.22, 91.17, 82.41, 75.47, 69.87,
BIN5(73,1)= 64.95, 60.51, 56.71, 53.42, 50.38, 47.53,
BIN5(79,1)= 45.00, 42.75, 40.72, 38.90, 37.15, 25.21,
BIN5(85,1)= 19.66, 16.76, 15.19, 14.26, 13.51, 13.01,
BIN5(91,1)= 12.58, 12.06, 11.61, 11.21, 10.85, 10.48,
BIN5(97,1)= 10.14, 9.84, 9.56, 9.30, 9.06, 6.62,
BIN5(103,1)= 5.29, 4.14, 3.39, 2.87, 2.48, 2.18,
BIN5(109,1)= 1.94, 1.71, 1.53, 1.38, 1.26, 1.15,
BIN5(115,1)= 1.06, 0.979, 0.910, 0.849, 0.794, 0.472,
BIN5(121,1)= 0.326, 0.245, 0.194, 0.159, 0.134, 0.115,
BIN5(127,1)= 0.101, 0.089, 0.080, 0.072, 0.065, 0.060,
BIN5(133,1)= 0.055, 0.051, 0.047,
BIN5( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN5( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN5(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN5(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN5(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN5(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN5(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN5(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN5(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN5(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN5(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN5(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN5(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN5(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN5(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN5(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN5(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN5(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN5(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN5(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN5(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN5(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN5(133,0)= 800000.00, 850000.00, 900000.00,
BIN5( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 46214 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 16.870 **
/COM, ** Ave Burnup: 43848.642 **
/COM, ** Ave Enrichment: 3.395 **
/COM, ** Ave MTU/assy: 0.174 **
/COM, **
/COM, *****

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*SET,BIN6,
*DIM,BIN6,TABLE,135,1,
BIN6( 1,1)= 282.60, 282.50, 282.40, 282.31, 282.21, 282.12,
BIN6( 7,1)= 282.02, 281.92, 281.83, 281.73, 281.64, 281.16,
BIN6(13,1)= 280.69, 280.22, 279.75, 279.28, 278.82, 278.36,
BIN6(19,1)= 277.91, 277.45, 277.00, 276.55, 276.11, 275.66,
BIN6(25,1)= 275.22, 274.78, 274.35, 273.91, 273.48, 269.46,
BIN6(31,1)= 265.66, 262.07, 258.65, 255.39, 252.27, 249.33,
BIN6(37,1)= 246.52, 243.60, 240.80, 238.18, 235.67, 233.19,
BIN6(43,1)= 230.79, 228.43, 226.15, 223.97, 221.86, 201.61,
BIN6(49,1)= 184.57, 169.43, 156.24, 144.58, 134.37, 125.01,
BIN6(55,1)= 116.83, 109.51, 102.94, 97.04, 91.72, 86.94,
BIN6(61,1)= 82.62, 78.72, 75.34, 72.01, 69.07, 50.40,
BIN6(67,1)= 41.07, 35.35, 31.49, 28.43, 26.00, 24.05,
BIN6(73,1)= 22.35, 20.80, 19.48, 18.34, 17.30, 16.31,
BIN6(79,1)= 15.43, 14.65, 13.95, 13.32, 12.72, 8.60,
BIN6(85,1)= 6.68, 5.68, 5.14, 4.83, 4.57, 4.40,
BIN6(91,1)= 4.25, 4.08, 3.92, 3.78, 3.66, 3.54,
BIN6(97,1)= 3.42, 3.32, 3.22, 3.13, 3.05, 2.22,
BIN6(103,1)= 1.77, 1.39, 1.13, 0.956, 0.825, 0.724,
BIN6(109,1)= 0.644, 0.570, 0.509, 0.459, 0.417, 0.382,
BIN6(115,1)= 0.351, 0.325, 0.302, 0.281, 0.263, 0.156,
BIN6(121,1)= 0.108, 0.081, 0.064, 0.052, 0.044, 0.038,
BIN6(127,1)= 0.033, 0.029, 0.026, 0.024, 0.022, 0.020,
BIN6(133,1)= 0.018, 0.017, 0.016,
BIN6( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN6( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN6(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN6(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN6(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN6(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN6(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN6(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN6(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN6(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN6(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN6(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN6(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN6(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN6(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN6(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN6(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN6(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN6(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN6(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN6(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN6(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN6(133,0)= 800000.00, 850000.00, 900000.00,
BIN6( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 119144 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.370 **
/COM, ** Min Kinf: 1.000 **
/COM, ** Ave Age: 29.103 **
/COM, ** Ave Burnup: 28850.029 **
/COM, ** Ave Enrichment: 2.966 **
/COM, ** Ave MTU/assy: 0.178 **
/COM, **
/COM, *****
*SET,BIN7,
*DIM,BIN7,TABLE,135,1,
BIN7( 1,1)= 148.02, 147.98, 147.94, 147.90, 147.86, 147.81,
BIN7( 7,1)= 147.77, 147.73, 147.69, 147.65, 147.61, 147.40,
BIN7(13,1)= 147.19, 146.99, 146.79, 146.58, 146.38, 146.18,

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BIN7(19,1)= 145.98, 145.79, 145.59, 145.39, 145.20, 145.01,
BIN7(25,1)= 144.81, 144.62, 144.43, 144.24, 144.05, 142.28,
BIN7(31,1)= 140.60, 139.00, 137.48, 136.01, 134.60, 133.26,
BIN7(37,1)= 131.96, 130.62, 129.32, 128.09, 126.91, 125.74,
BIN7(43,1)= 124.60, 123.49, 122.41, 121.36, 120.35, 110.59,
BIN7(49,1)= 102.23, 94.72, 88.10, 82.20, 76.98, 72.19,
BIN7(55,1)= 67.96, 64.15, 60.72, 57.62, 54.82, 52.29,
BIN7(61,1)= 50.00, 47.92, 46.09, 44.33, 42.76, 32.73,
BIN7(67,1)= 27.58, 24.40, 22.09, 20.24, 18.71, 17.43,
BIN7(73,1)= 16.26, 15.18, 14.26, 13.46, 12.70, 11.98,
BIN7(79,1)= 11.34, 10.77, 10.25, 9.79, 9.34, 6.29,
BIN7(85,1)= 4.86, 4.13, 3.74, 3.51, 3.33, 3.21,
BIN7(91,1)= 3.10, 2.98, 2.88, 2.78, 2.70, 2.61,
BIN7(97,1)= 2.53, 2.45, 2.39, 2.33, 2.27, 1.68,
BIN7(103,1)= 1.36, 1.07, 0.875, 0.740, 0.640, 0.564,
BIN7(109,1)= 0.503, 0.440, 0.390, 0.349, 0.314, 0.286,
BIN7(115,1)= 0.261, 0.240, 0.222, 0.205, 0.191, 0.109,
BIN7(121,1)= 0.073, 0.054, 0.042, 0.034, 0.028, 0.024,
BIN7(127,1)= 0.021, 0.018, 0.016, 0.014, 0.013, 0.012,
BIN7(133,1)= 0.011, 0.010, 0.009,
BIN7( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN7( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN7(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN7(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN7(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN7(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN7(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN7(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN7(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN7(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN7(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN7(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN7(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN7(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN7(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN7(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN7(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN7(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN7(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN7(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN7(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN7(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN7(133,0)= 800000.00, 850000.00, 900000.00,
BIN7( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 2387 **
/COM, ** Assemblies/pkg: 24 **
/COM, ** Max Heat (Watts/assy): 520.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.540 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 12.408 **
/COM, ** Ave Burnup: 9933.704 **
/COM, ** Ave Enrichment: 3.585 **
/COM, ** Ave MTU/assy: 0.170 **
/COM, **
/COM, *****
*SET,BIN8,
*DIM,BIN8,TABLE,135,1,
BIN8( 1,1)= 52.29, 52.28, 52.26, 52.24, 52.22, 52.20,
BIN8( 7,1)= 52.18, 52.17, 52.15, 52.13, 52.11, 52.02,
BIN8(13,1)= 51.93, 51.84, 51.76, 51.67, 51.58, 51.49,
BIN8(19,1)= 51.41, 51.32, 51.24, 51.15, 51.07, 50.99,
BIN8(25,1)= 50.90, 50.82, 50.74, 50.66, 50.58, 49.82,
BIN8(31,1)= 49.11, 48.42, 47.76, 47.14, 46.56, 45.99,
BIN8(37,1)= 45.45, 44.89, 44.35, 43.83, 43.34, 42.85,
BIN8(43,1)= 42.39, 41.92, 41.48, 41.03, 40.59, 36.65,

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BIN8(49,1)=	33.25,	30.27,	27.68,	25.37,	23.35,	21.52,
BIN8(55,1)=	19.91,	18.47,	17.20,	16.06,	15.04,	14.13,
BIN8(61,1)=	13.32,	12.60,	11.97,	11.37,	10.84,	7.78,
BIN8(67,1)=	6.48,	5.78,	5.32,	4.96,	4.66,	4.40,
BIN8(73,1)=	4.17,	3.95,	3.75,	3.58,	3.43,	3.27,
BIN8(79,1)=	3.14,	3.02,	2.91,	2.81,	2.71,	2.06,
BIN8(85,1)=	1.76,	1.60,	1.51,	1.45,	1.40,	1.36,
BIN8(91,1)=	1.32,	1.28,	1.25,	1.21,	1.18,	1.15,
BIN8(97,1)=	1.12,	1.10,	1.07,	1.05,	1.03,	0.807,
BIN8(103,1)=	0.679,	0.546,	0.456,	0.392,	0.344,	0.307,
BIN8(109,1)=	0.277,	0.240,	0.212,	0.188,	0.169,	0.152,
BIN8(115,1)=	0.139,	0.127,	0.117,	0.108,	0.100,	0.055,
BIN8(121,1)=	0.036,	0.026,	0.020,	0.016,	0.013,	0.011,
BIN8(127,1)=	0.009,	0.008,	0.007,	0.006,	0.006,	0.005,
BIN8(133,1)=	0.005,	0.004,	0.004,			
BIN8(1,0)=	0.000001,	0.01,	0.02,	0.03,	0.04,	0.05,
BIN8(7,0)=	0.06,	0.07,	0.08,	0.09,	0.10,	0.15,
BIN8(13,0)=	0.20,	0.25,	0.30,	0.35,	0.40,	0.45,
BIN8(19,0)=	0.50,	0.55,	0.60,	0.65,	0.70,	0.75,
BIN8(25,0)=	0.80,	0.85,	0.90,	0.95,	1.00,	1.50,
BIN8(31,0)=	2.00,	2.50,	3.00,	3.50,	4.00,	4.50,
BIN8(37,0)=	5.00,	5.50,	6.00,	6.50,	7.00,	7.50,
BIN8(43,0)=	8.00,	8.50,	9.00,	9.50,	10.00,	15.00,
BIN8(49,0)=	20.00,	25.00,	30.00,	35.00,	40.00,	45.00,
BIN8(55,0)=	50.00,	55.00,	60.00,	65.00,	70.00,	75.00,
BIN8(61,0)=	80.00,	85.00,	90.00,	95.00,	100.00,	150.00,
BIN8(67,0)=	200.00,	250.00,	300.00,	350.00,	400.00,	450.00,
BIN8(73,0)=	500.00,	550.00,	600.00,	650.00,	700.00,	750.00,
BIN8(79,0)=	800.00,	850.00,	900.00,	950.00,	1000.00,	1500.00,
BIN8(85,0)=	2000.00,	2500.00,	3000.00,	3500.00,	4000.00,	4500.00,
BIN8(91,0)=	5000.00,	5500.00,	6000.00,	6500.00,	7000.00,	7500.00,
BIN8(97,0)=	8000.00,	8500.00,	9000.00,	9500.00,	10000.00,	15000.00,
BIN8(103,0)=	20000.00,	25000.00,	30000.00,	35000.00,	40000.00,	45000.00,
BIN8(109,0)=	50000.00,	55000.00,	60000.00,	65000.00,	70000.00,	75000.00,
BIN8(115,0)=	80000.00,	85000.00,	90000.00,	95000.00,	100000.00,	150000.00,
BIN8(121,0)=	200000.00,	250000.00,	300000.00,	350000.00,	400000.00,	450000.00,
BIN8(127,0)=	500000.00,	550000.00,	600000.00,	650000.00,	700000.00,	750000.00,
BIN8(133,0)=	800000.00,	850000.00,	900000.00,			
BIN8(0,1)=	1.0					
/COM,	*****					
/EOF						


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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case11.wsm **
/COM, ** Output File Name: finalw11.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, *****
/COM, *****
/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 39915 **
/COM, ** Assemblies/pkg: 21 **
/COM, ** Max Heat (Watts/assy): 850.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 24.955 **
/COM, ** Ave Burnup: 45551.424 **
/COM, ** Ave Enrichment: 3.789 **
/COM, ** Ave MTU/assy: 0.431 **
/COM, **
/COM, *****
*SET, BIN1,
*DIM, BIN1, TABLE, 135, 1,
BIN1( 1,1)= 558.14, 558.01, 557.87, 557.73, 557.60, 557.46,
BIN1( 7,1)= 557.32, 557.19, 557.05, 556.92, 556.78, 556.10,
BIN1(13,1)= 555.43, 554.76, 554.09, 553.43, 552.77, 552.11,
BIN1(19,1)= 551.45, 550.80, 550.15, 549.50, 548.85, 548.21,
BIN1(25,1)= 547.57, 546.94, 546.30, 545.67, 545.04, 538.83,
BIN1(31,1)= 532.87, 527.07, 521.48, 516.03, 510.77, 505.58,
BIN1(37,1)= 500.57, 495.62, 490.83, 486.07, 481.46, 476.88,
BIN1(43,1)= 472.43, 468.03, 463.75, 459.50, 455.38, 447.06,
BIN1(49,1)= 383.56, 354.01, 327.89, 304.62, 283.81, 265.27,
BIN1(55,1)= 248.67, 233.76, 220.34, 208.23, 197.30, 187.42,
BIN1(61,1)= 178.53, 170.55, 163.20, 156.49, 150.38, 111.58,
BIN1(67,1)= 91.95, 80.12, 71.87, 65.37, 60.17, 55.92,
BIN1(73,1)= 52.14, 48.72, 45.78, 43.23, 40.85, 38.62,
BIN1(79,1)= 36.65, 34.88, 33.29, 31.85, 30.47, 21.04,
BIN1(85,1)= 16.63, 14.30, 13.03, 12.26, 11.63, 11.21,
BIN1(91,1)= 10.84, 10.40, 10.01, 9.67, 9.36, 9.04,
BIN1(97,1)= 8.75, 8.49, 8.24, 8.02, 7.81, 5.71,
BIN1(103,1)= 4.57, 3.57, 2.91, 2.46, 2.12, 1.86,
BIN1(109,1)= 1.65, 1.45, 1.29, 1.16, 1.05, 0.952,
BIN1(115,1)= 0.872, 0.803, 0.743, 0.690, 0.644, 0.371,
BIN1(121,1)= 0.251, 0.185, 0.144, 0.117, 0.098, 0.083,
BIN1(127,1)= 0.072, 0.063, 0.056, 0.051, 0.046, 0.042,
BIN1(133,1)= 0.038, 0.035, 0.032,
BIN1( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN1( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN1(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN1(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN1(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN1(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN1(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN1(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN1(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN1(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN1(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN1(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN1(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN1(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN1(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN1(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN1(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN1(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN1(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN1(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,

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BIN1(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
 BIN1(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
 BIN1(133,0)= 800000.00, 850000.00, 900000.00,
 BIN1(0,1)=1.0

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/COM, *****
/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 74363 **
/COM, ** Assemblies/pkg: 21 **
/COM, ** Max Heat (Watts/assy): 850.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.130 **
/COM, ** Min Kinf: 1.000 **
/COM, ** Ave Age: 27.741 **
/COM, ** Ave Burnup: 36728.194 **
/COM, ** Ave Enrichment: 3.671 **
/COM, ** Ave MTU/assy: 0.431 **
/COM, **
/COM, *****

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*SET,BIN2,

*DIM,BIN2,TABLE,135,1,

BIN2(1,1)=	431.99,	431.86,	431.73,	431.60,	431.47,	431.34,
BIN2(7,1)=	431.21,	431.08,	430.95,	430.82,	430.69,	430.05,
BIN2(13,1)=	429.41,	428.78,	428.15,	427.52,	426.90,	426.28,
BIN2(19,1)=	425.66,	425.05,	424.44,	423.84,	423.24,	422.64,
BIN2(25,1)=	422.04,	421.45,	420.87,	420.28,	419.70,	414.24,
BIN2(31,1)=	409.04,	404.16,	399.50,	395.03,	390.74,	386.64,
BIN2(37,1)=	382.68,	378.73,	374.93,	371.24,	367.68,	364.17,
BIN2(43,1)=	360.77,	357.42,	354.16,	350.97,	347.88,	318.88,
BIN2(49,1)=	293.83,	271.57,	251.85,	234.28,	218.58,	204.43,
BIN2(55,1)=	191.78,	180.40,	170.14,	160.88,	152.52,	144.96,
BIN2(61,1)=	138.15,	132.00,	126.45,	121.31,	116.68,	87.34,
BIN2(67,1)=	72.81,	64.11,	58.00,	53.12,	49.13,	45.81,
BIN2(73,1)=	42.79,	40.04,	37.67,	35.61,	33.66,	31.82,
BIN2(79,1)=	30.18,	28.72,	27.41,	26.22,	25.07,	17.23,
BIN2(85,1)=	13.56,	11.64,	10.60,	9.99,	9.48,	9.15,
BIN2(91,1)=	8.85,	8.50,	8.20,	7.93,	7.69,	7.43,
BIN2(97,1)=	7.20,	6.99,	6.80,	6.62,	6.45,	4.78,
BIN2(103,1)=	3.85,	3.02,	2.48,	2.10,	1.81,	1.59,
BIN2(109,1)=	1.42,	1.24,	1.10,	0.982,	0.884,	0.802,
BIN2(115,1)=	0.733,	0.673,	0.621,	0.575,	0.535,	0.302,
BIN2(121,1)=	0.202,	0.147,	0.114,	0.092,	0.076,	0.065,
BIN2(127,1)=	0.056,	0.049,	0.043,	0.039,	0.035,	0.032,
BIN2(133,1)=	0.029,	0.026,	0.024,			
BIN2(1,0)=	0.000001,	0.01,	0.02,	0.03,	0.04,	0.05,
BIN2(7,0)=	0.06,	0.07,	0.08,	0.09,	0.10,	0.15,
BIN2(13,0)=	0.20,	0.25,	0.30,	0.35,	0.40,	0.45,
BIN2(19,0)=	0.50,	0.55,	0.60,	0.65,	0.70,	0.75,
BIN2(25,0)=	0.80,	0.85,	0.90,	0.95,	1.00,	1.50,
BIN2(31,0)=	2.00,	2.50,	3.00,	3.50,	4.00,	4.50,
BIN2(37,0)=	5.00,	5.50,	6.00,	6.50,	7.00,	7.50,
BIN2(43,0)=	8.00,	8.50,	9.00,	9.50,	10.00,	15.00,
BIN2(49,0)=	20.00,	25.00,	30.00,	35.00,	40.00,	45.00,
BIN2(55,0)=	50.00,	55.00,	60.00,	65.00,	70.00,	75.00,
BIN2(61,0)=	80.00,	85.00,	90.00,	95.00,	100.00,	150.00,
BIN2(67,0)=	200.00,	250.00,	300.00,	350.00,	400.00,	450.00,
BIN2(73,0)=	500.00,	550.00,	600.00,	650.00,	700.00,	750.00,
BIN2(79,0)=	800.00,	850.00,	900.00,	950.00,	1000.00,	1500.00,
BIN2(85,0)=	2000.00,	2500.00,	3000.00,	3500.00,	4000.00,	4500.00,
BIN2(91,0)=	5000.00,	5500.00,	6000.00,	6500.00,	7000.00,	7500.00,
BIN2(97,0)=	8000.00,	8500.00,	9000.00,	9500.00,	10000.00,	15000.00,
BIN2(103,0)=	20000.00,	25000.00,	30000.00,	35000.00,	40000.00,	45000.00,
BIN2(109,0)=	50000.00,	55000.00,	60000.00,	65000.00,	70000.00,	75000.00,
BIN2(115,0)=	80000.00,	85000.00,	90000.00,	95000.00,	100000.00,	150000.00,
BIN2(121,0)=	200000.00,	250000.00,	300000.00,	350000.00,	400000.00,	450000.00,
BIN2(127,0)=	500000.00,	550000.00,	600000.00,	650000.00,	700000.00,	750000.00,
BIN2(133,0)=	800000.00,	850000.00,	900000.00,			
BIN2(0,1)=	1.0					

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/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 5397
/COM, ** Assemblies/pkg: 21
/COM, ** Max Heat (Watts/assy): 850.00
/COM, ** Min Heat (Watts/assy): 0.00
/COM, ** Max Kinf: 1.450
/COM, ** Min Kinf: 1.130
/COM, ** Ave Age: 25.067
/COM, ** Ave Burnup: 18570.462
/COM, ** Ave Enrichment: 3.751
/COM, ** Ave MTU/assy: 0.412
/COM, **
/COM, *****
*SET,BIN3,
*DIM,BIN3, TABLE, 135, 1,
BIN3( 1,1)= 215.10, 214.97, 214.85, 214.73, 214.61, 214.49,
BIN3( 7,1)= 214.37, 214.25, 214.13, 214.01, 213.89, 213.29,
BIN3(13,1)= 212.70, 212.12, 211.55, 210.98, 210.42, 209.87,
BIN3(19,1)= 209.32, 208.78, 208.25, 207.72, 207.19, 206.68,
BIN3(25,1)= 206.16, 205.66, 205.15, 204.66, 204.17, 200.07,
BIN3(31,1)= 196.30, 193.11, 190.12, 187.42, 184.87, 182.52,
BIN3(37,1)= 180.29, 178.13, 176.06, 174.06, 172.14, 170.29,
BIN3(43,1)= 168.50, 166.74, 165.03, 163.37, 161.76, 147.02,
BIN3(49,1)= 134.41, 123.30, 113.42, 104.63, 96.80, 89.76,
BIN3(55,1)= 83.48, 77.86, 72.81, 68.29, 64.23, 60.59,
BIN3(61,1)= 57.32, 54.37, 51.76, 49.40, 47.26, 34.49,
BIN3(67,1)= 28.91, 25.88, 23.84, 22.19, 20.81, 19.61,
BIN3(73,1)= 18.50, 17.45, 16.53, 15.73, 14.97, 14.24,
BIN3(79,1)= 13.58, 13.00, 12.46, 11.98, 11.52, 8.32,
BIN3(85,1)= 6.83, 6.03, 5.59, 5.32, 5.10, 4.94,
BIN3(91,1)= 4.79, 4.63, 4.49, 4.36, 4.24, 4.12,
BIN3(97,1)= 4.00, 3.90, 3.81, 3.72, 3.64, 2.79,
BIN3(103,1)= 2.31, 1.84, 1.53, 1.30, 1.14, 1.01,
BIN3(109,1)= 0.906, 0.787, 0.693, 0.616, 0.553, 0.499,
BIN3(115,1)= 0.454, 0.416, 0.382, 0.353, 0.327, 0.181,
BIN3(121,1)= 0.118, 0.085, 0.065, 0.052, 0.043, 0.036,
BIN3(127,1)= 0.031, 0.027, 0.024, 0.021, 0.019, 0.017,
BIN3(133,1)= 0.016, 0.014, 0.013,
BIN3( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN3( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN3(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN3(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN3(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN3(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN3(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN3(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN3(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN3(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN3(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN3(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN3(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN3(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN3(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN3(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN3(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN3(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN3(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN3(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN3(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN3(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN3(133,0)= 800000.00, 850000.00, 900000.00,
BIN3( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 6847
/COM, ** Assemblies/pkg: 12

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/COM, ** Max Heat (Watts/assy): 1500.00 **
/COM, ** Min Heat (Watts/assy): 850.00 **
/COM, ** Max Kinf: 1.020 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 10.166 **
/COM, ** Ave Burnup: 54447.815 **
/COM, ** Ave Enrichment: 4.259 **
/COM, ** Ave MTU/assy: 0.446 **
/COM, **
/COM, *****

```

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*SET,BIN4,

```

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*DIM,BIN4, TABLE, 135, 1,

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```

BIN4( 1,1)= 996.10, 995.55, 995.00, 994.45, 993.90, 993.35,
BIN4( 7,1)= 992.80, 992.26, 991.71, 991.17, 990.63, 987.93,
BIN4(13,1)= 985.27, 982.62, 980.00, 977.41, 974.84, 972.29,
BIN4(19,1)= 969.76, 967.26, 964.78, 962.33, 959.89, 957.48,
BIN4(25,1)= 955.08, 952.71, 950.36, 948.03, 945.72, 925.24,
BIN4(31,1)= 906.25, 889.36, 873.54, 859.16, 845.58, 833.11,
BIN4(37,1)= 821.27, 809.76, 798.79, 788.55, 778.76, 769.15,
BIN4(43,1)= 759.93, 751.04, 742.51, 734.34, 726.47, 654.52,
BIN4(49,1)= 594.78, 542.82, 497.45, 457.58, 422.50, 390.93,
BIN4(55,1)= 363.07, 338.22, 315.98, 296.03, 278.11, 261.97,
BIN4(61,1)= 247.44, 234.36, 222.79, 212.01, 202.23, 141.16,
BIN4(67,1)= 112.24, 95.29, 84.34, 75.88, 69.27, 64.06,
BIN4(73,1)= 59.65, 55.65, 52.22, 49.25, 46.61, 44.13,
BIN4(79,1)= 41.92, 39.94, 38.17, 36.56, 35.07, 24.63,
BIN4(85,1)= 19.75, 17.12, 15.66, 14.75, 14.00, 13.49,
BIN4(91,1)= 13.04, 12.49, 12.01, 11.58, 11.20, 10.81,
BIN4(97,1)= 10.45, 10.12, 9.82, 9.55, 9.29, 6.71,
BIN4(103,1)= 5.32, 4.14, 3.37, 2.83, 2.44, 2.13,
BIN4(109,1)= 1.90, 1.67, 1.49, 1.35, 1.22, 1.12,
BIN4(115,1)= 1.03, 0.949, 0.881, 0.821, 0.767, 0.452,
BIN4(121,1)= 0.311, 0.232, 0.183, 0.150, 0.126, 0.108,
BIN4(127,1)= 0.094, 0.083, 0.074, 0.067, 0.061, 0.056,
BIN4(133,1)= 0.051, 0.047, 0.044,
BIN4( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN4( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN4(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN4(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN4(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN4(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN4(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN4(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN4(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN4(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN4(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN4(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN4(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN4(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN4(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN4(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN4(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN4(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN4(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN4(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN4(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN4(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN4(133,0)= 800000.00, 850000.00, 900000.00,
BIN4( 0,1)=1.0

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/COM, *****

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/COM, **
/COM, ** Assembly Type: STx **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 3339 **
/COM, ** Assemblies/pkg: 12 **
/COM, ** Max Heat (Watts/assy): 1500.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.130 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 15.256 **

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/COM, ** Ave Burnup: 42662.709 **
/COM, ** Ave Enrichment: 3.764 **
/COM, ** Ave MTU/assy: 0.539 **
/COM, **
/COM, *****
*SET, BIN5,
*DIM, BIN5, TABLE, 135, 1,
BIN5( 1,1)= 859.86, 859.48, 859.10, 858.73, 858.35, 857.97,
BIN5( 7,1)= 857.59, 857.22, 856.85, 856.47, 856.10, 854.24,
BIN5(13,1)= 852.41, 850.59, 848.79, 847.00, 845.23, 843.48,
BIN5(19,1)= 841.74, 840.02, 838.31, 836.61, 834.94, 833.27,
BIN5(25,1)= 831.62, 829.99, 828.36, 826.75, 825.16, 810.81,
BIN5(31,1)= 797.44, 785.35, 773.96, 763.47, 753.51, 744.11,
BIN5(37,1)= 735.13, 726.44, 718.13, 710.08, 702.35, 694.77,
BIN5(43,1)= 687.47, 680.41, 673.59, 666.83, 660.29, 600.84,
BIN5(49,1)= 549.80, 505.37, 466.21, 431.43, 400.47, 372.96,
BIN5(55,1)= 348.34, 326.32, 306.55, 288.76, 272.74, 258.27,
BIN5(61,1)= 245.32, 233.64, 222.93, 213.26, 204.34, 148.07,
BIN5(67,1)= 120.25, 103.39, 92.11, 83.14, 76.06, 70.35,
BIN5(73,1)= 65.43, 60.91, 57.05, 53.71, 50.68, 47.79,
BIN5(79,1)= 45.23, 42.95, 40.90, 39.05, 37.32, 25.27,
BIN5(85,1)= 19.67, 16.76, 15.18, 14.25, 13.50, 13.00,
BIN5(91,1)= 12.57, 12.05, 11.60, 11.20, 10.84, 10.47,
BIN5(97,1)= 10.13, 9.83, 9.55, 9.29, 9.05, 6.61,
BIN5(103,1)= 5.29, 4.14, 3.39, 2.86, 2.47, 2.17,
BIN5(109,1)= 1.94, 1.71, 1.53, 1.38, 1.26, 1.15,
BIN5(115,1)= 1.06, 0.978, 0.909, 0.848, 0.793, 0.471,
BIN5(121,1)= 0.326, 0.244, 0.193, 0.159, 0.134, 0.115,
BIN5(127,1)= 0.100, 0.089, 0.080, 0.072, 0.065, 0.060,
BIN5(133,1)= 0.055, 0.051, 0.047,
BIN5( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN5( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN5(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN5(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN5(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN5(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN5(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN5(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN5(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN5(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN5(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN5(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN5(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN5(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN5(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN5(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN5(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN5(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN5(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN5(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN5(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN5(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN5(133,0)= 800000.00, 850000.00, 900000.00,
BIN5( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 43823 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 17.254 **
/COM, ** Ave Burnup: 43175.627 **
/COM, ** Ave Enrichment: 3.366 **
/COM, ** Ave MTU/assy: 0.174 **
/COM, **
/COM, *****

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*SET,BIN6,
*DIM,BIN6,TABLE,135,1,
BIN6( 1,1)= 273.00, 272.91, 272.83, 272.74, 272.66, 272.58,
BIN6( 7,1)= 272.49, 272.41, 272.32, 272.24, 272.16, 271.74,
BIN6(13,1)= 271.33, 270.92, 270.51, 270.10, 269.70, 269.30,
BIN6(19,1)= 268.90, 268.50, 268.11, 267.71, 267.32, 266.93,
BIN6(25,1)= 266.55, 266.16, 265.78, 265.40, 265.02, 261.38,
BIN6(31,1)= 257.92, 254.63, 251.50, 248.50, 245.64, 242.87,
BIN6(37,1)= 240.21, 237.54, 234.98, 232.47, 230.05, 227.67,
BIN6(43,1)= 225.37, 223.11, 220.92, 218.78, 216.71, 197.33,
BIN6(49,1)= 180.69, 166.06, 153.24, 141.91, 131.86, 122.83,
BIN6(55,1)= 114.85, 107.71, 101.30, 95.54, 90.35, 85.67,
BIN6(61,1)= 81.45, 77.70, 74.29, 71.09, 68.22, 49.95,
BIN6(67,1)= 40.78, 35.15, 31.34, 28.31, 25.90, 23.96,
BIN6(73,1)= 22.27, 20.73, 19.42, 18.28, 17.24, 16.25,
BIN6(79,1)= 15.38, 14.60, 13.90, 13.27, 12.67, 8.56,
BIN6(85,1)= 6.65, 5.65, 5.11, 4.80, 4.54, 4.37,
BIN6(91,1)= 4.23, 4.05, 3.90, 3.76, 3.64, 3.52,
BIN6(97,1)= 3.40, 3.30, 3.20, 3.12, 3.04, 2.21,
BIN6(103,1)= 1.77, 1.38, 1.13, 0.951, 0.821, 0.721,
BIN6(109,1)= 0.642, 0.567, 0.507, 0.457, 0.415, 0.379,
BIN6(115,1)= 0.349, 0.323, 0.300, 0.279, 0.261, 0.155,
BIN6(121,1)= 0.107, 0.080, 0.063, 0.052, 0.044, 0.037,
BIN6(127,1)= 0.033, 0.029, 0.026, 0.023, 0.021, 0.019,
BIN6(133,1)= 0.018, 0.017, 0.015,
BIN6( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN6( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN6(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN6(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN6(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN6(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN6(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN6(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN6(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN6(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN6(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN6(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN6(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN6(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN6(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN6(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN6(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN6(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN6(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN6(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN6(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN6(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN6(133,0)= 800000.00, 850000.00, 900000.00,
BIN6( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 119152 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.370 **
/COM, ** Min Kinf: 1.000 **
/COM, ** Ave Age: 30.041 **
/COM, ** Ave Burnup: 28850.344 **
/COM, ** Ave Enrichment: 2.966 **
/COM, ** Ave MTU/assy: 0.178 **
/COM, **
/COM, *****
*SET,BIN7,
*DIM,BIN7,TABLE,135,1,
BIN7( 1,1)= 147.08, 147.03, 146.99, 146.95, 146.91, 146.87,
BIN7( 7,1)= 146.83, 146.78, 146.74, 146.70, 146.66, 146.45,
BIN7(13,1)= 146.25, 146.05, 145.84, 145.64, 145.44, 145.25,

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BIN7(19,1)= 145.05, 144.85, 144.66, 144.46, 144.27, 144.08,
BIN7(25,1)= 143.89, 143.70, 143.51, 143.32, 143.13, 141.36,
BIN7(31,1)= 139.67, 138.09, 136.57, 135.11, 133.71, 132.36,
BIN7(37,1)= 131.06, 129.78, 128.54, 127.32, 126.14, 124.98,
BIN7(43,1)= 123.86, 122.74, 121.66, 120.60, 119.57, 109.97,
BIN7(49,1)= 101.62, 94.21, 87.65, 81.80, 76.55, 71.85,
BIN7(55,1)= 67.66, 63.88, 60.47, 57.39, 54.61, 52.09,
BIN7(61,1)= 49.82, 47.77, 45.91, 44.19, 42.64, 32.66,
BIN7(67,1)= 27.54, 24.37, 22.07, 20.22, 18.69, 17.42,
BIN7(73,1)= 16.24, 15.17, 14.25, 13.45, 12.69, 11.97,
BIN7(79,1)= 11.33, 10.76, 10.25, 9.79, 9.33, 6.28,
BIN7(85,1)= 4.86, 4.13, 3.74, 3.51, 3.33, 3.21,
BIN7(91,1)= 3.10, 2.98, 2.87, 2.78, 2.70, 2.61,
BIN7(97,1)= 2.53, 2.45, 2.39, 2.33, 2.27, 1.68,
BIN7(103,1)= 1.36, 1.07, 0.874, 0.740, 0.640, 0.564,
BIN7(109,1)= 0.503, 0.440, 0.390, 0.349, 0.314, 0.286,
BIN7(115,1)= 0.261, 0.240, 0.222, 0.205, 0.191, 0.109,
BIN7(121,1)= 0.073, 0.054, 0.042, 0.034, 0.028, 0.024,
BIN7(127,1)= 0.021, 0.018, 0.016, 0.014, 0.013, 0.012,
BIN7(133,1)= 0.011, 0.010, 0.009,
BIN7( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN7( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN7(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN7(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN7(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN7(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN7(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN7(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN7(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN7(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN7(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN7(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN7(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN7(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN7(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN7(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN7(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN7(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN7(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN7(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN7(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN7(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN7(133,0)= 800000.00, 850000.00, 900000.00,
BIN7( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 4777 **
/COM, ** Assemblies/pkg: 24 **
/COM, ** Max Heat (Watts/assy): 520.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.540 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 10.602 **
/COM, ** Ave Burnup: 33083.770 **
/COM, ** Ave Enrichment: 3.760 **
/COM, ** Ave MTU/assy: 0.171 **
/COM, **
/COM, *****
*SET,BIN8,
*DIM,BIN8,TABLE,135,1,
BIN8( 1,1)= 253.60, 253.40, 253.21, 253.01, 252.82, 252.62,
BIN8( 7,1)= 252.43, 252.23, 252.04, 251.85, 251.66, 250.70,
BIN8(13,1)= 249.76, 248.83, 247.91, 247.00, 246.11, 245.22,
BIN8(19,1)= 244.34, 243.47, 242.62, 241.77, 240.93, 240.10,
BIN8(25,1)= 239.28, 238.47, 237.67, 236.87, 236.09, 229.37,
BIN8(31,1)= 223.25, 218.11, 213.36, 209.09, 205.10, 201.56,
BIN8(37,1)= 198.23, 195.09, 192.12, 189.34, 186.69, 184.22,
BIN8(43,1)= 181.87, 179.53, 177.29, 175.20, 173.19, 155.54,

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BIN8(49,1)= 140.91, 128.44, 117.52, 107.94, 99.52, 92.07,
BIN8(55,1)= 85.40, 79.50, 74.24, 69.52, 65.30, 61.50,
BIN8(61,1)= 58.08, 55.00, 52.23, 49.80, 47.48, 33.19,
BIN8(67,1)= 26.46, 22.45, 19.88, 17.87, 16.29, 15.05,
BIN8(73,1)= 14.01, 13.05, 12.23, 11.53, 10.90, 10.31,
BIN8(79,1)= 9.78, 9.31, 8.89, 8.51, 8.16, 5.69,
BIN8(85,1)= 4.54, 3.94, 3.61, 3.40, 3.24, 3.12,
BIN8(91,1)= 3.02, 2.90, 2.80, 2.70, 2.62, 2.53,
BIN8(97,1)= 2.45, 2.38, 2.31, 2.25, 2.20, 1.62,
BIN8(103,1)= 1.30, 1.03, 0.843, 0.714, 0.619, 0.545,
BIN8(109,1)= 0.487, 0.430, 0.385, 0.347, 0.315, 0.288,
BIN8(115,1)= 0.265, 0.246, 0.228, 0.213, 0.199, 0.118,
BIN8(121,1)= 0.082, 0.062, 0.049, 0.040, 0.034, 0.029,
BIN8(127,1)= 0.026, 0.023, 0.020, 0.018, 0.017, 0.015,
BIN8(133,1)= 0.014, 0.013, 0.012,
BIN8( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN8( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN8(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN8(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN8(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN8(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN8(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN8(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN8(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN8(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN8(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN8(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN8(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN8(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN8(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN8(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN8(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN8(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN8(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN8(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN8(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN8(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN8(133,0)= 800000.00, 850000.00, 900000.00,
BIN8( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** Assembly Heat Generation Rates: ANSYS input formats **
/COM, ** Output of WPBIN00D, SCSI: B00000000-01717-1200-3000X Rev.00D **
/COM, **
/COM, ** Executable File Name: WPBIN00D.EXE **
/COM, ** Input File Name: case12.wsm **
/COM, ** Output File Name: finalw12.dat **
/COM, ** Execution Date: 08/12/97 **
/COM, *****
/COM, *****
/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 49764 **
/COM, ** Assemblies/pkg: 21 **
/COM, ** Max Heat (Watts/assy): 850.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 23.901 **
/COM, ** Ave Burnup: 45977.006 **
/COM, ** Ave Enrichment: 3.847 **
/COM, ** Ave MTU/assy: 0.432 **
/COM, **
/COM, *****
*SET,BIN1,
*DIM,BIN1,TABLE,135,1,
BIN1( 1,1)= 554.73, 554.60, 554.48, 554.35, 554.22, 554.10,
BIN1( 7,1)= 553.97, 553.85, 553.73, 553.60, 553.48, 552.86,
BIN1(13,1)= 552.24, 551.62, 551.01, 550.40, 549.79, 549.18,
BIN1(19,1)= 548.58, 547.98, 547.38, 546.78, 546.19, 545.60,
BIN1(25,1)= 545.00, 544.42, 543.83, 543.25, 542.67, 536.92,
BIN1(31,1)= 531.37, 525.93, 520.66, 515.46, 510.42, 505.43,
BIN1(37,1)= 500.59, 495.78, 491.11, 486.50, 482.02, 477.56,
BIN1(43,1)= 473.22, 468.89, 464.67, 460.48, 456.39, 418.36,
BIN1(49,1)= 384.99, 355.51, 329.37, 306.07, 285.25, 266.66,
BIN1(55,1)= 249.99, 235.01, 221.53, 209.37, 198.40, 188.53,
BIN1(61,1)= 179.63, 171.55, 164.15, 157.40, 151.25, 112.26,
BIN1(67,1)= 92.43, 80.48, 72.16, 65.61, 60.38, 56.11,
BIN1(73,1)= 52.31, 48.88, 45.94, 43.37, 40.99, 38.77,
BIN1(79,1)= 36.79, 35.02, 33.42, 31.98, 30.60, 21.16,
BIN1(85,1)= 16.74, 14.40, 13.13, 12.35, 11.73, 11.30,
BIN1(91,1)= 10.92, 10.48, 10.09, 9.74, 9.43, 9.11,
BIN1(97,1)= 8.82, 8.55, 8.31, 8.08, 7.87, 5.75,
BIN1(103,1)= 4.60, 3.59, 2.93, 2.47, 2.13, 1.87,
BIN1(109,1)= 1.66, 1.46, 1.30, 1.17, 1.05, 0.960,
BIN1(115,1)= 0.879, 0.810, 0.749, 0.696, 0.650, 0.375,
BIN1(121,1)= 0.254, 0.187, 0.146, 0.119, 0.099, 0.085,
BIN1(127,1)= 0.073, 0.064, 0.057, 0.051, 0.046, 0.042,
BIN1(133,1)= 0.039, 0.036, 0.033,
BIN1( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN1( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN1(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN1(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN1(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN1(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN1(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN1(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN1(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN1(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN1(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN1(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN1(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN1(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN1(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN1(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN1(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN1(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN1(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN1(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,

```

BIN1(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
 BIN1(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
 BIN1(133,0)= 800000.00, 850000.00, 900000.00,
 BIN1(0,1)=1.0

```

/COM, *****
/COM, **
/COM, ** Assembly Type: PWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 69984 **
/COM, ** Assemblies/pkg: 21 **
/COM, ** Max Heat (Watts/assy): 850.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.130 **
/COM, ** Min Kinf: 1.000 **
/COM, ** Ave Age: 27.192 **
/COM, ** Ave Burnup: 36247.704 **
/COM, ** Ave Enrichment: 3.655 **
/COM, ** Ave MTU/assy: 0.431 **
/COM, **
/COM, *****

```

*SET,BIN2,

*DIM,BIN2,TABLE,135,1,

BIN2(1,1)=	407.70,	407.60,	407.51,	407.41,	407.31,	407.21,
BIN2(7,1)=	407.11,	407.01,	406.92,	406.82,	406.72,	406.23,
BIN2(13,1)=	405.75,	405.27,	404.78,	404.31,	403.83,	403.36,
BIN2(19,1)=	402.88,	402.41,	401.94,	401.48,	401.01,	400.55,
BIN2(25,1)=	400.09,	399.63,	399.18,	398.72,	398.27,	393.89,
BIN2(31,1)=	389.68,	385.59,	381.65,	377.81,	374.10,	370.47,
BIN2(37,1)=	366.95,	363.43,	360.01,	356.68,	353.44,	350.24,
BIN2(43,1)=	347.12,	344.01,	340.99,	338.01,	335.12,	307.88,
BIN2(49,1)=	284.07,	262.86,	244.03,	227.18,	212.12,	198.54,
BIN2(55,1)=	186.39,	175.45,	165.58,	156.68,	148.66,	141.40,
BIN2(61,1)=	134.85,	128.93,	123.55,	118.60,	114.12,	85.88,
BIN2(67,1)=	71.73,	63.26,	57.27,	52.48,	48.57,	45.30,
BIN2(73,1)=	42.32,	39.60,	37.27,	35.23,	33.30,	31.48,
BIN2(79,1)=	29.86,	28.42,	27.12,	25.94,	24.80,	17.04,
BIN2(85,1)=	13.41,	11.51,	10.48,	9.87,	9.38,	9.04,
BIN2(91,1)=	8.75,	8.41,	8.11,	7.84,	7.60,	7.35,
BIN2(97,1)=	7.12,	6.92,	6.73,	6.55,	6.39,	4.73,
BIN2(103,1)=	3.82,	3.00,	2.46,	2.08,	1.80,	1.58,
BIN2(109,1)=	1.41,	1.23,	1.09,	0.972,	0.876,	0.794,
BIN2(115,1)=	0.725,	0.666,	0.614,	0.569,	0.529,	0.299,
BIN2(121,1)=	0.199,	0.145,	0.112,	0.091,	0.075,	0.064,
BIN2(127,1)=	0.055,	0.048,	0.042,	0.038,	0.034,	0.031,
BIN2(133,1)=	0.028,	0.026,	0.024,			
BIN2(1,0)=	0.000001,	0.01,	0.02,	0.03,	0.04,	0.05,
BIN2(7,0)=	0.06,	0.07,	0.08,	0.09,	0.10,	0.15,
BIN2(13,0)=	0.20,	0.25,	0.30,	0.35,	0.40,	0.45,
BIN2(19,0)=	0.50,	0.55,	0.60,	0.65,	0.70,	0.75,
BIN2(25,0)=	0.80,	0.85,	0.90,	0.95,	1.00,	1.50,
BIN2(31,0)=	2.00,	2.50,	3.00,	3.50,	4.00,	4.50,
BIN2(37,0)=	5.00,	5.50,	6.00,	6.50,	7.00,	7.50,
BIN2(43,0)=	8.00,	8.50,	9.00,	9.50,	10.00,	15.00,
BIN2(49,0)=	20.00,	25.00,	30.00,	35.00,	40.00,	45.00,
BIN2(55,0)=	50.00,	55.00,	60.00,	65.00,	70.00,	75.00,
BIN2(61,0)=	80.00,	85.00,	90.00,	95.00,	100.00,	150.00,
BIN2(67,0)=	200.00,	250.00,	300.00,	350.00,	400.00,	450.00,
BIN2(73,0)=	500.00,	550.00,	600.00,	650.00,	700.00,	750.00,
BIN2(79,0)=	800.00,	850.00,	900.00,	950.00,	1000.00,	1500.00,
BIN2(85,0)=	2000.00,	2500.00,	3000.00,	3500.00,	4000.00,	4500.00,
BIN2(91,0)=	5000.00,	5500.00,	6000.00,	6500.00,	7000.00,	7500.00,
BIN2(97,0)=	8000.00,	8500.00,	9000.00,	9500.00,	10000.00,	15000.00,
BIN2(103,0)=	20000.00,	25000.00,	30000.00,	35000.00,	40000.00,	45000.00,
BIN2(109,0)=	50000.00,	55000.00,	60000.00,	65000.00,	70000.00,	75000.00,
BIN2(115,0)=	80000.00,	85000.00,	90000.00,	95000.00,	100000.00,	150000.00,
BIN2(121,0)=	200000.00,	250000.00,	300000.00,	350000.00,	400000.00,	450000.00,
BIN2(127,0)=	500000.00,	550000.00,	600000.00,	650000.00,	700000.00,	750000.00,
BIN2(133,0)=	800000.00,	850000.00,	900000.00,			
BIN2(0,1)=	1.0					

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/COM, *****

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/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 5225
/COM, ** Assemblies/pkg: 21
/COM, ** Max Heat (Watts/assy): 850.00
/COM, ** Min Heat (Watts/assy): 0.00
/COM, ** Max Kinf: 1.450
/COM, ** Min Kinf: 1.130
/COM, ** Ave Age: 24.976
/COM, ** Ave Burnup: 18256.859
/COM, ** Ave Enrichment: 3.748
/COM, ** Ave MTU/assy: 0.412
/COM, **
/COM, *****
/COM, *SET,BIN3,
/COM, *DIM,BIN3, TABLE, 135, 1,
BIN3( 1,1)= 192.27, 192.21, 192.15, 192.09, 192.02, 191.96,
BIN3( 7,1)= 191.90, 191.84, 191.78, 191.71, 191.65, 191.35,
BIN3(13,1)= 191.04, 190.74, 190.44, 190.14, 189.85, 189.56,
BIN3(19,1)= 189.26, 188.98, 188.69, 188.41, 188.12, 187.84,
BIN3(25,1)= 187.56, 187.29, 187.01, 186.74, 186.47, 183.96,
BIN3(31,1)= 181.60, 179.38, 177.27, 175.26, 173.32, 171.44,
BIN3(37,1)= 169.64, 167.84, 166.10, 164.41, 162.78, 161.16,
BIN3(43,1)= 159.60, 158.05, 156.55, 155.04, 153.58, 140.07,
BIN3(49,1)= 128.29, 117.81, 108.49, 100.18, 92.76, 86.10,
BIN3(55,1)= 80.15, 74.82, 70.05, 65.77, 61.92, 58.47,
BIN3(61,1)= 55.37, 52.59, 50.11, 47.85, 45.81, 33.75,
BIN3(67,1)= 28.37, 25.45, 23.45, 21.84, 20.48, 19.31,
BIN3(73,1)= 18.22, 17.19, 16.29, 15.51, 14.76, 14.04,
BIN3(79,1)= 13.39, 12.82, 12.29, 11.82, 11.36, 8.22,
BIN3(85,1)= 6.75, 5.97, 5.53, 5.27, 5.05, 4.89,
BIN3(91,1)= 4.75, 4.59, 4.45, 4.32, 4.20, 4.08,
BIN3(97,1)= 3.97, 3.87, 3.78, 3.69, 3.61, 2.77,
BIN3(103,1)= 2.30, 1.83, 1.52, 1.30, 1.13, 1.00,
BIN3(109,1)= 0.901, 0.783, 0.689, 0.613, 0.550, 0.497,
BIN3(115,1)= 0.452, 0.413, 0.380, 0.351, 0.326, 0.180,
BIN3(121,1)= 0.118, 0.085, 0.065, 0.052, 0.043, 0.036,
BIN3(127,1)= 0.031, 0.027, 0.024, 0.021, 0.019, 0.017,
BIN3(133,1)= 0.015, 0.014, 0.013,
BIN3( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN3( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN3(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN3(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN3(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN3(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN3(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN3(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN3(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN3(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN3(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN3(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN3(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN3(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN3(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN3(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN3(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN3(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN3(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN3(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN3(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN3(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN3(133,0)= 800000.00, 850000.00, 900000.00,
BIN3( 0,1)=1.0
/COM, *****
/COM, **
/COM, ** Assembly Type: PWR
/COM, ** Decay Period (years): 900000
/COM, ** Number of assemblies: 2931
/COM, ** Assemblies/pkg: 12

```

```

/COM, ** Max Heat (Watts/assy): 1500.00 **
/COM, ** Min Heat (Watts/assy): 850.00 **
/COM, ** Max Kinf: 1.020 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 13.074 **
/COM, ** Ave Burnup: 56713.095 **
/COM, ** Ave Enrichment: 4.353 **
/COM, ** Ave MTU/assy: 0.447 **
/COM, **
/COM, *****

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```
*SET,BIN4,
```

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*DIM,BIN4,TABLE,135,1,
```

```

BIN4( 1,1)= 924.44, 924.13, 923.82, 923.50, 923.19, 922.87,
BIN4( 7,1)= 922.56, 922.25, 921.94, 921.62, 921.31, 919.76,
BIN4(13,1)= 918.22, 916.68, 915.16, 913.64, 912.13, 910.63,
BIN4(19,1)= 909.14, 907.66, 906.19, 904.72, 903.27, 901.82,
BIN4(25,1)= 900.38, 898.95, 897.52, 896.10, 894.70, 881.25,
BIN4(31,1)= 868.48, 856.38, 844.85, 833.87, 823.37, 813.18,
BIN4(37,1)= 803.41, 793.86, 784.67, 775.81, 767.27, 758.84,
BIN4(43,1)= 750.70, 742.63, 734.84, 727.18, 719.77, 651.31,
BIN4(49,1)= 593.16, 542.19, 497.59, 458.32, 423.56, 392.46,
BIN4(55,1)= 364.94, 340.33, 318.29, 298.51, 280.73, 264.73,
BIN4(61,1)= 250.29, 237.36, 225.83, 215.01, 205.29, 144.16,
BIN4(67,1)= 114.67, 97.31, 86.01, 77.32, 70.54, 65.23,
BIN4(73,1)= 60.71, 56.67, 53.20, 50.19, 47.51, 45.02,
BIN4(79,1)= 42.80, 40.81, 39.02, 37.40, 35.89, 25.39,
BIN4(85,1)= 20.47, 17.80, 16.31, 15.36, 14.59, 14.05,
BIN4(91,1)= 13.58, 13.01, 12.50, 12.06, 11.66, 11.24,
BIN4(97,1)= 10.86, 10.52, 10.21, 9.92, 9.65, 6.95,
BIN4(103,1)= 5.50, 4.27, 3.48, 2.92, 2.51, 2.20,
BIN4(109,1)= 1.95, 1.72, 1.54, 1.39, 1.26, 1.15,
BIN4(115,1)= 1.06, 0.983, 0.913, 0.851, 0.797, 0.472,
BIN4(121,1)= 0.326, 0.244, 0.193, 0.158, 0.133, 0.114,
BIN4(127,1)= 0.100, 0.088, 0.079, 0.071, 0.065, 0.059,
BIN4(133,1)= 0.054, 0.050, 0.047,
BIN4( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN4( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN4(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN4(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN4(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN4(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN4(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN4(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN4(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN4(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN4(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN4(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN4(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN4(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN4(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN4(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN4(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN4(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN4(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN4(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN4(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN4(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN4(133,0)= 800000.00, 850000.00, 900000.00,
BIN4( 0,1)=1.0

```

```
/COM, *****
```

```
/COM, **
```

```
/COM, ** Assembly Type: STx **
```

```
/COM, ** Decay Period (years): 900000 **
```

```
/COM, ** Number of assemblies: 3375 **
```

```
/COM, ** Assemblies/pkg: 12 **
```

```
/COM, ** Max Heat (Watts/assy): 1500.00 **
```

```
/COM, ** Min Heat (Watts/assy): 0.00 **
```

```
/COM, ** Max Kinf: 1.130 **
```

```
/COM, ** Min Kinf: 0.000 **
```

```
/COM, ** Ave Age: 22.433 **
```

```

/COM, ** Ave Burnup: 42346.321 **
/COM, ** Ave Enrichment: 3.746 **
/COM, ** Ave MTU/assy: 0.539 **
/COM, **
/COM, *****
*SET,BIN5,
*DIM,BIN5,TABLE,135,1,
BIN5( 1,1)= 686.09, 685.95, 685.81, 685.66, 685.52, 685.37,
BIN5( 7,1)= 685.23, 685.09, 684.94, 684.80, 684.66, 683.94,
BIN5(13,1)= 683.23, 682.52, 681.81, 681.10, 680.40, 679.70,
BIN5(19,1)= 679.00, 678.31, 677.61, 676.92, 676.24, 675.55,
BIN5(25,1)= 674.87, 674.18, 673.51, 672.83, 672.16, 665.35,
BIN5(31,1)= 658.77, 652.25, 645.94, 639.76, 633.76, 627.67,
BIN5(37,1)= 621.75, 615.98, 610.38, 604.78, 599.34, 593.84,
BIN5(43,1)= 588.48, 583.16, 577.98, 572.83, 567.81, 521.01,
BIN5(49,1)= 479.80, 443.48, 411.10, 382.31, 356.61, 333.66,
BIN5(55,1)= 313.05, 294.52, 277.85, 262.81, 249.23, 237.14,
BIN5(61,1)= 226.09, 216.02, 206.83, 198.44, 190.78, 141.79,
BIN5(67,1)= 116.37, 100.81, 90.01, 81.44, 74.66, 69.15,
BIN5(73,1)= 64.30, 59.92, 56.18, 52.93, 49.92, 47.10,
BIN5(79,1)= 44.60, 42.37, 40.37, 38.56, 36.83, 25.01,
BIN5(85,1)= 19.50, 16.64, 15.08, 14.16, 13.41, 12.92,
BIN5(91,1)= 12.49, 11.98, 11.53, 11.13, 10.77, 10.41,
BIN5(97,1)= 10.07, 9.77, 9.49, 9.24, 9.00, 6.57,
BIN5(103,1)= 5.26, 4.12, 3.37, 2.85, 2.46, 2.16,
BIN5(109,1)= 1.93, 1.70, 1.52, 1.37, 1.25, 1.14,
BIN5(115,1)= 1.05, 0.973, 0.904, 0.843, 0.789, 0.468,
BIN5(121,1)= 0.323, 0.243, 0.192, 0.158, 0.133, 0.114,
BIN5(127,1)= 0.100, 0.088, 0.079, 0.071, 0.065, 0.059,
BIN5(133,1)= 0.055, 0.051, 0.047,
BIN5( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN5( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN5(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN5(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN5(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN5(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN5(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN5(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN5(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN5(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN5(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN5(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN5(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN5(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN5(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN5(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN5(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN5(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN5(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN5(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN5(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN5(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN5(133,0)= 800000.00, 850000.00, 900000.00,
BIN5( 0,1)=1.0
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/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 46268 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.000 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 19.677 **
/COM, ** Ave Burnup: 43864.741 **
/COM, ** Ave Enrichment: 3.396 **
/COM, ** Ave MTU/assy: 0.174 **
/COM, **
/COM, *****

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*SET,BIN6,
*DIM,BIN6,TABLE,135,1,
BIN6( 1,1)= 255.98, 255.92, 255.85, 255.79, 255.72, 255.65,
BIN6( 7,1)= 255.59, 255.52, 255.46, 255.39, 255.33, 255.00,
BIN6(13,1)= 254.67, 254.35, 254.03, 253.71, 253.39, 253.07,
BIN6(19,1)= 252.75, 252.44, 252.12, 251.81, 251.50, 251.19,
BIN6(25,1)= 250.88, 250.58, 250.27, 249.97, 249.66, 246.71,
BIN6(31,1)= 243.89, 241.13, 238.49, 235.90, 233.41, 230.97,
BIN6(37,1)= 228.60, 226.26, 223.99, 221.76, 219.61, 217.46,
BIN6(43,1)= 215.39, 213.32, 211.31, 209.31, 207.37, 189.40,
BIN6(49,1)= 173.79, 160.10, 147.99, 137.29, 127.75, 119.25,
BIN6(55,1)= 111.68, 104.89, 98.80, 93.31, 88.37, 83.93,
BIN6(61,1)= 79.92, 76.31, 73.01, 69.97, 67.21, 49.62,
BIN6(67,1)= 40.61, 35.08, 31.28, 28.26, 25.87, 23.94,
BIN6(73,1)= 22.25, 20.72, 19.41, 18.28, 17.23, 16.25,
BIN6(79,1)= 15.38, 14.61, 13.91, 13.28, 12.69, 8.58,
BIN6(85,1)= 6.68, 5.68, 5.14, 4.83, 4.57, 4.40,
BIN6(91,1)= 4.25, 4.08, 3.92, 3.78, 3.66, 3.54,
BIN6(97,1)= 3.42, 3.32, 3.22, 3.13, 3.05, 2.22,
BIN6(103,1)= 1.77, 1.39, 1.13, 0.956, 0.825, 0.724,
BIN6(109,1)= 0.644, 0.570, 0.509, 0.459, 0.417, 0.382,
BIN6(115,1)= 0.351, 0.325, 0.302, 0.281, 0.263, 0.156,
BIN6(121,1)= 0.108, 0.081, 0.064, 0.052, 0.044, 0.038,
BIN6(127,1)= 0.033, 0.029, 0.026, 0.024, 0.022, 0.020,
BIN6(133,1)= 0.018, 0.017, 0.016,
BIN6( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN6( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN6(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN6(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN6(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN6(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN6(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN6(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN6(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN6(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN6(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN6(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN6(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN6(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN6(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN6(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN6(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN6(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN6(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN6(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN6(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN6(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN6(133,0)= 800000.00, 850000.00, 900000.00,
BIN6( 0,1)=1.0
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/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 119144 **
/COM, ** Assemblies/pkg: 44 **
/COM, ** Max Heat (Watts/assy): 400.00 **
/COM, ** Min Heat (Watts/assy): 0.00 **
/COM, ** Max Kinf: 1.370 **
/COM, ** Min Kinf: 1.000 **
/COM, ** Ave Age: 28.052 **
/COM, ** Ave Burnup: 28850.049 **
/COM, ** Ave Enrichment: 2.966 **
/COM, ** Ave MTU/assy: 0.178 **
/COM, **
/COM, *****
*SET,BIN7,
*DIM,BIN7,TABLE,135,1,
BIN7( 1,1)= 143.93, 143.90, 143.86, 143.83, 143.80, 143.77,
BIN7( 7,1)= 143.73, 143.70, 143.67, 143.64, 143.60, 143.44,
BIN7(13,1)= 143.28, 143.12, 142.96, 142.80, 142.64, 142.48,

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BIN7(19,1)= 142.32, 142.17, 142.01, 141.85, 141.70, 141.54,
BIN7(25,1)= 141.39, 141.24, 141.08, 140.93, 140.78, 139.30,
BIN7(31,1)= 137.88, 136.50, 135.17, 133.86, 132.59, 131.34,
BIN7(37,1)= 130.13, 128.92, 127.75, 126.60, 125.49, 124.39,
BIN7(43,1)= 123.31, 122.24, 121.21, 120.17, 119.17, 109.75,
BIN7(49,1)= 101.50, 94.15, 87.63, 81.79, 76.58, 71.89,
BIN7(55,1)= 67.70, 63.92, 60.51, 57.44, 54.66, 52.16,
BIN7(61,1)= 49.90, 47.85, 45.98, 44.25, 42.70, 32.74,
BIN7(67,1)= 27.59, 24.41, 22.11, 20.25, 18.73, 17.45,
BIN7(73,1)= 16.27, 15.20, 14.27, 13.47, 12.71, 11.99,
BIN7(79,1)= 11.35, 10.77, 10.26, 9.80, 9.35, 6.29,
BIN7(85,1)= 4.86, 4.13, 3.74, 3.51, 3.33, 3.21,
BIN7(91,1)= 3.10, 2.98, 2.88, 2.78, 2.70, 2.61,
BIN7(97,1)= 2.53, 2.45, 2.39, 2.33, 2.27, 1.68,
BIN7(103,1)= 1.36, 1.07, 0.875, 0.740, 0.640, 0.564,
BIN7(109,1)= 0.503, 0.440, 0.390, 0.349, 0.314, 0.286,
BIN7(115,1)= 0.261, 0.240, 0.222, 0.205, 0.191, 0.109,
BIN7(121,1)= 0.073, 0.054, 0.042, 0.034, 0.028, 0.024,
BIN7(127,1)= 0.021, 0.018, 0.016, 0.014, 0.013, 0.012,
BIN7(133,1)= 0.011, 0.010, 0.009,
BIN7( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN7( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN7(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN7(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN7(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN7(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN7(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN7(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN7(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN7(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN7(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN7(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN7(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN7(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN7(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN7(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN7(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN7(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN7(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN7(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN7(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN7(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN7(133,0)= 800000.00, 850000.00, 900000.00,
BIN7( 0,1)=1.0
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/COM, **
/COM, ** Assembly Type: BWR **
/COM, ** Decay Period (years): 900000 **
/COM, ** Number of assemblies: 2333 **
/COM, ** Assemblies/pkg: 24 **
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/COM, ** Max Kinf: 1.540 **
/COM, ** Min Kinf: 0.000 **
/COM, ** Ave Age: 16.840 **
/COM, ** Ave Burnup: 8829.884 **
/COM, ** Ave Enrichment: 3.580 **
/COM, ** Ave MTU/assy: 0.170 **
/COM, **
/COM, *****
*SET,BIN8,
*DIM,BIN8,TABLE,135,1,
BIN8( 1,1)= 39.45, 39.44, 39.43, 39.42, 39.41, 39.40,
BIN8( 7,1)= 39.39, 39.38, 39.37, 39.36, 39.35, 39.29,
BIN8(13,1)= 39.24, 39.19, 39.14, 39.09, 39.04, 38.99,
BIN8(19,1)= 38.94, 38.89, 38.84, 38.79, 38.74, 38.69,
BIN8(25,1)= 38.65, 38.60, 38.55, 38.50, 38.45, 37.99,
BIN8(31,1)= 37.55, 37.11, 36.68, 36.27, 35.87, 35.47,
BIN8(37,1)= 35.08, 34.70, 34.34, 33.98, 33.62, 33.27,
BIN8(43,1)= 32.93, 32.59, 32.26, 31.92, 31.60, 28.65,

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BIN8(49,1)= 26.06, 23.79, 21.79, 20.01, 18.43, 17.02,
BIN8(55,1)= 15.77, 14.66, 13.68, 12.79, 12.00, 11.30,
BIN8(61,1)= 10.67, 10.11, 9.61, 9.16, 8.76, 6.44,
BIN8(67,1)= 5.45, 4.93, 4.59, 4.31, 4.07, 3.86,
BIN8(73,1)= 3.67, 3.49, 3.32, 3.18, 3.05, 2.92,
BIN8(79,1)= 2.81, 2.70, 2.61, 2.52, 2.44, 1.88,
BIN8(85,1)= 1.62, 1.48, 1.40, 1.35, 1.31, 1.27,
BIN8(91,1)= 1.24, 1.20, 1.17, 1.14, 1.11, 1.08,
BIN8(97,1)= 1.06, 1.03, 1.01, 0.991, 0.971, 0.767,
BIN8(103,1)= 0.648, 0.522, 0.437, 0.377, 0.331, 0.295,
BIN8(109,1)= 0.266, 0.231, 0.203, 0.180, 0.162, 0.146,
BIN8(115,1)= 0.132, 0.121, 0.111, 0.103, 0.095, 0.052,
BIN8(121,1)= 0.034, 0.024, 0.019, 0.015, 0.012, 0.010,
BIN8(127,1)= 0.009, 0.008, 0.007, 0.006, 0.005, 0.005,
BIN8(133,1)= 0.004, 0.004, 0.004,
BIN8( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
BIN8( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
BIN8(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
BIN8(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
BIN8(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
BIN8(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
BIN8(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
BIN8(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
BIN8(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
BIN8(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
BIN8(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
BIN8(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
BIN8(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
BIN8(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
BIN8(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
BIN8(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
BIN8(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 15000.00,
BIN8(103,0)= 20000.00, 25000.00, 30000.00, 35000.00, 40000.00, 45000.00,
BIN8(109,0)= 50000.00, 55000.00, 60000.00, 65000.00, 70000.00, 75000.00,
BIN8(115,0)= 80000.00, 85000.00, 90000.00, 95000.00, 100000.00, 150000.00,
BIN8(121,0)= 200000.00, 250000.00, 300000.00, 350000.00, 400000.00, 450000.00,
BIN8(127,0)= 500000.00, 550000.00, 600000.00, 650000.00, 700000.00, 750000.00,
BIN8(133,0)= 800000.00, 850000.00, 900000.00,
BIN8( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of DHLW GLASS POUR CANISTER Heat Generation Rates **
/COM, ** Output Calculated by T. L. Lotz 4/17/95 for ORNL Report Data **
/COM, ** Extended to 100K years by R. H. Bahney 09/29/97 **
/COM, **
/COM, ** Executable File Name: MATHCAD.EXE **
/COM, ** Output File Name: hanfgl1.dat **
/COM, ** Execution Date: 04/17/95 **
/COM, ** Start Age (years): 0.0 **
/COM, ** Decay Period (years): 10000 **
/COM, ** Enrichment (kg Pu): N.A. **
/COM, ** Burnup (Mwd/MTHM): N.A. **
/COM, ** Assembly Type: SR Pour Canis **
/COM, ** Pu Fract. (kg Pu/KG HM):N.A. **
/COM, **
/COM, ** HANG(#,1) is the Pour Cainster heat in Watts. **
/COM, ** HANG(#,0) is the time post emplacement in years. **
/COM, *****
*SET,HANG,
*DIM,HANG,TABLE,106,1,
HANG( 1,1)= 871.20, 868.40, 865.60, 862.90, 860.10, 857.40,
HANG( 7,1)= 854.80, 852.10, 849.50, 846.90, 844.30, 831.80,
HANG(13,1)= 819.70, 808.20, 797.10, 786.60, 776.40, 766.70,
HANG(19,1)= 757.40, 748.40, 739.90, 731.60, 723.70, 716.10,
HANG(25,1)= 708.90, 701.90, 695.20, 688.70, 682.50, 631.90,
HANG(31,1)= 596.70, 571.30, 552.10, 537.10, 524.90, 514.50,
HANG(37,1)= 505.50, 497.30, 489.90, 483.00, 476.40, 470.20,
HANG(43,1)= 464.30, 458.50, 452.90, 447.50, 442.10, 393.80,
HANG(49,1)= 351.50, 314.10, 280.90, 251.50, 225.40, 202.20,
HANG(55,1)= 181.60, 163.40, 147.20, 132.80, 120.00, 108.70,
HANG(61,1)= 98.57, 89.60, 81.64, 74.55, 68.25, 32.95,
HANG(67,1)= 21.19, 16.60, 14.26, 12.69, 11.42, 10.33,
HANG(73,1)= 9.355, 8.477, 7.684, 6.967, 6.318, 5.731,
HANG(79,1)= 5.199, 4.719, 4.283, 3.890, 3.533, 1.390,
HANG(85,1)= 0.5979, 0.3034, 0.1920, 0.1478, 0.1284, 0.1181,
HANG(91,1)= 0.1111, 0.1054, 0.1002, 0.0951, 0.0900, 0.0850,
HANG(97,1)= 0.0800, 0.0750, 0.0700, 0.0650, 0.0600, 0.0500,
HANG(103,1)= 0.0400, 0.0400, 0.0700, 0.0700,
HANG( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
HANG( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
HANG(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
HANG(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
HANG(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
HANG(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
HANG(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
HANG(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
HANG(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
HANG(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
HANG(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
HANG(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
HANG(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
HANG(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
HANG(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
HANG(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
HANG(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 20000.00,
HANG(103,0)= 50000.00, 100000.00, 500000.00, 1000000.00,
HANG( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of DHLW GLASS POUR CANISTER Heat Generation Rates **
/COM, ** Output Calculated by T. L. Lotz 5/04/95 for ORNL Report Data **
/COM, ** Extended to 100K years by R. H. Bahney 09/29/97 **
/COM, **
/COM, ** Executable File Name: MATHCAD.EXE **
/COM, ** Output File Name: srpgls1.dat **
/COM, ** Execution Date: 05/04/95 **
/COM, ** Start Age (years): 0.0 **
/COM, ** Decay Period (years): 10000 **
/COM, ** Enrichment (kg Pu): N.A. **
/COM, ** Burnup (Mwd/MTHM): N.A. **
/COM, ** Assembly Type: SR Pour Canisters **
/COM, ** Pu Fract. (kg Pu/KG HM):N.A. **
/COM, **
/COM, ** SRPG(#,1) is the Pour Canister heat in Watts. **
/COM, ** SRPG(#,0) is the time post emplacement in years. **
/COM, *****
*SET,SRPG,
*DIM,SRPG, TABLE, 106, 1,
SRPG( 1,1)= 710.10, 709.00, 707.90, 706.80, 705.70, 704.60,
SRPG( 7,1)= 703.50, 702.40, 701.30, 700.30, 699.20, 694.00,
SRPG(13,1)= 689.00, 684.20, 679.60, 675.10, 670.80, 666.60,
SRPG(19,1)= 662.60, 658.70, 654.90, 651.30, 647.70, 644.30,
SRPG(25,1)= 641.00, 637.90, 634.80, 631.80, 628.90, 604.40,
SRPG(31,1)= 585.90, 571.60, 559.90, 550.00, 541.50, 533.80,
SRPG(37,1)= 526.70, 520.00, 513.70, 507.60, 501.70, 496.00,
SRPG(43,1)= 490.40, 484.80, 479.40, 474.10, 468.80, 419.60,
SRPG(49,1)= 376.00, 337.10, 302.50, 271.70, 244.20, 219.80,
SRPG(55,1)= 198.00, 178.50, 161.20, 145.70, 131.90, 119.50,
SRPG(61,1)= 108.50, 98.64, 89.82, 81.92, 74.84, 33.63,
SRPG(67,1)= 18.33, 11.66, 8.147, 5.996, 4.549, 3.529,
SRPG(73,1)= 2.793, 2.258, 1.868, 1.582, 1.372, 1.218,
SRPG(79,1)= 1.105, 1.022, 0.9608, 0.9155, 0.8819, 0.7813,
SRPG(85,1)= 0.7602, 0.7425, 0.7250, 0.7075, 0.6900, 0.6725,
SRPG(91,1)= 0.6550, 0.6375, 0.6200, 0.6025, 0.5850, 0.5675,
SRPG(97,1)= 0.5500, 0.5325, 0.5150, 0.4975, 0.4800, 0.3000,
SRPG(103,1)= 0.1600, 0.1100, 0.0500, 0.0200,
SRPG( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
SRPG( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
SRPG(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
SRPG(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
SRPG(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
SRPG(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
SRPG(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
SRPG(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
SRPG(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
SRPG(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
SRPG(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
SRPG(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
SRPG(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
SRPG(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
SRPG(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
SRPG(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
SRPG(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 20000.00,
SRPG(103,0)= 50000.00, 100000.00, 500000.00, 1000000.00,
SRPG( 0,1)=1.0
/COM, *****
/EOF

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/COM, *****
/COM, ** History of DHLW GLASS POUR CANISTER Heat Generation Rates **
/COM, ** Output Calculated by T. L. Lotz 5/08/95 for ORNL Report Data **
/COM, ** Extended to 100K years by R. H. Bahnney 09/29/97 **
/COM, **
/COM, ** Executable File Name: MATHCAD.EXE **
/COM, ** Output File Name: wvygls1.dat **
/COM, ** Execution Date: 05/08/95 **
/COM, ** Start Age (years): 0.0 **
/COM, ** Decay Period (years): 10000 **
/COM, ** Enrichment (kg Pu): N.A. **
/COM, ** Burnup (MWd/MTM): N.A. **
/COM, ** Assembly Type: SR Pour Canisters **
/COM, ** Pu Fract. (kg Pu/KG HM):N.A. **
/COM, **
/COM, ** WVG(#,1) is the Pour Canister heat in Watts. **
/COM, ** WVG(#,0) is the time post emplacement in years. **
/COM, *****
*SET,WVG,
*DIM,WVG, TABLE,106,1,
WVG( 1,1)= 325.93, 325.86, 325.78, 325.70, 325.63, 325.55,
WVG( 7,1)= 325.48, 325.40, 325.33, 325.25, 325.17, 324.80,
WVG(13,1)= 324.42, 324.04, 323.66, 323.29, 322.91, 322.53,
WVG(19,1)= 322.16, 321.78, 321.41, 321.03, 320.66, 320.29,
WVG(25,1)= 319.91, 319.54, 319.17, 318.80, 318.43, 314.74,
WVG(31,1)= 311.10, 307.51, 303.95, 300.44, 296.97, 293.54,
WVG(37,1)= 290.15, 286.80, 283.50, 280.23, 277.00, 273.81,
WVG(43,1)= 270.66, 267.54, 264.47, 261.42, 258.42, 230.27,
WVG(49,1)= 205.31, 183.16, 163.50, 146.06, 130.58, 116.84,
WVG(55,1)= 104.64, 93.80, 84.18, 75.63, 68.03, 61.28,
WVG(61,1)= 55.28, 49.94, 45.19, 40.97, 37.21, 16.13,
WVG(67,1)= 9.190, 6.641, 5.502, 4.844, 4.371, 3.984,
WVG(73,1)= 3.648, 3.349, 3.081, 2.839, 2.620, 2.423,
WVG(79,1)= 2.244, 2.082, 1.936, 1.804, 1.684, 0.9627,
WVG(85,1)= 0.6893, 0.5783, 0.5263, 0.4956, 0.4727, 0.4526,
WVG(91,1)= 0.4335, 0.4148, 0.3962, 0.3776, 0.3591, 0.3406,
WVG(97,1)= 0.3221, 0.3036, 0.2851, 0.2666, 0.2480, 0.1800,
WVG(103,1)= 0.0800, 0.0400, 0.0400, 0.0300,
WVG( 1,0)= 0.000001, 0.01, 0.02, 0.03, 0.04, 0.05,
WVG( 7,0)= 0.06, 0.07, 0.08, 0.09, 0.10, 0.15,
WVG(13,0)= 0.20, 0.25, 0.30, 0.35, 0.40, 0.45,
WVG(19,0)= 0.50, 0.55, 0.60, 0.65, 0.70, 0.75,
WVG(25,0)= 0.80, 0.85, 0.90, 0.95, 1.00, 1.50,
WVG(31,0)= 2.00, 2.50, 3.00, 3.50, 4.00, 4.50,
WVG(37,0)= 5.00, 5.50, 6.00, 6.50, 7.00, 7.50,
WVG(43,0)= 8.00, 8.50, 9.00, 9.50, 10.00, 15.00,
WVG(49,0)= 20.00, 25.00, 30.00, 35.00, 40.00, 45.00,
WVG(55,0)= 50.00, 55.00, 60.00, 65.00, 70.00, 75.00,
WVG(61,0)= 80.00, 85.00, 90.00, 95.00, 100.00, 150.00,
WVG(67,0)= 200.00, 250.00, 300.00, 350.00, 400.00, 450.00,
WVG(73,0)= 500.00, 550.00, 600.00, 650.00, 700.00, 750.00,
WVG(79,0)= 800.00, 850.00, 900.00, 950.00, 1000.00, 1500.00,
WVG(85,0)= 2000.00, 2500.00, 3000.00, 3500.00, 4000.00, 4500.00,
WVG(91,0)= 5000.00, 5500.00, 6000.00, 6500.00, 7000.00, 7500.00,
WVG(97,0)= 8000.00, 8500.00, 9000.00, 9500.00, 10000.00, 20000.00,
WVG(103,0)= 50000.00, 100000.00, 500000.00, 1000000.00,
WVG( 0,1)=1.0
/COM, *****
/EOF

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INPUT FILE LISTING:

#bins	Input_file	Output_file	Case_title	Last_delivery
0	case1.wsm	case1.out	W1:yff10_7dpc_isf_63	2045
Type	Cap	Hmin	Hmax	Kmin
				Kmax

OUTPUT FILE LISTING:

W1:yff10_7dpc_isf_63
Standard Table

BWR Heat Percentiles

Watts/Assy	Assy	Cum. Assy	Percent
10	660	660	0.53
20	1215	1875	1.51
30	1360	3235	2.60
40	2312	5547	4.46
50	2327	7874	6.34
60	2532	10406	8.37
70	3938	14344	11.54
80	5031	19375	15.59
90	8664	28039	22.56
100	7986	36025	28.99
110	5512	41537	33.43
120	4102	45639	36.73
130	3293	48932	39.38
140	3653	52585	42.32
150	4381	56966	45.84
160	6299	63265	50.91
170	6253	69518	55.94
180	4627	74145	59.66
190	3047	77192	62.12
200	2976	80168	64.51
210	2887	83055	66.83
220	2128	85183	68.55
230	1738	86921	69.95
240	1496	88417	71.15
250	1143	89560	72.07
260	1784	91344	73.51
270	5274	96618	77.75
280	2793	99411	80.00
290	3574	102985	82.87
300	2875	105860	85.19
310	3249	109109	87.80
320	2370	111479	89.71
330	3561	115040	92.57
340	2571	117611	94.64
350	4557	122168	98.31
360	1899	124067	99.84
370	202	124269	100.00
380	0	124269	100.00
390	0	124269	100.00
400	0	124269	100.00
410	0	124269	100.00
420	0	124269	100.00
430	0	124269	100.00
440	0	124269	100.00
450	0	124269	100.00
460	0	124269	100.00
470	0	124269	100.00
480	0	124269	100.00
490	0	124269	100.00
500	0	124269	100.00
510	0	124269	100.00
520	0	124269	100.00
530	0	124269	100.00
540	0	124269	100.00
550	0	124269	100.00

560	0	124269	100.00
570	0	124269	100.00
580	0	124269	100.00
590	0	124269	100.00
600	0	124269	100.00
610	0	124269	100.00
620	0	124269	100.00
630	0	124269	100.00
640	0	124269	100.00
650	0	124269	100.00
660	0	124269	100.00
670	0	124269	100.00
680	0	124269	100.00
690	0	124269	100.00
700	0	124269	100.00
710	0	124269	100.00
720	0	124269	100.00
730	0	124269	100.00
740	0	124269	100.00
750	0	124269	100.00
760	0	124269	100.00
770	0	124269	100.00
780	0	124269	100.00
790	0	124269	100.00
800	0	124269	100.00
810	0	124269	100.00
820	0	124269	100.00
830	0	124269	100.00
840	0	124269	100.00
850	0	124269	100.00
860	0	124269	100.00
870	0	124269	100.00
880	0	124269	100.00
890	0	124269	100.00
900	0	124269	100.00
910	0	124269	100.00
920	0	124269	100.00
930	0	124269	100.00
940	0	124269	100.00
950	0	124269	100.00
960	0	124269	100.00
970	0	124269	100.00
980	0	124269	100.00
990	0	124269	100.00
Above	0	124269	100.00

BWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	0	0	0.00
0.770	0	0	0.00
0.780	0	0	0.00
0.790	0	0	0.00
0.800	0	0	0.00
0.810	12	12	0.01
0.820	0	12	0.01
0.830	16	28	0.02
0.840	0	28	0.02
0.850	5	33	0.03
0.860	114	147	0.12
0.870	0	147	0.12
0.880	0	147	0.12
0.890	0	147	0.12
0.900	191	338	0.27
0.910	64	402	0.32
0.920	551	953	0.77
0.930	409	1362	1.10
0.940	895	2257	1.82
0.950	1194	3451	2.78
0.960	1804	5255	4.23

0.970	3411	8666	6.97
0.980	9837	18503	14.89
0.990	5294	23797	19.15
1.000	6790	30587	24.61
1.010	8974	39561	31.83
1.020	13113	52674	42.39
1.030	11558	64232	51.69
1.040	16455	80687	64.93
1.050	8441	89128	71.72
1.060	8722	97850	78.74
1.070	5570	103420	83.22
1.080	3008	106428	85.64
1.090	3736	110164	88.65
1.100	1965	112129	90.23
1.110	1435	113564	91.39
1.120	2098	115662	93.07
1.130	489	116151	93.47
1.140	1294	117445	94.51
1.150	499	117944	94.91
1.160	788	118732	95.54
1.170	292	119024	95.78
1.180	390	119414	96.09
1.190	203	119617	96.26
1.200	236	119853	96.45
1.210	289	120142	96.68
1.220	238	120380	96.87
1.230	171	120551	97.01
1.240	297	120848	97.25
1.250	442	121290	97.60
1.260	699	121989	98.17
1.270	262	122251	98.38
1.280	173	122424	98.52
1.290	118	122542	98.61
1.300	262	122804	98.82
1.310	173	122977	98.96
1.320	138	123115	99.07
1.330	33	123148	99.10
1.340	19	123167	99.11
1.350	31	123198	99.14
1.360	35	123233	99.17
1.370	43	123276	99.20
1.380	440	123716	99.55
1.390	25	123741	99.58
1.400	19	123760	99.59
1.410	451	124211	99.95
1.420	16	124227	99.97
1.430	3	124230	99.97
1.440	0	124230	99.97
1.450	1	124231	99.97
1.460	5	124236	99.97
1.470	0	124236	99.97
1.480	3	124239	99.98
1.490	25	124264	100.00
1.500	0	124264	100.00
1.510	0	124264	100.00
1.520	0	124264	100.00
1.530	1	124265	100.00
1.540	4	124269	100.00
1.550	0	124269	100.00
1.560	0	124269	100.00
1.570	0	124269	100.00
1.580	0	124269	100.00
1.590	0	124269	100.00
Above	0	124269	100.00

PWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	28	28	0.03
20	15	43	0.05

30	16	59	0.06
40	90	149	0.16
50	56	205	0.22
60	67	272	0.29
70	144	416	0.44
80	170	586	0.62
90	252	838	0.88
100	307	1145	1.21
110	220	1365	1.44
120	606	1971	2.08
130	480	2451	2.58
140	726	3177	3.35
150	481	3658	3.86
160	737	4395	4.63
170	560	4955	5.22
180	791	5746	6.06
190	994	6740	7.11
200	829	7569	7.98
210	942	8511	8.97
220	1319	9830	10.36
230	1415	11245	11.86
240	1250	12495	13.17
250	1655	14150	14.92
260	1443	15593	16.44
270	1973	17566	18.52
280	1651	19217	20.26
290	1612	20829	21.96
300	1425	22254	23.46
310	1636	23890	25.19
320	1998	25888	27.29
330	1903	27791	29.30
340	1638	29429	31.03
350	1797	31226	32.92
360	2178	33404	35.22
370	2639	36043	38.00
380	1647	37690	39.74
390	1749	39439	41.58
400	2114	41553	43.81
410	2173	43726	46.10
420	1892	45618	48.10
430	1386	47004	49.56
440	2411	49415	52.10
450	1571	50986	53.76
460	1791	52777	55.64
470	1244	54021	56.96
480	1139	55160	58.16
490	794	55954	58.99
500	1056	57010	60.11
510	796	57806	60.95
520	577	58383	61.55
530	372	58755	61.95
540	624	59379	62.61
550	760	60139	63.41
560	838	60977	64.29
570	614	61591	64.94
580	771	62362	65.75
590	1514	63876	67.35
600	1621	65497	69.06
610	1382	66879	70.51
620	1029	67908	71.60
630	665	68573	72.30
640	1149	69722	73.51
650	1523	71245	75.12
660	865	72110	76.03
670	881	72991	76.96
680	1061	74052	78.08
690	1527	75579	79.69
700	2596	78175	82.42
710	2670	80845	85.24
720	982	81827	86.27

730	591	82418	86.90
740	586	83004	87.51
750	845	83849	88.40
760	642	84491	89.08
770	679	85170	89.80
780	548	85718	90.38
790	391	86109	90.79
800	689	86798	91.51
810	495	87293	92.04
820	619	87912	92.69
830	293	88205	93.00
840	561	88766	93.59
850	423	89189	94.03
860	498	89687	94.56
870	212	89899	94.78
880	237	90136	95.03
890	401	90537	95.46
900	178	90715	95.64
910	494	91209	96.16
920	241	91450	96.42
930	258	91708	96.69
940	467	92175	97.18
950	243	92418	97.44
960	218	92636	97.67
970	284	92920	97.97
980	405	93325	98.40
990	467	93792	98.89
1000	450	94242	99.36
1010	21	94263	99.38
1020	335	94598	99.74
1030	119	94717	99.86
1040	0	94717	99.86
1050	32	94749	99.90
1060	0	94749	99.90
1070	0	94749	99.90
1080	28	94777	99.93
1090	7	94784	99.93
1100	0	94784	99.93
1110	7	94791	99.94
1120	0	94791	99.94
1130	0	94791	99.94
1140	0	94791	99.94
1150	0	94791	99.94
1160	2	94793	99.94
1170	0	94793	99.94
1180	0	94793	99.94
1190	0	94793	99.94
1200	0	94793	99.94
1210	1	94794	99.94
1220	0	94794	99.94
1230	0	94794	99.94
1240	0	94794	99.94
1250	0	94794	99.94
1260	0	94794	99.94
1270	0	94794	99.94
1280	0	94794	99.94
1290	0	94794	99.94
1300	12	94806	99.96
1310	0	94806	99.96
1320	0	94806	99.96
1330	28	94834	99.99
1340	0	94834	99.99
1350	0	94834	99.99
1360	0	94834	99.99
1370	13	94847	100.00
1380	0	94847	100.00
1390	0	94847	100.00
1400	0	94847	100.00
1410	0	94847	100.00
1420	0	94847	100.00

1430	0	94847	100.00
1440	0	94847	100.00
1450	0	94847	100.00
1460	0	94847	100.00
1470	0	94847	100.00
1480	0	94847	100.00
1490	0	94847	100.00
1500	0	94847	100.00
1510	0	94847	100.00
1520	0	94847	100.00
1530	0	94847	100.00
1540	0	94847	100.00
1550	0	94847	100.00
1560	0	94847	100.00
1570	0	94847	100.00
1580	0	94847	100.00
1590	0	94847	100.00
1600	0	94847	100.00
1610	0	94847	100.00
1620	0	94847	100.00
1630	0	94847	100.00
1640	0	94847	100.00
1650	0	94847	100.00
1660	0	94847	100.00
1670	0	94847	100.00
1680	0	94847	100.00
1690	0	94847	100.00
1700	0	94847	100.00
1710	0	94847	100.00
1720	0	94847	100.00
1730	0	94847	100.00
1740	0	94847	100.00
1750	0	94847	100.00
1760	0	94847	100.00
1770	0	94847	100.00
1780	0	94847	100.00
1790	0	94847	100.00
1800	0	94847	100.00
1810	0	94847	100.00
1820	0	94847	100.00
1830	0	94847	100.00
1840	0	94847	100.00
1850	0	94847	100.00
1860	0	94847	100.00
1870	0	94847	100.00
1880	0	94847	100.00
1890	0	94847	100.00
1900	0	94847	100.00
1910	0	94847	100.00
1920	0	94847	100.00
1930	0	94847	100.00
1940	0	94847	100.00
1950	0	94847	100.00
1960	0	94847	100.00
1970	0	94847	100.00
1980	0	94847	100.00
1990	0	94847	100.00
Above	0	94847	100.00

PWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	5	5	0.01
0.770	0	5	0.01
0.780	0	5	0.01
0.790	0	5	0.01
0.800	0	5	0.01
0.810	11	16	0.02
0.820	0	16	0.02
0.830	0	16	0.02

0.840	1	17	0.02
0.850	1	18	0.02
0.860	1	19	0.02
0.870	19	38	0.04
0.880	40	78	0.08
0.890	15	93	0.10
0.900	27	120	0.13
0.910	92	212	0.22
0.920	309	521	0.55
0.930	319	840	0.89
0.940	789	1629	1.72
0.950	1680	3309	3.49
0.960	2016	5325	5.61
0.970	4362	9687	10.21
0.980	6303	15990	16.86
0.990	9506	25496	26.88
1.000	9953	35449	37.37
1.010	10885	46334	48.85
1.020	10851	57185	60.29
1.030	9346	66531	70.15
1.040	6907	73438	77.43
1.050	6927	80365	84.73
1.060	3157	83522	88.06
1.070	2194	85716	90.37
1.080	2005	87721	92.49
1.090	919	88640	93.46
1.100	1418	90058	94.95
1.110	1024	91082	96.03
1.120	688	91770	96.76
1.130	549	92319	97.33
1.140	421	92740	97.78
1.150	227	92967	98.02
1.160	301	93268	98.34
1.170	103	93371	98.44
1.180	112	93483	98.56
1.190	241	93724	98.82
1.200	132	93856	98.96
1.210	72	93928	99.03
1.220	18	93946	99.05
1.230	126	94072	99.18
1.240	149	94221	99.34
1.250	128	94349	99.47
1.260	62	94411	99.54
1.270	59	94470	99.60
1.280	35	94505	99.64
1.290	64	94569	99.71
1.300	82	94651	99.79
1.310	18	94669	99.81
1.320	60	94729	99.88
1.330	24	94753	99.90
1.340	44	94797	99.95
1.350	2	94799	99.95
1.360	4	94803	99.95
1.370	7	94810	99.96
1.380	0	94810	99.96
1.390	0	94810	99.96
1.400	0	94810	99.96
1.410	1	94811	99.96
1.420	0	94811	99.96
1.430	12	94823	99.97
1.440	0	94823	99.97
1.450	16	94839	99.99
1.460	8	94847	100.00
1.470	0	94847	100.00
1.480	0	94847	100.00
1.490	0	94847	100.00
1.500	0	94847	100.00
1.510	0	94847	100.00
1.520	0	94847	100.00
1.530	0	94847	100.00

1.540	0	94847	100.00
1.550	0	94847	100.00
1.560	0	94847	100.00
1.570	0	94847	100.00
1.580	0	94847	100.00
1.590	0	94847	100.00
Above	0	94847	100.00

Year	MTU	B Assy	P Assy
2010	289.94	572	420
2011	603.78	1584	747
2012	1211.75	2508	1742
2013	1986.60	3256	3207
2014	2998.60	5837	4569
2015	2999.74	5345	4698
2016	2994.44	5961	4434
2017	3017.16	5323	4686
2018	2994.21	5890	4456
2019	3012.98	5367	4651
2020	3016.49	5676	4557
2021	2987.63	5720	4452
2022	3004.32	5456	4641
2023	3001.55	5368	4668
2024	2983.97	5720	4503
2025	3006.66	6838	4170
2026	3003.55	8293	3990
2027	3011.15	7168	4263
2028	2997.49	6621	4242
2029	2988.94	6005	4410
2030	3025.98	6070	4620
2031	2984.02	5081	4872
2032	3011.56	5035	4977
2033	1871.21	3575	2872
2034	0.00	0	0
2035	0.00	0	0
2036	0.00	0	0
2037	0.00	0	0
2038	0.00	0	0
2039	0.00	0	0
2040	0.00	0	0
2041	0.00	0	0
2042	0.00	0	0
2043	0.00	0	0
2044	0.00	0	0
2045	0.00	0	0

Average age = 26.636

JUNK FILE LISTING:

Nassy=1 burnup=1.87	kinf=1.529	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.45	kinf=1.536	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.53	kinf=1.535	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=1 burnup=6.38	kinf=1.455	Enrch=3.63	Dschg=1969	WEST VALLEY
Nassy=2 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=3 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=8 burnup=0.34	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.18	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.36	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.23	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=10 burnup=0.34	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (

Nassy=7 burnup=1.63 kinf=1.295 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=3 burnup=1.77 kinf=1.260 Enrch=1.93 Dschg=1971 GE MORRIS (

Nassy=3 burnup=1.31 kinf=1.299 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=6 burnup=1.86 kinf=1.291 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=4 burnup=1.48 kinf=1.297 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=2 burnup=1.46 kinf=1.298 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=6 burnup=1.00 kinf=1.305 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=2 burnup=1.09 kinf=1.303 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=3 burnup=1.27 kinf=1.300 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=1 burnup=1.27 kinf=1.300 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=3 burnup=0.86 kinf=1.307 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=1 burnup=1.28 kinf=1.300 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=2 burnup=1.32 kinf=1.275 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=1 burnup=1.11 kinf=1.302 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=5 burnup=1.42 kinf=1.298 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=6 burnup=1.23 kinf=1.301 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=11 burnup=1.34 kinf=1.300 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=2 burnup=1.88 kinf=1.291 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=3 burnup=1.88 kinf=1.291 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=4 burnup=1.15 kinf=1.302 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=8 burnup=1.44 kinf=1.298 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=20 burnup=1.85 kinf=1.291 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=1 burnup=0.86 kinf=1.291 Enrch=2.04 Dschg=1971 GE MORRIS (

Nassy=1 burnup=1.62 kinf=1.265 Enrch=1.96 Dschg=1971 GE MORRIS (

Nassy=1 burnup=1.64 kinf=1.264 Enrch=1.95 Dschg=1971 GE MORRIS (

Nassy=1 burnup=1.83 kinf=1.292 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=2 burnup=1.83 kinf=1.292 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=2 burnup=1.13 kinf=1.303 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=18 burnup=1.63 kinf=1.295 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=6 burnup=1.63 kinf=1.295 Enrch=2.13 Dschg=1971 GE MORRIS (

Nassy=2 burnup=1.78 kinf=1.260 Enrch=1.94 Dschg=1971 GE MORRIS (

Nassy=2 burnup=9.28 kinf=1.410 Enrch=3.63 Dschg=1971 GE MORRIS (

Nassy=1 burnup=4.99 kinf=1.478 Enrch=3.63 Dschg=1971 GE MORRIS (

Nassy=1 burnup=8.24 kinf=1.426 Enrch=3.63 Dschg=1971 GE MORRIS (

Nassy=1 burnup=9.23 kinf=1.411 Enrch=3.63 Dschg=1971 GE MORRIS (

Nassy=1 burnup=1.53 kinf=1.318 Enrch=2.26 Dschg=1971 GE MORRIS (

Nassy=1 burnup=4.49 kinf=1.250 Enrch=2.11 Dschg=1971 OYSTER CRK

Nassy=1 burnup=3.27 kinf=1.212 Enrch=1.78 Dschg=1972 GE MORRIS (

Nassy=22 burnup=4.52 kinf=1.253 Enrch=2.13 Dschg=1972 GE MORRIS (

Nassy=13 burnup=4.52 kinf=1.253 Enrch=2.13 Dschg=1972 GE MORRIS (

Nassy=25 burnup=4.52 kinf=1.253 Enrch=2.13 Dschg=1972 GE MORRIS (

Nassy=19 burnup=3.43 kinf=1.269 Enrch=2.13 Dschg=1972 GE MORRIS (

Nassy=4 burnup=3.43 kinf=1.269 Enrch=2.13 Dschg=1972 GE MORRIS (

Nassy=19 burnup=3.43 kinf=1.269 Enrch=2.13 Dschg=1972 GE MORRIS (

Nassy=4 burnup=3.43 kinf=1.269 Enrch=2.13 Dschg=1972 GE MORRIS (

Nassy=13 burnup=3.81 kinf=1.227 Enrch=1.83 Dschg=1972 GE MORRIS (

Nassy=12 burnup=2.81 kinf=1.227 Enrch=1.83 Dschg=1972 GE MORRIS (

Nassy=10 burnup=3.13 kinf=1.217 Enrch=1.80 Dschg=1972 GE MORRIS (

Nassy=5 burnup=3.87 kinf=1.195 Enrch=1.73 Dschg=1972 GE MORRIS (

Nassy=21 burnup=3.87 kinf=1.195 Enrch=1.73 Dschg=1972 GE MORRIS (

Nassy=4 burnup=3.87 kinf=1.195 Enrch=1.73 Dschg=1972 GE MORRIS (

Nassy=19 burnup=4.14 kinf=1.258 Enrch=2.13 Dschg=1972 GE MORRIS (

Nassy=38 burnup=4.14 kinf=1.258 Enrch=2.13 Dschg=1972 GE MORRIS (

Nassy=6 burnup=4.14 kinf=1.258 Enrch=2.13 Dschg=1972 GE MORRIS (

Nassy=4 burnup=4.14 kinf=1.258 Enrch=2.13 Dschg=1972 GE MORRIS (

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Nassy=13 burnup=3.39 kinf=1.209 Enrch=1.77 Dschg=1972 GE MORRIS (

Nassy=5 burnup=3.34 kinf=1.269 Enrch=2.13 Dschg=1972 GE MORRIS (

Nassy=5 burnup=4.77 kinf=1.249 Enrch=2.13 Dschg=1972 GE MORRIS (

Nassy=3	burnup=3.84	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=2	burnup=3.84	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=1	burnup=3.28	kinf=1.271	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=1	burnup=2.73	kinf=1.279	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=7	burnup=4.69	kinf=1.250	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=16	burnup=4.69	kinf=1.250	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=9	burnup=4.31	kinf=1.182	Enrch=1.69	Dschg=1972	GE MORRIS (
Nassy=14	burnup=4.31	kinf=1.182	Enrch=1.69	Dschg=1972	GE MORRIS (
Nassy=10	burnup=3.12	kinf=1.273	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=12	burnup=3.60	kinf=1.203	Enrch=1.76	Dschg=1972	GE MORRIS (
Nassy=1	burnup=3.60	kinf=1.203	Enrch=1.76	Dschg=1972	GE MORRIS (
Nassy=4	burnup=2.84	kinf=1.277	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=4	burnup=4.38	kinf=1.254	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=44	burnup=4.38	kinf=1.254	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=7	burnup=4.38	kinf=1.254	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=1	burnup=3.91	kinf=1.261	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=2	burnup=3.91	kinf=1.261	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=21	burnup=3.79	kinf=1.263	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=13	burnup=3.77	kinf=1.264	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=25	burnup=3.77	kinf=1.264	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=19	burnup=3.77	kinf=1.264	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=2	burnup=3.77	kinf=1.264	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=24	burnup=4.39	kinf=1.179	Enrch=1.68	Dschg=1972	GE MORRIS (
Nassy=14	burnup=4.64	kinf=1.172	Enrch=1.66	Dschg=1972	GE MORRIS (
Nassy=1	burnup=8.59	kinf=1.421	Enrch=3.63	Dschg=1972	WEST VALLEY
Nassy=1	burnup=9.12	kinf=1.413	Enrch=3.63	Dschg=1972	WEST VALLEY
Nassy=1	burnup=8.73	kinf=1.419	Enrch=3.63	Dschg=1972	WEST VALLEY
Nassy=2	burnup=4.86	kinf=1.239	Enrch=2.08	Dschg=1972	MILLSTONE
Nassy=4	burnup=6.45	kinf=1.454	Enrch=3.63	Dschg=1973	WEST VALLEY
Nassy=1	burnup=8.75	kinf=1.418	Enrch=3.63	Dschg=1973	WEST VALLEY
Nassy=1	burnup=7.35	kinf=1.440	Enrch=3.63	Dschg=1973	WEST VALLEY
Nassy=1	burnup=3.88	kinf=1.262	Enrch=2.13	Dschg=1973	DRESDEN
Nassy=2	burnup=4.96	kinf=1.246	Enrch=2.13	Dschg=1973	DRESDEN
Nassy=1	burnup=1.05	kinf=1.365	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=3	burnup=0.97	kinf=1.366	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=5	burnup=4.32	kinf=1.315	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1	burnup=0.99	kinf=1.366	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=12	burnup=4.39	kinf=1.315	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=2	burnup=4.39	kinf=1.315	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=7	burnup=4.39	kinf=1.315	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=2	burnup=4.00	kinf=1.320	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=5	burnup=4.05	kinf=1.320	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=4	burnup=1.16	kinf=1.364	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=6	burnup=4.66	kinf=1.311	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1	burnup=0.99	kinf=1.366	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1	burnup=4.69	kinf=1.310	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=4	burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1	burnup=8.77	kinf=1.418	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1	burnup=9.10	kinf=1.413	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=3	burnup=9.10	kinf=1.413	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1	burnup=3.97	kinf=1.271	Enrch=2.19	Dschg=1973	PILGRIM
Nassy=1	burnup=2.63	kinf=1.290	Enrch=2.19	Dschg=1973	PILGRIM
Nassy=1	burnup=8.95	kinf=1.415	Enrch=3.63	Dschg=1974	WEST VALLEY
Nassy=1	burnup=8.15	kinf=1.428	Enrch=3.63	Dschg=1974	WEST VALLEY
Nassy=5	burnup=4.95	kinf=1.306	Enrch=2.50	Dschg=1974	VT YANKEE
Nassy=3	burnup=4.95	kinf=1.306	Enrch=2.50	Dschg=1974	VT YANKEE
Nassy=1	burnup=7.57	kinf=1.476	Enrch=3.92	Dschg=1975	LACROSSE
Nassy=1	burnup=3.71	kinf=1.263	Enrch=2.12	Dschg=1975	DUANE ARNOL
Nassy=1	burnup=3.78	kinf=1.280	Enrch=2.23	Dschg=1975	DRESDEN
Nassy=1	burnup=2.90	kinf=1.273	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=1	burnup=3.30	kinf=1.267	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=2	burnup=2.43	kinf=1.105	Enrch=1.11	Dschg=1976	BRUNSWICK
Nassy=2	burnup=3.05	kinf=1.320	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=3.30	kinf=1.315	Enrch=2.40	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=2.43	kinf=1.329	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=2.43	kinf=1.329	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=2.69	kinf=1.325	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=3.89	kinf=1.308	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=4.34	kinf=1.301	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1	burnup=1.31	kinf=1.346	Enrch=2.41	Dschg=1976	HUMBOLDT BA

Nassy=1	burnup=12.04	kinf=1.407	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1	burnup=12.30	kinf=1.403	Enrch=3.93	Dschg=1977	LACROSSE
Nassy=1	burnup=7.61	kinf=1.476	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1	burnup=12.42	kinf=1.401	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=5	burnup=3.65	kinf=1.282	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=3.08	kinf=1.291	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=4.00	kinf=1.277	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=21	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=5	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=1	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=22	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=3.58	kinf=1.019	Enrch=0.72	Dschg=1980	HATCH
Nassy=10	burnup=1.89	kinf=1.041	Enrch=0.72	Dschg=1980	HATCH
Nassy=6	burnup=1.89	kinf=1.041	Enrch=0.72	Dschg=1980	HATCH
Nassy=8	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=20	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=10	burnup=2.83	kinf=1.028	Enrch=0.72	Dschg=1980	HATCH
Nassy=6	burnup=2.83	kinf=1.028	Enrch=0.72	Dschg=1980	HATCH
Nassy=8	burnup=4.31	kinf=1.009	Enrch=0.72	Dschg=1980	HATCH
Nassy=4	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1980	HATCH
Nassy=5	burnup=3.15	kinf=1.024	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=3	burnup=3.15	kinf=1.024	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8	burnup=4.11	kinf=1.012	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=33	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=12	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=3	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8	burnup=2.96	kinf=1.027	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8	burnup=2.22	kinf=1.038	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=14	burnup=2.86	kinf=1.030	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=3	burnup=3.07	kinf=1.027	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=5	burnup=3.07	kinf=1.027	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=31	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=11	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=16	burnup=1.77	kinf=1.044	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=4	burnup=3.28	kinf=1.024	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=22	burnup=4.17	kinf=1.013	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=4	burnup=4.17	kinf=1.013	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=8	burnup=3.09	kinf=1.026	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=8	burnup=2.76	kinf=1.030	Enrch=0.72	Dschg=1986	SUSQUEHANNA
Nassy=12	burnup=3.50	kinf=1.020	Enrch=0.72	Dschg=1986	SUSQUEHANNA
Nassy=7	burnup=3.98	kinf=1.015	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=15	burnup=3.98	kinf=1.015	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=15	burnup=5.00	kinf=1.487	Enrch=3.70	Dschg=1987	LACROSSE
Nassy=8	burnup=5.00	kinf=1.487	Enrch=3.70	Dschg=1987	LACROSSE
Nassy=1	burnup=5.00	kinf=1.488	Enrch=3.71	Dschg=1987	LACROSSE
Nassy=37	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=7	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=32	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=6	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=2	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=9	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=35	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=9	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=31	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=28	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=2	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=42	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=2	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=18	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=4	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	SUSQUEHANNA
Nassy=41	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=38	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=6	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=7	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=1	burnup=1.97	kinf=1.483	Enrch=3.34	Dschg=1994	RVR BEND
Nassy=8	burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=25	burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=19	burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P

Nassy=25 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
Nassy=19 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
Nassy=25 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
Nassy=19 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
Nassy=25 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
Nassy=11 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
Nassy=4 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
Nassy=12 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
Nassy=32 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
Nassy=12 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
Nassy=20 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
age=9 , mass= 2.166000
age=9 , mass= 0.722000
age=9 , mass= 5.776000
Nassy=32 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
Nassy=132 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
Nassy=25 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
Nassy=3 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM

INPUT FILE LISTING:

#bins	Input_file	Output_file	Case_title	Last_delivery
0	case2.wsm	case2.out	W2:yff10_2dpc_isf_63	2045
Type	Cap	Hmin	Hmax	Kmin
				Kmax

OUTPUT FILE LISTING:

W2:yff10_2dpc_isf_63
Standard Table

BWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	635	635	0.51
20	1212	1847	1.47
30	1194	3041	2.42
40	2094	5135	4.09
50	2113	7248	5.77
60	2617	9865	7.86
70	3163	13028	10.38
80	4596	17624	14.04
90	7502	25126	20.01
100	7938	33064	26.34
110	5619	38683	30.81
120	4290	42973	34.23
130	3123	46096	36.72
140	4341	50437	40.18
150	4242	54679	43.55
160	6611	61290	48.82
170	6188	67478	53.75
180	4625	72103	57.43
190	2734	74837	59.61
200	2872	77709	61.90
210	2694	80403	64.05
220	2063	82466	65.69
230	1209	83675	66.65
240	1706	85381	68.01
250	1626	87007	69.31
260	1588	88595	70.57
270	5184	93779	74.70
280	3127	96906	77.19
290	2848	99754	79.46
300	3395	103149	82.16
310	3867	107016	85.24
320	3910	110926	88.36
330	3837	114763	91.41
340	3774	118537	94.42
350	4960	123497	98.37
360	1951	125448	99.93
370	93	125541	100.00
380	0	125541	100.00
390	0	125541	100.00
400	0	125541	100.00
410	0	125541	100.00
420	0	125541	100.00
430	0	125541	100.00
440	0	125541	100.00
450	0	125541	100.00
460	0	125541	100.00
470	0	125541	100.00
480	0	125541	100.00
490	0	125541	100.00
500	0	125541	100.00
510	0	125541	100.00
520	0	125541	100.00
530	0	125541	100.00
540	0	125541	100.00
550	0	125541	100.00

560	0	125541	100.00
570	0	125541	100.00
580	0	125541	100.00
590	0	125541	100.00
600	0	125541	100.00
610	0	125541	100.00
620	0	125541	100.00
630	0	125541	100.00
640	0	125541	100.00
650	0	125541	100.00
660	0	125541	100.00
670	0	125541	100.00
680	0	125541	100.00
690	0	125541	100.00
700	0	125541	100.00
710	0	125541	100.00
720	0	125541	100.00
730	0	125541	100.00
740	0	125541	100.00
750	0	125541	100.00
760	0	125541	100.00
770	0	125541	100.00
780	0	125541	100.00
790	0	125541	100.00
800	0	125541	100.00
810	0	125541	100.00
820	0	125541	100.00
830	0	125541	100.00
840	0	125541	100.00
850	0	125541	100.00
860	0	125541	100.00
870	0	125541	100.00
880	0	125541	100.00
890	0	125541	100.00
900	0	125541	100.00
910	0	125541	100.00
920	0	125541	100.00
930	0	125541	100.00
940	0	125541	100.00
950	0	125541	100.00
960	0	125541	100.00
970	0	125541	100.00
980	0	125541	100.00
990	0	125541	100.00
Above	0	125541	100.00

BWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	0	0	0.00
0.770	0	0	0.00
0.780	0	0	0.00
0.790	0	0	0.00
0.800	0	0	0.00
0.810	12	12	0.01
0.820	0	12	0.01
0.830	16	28	0.02
0.840	0	28	0.02
0.850	5	33	0.03
0.860	110	143	0.11
0.870	0	143	0.11
0.880	0	143	0.11
0.890	0	143	0.11
0.900	175	318	0.25
0.910	72	390	0.31
0.920	561	951	0.76
0.930	352	1303	1.04
0.940	1145	2448	1.95
0.950	1157	3605	2.87
0.960	1838	5443	4.34

0.970	3474	8917	7.10
0.980	10398	19315	15.39
0.990	5676	24991	19.91
1.000	7106	32097	25.57
1.010	9016	41113	32.75
1.020	12852	53965	42.99
1.030	11275	65240	51.97
1.040	16472	81712	65.09
1.050	8643	90355	71.97
1.060	8105	98460	78.43
1.070	4904	103364	82.33
1.080	2665	106029	84.46
1.090	3422	109451	87.18
1.100	1860	111311	88.67
1.110	1188	112499	89.61
1.120	1982	114481	91.19
1.130	450	114931	91.55
1.140	1248	116179	92.54
1.150	456	116635	92.91
1.160	712	117347	93.47
1.170	506	117853	93.88
1.180	548	118401	94.31
1.190	331	118732	94.58
1.200	197	118929	94.73
1.210	453	119382	95.09
1.220	235	119617	95.28
1.230	115	119732	95.37
1.240	175	119907	95.51
1.250	816	120723	96.16
1.260	670	121393	96.70
1.270	550	121943	97.13
1.280	141	122084	97.25
1.290	644	122728	97.76
1.300	374	123102	98.06
1.310	165	123267	98.19
1.320	100	123367	98.27
1.330	142	123509	98.38
1.340	176	123685	98.52
1.350	247	123932	98.72
1.360	35	123967	98.75
1.370	65	124032	98.80
1.380	588	124620	99.27
1.390	133	124753	99.37
1.400	125	124878	99.47
1.410	451	125329	99.83
1.420	16	125345	99.84
1.430	3	125348	99.85
1.440	0	125348	99.85
1.450	154	125502	99.97
1.460	5	125507	99.97
1.470	1	125508	99.97
1.480	3	125511	99.98
1.490	25	125536	100.00
1.500	0	125536	100.00
1.510	0	125536	100.00
1.520	0	125536	100.00
1.530	1	125537	100.00
1.540	4	125541	100.00
1.550	0	125541	100.00
1.560	0	125541	100.00
1.570	0	125541	100.00
1.580	0	125541	100.00
1.590	0	125541	100.00
Above	0	125541	100.00

PWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	28	28	0.03
20	15	43	0.05

30	22	65	0.07
40	90	155	0.16
50	73	228	0.24
60	109	337	0.36
70	166	503	0.53
80	163	666	0.70
90	281	947	1.00
100	264	1211	1.28
110	189	1400	1.48
120	401	1801	1.90
130	565	2366	2.50
140	426	2792	2.95
150	386	3178	3.36
160	757	3935	4.16
170	615	4550	4.81
180	750	5300	5.60
190	871	6171	6.52
200	814	6985	7.38
210	888	7873	8.32
220	920	8793	9.29
230	1043	9836	10.39
240	1088	10924	11.54
250	1521	12445	13.15
260	1262	13707	14.48
270	1977	15684	16.57
280	1775	17459	18.45
290	1540	18999	20.08
300	1412	20411	21.57
310	1529	21940	23.18
320	1880	23820	25.17
330	2030	25850	27.32
340	1707	27557	29.12
350	1688	29245	30.90
360	2320	31565	33.36
370	2497	34062	35.99
380	1767	35829	37.86
390	1763	37592	39.72
400	2092	39684	41.94
410	2121	41805	44.18
420	1683	43488	45.96
430	1381	44869	47.41
440	2470	47339	50.02
450	1499	48838	51.61
460	1758	50596	53.47
470	1331	51927	54.87
480	1054	52981	55.99
490	787	53768	56.82
500	818	54586	57.68
510	755	55341	58.48
520	800	56141	59.33
530	564	56705	59.92
540	735	57440	60.70
550	864	58304	61.61
560	801	59105	62.46
570	710	59815	63.21
580	659	60474	63.91
590	1942	62416	65.96
600	1777	64193	67.84
610	1410	65603	69.33
620	984	66587	70.36
630	589	67176	70.99
640	1138	68314	72.19
650	1618	69932	73.90
660	839	70771	74.79
670	956	71727	75.80
680	1232	72959	77.10
690	2222	75181	79.45
700	3210	78391	82.84
710	3479	81870	86.51
720	677	82547	87.23

730	558	83105	87.82
740	610	83715	88.46
750	737	84452	89.24
760	548	85000	89.82
770	655	85655	90.51
780	619	86274	91.17
790	482	86756	91.68
800	498	87254	92.20
810	412	87666	92.64
820	508	88174	93.18
830	323	88497	93.52
840	453	88950	94.00
850	264	89214	94.28
860	420	89634	94.72
870	213	89847	94.94
880	228	90075	95.19
890	361	90436	95.57
900	199	90635	95.78
910	345	90980	96.14
920	258	91238	96.41
930	244	91482	96.67
940	433	91915	97.13
950	220	92135	97.36
960	248	92383	97.62
970	280	92663	97.92
980	391	93054	98.33
990	531	93585	98.89
1000	450	94035	99.37
1010	0	94035	99.37
1020	373	94408	99.76
1030	125	94533	99.90
1040	7	94540	99.90
1050	0	94540	99.90
1060	0	94540	99.90
1070	0	94540	99.90
1080	28	94568	99.93
1090	0	94568	99.93
1100	0	94568	99.93
1110	7	94575	99.94
1120	0	94575	99.94
1130	0	94575	99.94
1140	0	94575	99.94
1150	0	94575	99.94
1160	2	94577	99.94
1170	0	94577	99.94
1180	0	94577	99.94
1190	0	94577	99.94
1200	0	94577	99.94
1210	1	94578	99.94
1220	0	94578	99.94
1230	0	94578	99.94
1240	0	94578	99.94
1250	0	94578	99.94
1260	0	94578	99.94
1270	0	94578	99.94
1280	0	94578	99.94
1290	0	94578	99.94
1300	25	94603	99.97
1310	0	94603	99.97
1320	0	94603	99.97
1330	28	94631	100.00
1340	0	94631	100.00
1350	0	94631	100.00
1360	0	94631	100.00
1370	0	94631	100.00
1380	0	94631	100.00
1390	0	94631	100.00
1400	0	94631	100.00
1410	0	94631	100.00
1420	0	94631	100.00

1430	0	94631	100.00
1440	0	94631	100.00
1450	0	94631	100.00
1460	0	94631	100.00
1470	0	94631	100.00
1480	0	94631	100.00
1490	0	94631	100.00
1500	0	94631	100.00
1510	0	94631	100.00
1520	0	94631	100.00
1530	0	94631	100.00
1540	0	94631	100.00
1550	0	94631	100.00
1560	0	94631	100.00
1570	0	94631	100.00
1580	0	94631	100.00
1590	0	94631	100.00
1600	0	94631	100.00
1610	0	94631	100.00
1620	0	94631	100.00
1630	0	94631	100.00
1640	0	94631	100.00
1650	0	94631	100.00
1660	0	94631	100.00
1670	0	94631	100.00
1680	0	94631	100.00
1690	0	94631	100.00
1700	0	94631	100.00
1710	0	94631	100.00
1720	0	94631	100.00
1730	0	94631	100.00
1740	0	94631	100.00
1750	0	94631	100.00
1760	0	94631	100.00
1770	0	94631	100.00
1780	0	94631	100.00
1790	0	94631	100.00
1800	0	94631	100.00
1810	0	94631	100.00
1820	0	94631	100.00
1830	0	94631	100.00
1840	0	94631	100.00
1850	0	94631	100.00
1860	0	94631	100.00
1870	0	94631	100.00
1880	0	94631	100.00
1890	0	94631	100.00
1900	0	94631	100.00
1910	0	94631	100.00
1920	0	94631	100.00
1930	0	94631	100.00
1940	0	94631	100.00
1950	0	94631	100.00
1960	0	94631	100.00
1970	0	94631	100.00
1980	0	94631	100.00
1990	0	94631	100.00
Above	0	94631	100.00

PWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	5	5	0.01
0.770	0	5	0.01
0.780	0	5	0.01
0.790	0	5	0.01
0.800	0	5	0.01
0.810	0	5	0.01
0.820	4	9	0.01
0.830	11	20	0.02

0.840	21	41	0.04
0.850	84	125	0.13
0.860	2	127	0.13
0.870	19	146	0.15
0.880	40	186	0.20
0.890	16	202	0.21
0.900	27	229	0.24
0.910	107	336	0.36
0.920	292	628	0.66
0.930	290	918	0.97
0.940	815	1733	1.83
0.950	1544	3277	3.46
0.960	1928	5205	5.50
0.970	4249	9454	9.99
0.980	6057	15511	16.39
0.990	9662	25173	26.60
1.000	10152	35325	37.33
1.010	10397	45722	48.32
1.020	11105	56827	60.05
1.030	8563	65390	69.10
1.040	6972	72362	76.47
1.050	7336	79698	84.22
1.060	3175	82873	87.57
1.070	2146	85019	89.84
1.080	2085	87104	92.05
1.090	1109	88213	93.22
1.100	1153	89366	94.44
1.110	902	90268	95.39
1.120	678	90946	96.11
1.130	565	91511	96.70
1.140	385	91896	97.11
1.150	222	92118	97.34
1.160	387	92505	97.75
1.170	297	92802	98.07
1.180	140	92942	98.22
1.190	314	93256	98.55
1.200	161	93417	98.72
1.210	112	93529	98.84
1.220	41	93570	98.88
1.230	127	93697	99.01
1.240	167	93864	99.19
1.250	119	93983	99.32
1.260	72	94055	99.39
1.270	124	94179	99.52
1.280	68	94247	99.59
1.290	48	94295	99.64
1.300	102	94397	99.75
1.310	24	94421	99.78
1.320	84	94505	99.87
1.330	16	94521	99.88
1.340	44	94565	99.93
1.350	14	94579	99.95
1.360	4	94583	99.95
1.370	11	94594	99.96
1.380	0	94594	99.96
1.390	0	94594	99.96
1.400	0	94594	99.96
1.410	1	94595	99.96
1.420	0	94595	99.96
1.430	12	94607	99.97
1.440	0	94607	99.97
1.450	16	94623	99.99
1.460	8	94631	100.00
1.470	0	94631	100.00
1.480	0	94631	100.00
1.490	0	94631	100.00
1.500	0	94631	100.00
1.510	0	94631	100.00
1.520	0	94631	100.00
1.530	0	94631	100.00

1.540	0	94631	100.00
1.550	0	94631	100.00
1.560	0	94631	100.00
1.570	0	94631	100.00
1.580	0	94631	100.00
1.590	0	94631	100.00
Above	0	94631	100.00

Year	MTU	B Assy	P Assy
2010	297.27	220	588
2011	595.81	968	981
2012	1204.54	2860	1593
2013	2007.63	3520	3156
2014	2997.04	5829	4575
2015	2985.90	5281	4716
2016	3008.15	6074	4431
2017	2989.11	5456	4593
2018	3007.35	6268	4335
2019	2995.55	5210	4770
2020	3010.15	5640	4605
2021	2996.94	6036	4404
2022	3002.08	5588	4591
2023	3001.98	4840	4923
2024	2990.67	6336	4290
2025	3022.65	6899	4054
2026	2985.65	8645	3822
2027	2990.07	6883	4305
2028	3003.34	6401	4347
2029	2998.93	6422	4263
2030	2994.76	5938	4620
2031	3006.40	5565	4704
2032	3000.78	5255	4851
2033	1945.04	3407	3114
2034	0.00	0	0
2035	0.00	0	0
2036	0.00	0	0
2037	0.00	0	0
2038	0.00	0	0
2039	0.00	0	0
2040	0.00	0	0
2041	0.00	0	0
2042	0.00	0	0
2043	0.00	0	0
2044	0.00	0	0
2045	0.00	0	0

Average age = 25.271

JUNK FILE LISTING:

Nassy=1	burnup=1.87	kinf=1.529	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2	burnup=1.45	kinf=1.536	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2	burnup=1.53	kinf=1.535	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=1	burnup=6.38	kinf=1.455	Enrch=3.63	Dschg=1969	WEST VALLEY
Nassy=2	burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.32	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=3	burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=4	burnup=0.34	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=4	burnup=0.34	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.18	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.36	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.23	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=10	burnup=0.34	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (

Nassy=7	burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.77	kinf=1.260	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.86	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.79	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8	burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=9	burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.34	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.66	kinf=1.270	Enrch=1.97	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.57	kinf=1.267	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.76	kinf=1.261	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.23	kinf=1.279	Enrch=2.00	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.46	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.09	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.27	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=1	burnup=1.11	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=4	burnup=1.34	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=2	burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=4	burnup=1.15	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8	burnup=1.44	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=20	burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=1	burnup=1.62	kinf=1.265	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.64	kinf=1.264	Enrch=1.95	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=16	burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=2	burnup=1.78	kinf=1.260	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=2	burnup=9.28	kinf=1.410	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=4.99	kinf=1.478	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=8.24	kinf=1.426	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=1.53	kinf=1.318	Enrch=2.26	Dschg=1971	DRESDEN
Nassy=1	burnup=4.49	kinf=1.250	Enrch=2.11	Dschg=1971	OYSTER CRK
Nassy=1	burnup=3.27	kinf=1.212	Enrch=1.78	Dschg=1972	GE MORRIS (
Nassy=22	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=21	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=11	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=6	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=3	burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=20	burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=4	burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=9	burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=12	burnup=2.81	kinf=1.227	Enrch=1.83	Dschg=1972	GE MORRIS (
Nassy=7	burnup=3.13	kinf=1.217	Enrch=1.80	Dschg=1972	GE MORRIS (
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Nassy=13	burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=13	burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (

Nassy=4 burnup=3.87	kinf=1.195 Enrch=1.73 Dschg=1972	GE MORRIS (
Nassy=27 burnup=4.14	kinf=1.258 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=1 burnup=4.14	kinf=1.258 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=23 burnup=4.14	kinf=1.258 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=6 burnup=4.14	kinf=1.258 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=10 burnup=4.14	kinf=1.258 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=4 burnup=4.62	kinf=1.173 Enrch=1.67 Dschg=1972	GE MORRIS (
Nassy=10 burnup=4.62	kinf=1.173 Enrch=1.67 Dschg=1972	GE MORRIS (
Nassy=8 burnup=3.39	kinf=1.209 Enrch=1.77 Dschg=1972	GE MORRIS (
Nassy=5 burnup=3.39	kinf=1.209 Enrch=1.77 Dschg=1972	GE MORRIS (
Nassy=5 burnup=3.34	kinf=1.269 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=5 burnup=4.77	kinf=1.249 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=5 burnup=3.84	kinf=1.195 Enrch=1.73 Dschg=1972	GE MORRIS (
Nassy=1 burnup=3.28	kinf=1.271 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=1 burnup=2.73	kinf=1.279 Enrch=2.13 Dschg=1972	GE MORRIS (
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Nassy=10 burnup=3.12	kinf=1.273 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=12 burnup=3.60	kinf=1.203 Enrch=1.76 Dschg=1972	GE MORRIS (
Nassy=1 burnup=3.60	kinf=1.203 Enrch=1.76 Dschg=1972	GE MORRIS (
Nassy=4 burnup=2.84	kinf=1.277 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=14 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=13 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
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Nassy=1 burnup=3.91	kinf=1.261 Enrch=2.13 Dschg=1972	GE MORRIS (
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Nassy=13 burnup=3.79	kinf=1.263 Enrch=2.13 Dschg=1972	GE MORRIS (
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Nassy=3 burnup=3.77	kinf=1.264 Enrch=2.13 Dschg=1972	GE MORRIS (
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Nassy=11 burnup=4.39	kinf=1.179 Enrch=1.68 Dschg=1972	GE MORRIS (
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Nassy=14 burnup=4.64	kinf=1.172 Enrch=1.66 Dschg=1972	GE MORRIS (
Nassy=1 burnup=8.59	kinf=1.421 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=1 burnup=9.12	kinf=1.413 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=1 burnup=8.73	kinf=1.419 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=2 burnup=4.86	kinf=1.239 Enrch=2.08 Dschg=1972	MILLSTONE
Nassy=4 burnup=6.45	kinf=1.454 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=8.75	kinf=1.418 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=7.35	kinf=1.440 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=3.88	kinf=1.262 Enrch=2.13 Dschg=1973	DRESDEN
Nassy=2 burnup=4.96	kinf=1.246 Enrch=2.13 Dschg=1973	DRESDEN
Nassy=4 burnup=9.23	kinf=1.411 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=1 burnup=8.77	kinf=1.418 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=1 burnup=9.10	kinf=1.413 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=3 burnup=9.10	kinf=1.413 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=1 burnup=3.97	kinf=1.271 Enrch=2.19 Dschg=1973	PILGRIM
Nassy=1 burnup=2.63	kinf=1.290 Enrch=2.19 Dschg=1973	PILGRIM
Nassy=1 burnup=8.95	kinf=1.415 Enrch=3.63 Dschg=1974	WEST VALLEY
Nassy=1 burnup=8.15	kinf=1.428 Enrch=3.63 Dschg=1974	WEST VALLEY
Nassy=1 burnup=7.57	kinf=1.476 Enrch=3.92 Dschg=1975	LACROSSE
Nassy=1 burnup=3.71	kinf=1.263 Enrch=2.12 Dschg=1975	DUANE ARNOL
Nassy=1 burnup=3.78	kinf=1.280 Enrch=2.23 Dschg=1975	DRESDEN
Nassy=1 burnup=4.80	kinf=1.467 Enrch=3.54 Dschg=1976	BIG ROCK
Nassy=1 burnup=2.90	kinf=1.273 Enrch=2.11 Dschg=1976	BRUNSWICK
Nassy=1 burnup=3.30	kinf=1.267 Enrch=2.11 Dschg=1976	BRUNSWICK
Nassy=2 burnup=2.43	kinf=1.105 Enrch=1.11 Dschg=1976	BRUNSWICK
Nassy=2 burnup=3.05	kinf=1.320 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=3.30	kinf=1.315 Enrch=2.40 Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=2.43	kinf=1.329 Enrch=2.41 Dschg=1976	HUMBOLDT BA

Nassy=2	burnup=2.43	kinf=1.329	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=2.69	kinf=1.325	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=3.89	kinf=1.308	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=4.34	kinf=1.301	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1	burnup=1.31	kinf=1.346	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1	burnup=12.04	kinf=1.407	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1	burnup=12.30	kinf=1.403	Enrch=3.93	Dschg=1977	LACROSSE
Nassy=1	burnup=7.61	kinf=1.476	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1	burnup=12.42	kinf=1.401	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=5	burnup=3.65	kinf=1.282	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=5	burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=1	burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=3.08	kinf=1.291	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=4.00	kinf=1.277	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=22	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=15	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=8	burnup=3.15	kinf=1.024	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8	burnup=4.11	kinf=1.012	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=19	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=7	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=10	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=12	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=2	burnup=2.96	kinf=1.027	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=6	burnup=2.96	kinf=1.027	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=3	burnup=2.22	kinf=1.038	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=5	burnup=2.22	kinf=1.038	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=14	burnup=2.86	kinf=1.030	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=8	burnup=3.07	kinf=1.027	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=8	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=14	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=12	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=8	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=6	burnup=1.77	kinf=1.044	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=10	burnup=1.77	kinf=1.044	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=4	burnup=3.28	kinf=1.024	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=13	burnup=4.17	kinf=1.013	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=11	burnup=4.17	kinf=1.013	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=2	burnup=4.17	kinf=1.013	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=6	burnup=3.09	kinf=1.026	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=2	burnup=3.09	kinf=1.026	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=8	burnup=2.76	kinf=1.030	Enrch=0.72	Dschg=1986	SUSQUEHANNA
Nassy=12	burnup=3.50	kinf=1.020	Enrch=0.72	Dschg=1986	SUSQUEHANNA
Nassy=14	burnup=3.98	kinf=1.015	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=6	burnup=3.98	kinf=1.015	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=2	burnup=3.98	kinf=1.015	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=33	burnup=3.35	kinf=1.022	Enrch=0.72	Dschg=1986	GRAND GULF
Nassy=8	burnup=3.35	kinf=1.022	Enrch=0.72	Dschg=1986	GRAND GULF
Nassy=36	burnup=3.35	kinf=1.022	Enrch=0.72	Dschg=1986	GRAND GULF
Nassy=11	burnup=3.35	kinf=1.022	Enrch=0.72	Dschg=1986	GRAND GULF
Nassy=4	burnup=3.35	kinf=1.022	Enrch=0.72	Dschg=1986	GRAND GULF
Nassy=15	burnup=5.00	kinf=1.487	Enrch=3.70	Dschg=1987	LACROSSE
Nassy=8	burnup=5.00	kinf=1.487	Enrch=3.70	Dschg=1987	LACROSSE
Nassy=1	burnup=5.00	kinf=1.488	Enrch=3.71	Dschg=1987	LACROSSE
Nassy=21	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=11	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=20	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=4	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=9	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=11	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=31	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=30	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=7	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=6	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=18	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=22	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P

Nassy=12	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=15	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=3	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=30	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=10	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=4	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	SUSQUEHANNA
Nassy=30	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=44	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=1	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=17	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=1	burnup=1.97	kinf=1.483	Enrch=3.34	Dschg=1994	RVR BEND
Nassy=4	burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=132	burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=32	burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=8	burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=11	burnup=7.59	kinf=1.400	Enrch=3.38	Dschg=2009	OYSTER CRK
Nassy=44	burnup=7.59	kinf=1.400	Enrch=3.38	Dschg=2009	OYSTER CRK
Nassy=25	burnup=7.59	kinf=1.400	Enrch=3.38	Dschg=2009	OYSTER CRK
Nassy=15	burnup=8.57	kinf=1.410	Enrch=3.56	Dschg=2012	PILGRIM
Nassy=132	burnup=8.57	kinf=1.410	Enrch=3.56	Dschg=2012	PILGRIM
Nassy=42	burnup=8.57	kinf=1.410	Enrch=3.56	Dschg=2012	PILGRIM
Nassy=3	burnup=8.57	kinf=1.410	Enrch=3.56	Dschg=2012	PILGRIM
Nassy=6	burnup=6.41	kinf=1.443	Enrch=3.55	Dschg=2012	QUAD CITIES
Nassy=88	burnup=6.41	kinf=1.443	Enrch=3.55	Dschg=2012	QUAD CITIES
Nassy=39	burnup=6.41	kinf=1.443	Enrch=3.55	Dschg=2012	QUAD CITIES
Nassy=5	burnup=6.41	kinf=1.443	Enrch=3.55	Dschg=2012	QUAD CITIES
Nassy=15	burnup=6.41	kinf=1.443	Enrch=3.55	Dschg=2012	QUAD CITIES

INPUT FILE LISTING:

#bins	Input_file	Output_file	Case_title	Last_delivery
0	case3.wsm	case3.out	W3:yff10_2dpc_noi_63	2045
Type	Cap	Hmin	Hmax	Kmin
				Kmax

OUTPUT FILE LISTING:

W3:yff10_2dpc_noi_63
Standard Table

BWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	479	479	0.38
20	1365	1844	1.47
30	1371	3215	2.56
40	2390	5605	4.47
50	2460	8065	6.43
60	2875	10940	8.72
70	4216	15156	12.08
80	4083	19239	15.33
90	4213	23452	18.69
100	4772	28224	22.49
110	3527	31751	25.30
120	3030	34781	27.72
130	2082	36863	29.38
140	2857	39720	31.65
150	3177	42897	34.18
160	3255	46152	36.78
170	3032	49184	39.19
180	2866	52050	41.48
190	2613	54663	43.56
200	3480	58143	46.33
210	3278	61421	48.95
220	3031	64452	51.36
230	3222	67674	53.93
240	5067	72741	57.97
250	3713	76454	60.92
260	3378	79832	63.62
270	7326	87158	69.45
280	4017	91175	72.66
290	5138	96313	76.75
300	2501	98814	78.74
310	3605	102419	81.62
320	4636	107055	85.31
330	3925	110980	88.44
340	4489	115469	92.02
350	6720	122189	97.37
360	2453	124642	99.33
370	250	124892	99.52
380	200	125092	99.68
390	264	125356	99.89
400	133	125489	100.00
410	0	125489	100.00
420	0	125489	100.00
430	0	125489	100.00
440	0	125489	100.00
450	0	125489	100.00
460	0	125489	100.00
470	0	125489	100.00
480	0	125489	100.00
490	0	125489	100.00
500	0	125489	100.00
510	0	125489	100.00
520	0	125489	100.00
530	0	125489	100.00
540	0	125489	100.00
550	0	125489	100.00

560	0	125489	100.00
570	0	125489	100.00
580	0	125489	100.00
590	0	125489	100.00
600	0	125489	100.00
610	0	125489	100.00
620	0	125489	100.00
630	0	125489	100.00
640	0	125489	100.00
650	0	125489	100.00
660	0	125489	100.00
670	0	125489	100.00
680	0	125489	100.00
690	0	125489	100.00
700	0	125489	100.00
710	0	125489	100.00
720	0	125489	100.00
730	0	125489	100.00
740	0	125489	100.00
750	0	125489	100.00
760	0	125489	100.00
770	0	125489	100.00
780	0	125489	100.00
790	0	125489	100.00
800	0	125489	100.00
810	0	125489	100.00
820	0	125489	100.00
830	0	125489	100.00
840	0	125489	100.00
850	0	125489	100.00
860	0	125489	100.00
870	0	125489	100.00
880	0	125489	100.00
890	0	125489	100.00
900	0	125489	100.00
910	0	125489	100.00
920	0	125489	100.00
930	0	125489	100.00
940	0	125489	100.00
950	0	125489	100.00
960	0	125489	100.00
970	0	125489	100.00
980	0	125489	100.00
990	0	125489	100.00
Above	0	125489	100.00

BWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	0	0	0.00
0.770	0	0	0.00
0.780	0	0	0.00
0.790	0	0	0.00
0.800	0	0	0.00
0.810	0	0	0.00
0.820	0	0	0.00
0.830	11	11	0.01
0.840	8	19	0.02
0.850	32	51	0.04
0.860	4	55	0.04
0.870	0	55	0.04
0.880	0	55	0.04
0.890	53	108	0.09
0.900	249	357	0.28
0.910	184	541	0.43
0.920	1061	1602	1.28
0.930	1377	2979	2.37
0.940	1648	4627	3.69
0.950	1251	5878	4.68
0.960	2607	8485	6.76

0.970	4694	13179	10.50
0.980	12455	25634	20.43
0.990	5620	31254	24.91
1.000	6677	37931	30.23
1.010	8632	46563	37.11
1.020	11783	58346	46.49
1.030	9609	67955	54.15
1.040	16059	84014	66.95
1.050	6607	90621	72.21
1.060	6169	96790	77.13
1.070	3833	100623	80.18
1.080	2334	102957	82.04
1.090	3178	106135	84.58
1.100	1657	107792	85.90
1.110	1227	109019	86.88
1.120	2052	111071	88.51
1.130	500	111571	88.91
1.140	1149	112720	89.82
1.150	947	113667	90.58
1.160	665	114332	91.11
1.170	1195	115527	92.06
1.180	573	116100	92.52
1.190	319	116419	92.77
1.200	269	116688	92.99
1.210	628	117316	93.49
1.220	238	117554	93.68
1.230	347	117901	93.95
1.240	345	118246	94.23
1.250	834	119080	94.89
1.260	645	119725	95.41
1.270	531	120256	95.83
1.280	387	120643	96.14
1.290	660	121303	96.66
1.300	377	121680	96.96
1.310	477	122157	97.34
1.320	138	122295	97.45
1.330	142	122437	97.57
1.340	370	122807	97.86
1.350	478	123285	98.24
1.360	35	123320	98.27
1.370	242	123562	98.46
1.380	793	124355	99.10
1.390	133	124488	99.20
1.400	125	124613	99.30
1.410	451	125064	99.66
1.420	16	125080	99.67
1.430	3	125083	99.68
1.440	92	125175	99.75
1.450	154	125329	99.87
1.460	127	125456	99.97
1.470	1	125457	99.97
1.480	3	125460	99.98
1.490	24	125484	100.00
1.500	0	125484	100.00
1.510	0	125484	100.00
1.520	0	125484	100.00
1.530	1	125485	100.00
1.540	4	125489	100.00
1.550	0	125489	100.00
1.560	0	125489	100.00
1.570	0	125489	100.00
1.580	0	125489	100.00
1.590	0	125489	100.00
Above	0	125489	100.00

PWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	8	8	0.01
20	31	39	0.04

30	18	57	0.06
40	31	88	0.09
50	115	203	0.21
60	90	293	0.31
70	108	401	0.42
80	161	562	0.59
90	276	838	0.88
100	200	1038	1.10
110	239	1277	1.35
120	450	1727	1.82
130	414	2141	2.26
140	527	2668	2.81
150	556	3224	3.40
160	531	3755	3.96
170	468	4223	4.45
180	909	5132	5.41
190	892	6024	6.35
200	789	6813	7.19
210	665	7478	7.89
220	979	8457	8.92
230	1249	9706	10.24
240	1115	10821	11.42
250	1083	11904	12.56
260	966	12870	13.58
270	1244	14114	14.89
280	965	15079	15.91
290	1426	16505	17.41
300	1068	17573	18.54
310	969	18542	19.56
320	945	19487	20.56
330	1054	20541	21.67
340	1262	21803	23.00
350	966	22769	24.02
360	885	23654	24.95
370	1117	24771	26.13
380	1548	26319	27.76
390	981	27300	28.80
400	1062	28362	29.92
410	1216	29578	31.20
420	1209	30787	32.48
430	820	31607	33.34
440	1173	32780	34.58
450	969	33749	35.60
460	1184	34933	36.85
470	690	35623	37.58
480	1177	36800	38.82
490	875	37675	39.74
500	1226	38901	41.04
510	1011	39912	42.10
520	1045	40957	43.21
530	1198	42155	44.47
540	1013	43168	45.54
550	1161	44329	46.76
560	1363	45692	48.20
570	852	46544	49.10
580	1061	47605	50.22
590	1870	49475	52.19
600	2332	51807	54.65
610	2125	53932	56.89
620	1644	55576	58.63
630	1346	56922	60.05
640	1530	58452	61.66
650	2805	61257	64.62
660	1588	62845	66.30
670	1626	64471	68.01
680	1681	66152	69.79
690	2704	68856	72.64
700	5514	74370	78.45
710	4753	79123	83.47
720	987	80110	84.51

730	448	80558	84.98
740	936	81494	85.97
750	1106	82600	87.14
760	754	83354	87.93
770	701	84055	88.67
780	985	85040	89.71
790	472	85512	90.21
800	430	85942	90.66
810	529	86471	91.22
820	509	86980	91.76
830	280	87260	92.05
840	300	87560	92.37
850	402	87962	92.79
860	310	88272	93.12
870	275	88547	93.41
880	179	88726	93.60
890	394	89120	94.01
900	512	89632	94.55
910	597	90229	95.18
920	340	90569	95.54
930	222	90791	95.78
940	673	91464	96.49
950	486	91950	97.00
960	361	92311	97.38
970	354	92665	97.75
980	381	93046	98.16
990	498	93544	98.68
1000	782	94326	99.51
1010	0	94326	99.51
1020	428	94754	99.96
1030	40	94794	100.00
1040	0	94794	100.00
1050	0	94794	100.00
1060	0	94794	100.00
1070	0	94794	100.00
1080	0	94794	100.00
1090	0	94794	100.00
1100	0	94794	100.00
1110	0	94794	100.00
1120	0	94794	100.00
1130	0	94794	100.00
1140	0	94794	100.00
1150	0	94794	100.00
1160	0	94794	100.00
1170	0	94794	100.00
1180	0	94794	100.00
1190	0	94794	100.00
1200	0	94794	100.00
1210	0	94794	100.00
1220	0	94794	100.00
1230	0	94794	100.00
1240	0	94794	100.00
1250	0	94794	100.00
1260	0	94794	100.00
1270	0	94794	100.00
1280	0	94794	100.00
1290	0	94794	100.00
1300	0	94794	100.00
1310	0	94794	100.00
1320	0	94794	100.00
1330	0	94794	100.00
1340	0	94794	100.00
1350	0	94794	100.00
1360	0	94794	100.00
1370	0	94794	100.00
1380	0	94794	100.00
1390	0	94794	100.00
1400	0	94794	100.00
1410	0	94794	100.00
1420	0	94794	100.00

1430	0	94794	100.00
1440	0	94794	100.00
1450	0	94794	100.00
1460	0	94794	100.00
1470	0	94794	100.00
1480	0	94794	100.00
1490	0	94794	100.00
1500	0	94794	100.00
1510	0	94794	100.00
1520	0	94794	100.00
1530	0	94794	100.00
1540	0	94794	100.00
1550	0	94794	100.00
1560	0	94794	100.00
1570	0	94794	100.00
1580	0	94794	100.00
1590	0	94794	100.00
1600	0	94794	100.00
1610	0	94794	100.00
1620	0	94794	100.00
1630	0	94794	100.00
1640	0	94794	100.00
1650	0	94794	100.00
1660	0	94794	100.00
1670	0	94794	100.00
1680	0	94794	100.00
1690	0	94794	100.00
1700	0	94794	100.00
1710	0	94794	100.00
1720	0	94794	100.00
1730	0	94794	100.00
1740	0	94794	100.00
1750	0	94794	100.00
1760	0	94794	100.00
1770	0	94794	100.00
1780	0	94794	100.00
1790	0	94794	100.00
1800	0	94794	100.00
1810	0	94794	100.00
1820	0	94794	100.00
1830	0	94794	100.00
1840	0	94794	100.00
1850	0	94794	100.00
1860	0	94794	100.00
1870	0	94794	100.00
1880	0	94794	100.00
1890	0	94794	100.00
1900	0	94794	100.00
1910	0	94794	100.00
1920	0	94794	100.00
1930	0	94794	100.00
1940	0	94794	100.00
1950	0	94794	100.00
1960	0	94794	100.00
1970	0	94794	100.00
1980	0	94794	100.00
1990	0	94794	100.00
Above	0	94794	100.00

PWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	4	4	0.00
0.770	0	4	0.00
0.780	0	4	0.00
0.790	0	4	0.00
0.800	0	4	0.00
0.810	0	4	0.00
0.820	0	4	0.00
0.830	36	40	0.04

0.840	84	124	0.13
0.850	1	125	0.13
0.860	1	126	0.13
0.870	19	145	0.15
0.880	5	150	0.16
0.890	13	163	0.17
0.900	42	205	0.22
0.910	84	289	0.30
0.920	188	477	0.50
0.930	205	682	0.72
0.940	499	1181	1.25
0.950	1315	2496	2.63
0.960	2182	4678	4.93
0.970	4347	9025	9.52
0.980	7064	16089	16.97
0.990	9240	25329	26.72
1.000	9654	34983	36.90
1.010	10467	45450	47.95
1.020	9859	55309	58.35
1.030	9554	64863	68.43
1.040	7456	72319	76.29
1.050	6927	79246	83.60
1.060	2553	81799	86.29
1.070	2624	84423	89.06
1.080	1484	85907	90.62
1.090	960	86867	91.64
1.100	1168	88035	92.87
1.110	1272	89307	94.21
1.120	696	90003	94.95
1.130	858	90861	95.85
1.140	424	91285	96.30
1.150	105	91390	96.41
1.160	552	91942	96.99
1.170	342	92284	97.35
1.180	201	92485	97.56
1.190	354	92839	97.94
1.200	171	93010	98.12
1.210	180	93190	98.31
1.220	114	93304	98.43
1.230	242	93546	98.68
1.240	210	93756	98.90
1.250	240	93996	99.16
1.260	145	94141	99.31
1.270	107	94248	99.42
1.280	74	94322	99.50
1.290	178	94500	99.69
1.300	107	94607	99.80
1.310	58	94665	99.86
1.320	57	94722	99.92
1.330	24	94746	99.95
1.340	2	94748	99.95
1.350	4	94752	99.96
1.360	4	94756	99.96
1.370	1	94757	99.96
1.380	0	94757	99.96
1.390	0	94757	99.96
1.400	0	94757	99.96
1.410	1	94758	99.96
1.420	12	94770	99.97
1.430	8	94778	99.98
1.440	8	94786	99.99
1.450	8	94794	100.00
1.460	0	94794	100.00
1.470	0	94794	100.00
1.480	0	94794	100.00
1.490	0	94794	100.00
1.500	0	94794	100.00
1.510	0	94794	100.00
1.520	0	94794	100.00
1.530	0	94794	100.00

1.540	0	94794	100.00
1.550	0	94794	100.00
1.560	0	94794	100.00
1.570	0	94794	100.00
1.580	0	94794	100.00
1.590	0	94794	100.00
Above	0	94794	100.00

Year	MTU	B Assy	P Assy
2010	301.20	1188	294
2011	590.51	1892	798
2012	1201.05	3277	1638
2013	2003.61	4861	2877
2014	2997.31	7587	3915
2015	3000.71	6401	4356
2016	3005.03	5850	4638
2017	3000.26	5873	4614
2018	3004.51	6202	4452
2019	2984.07	5081	4824
2020	2998.37	5257	4809
2021	3004.53	5785	4602
2022	3002.80	6049	4497
2023	2991.08	5037	4824
2024	3001.82	5762	4578
2025	2996.41	5741	4530
2026	3000.64	6104	4419
2027	3010.84	4664	5022
2028	3000.20	5896	4422
2029	2993.79	5148	4758
2030	3004.17	6072	4332
2031	3026.93	5324	4719
2032	2982.44	5676	4497
2033	1908.94	4762	2379
2034	0.00	0	0
2035	0.00	0	0
2036	0.00	0	0
2037	0.00	0	0
2038	0.00	0	0
2039	0.00	0	0
2040	0.00	0	0
2041	0.00	0	0
2042	0.00	0	0
2043	0.00	0	0
2044	0.00	0	0
2045	0.00	0	0

Average age = 21.100

JUNK FILE LISTING:

Nassy=1 burnup=1.87	kinf=1.529	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.45	kinf=1.536	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.53	kinf=1.535	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=1 burnup=6.38	kinf=1.455	Enrch=3.63	Dschg=1969	WEST VALLEY
Nassy=2 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=3 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=8 burnup=0.34	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.18	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.36	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.23	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=10 burnup=0.34	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=7 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (

Nassy=3	burnup=1.77	kinf=1.260	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.86	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.79	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=10	burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=9	burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.34	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.46	kinf=1.270	Enrch=1.97	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.57	kinf=1.267	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.76	kinf=1.261	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.23	kinf=1.279	Enrch=2.00	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.46	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.09	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.27	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.28	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.32	kinf=1.275	Enrch=1.99	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.11	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.42	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.23	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=11	burnup=1.34	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.15	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8	burnup=1.44	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=20	burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=0.86	kinf=1.291	Enrch=2.04	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.62	kinf=1.265	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.64	kinf=1.264	Enrch=1.95	Dschg=1971	GE MORRIS (
Nassy=7	burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=16	burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.13	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=24	burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.78	kinf=1.260	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=2	burnup=9.28	kinf=1.410	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=4.99	kinf=1.478	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=8.24	kinf=1.426	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=1.53	kinf=1.318	Enrch=2.26	Dschg=1971	DRESDEN
Nassy=1	burnup=4.49	kinf=1.250	Enrch=2.11	Dschg=1971	OYSTER CRK
Nassy=1	burnup=3.27	kinf=1.212	Enrch=1.78	Dschg=1972	GE MORRIS (
Nassy=6	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=16	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=28	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=10	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=23	burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=11	burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=2	burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=12	burnup=2.81	kinf=1.227	Enrch=1.83	Dschg=1972	GE MORRIS (
Nassy=10	burnup=3.13	kinf=1.217	Enrch=1.80	Dschg=1972	GE MORRIS (
Nassy=20	burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=6	burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=4	burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=34	burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=23	burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=10	burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=11	burnup=4.62	kinf=1.173	Enrch=1.67	Dschg=1972	GE MORRIS (
Nassy=3	burnup=4.62	kinf=1.173	Enrch=1.67	Dschg=1972	GE MORRIS (
Nassy=13	burnup=3.39	kinf=1.209	Enrch=1.77	Dschg=1972	GE MORRIS (
Nassy=5	burnup=3.34	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=5	burnup=4.77	kinf=1.249	Enrch=2.13	Dschg=1972	GE MORRIS (

Nassy=5	burnup=3.84	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=1	burnup=3.28	kinf=1.271	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=1	burnup=2.73	kinf=1.279	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=7	burnup=4.69	kinf=1.250	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=4	burnup=4.69	kinf=1.250	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=12	burnup=4.69	kinf=1.250	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=23	burnup=4.31	kinf=1.182	Enrch=1.69	Dschg=1972	GE MORRIS (
Nassy=9	burnup=3.12	kinf=1.273	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=1	burnup=3.12	kinf=1.273	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=12	burnup=3.60	kinf=1.203	Enrch=1.76	Dschg=1972	GE MORRIS (
Nassy=1	burnup=3.60	kinf=1.203	Enrch=1.76	Dschg=1972	GE MORRIS (
Nassy=4	burnup=2.84	kinf=1.277	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=26	burnup=4.38	kinf=1.254	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=29	burnup=4.38	kinf=1.254	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=1	burnup=3.91	kinf=1.261	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=2	burnup=3.91	kinf=1.261	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=12	burnup=3.79	kinf=1.263	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=9	burnup=3.79	kinf=1.263	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=35	burnup=3.77	kinf=1.264	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=3	burnup=3.77	kinf=1.264	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=21	burnup=3.77	kinf=1.264	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=20	burnup=4.39	kinf=1.179	Enrch=1.68	Dschg=1972	GE MORRIS (
Nassy=4	burnup=4.39	kinf=1.179	Enrch=1.68	Dschg=1972	GE MORRIS (
Nassy=14	burnup=4.64	kinf=1.172	Enrch=1.66	Dschg=1972	GE MORRIS (
Nassy=1	burnup=8.59	kinf=1.421	Enrch=3.63	Dschg=1972	WEST VALLEY
Nassy=1	burnup=9.12	kinf=1.413	Enrch=3.63	Dschg=1972	WEST VALLEY
Nassy=1	burnup=8.73	kinf=1.419	Enrch=3.63	Dschg=1972	WEST VALLEY
Nassy=2	burnup=4.86	kinf=1.239	Enrch=2.08	Dschg=1972	MILLSTONE
Nassy=4	burnup=6.45	kinf=1.454	Enrch=3.63	Dschg=1973	WEST VALLEY
Nassy=1	burnup=8.75	kinf=1.418	Enrch=3.63	Dschg=1973	WEST VALLEY
Nassy=1	burnup=7.35	kinf=1.440	Enrch=3.63	Dschg=1973	WEST VALLEY
Nassy=1	burnup=3.88	kinf=1.262	Enrch=2.13	Dschg=1973	DRESDEN
Nassy=2	burnup=4.96	kinf=1.246	Enrch=2.13	Dschg=1973	DRESDEN
Nassy=1	burnup=1.05	kinf=1.365	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=3	burnup=0.97	kinf=1.366	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=5	burnup=4.32	kinf=1.315	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1	burnup=0.99	kinf=1.366	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=11	burnup=4.39	kinf=1.315	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=10	burnup=4.39	kinf=1.315	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=2	burnup=4.00	kinf=1.320	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=4	burnup=4.05	kinf=1.320	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1	burnup=4.05	kinf=1.320	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=4	burnup=1.16	kinf=1.364	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=3	burnup=4.66	kinf=1.311	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=3	burnup=4.66	kinf=1.311	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1	burnup=0.99	kinf=1.366	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1	burnup=4.69	kinf=1.310	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=4	burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1	burnup=8.77	kinf=1.418	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=3	burnup=9.10	kinf=1.413	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1	burnup=9.10	kinf=1.413	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1	burnup=8.95	kinf=1.415	Enrch=3.63	Dschg=1974	WEST VALLEY
Nassy=1	burnup=8.15	kinf=1.428	Enrch=3.63	Dschg=1974	WEST VALLEY
Nassy=2	burnup=4.95	kinf=1.306	Enrch=2.50	Dschg=1974	VT YANKEE
Nassy=4	burnup=4.95	kinf=1.306	Enrch=2.50	Dschg=1974	VT YANKEE
Nassy=2	burnup=4.95	kinf=1.306	Enrch=2.50	Dschg=1974	VT YANKEE
Nassy=1	burnup=7.57	kinf=1.476	Enrch=3.92	Dschg=1975	LACROSSE
Nassy=1	burnup=3.71	kinf=1.263	Enrch=2.12	Dschg=1975	DUANE ARNOL
Nassy=1	burnup=3.78	kinf=1.280	Enrch=2.23	Dschg=1975	DRESDEN
Nassy=1	burnup=4.80	kinf=1.467	Enrch=3.54	Dschg=1976	BIG ROCK
Nassy=1	burnup=2.90	kinf=1.273	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=1	burnup=3.30	kinf=1.267	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=2	burnup=2.43	kinf=1.105	Enrch=1.11	Dschg=1976	BRUNSWICK
Nassy=2	burnup=3.05	kinf=1.320	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=3.30	kinf=1.315	Enrch=2.40	Dschg=1976	HUMBOLDT BA
Nassy=1	burnup=2.43	kinf=1.329	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1	burnup=2.43	kinf=1.329	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=2.43	kinf=1.329	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=2.69	kinf=1.325	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=3.89	kinf=1.308	Enrch=2.41	Dschg=1976	HUMBOLDT BA

Nassy=2	burnup=4.34	kinf=1.301	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1	burnup=1.31	kinf=1.346	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1	burnup=12.04	kinf=1.407	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1	burnup=12.30	kinf=1.403	Enrch=3.93	Dschg=1977	LACROSSE
Nassy=1	burnup=7.61	kinf=1.476	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1	burnup=12.42	kinf=1.401	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=5	burnup=3.65	kinf=1.282	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=1	burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=1	burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=3.08	kinf=1.291	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=4.00	kinf=1.277	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=19	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=5	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=15	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=3.58	kinf=1.019	Enrch=0.72	Dschg=1980	HATCH
Nassy=2	burnup=3.58	kinf=1.019	Enrch=0.72	Dschg=1980	HATCH
Nassy=16	burnup=1.89	kinf=1.041	Enrch=0.72	Dschg=1980	HATCH
Nassy=24	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=1	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=1	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=2	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=16	burnup=2.83	kinf=1.028	Enrch=0.72	Dschg=1980	HATCH
Nassy=8	burnup=4.31	kinf=1.009	Enrch=0.72	Dschg=1980	HATCH
Nassy=4	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1980	HATCH
Nassy=8	burnup=3.15	kinf=1.024	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8	burnup=4.11	kinf=1.012	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=26	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=10	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=12	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8	burnup=2.96	kinf=1.027	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8	burnup=2.22	kinf=1.038	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=14	burnup=2.86	kinf=1.030	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=3	burnup=3.07	kinf=1.027	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=5	burnup=3.07	kinf=1.027	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=22	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=2	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=6	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=6	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=6	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=16	burnup=1.77	kinf=1.044	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=2	burnup=3.28	kinf=1.024	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=2	burnup=3.28	kinf=1.024	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=2	burnup=4.17	kinf=1.013	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=18	burnup=5.00	kinf=1.487	Enrch=3.70	Dschg=1987	LACROSSE
Nassy=5	burnup=5.00	kinf=1.487	Enrch=3.70	Dschg=1987	LACROSSE
Nassy=1	burnup=5.00	kinf=1.488	Enrch=3.71	Dschg=1987	LACROSSE
Nassy=32	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=16	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=2	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=2	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=8	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=16	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=24	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=36	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=8	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=5	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=6	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=13	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=33	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=2	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=17	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=27	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=2	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=11	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=6	burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=132	burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P

Nassy=30 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
Nassy=8 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
Nassy=15 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
Nassy=44 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
Nassy=21 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
Nassy=8 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
Nassy=176 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
Nassy=5 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
Nassy=3 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
Nassy=23 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
Nassy=88 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
Nassy=22 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
Nassy=12 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
Nassy=8 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
Nassy=8 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
Nassy=44 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
Nassy=33 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
Nassy=7 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
Nassy=14 burnup=3.22 kinf=1.457 Enrch=3.30 Dschg=2022 LASALLE
Nassy=88 burnup=3.22 kinf=1.457 Enrch=3.30 Dschg=2022 LASALLE
Nassy=20 burnup=3.22 kinf=1.457 Enrch=3.30 Dschg=2022 LASALLE

INPUT FILE LISTING:

#bins	Input_file	Output_file	Case_title	Last_delivery
0	case4.wsm	case4.out	W4:yff10_aucf_noi_63	2045
Type	Cap	Hmin	Hmax	Kmin
				Kmax

OUTPUT FILE LISTING:

W4:yff10_aucf_noi_63
Standard Table

BWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	479	479	0.38
20	1365	1844	1.47
30	1373	3217	2.56
40	2385	5602	4.46
50	2460	8062	6.42
60	2877	10939	8.72
70	4220	15159	12.08
80	4074	19233	15.32
90	4218	23451	18.68
100	4774	28225	22.49
110	3356	31581	25.16
120	3196	34777	27.71
130	2095	36872	29.38
140	2857	39729	31.65
150	3155	42884	34.17
160	3277	46161	36.78
170	3036	49197	39.20
180	2897	52094	41.51
190	2667	54761	43.63
200	3399	58160	46.34
210	3262	61422	48.94
220	2922	64344	51.27
230	3280	67624	53.88
240	5102	72726	57.94
250	3736	76462	60.92
260	3532	79994	63.74
270	7250	87244	69.51
280	3936	91180	72.65
290	5185	96365	76.78
300	2464	98829	78.74
310	3554	102383	81.57
320	4721	107104	85.34
330	3883	110987	88.43
340	4495	115482	92.01
350	6716	122198	97.36
360	2461	124659	99.32
370	253	124912	99.52
380	200	125112	99.68
390	264	125376	99.89
400	133	125509	100.00
410	0	125509	100.00
420	0	125509	100.00
430	0	125509	100.00
440	0	125509	100.00
450	0	125509	100.00
460	0	125509	100.00
470	0	125509	100.00
480	0	125509	100.00
490	0	125509	100.00
500	0	125509	100.00
510	0	125509	100.00
520	0	125509	100.00
530	0	125509	100.00
540	0	125509	100.00
550	0	125509	100.00

560	0	125509	100.00
570	0	125509	100.00
580	0	125509	100.00
590	0	125509	100.00
600	0	125509	100.00
610	0	125509	100.00
620	0	125509	100.00
630	0	125509	100.00
640	0	125509	100.00
650	0	125509	100.00
660	0	125509	100.00
670	0	125509	100.00
680	0	125509	100.00
690	0	125509	100.00
700	0	125509	100.00
710	0	125509	100.00
720	0	125509	100.00
730	0	125509	100.00
740	0	125509	100.00
750	0	125509	100.00
760	0	125509	100.00
770	0	125509	100.00
780	0	125509	100.00
790	0	125509	100.00
800	0	125509	100.00
810	0	125509	100.00
820	0	125509	100.00
830	0	125509	100.00
840	0	125509	100.00
850	0	125509	100.00
860	0	125509	100.00
870	0	125509	100.00
880	0	125509	100.00
890	0	125509	100.00
900	0	125509	100.00
910	0	125509	100.00
920	0	125509	100.00
930	0	125509	100.00
940	0	125509	100.00
950	0	125509	100.00
960	0	125509	100.00
970	0	125509	100.00
980	0	125509	100.00
990	0	125509	100.00
Above	0	125509	100.00

BWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	0	0	0.00
0.770	0	0	0.00
0.780	0	0	0.00
0.790	0	0	0.00
0.800	0	0	0.00
0.810	0	0	0.00
0.820	0	0	0.00
0.830	11	11	0.01
0.840	8	19	0.02
0.850	32	51	0.04
0.860	4	55	0.04
0.870	0	55	0.04
0.880	0	55	0.04
0.890	53	108	0.09
0.900	249	357	0.28
0.910	184	541	0.43
0.920	1061	1602	1.28
0.930	1377	2979	2.37
0.940	1648	4627	3.69
0.950	1251	5878	4.68
0.960	2607	8485	6.76

0.970	4694	13179	10.50
0.980	12455	25634	20.42
0.990	5620	31254	24.90
1.000	6677	37931	30.22
1.010	8632	46563	37.10
1.020	11783	58346	46.49
1.030	9606	67952	54.14
1.040	16070	84022	66.94
1.050	6620	90642	72.22
1.060	6169	96811	77.13
1.070	3833	100644	80.19
1.080	2334	102978	82.05
1.090	3178	106156	84.58
1.100	1657	107813	85.90
1.110	1227	109040	86.88
1.120	2052	111092	88.51
1.130	500	111592	88.91
1.140	1149	112741	89.83
1.150	947	113688	90.58
1.160	665	114353	91.11
1.170	1195	115548	92.06
1.180	573	116121	92.52
1.190	319	116440	92.77
1.200	269	116709	92.99
1.210	627	117336	93.49
1.220	238	117574	93.68
1.230	347	117921	93.95
1.240	345	118266	94.23
1.250	834	119100	94.89
1.260	645	119745	95.41
1.270	531	120276	95.83
1.280	387	120663	96.14
1.290	660	121323	96.66
1.300	377	121700	96.97
1.310	477	122177	97.35
1.320	138	122315	97.46
1.330	142	122457	97.57
1.340	370	122827	97.86
1.350	478	123305	98.24
1.360	35	123340	98.27
1.370	242	123582	98.46
1.380	793	124375	99.10
1.390	133	124508	99.20
1.400	125	124633	99.30
1.410	451	125084	99.66
1.420	16	125100	99.67
1.430	3	125103	99.68
1.440	92	125195	99.75
1.450	154	125349	99.87
1.460	127	125476	99.97
1.470	1	125477	99.97
1.480	3	125480	99.98
1.490	24	125504	100.00
1.500	0	125504	100.00
1.510	0	125504	100.00
1.520	0	125504	100.00
1.530	1	125505	100.00
1.540	4	125509	100.00
1.550	0	125509	100.00
1.560	0	125509	100.00
1.570	0	125509	100.00
1.580	0	125509	100.00
1.590	0	125509	100.00
Above	0	125509	100.00

PWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	8	8	0.01
20	31	39	0.04

30	18	57	0.06
40	31	88	0.09
50	75	163	0.17
60	130	293	0.31
70	108	401	0.42
80	189	590	0.62
90	259	849	0.90
100	191	1040	1.10
110	239	1279	1.35
120	448	1727	1.82
130	417	2144	2.26
140	524	2668	2.82
150	574	3242	3.42
160	490	3732	3.94
170	498	4230	4.46
180	899	5129	5.41
190	866	5995	6.33
200	815	6810	7.19
210	658	7468	7.88
220	992	8460	8.93
230	1245	9705	10.24
240	1117	10822	11.42
250	1082	11904	12.56
260	980	12884	13.60
270	1217	14101	14.88
280	967	15068	15.90
290	1416	16484	17.40
300	1081	17565	18.54
310	1005	18570	19.60
320	945	19515	20.59
330	1047	20562	21.70
340	1256	21818	23.02
350	1002	22820	24.08
360	818	23638	24.94
370	1207	24845	26.22
380	1495	26340	27.80
390	1007	27347	28.86
400	1079	28426	30.00
410	1211	29637	31.28
420	1193	30830	32.53
430	839	31669	33.42
440	1184	32853	34.67
450	947	33800	35.67
460	1191	34991	36.93
470	718	35709	37.68
480	1132	36841	38.88
490	897	37738	39.82
500	1224	38962	41.12
510	1014	39976	42.19
520	1088	41064	43.33
530	1205	42269	44.61
540	967	43236	45.63
550	1176	44412	46.87
560	1359	45771	48.30
570	848	46619	49.20
580	1092	47711	50.35
590	1821	49532	52.27
600	2288	51820	54.68
610	2198	54018	57.00
620	1666	55684	58.76
630	1330	57014	60.17
640	1498	58512	61.75
650	2723	61235	64.62
660	1542	62777	66.25
670	1632	64409	67.97
680	1582	65991	69.64
690	2729	68720	72.52
700	5560	74280	78.39
710	4826	79106	83.48
720	989	80095	84.52

730	459	80554	85.01
740	928	81482	85.99
750	1088	82570	87.14
760	751	83321	87.93
770	719	84040	88.69
780	976	85016	89.72
790	486	85502	90.23
800	429	85931	90.68
810	560	86491	91.27
820	488	86979	91.79
830	277	87256	92.08
840	304	87560	92.40
850	380	87940	92.80
860	319	88259	93.14
870	275	88534	93.43
880	186	88720	93.63
890	394	89114	94.04
900	498	89612	94.57
910	597	90209	95.20
920	331	90540	95.55
930	213	90753	95.77
940	673	91426	96.48
950	484	91910	96.99
960	361	92271	97.37
970	368	92639	97.76
980	381	93020	98.16
990	497	93517	98.69
1000	782	94299	99.51
1010	0	94299	99.51
1020	428	94727	99.96
1030	34	94761	100.00
1040	0	94761	100.00
1050	0	94761	100.00
1060	0	94761	100.00
1070	0	94761	100.00
1080	0	94761	100.00
1090	0	94761	100.00
1100	0	94761	100.00
1110	0	94761	100.00
1120	0	94761	100.00
1130	0	94761	100.00
1140	0	94761	100.00
1150	0	94761	100.00
1160	0	94761	100.00
1170	0	94761	100.00
1180	0	94761	100.00
1190	0	94761	100.00
1200	0	94761	100.00
1210	0	94761	100.00
1220	0	94761	100.00
1230	0	94761	100.00
1240	0	94761	100.00
1250	0	94761	100.00
1260	0	94761	100.00
1270	0	94761	100.00
1280	0	94761	100.00
1290	0	94761	100.00
1300	0	94761	100.00
1310	0	94761	100.00
1320	0	94761	100.00
1330	0	94761	100.00
1340	0	94761	100.00
1350	0	94761	100.00
1360	0	94761	100.00
1370	0	94761	100.00
1380	0	94761	100.00
1390	0	94761	100.00
1400	0	94761	100.00
1410	0	94761	100.00
1420	0	94761	100.00

1430	0	94761	100.00
1440	0	94761	100.00
1450	0	94761	100.00
1460	0	94761	100.00
1470	0	94761	100.00
1480	0	94761	100.00
1490	0	94761	100.00
1500	0	94761	100.00
1510	0	94761	100.00
1520	0	94761	100.00
1530	0	94761	100.00
1540	0	94761	100.00
1550	0	94761	100.00
1560	0	94761	100.00
1570	0	94761	100.00
1580	0	94761	100.00
1590	0	94761	100.00
1600	0	94761	100.00
1610	0	94761	100.00
1620	0	94761	100.00
1630	0	94761	100.00
1640	0	94761	100.00
1650	0	94761	100.00
1660	0	94761	100.00
1670	0	94761	100.00
1680	0	94761	100.00
1690	0	94761	100.00
1700	0	94761	100.00
1710	0	94761	100.00
1720	0	94761	100.00
1730	0	94761	100.00
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1750	0	94761	100.00
1760	0	94761	100.00
1770	0	94761	100.00
1780	0	94761	100.00
1790	0	94761	100.00
1800	0	94761	100.00
1810	0	94761	100.00
1820	0	94761	100.00
1830	0	94761	100.00
1840	0	94761	100.00
1850	0	94761	100.00
1860	0	94761	100.00
1870	0	94761	100.00
1880	0	94761	100.00
1890	0	94761	100.00
1900	0	94761	100.00
1910	0	94761	100.00
1920	0	94761	100.00
1930	0	94761	100.00
1940	0	94761	100.00
1950	0	94761	100.00
1960	0	94761	100.00
1970	0	94761	100.00
1980	0	94761	100.00
1990	0	94761	100.00
Above	0	94761	100.00

PWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	4	4	0.00
0.770	0	4	0.00
0.780	0	4	0.00
0.790	0	4	0.00
0.800	0	4	0.00
0.810	0	4	0.00
0.820	0	4	0.00
0.830	36	40	0.04

0.840	84	124	0.13
0.850	1	125	0.13
0.860	1	126	0.13
0.870	19	145	0.15
0.880	5	150	0.16
0.890	13	163	0.17
0.900	42	205	0.22
0.910	84	289	0.30
0.920	188	477	0.50
0.930	211	688	0.73
0.940	493	1181	1.25
0.950	1313	2494	2.63
0.960	2181	4675	4.93
0.970	4355	9030	9.53
0.980	7043	16073	16.96
0.990	9373	25446	26.85
1.000	9604	35050	36.99
1.010	10396	45446	47.96
1.020	9946	55392	58.45
1.030	9506	64898	68.49
1.040	7419	72317	76.32
1.050	6896	79213	83.59
1.060	2553	81766	86.29
1.070	2624	84390	89.06
1.080	1493	85883	90.63
1.090	951	86834	91.63
1.100	1168	88002	92.87
1.110	1291	89293	94.23
1.120	677	89970	94.94
1.130	861	90831	95.85
1.140	421	91252	96.30
1.150	105	91357	96.41
1.160	552	91909	96.99
1.170	342	92251	97.35
1.180	201	92452	97.56
1.190	354	92806	97.94
1.200	171	92977	98.12
1.210	180	93157	98.31
1.220	114	93271	98.43
1.230	242	93513	98.68
1.240	210	93723	98.90
1.250	240	93963	99.16
1.260	145	94108	99.31
1.270	107	94215	99.42
1.280	74	94289	99.50
1.290	182	94471	99.69
1.300	105	94576	99.80
1.310	56	94632	99.86
1.320	55	94687	99.92
1.330	22	94709	99.95
1.340	6	94715	99.95
1.350	4	94719	99.96
1.360	0	94719	99.96
1.370	5	94724	99.96
1.380	0	94724	99.96
1.390	0	94724	99.96
1.400	0	94724	99.96
1.410	1	94725	99.96
1.420	12	94737	99.97
1.430	0	94737	99.97
1.440	16	94753	99.99
1.450	8	94761	100.00
1.460	0	94761	100.00
1.470	0	94761	100.00
1.480	0	94761	100.00
1.490	0	94761	100.00
1.500	0	94761	100.00
1.510	0	94761	100.00
1.520	0	94761	100.00
1.530	0	94761	100.00

1.540	0	94761	100.00
1.550	0	94761	100.00
1.560	0	94761	100.00
1.570	0	94761	100.00
1.580	0	94761	100.00
1.590	0	94761	100.00
Above	0	94761	100.00

Year	MTU	B Assy	P Assy
2010	300.20	1100	357
2011	599.87	2068	693
2012	1196.03	3233	1659
2013	1998.83	4905	2868
2014	3002.05	7543	3912
2015	2998.22	6357	4398
2016	3004.75	5718	4692
2017	2998.18	5961	4563
2018	3002.89	6246	4434
2019	2985.24	5081	4827
2020	3003.92	5389	4776
2021	2995.24	5653	4626
2022	3003.95	6049	4503
2023	2998.29	5081	4806
2024	3001.16	5521	4665
2025	2998.91	5917	4470
2026	3003.93	6125	4416
2027	2993.25	4664	4992
2028	3012.96	5940	4437
2029	2990.88	5148	4752
2030	2995.00	5984	4350
2031	3034.28	5280	4746
2032	2972.65	5764	4446
2033	1912.37	4782	2373
2034	0.00	0	0
2035	0.00	0	0
2036	0.00	0	0
2037	0.00	0	0
2038	0.00	0	0
2039	0.00	0	0
2040	0.00	0	0
2041	0.00	0	0
2042	0.00	0	0
2043	0.00	0	0
2044	0.00	0	0
2045	0.00	0	0

Average age = 21.111

JUNK FILE LISTING:

Nassy=1	burnup=1.87	kinf=1.529	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2	burnup=1.45	kinf=1.536	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2	burnup=1.53	kinf=1.535	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=1	burnup=6.38	kinf=1.455	Enrch=3.63	Dschg=1969	WEST VALLEY
Nassy=2	burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.32	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=3	burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=8	burnup=0.34	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.18	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.36	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.23	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=10	burnup=0.34	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=7	burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (

Nassy=3 burnup=1.77	kinf=1.260	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.86	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.79	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=19 burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.34	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.46	kinf=1.270	Enrch=1.97	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.57	kinf=1.267	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.76	kinf=1.261	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.23	kinf=1.279	Enrch=2.00	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.46	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.09	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.27	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.28	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.32	kinf=1.275	Enrch=1.99	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.11	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.42	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.23	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.34	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=7 burnup=1.34	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.15	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8 burnup=1.44	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=20 burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=0.86	kinf=1.291	Enrch=2.04	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.62	kinf=1.265	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.64	kinf=1.264	Enrch=1.95	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=19 burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.13	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=21 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.78	kinf=1.260	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=2 burnup=9.28	kinf=1.410	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1 burnup=4.99	kinf=1.478	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1 burnup=8.24	kinf=1.426	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1 burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1 burnup=1.53	kinf=1.318	Enrch=2.26	Dschg=1971	DRESDEN
Nassy=1 burnup=4.49	kinf=1.250	Enrch=2.11	Dschg=1971	OYSTER CRK
Nassy=1 burnup=3.27	kinf=1.212	Enrch=1.78	Dschg=1972	GE MORRIS (
Nassy=22 burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=13 burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=25 burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=19 burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=4 burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=13 burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=12 burnup=2.81	kinf=1.227	Enrch=1.83	Dschg=1972	GE MORRIS (
Nassy=10 burnup=3.13	kinf=1.217	Enrch=1.80	Dschg=1972	GE MORRIS (
Nassy=5 burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=21 burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=4 burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=19 burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=38 burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=6 burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=4 burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=14 burnup=4.62	kinf=1.173	Enrch=1.67	Dschg=1972	GE MORRIS (
Nassy=13 burnup=3.39	kinf=1.209	Enrch=1.77	Dschg=1972	GE MORRIS (
Nassy=5 burnup=3.34	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=5 burnup=4.77	kinf=1.249	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=3 burnup=3.84	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (

Nassy=2 burnup=3.84	kinf=1.195 Enrch=1.73 Dschg=1972	GE MORRIS (
Nassy=1 burnup=3.28	kinf=1.271 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=1 burnup=2.73	kinf=1.279 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=7 burnup=4.69	kinf=1.250 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=16 burnup=4.69	kinf=1.250 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=17 burnup=4.31	kinf=1.182 Enrch=1.69 Dschg=1972	GE MORRIS (
Nassy=6 burnup=4.31	kinf=1.182 Enrch=1.69 Dschg=1972	GE MORRIS (
Nassy=10 burnup=3.12	kinf=1.273 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=12 burnup=3.60	kinf=1.203 Enrch=1.76 Dschg=1972	GE MORRIS (
Nassy=1 burnup=3.60	kinf=1.203 Enrch=1.76 Dschg=1972	GE MORRIS (
Nassy=4 burnup=2.84	kinf=1.277 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=11 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=44 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=1 burnup=3.91	kinf=1.261 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=2 burnup=3.91	kinf=1.261 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=21 burnup=3.79	kinf=1.263 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=20 burnup=3.77	kinf=1.264 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=18 burnup=3.77	kinf=1.264 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=21 burnup=3.77	kinf=1.264 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=5 burnup=4.39	kinf=1.179 Enrch=1.68 Dschg=1972	GE MORRIS (
Nassy=19 burnup=4.39	kinf=1.179 Enrch=1.68 Dschg=1972	GE MORRIS (
Nassy=14 burnup=4.64	kinf=1.172 Enrch=1.66 Dschg=1972	GE MORRIS (
Nassy=1 burnup=8.59	kinf=1.421 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=1 burnup=9.12	kinf=1.413 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=1 burnup=8.73	kinf=1.419 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=2 burnup=4.86	kinf=1.239 Enrch=2.08 Dschg=1972	MILLSTONE
Nassy=4 burnup=6.45	kinf=1.454 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=8.75	kinf=1.418 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=7.35	kinf=1.440 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=3.88	kinf=1.262 Enrch=2.13 Dschg=1973	DRESDEN
Nassy=1 burnup=4.96	kinf=1.246 Enrch=2.13 Dschg=1973	DRESDEN
Nassy=1 burnup=4.96	kinf=1.246 Enrch=2.13 Dschg=1973	DRESDEN
Nassy=1 burnup=1.05	kinf=1.365 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=3 burnup=0.97	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=5 burnup=4.32	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=0.99	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=11 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=10 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=2 burnup=4.00	kinf=1.320 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=5 burnup=4.05	kinf=1.320 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=4 burnup=1.16	kinf=1.364 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=3 burnup=4.66	kinf=1.311 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=3 burnup=4.66	kinf=1.311 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=0.99	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=4.69	kinf=1.310 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=4 burnup=9.23	kinf=1.411 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=1 burnup=8.77	kinf=1.418 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=3 burnup=9.10	kinf=1.413 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=1 burnup=9.10	kinf=1.413 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=1 burnup=8.95	kinf=1.415 Enrch=3.63 Dschg=1974	WEST VALLEY
Nassy=1 burnup=8.15	kinf=1.428 Enrch=3.63 Dschg=1974	WEST VALLEY
Nassy=2 burnup=4.95	kinf=1.306 Enrch=2.50 Dschg=1974	VT YANKEE
Nassy=6 burnup=4.95	kinf=1.306 Enrch=2.50 Dschg=1974	VT YANKEE
Nassy=1 burnup=7.57	kinf=1.476 Enrch=3.92 Dschg=1975	LACROSSE
Nassy=1 burnup=3.71	kinf=1.263 Enrch=2.12 Dschg=1975	DUANE ARNOL
Nassy=1 burnup=3.78	kinf=1.280 Enrch=2.23 Dschg=1975	DRESDEN
Nassy=1 burnup=4.80	kinf=1.467 Enrch=3.54 Dschg=1976	BIG ROCK
Nassy=1 burnup=2.90	kinf=1.273 Enrch=2.11 Dschg=1976	BRUNSWICK
Nassy=1 burnup=3.30	kinf=1.267 Enrch=2.11 Dschg=1976	BRUNSWICK
Nassy=2 burnup=2.43	kinf=1.105 Enrch=1.11 Dschg=1976	BRUNSWICK
Nassy=2 burnup=3.05	kinf=1.320 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=3.30	kinf=1.315 Enrch=2.40 Dschg=1976	HUMBOLDT BA
Nassy=4 burnup=2.43	kinf=1.329 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=2.69	kinf=1.325 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=3.89	kinf=1.308 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=4.34	kinf=1.301 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=1.31	kinf=1.346 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=12.04	kinf=1.407 Enrch=3.92 Dschg=1977	LACROSSE
Nassy=1 burnup=12.30	kinf=1.403 Enrch=3.93 Dschg=1977	LACROSSE
Nassy=1 burnup=7.61	kinf=1.476 Enrch=3.92 Dschg=1977	LACROSSE

Nassy=1	burnup=12.42	kinf=1.401	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=5	burnup=3.65	kinf=1.282	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=5	burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=1	burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=3.08	kinf=1.291	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=4.00	kinf=1.277	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=8	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=16	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=15	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=3.58	kinf=1.019	Enrch=0.72	Dschg=1980	HATCH
Nassy=16	burnup=1.89	kinf=1.041	Enrch=0.72	Dschg=1980	HATCH
Nassy=15	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=9	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=1	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=3	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=16	burnup=2.83	kinf=1.028	Enrch=0.72	Dschg=1980	HATCH
Nassy=8	burnup=4.31	kinf=1.009	Enrch=0.72	Dschg=1980	HATCH
Nassy=4	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1980	HATCH
Nassy=7	burnup=3.15	kinf=1.024	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=1	burnup=3.15	kinf=1.024	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8	burnup=4.11	kinf=1.012	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=35	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=1	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=12	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8	burnup=2.96	kinf=1.027	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8	burnup=2.22	kinf=1.038	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=14	burnup=2.86	kinf=1.030	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=8	burnup=3.07	kinf=1.027	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=4	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=18	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=2	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=1	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=5	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=6	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=6	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=16	burnup=1.77	kinf=1.044	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=4	burnup=3.28	kinf=1.024	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=2	burnup=4.17	kinf=1.013	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=18	burnup=5.00	kinf=1.487	Enrch=3.70	Dschg=1987	LACROSSE
Nassy=5	burnup=5.00	kinf=1.487	Enrch=3.70	Dschg=1987	LACROSSE
Nassy=1	burnup=5.00	kinf=1.488	Enrch=3.71	Dschg=1987	LACROSSE
Nassy=37	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=11	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=4	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=8	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=16	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=33	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=27	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=4	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=4	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=5	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=19	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=20	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=13	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=19	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=12	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=17	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=11	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=15	burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=132	burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=21	burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=8	burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=24	burnup=7.59	kinf=1.400	Enrch=3.38	Dschg=2009	OYSTER CRK
Nassy=44	burnup=7.59	kinf=1.400	Enrch=3.38	Dschg=2009	OYSTER CRK
Nassy=12	burnup=7.59	kinf=1.400	Enrch=3.38	Dschg=2009	OYSTER CRK
Nassy=17	burnup=8.57	kinf=1.410	Enrch=3.56	Dschg=2012	PILGRIM
Nassy=132	burnup=8.57	kinf=1.410	Enrch=3.56	Dschg=2012	PILGRIM

Nassy=40 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
Nassy=3 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
Nassy=32 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
Nassy=88 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
Nassy=13 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
Nassy=20 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
Nassy=13 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
Nassy=44 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
Nassy=28 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
Nassy=7 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
Nassy=30 burnup=3.22 kinf=1.457 Enrch=3.30 Dschg=2022 LASALLE
Nassy=88 burnup=3.22 kinf=1.457 Enrch=3.30 Dschg=2022 LASALLE
Nassy=4 burnup=3.22 kinf=1.457 Enrch=3.30 Dschg=2022 LASALLE

INPUT FILE LISTING:

#bins	Input_file_	Output_file_	Case_title_	Last_delivery
0	case5.wsm	case5.out	W5:off_7dpc_isf_63	2045
Type	Cap	Hmin	Hmax	Kmin
			Kmax	

OUTPUT FILE LISTING:

W5:off_7dpc_isf_63
Standard Table

BWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	657	657	0.53
20	1508	2165	1.74
30	1768	3933	3.17
40	2628	6561	5.29
50	2706	9267	7.47
60	2901	12168	9.80
70	4942	17110	13.78
80	6672	23782	19.16
90	8742	32524	26.20
100	8567	41091	33.10
110	5571	46662	37.59
120	2603	49265	39.69
130	2318	51583	41.56
140	3552	55135	44.42
150	3425	58560	47.18
160	3097	61657	49.67
170	2545	64202	51.72
180	2500	66702	53.74
190	2751	69453	55.95
200	4001	73454	59.18
210	3025	76479	61.61
220	4034	80513	64.86
230	4273	84786	68.31
240	4503	89289	71.93
250	4508	93797	75.57
260	4956	98753	79.56
270	4846	103599	83.46
280	5126	108725	87.59
290	4605	113330	91.30
300	3783	117113	94.35
310	2972	120085	96.75
320	620	120705	97.24
330	1473	122178	98.43
340	679	122857	98.98
350	738	123595	99.57
360	432	124027	99.92
370	98	124125	100.00
380	0	124125	100.00
390	0	124125	100.00
400	0	124125	100.00
410	0	124125	100.00
420	0	124125	100.00
430	0	124125	100.00
440	0	124125	100.00
450	0	124125	100.00
460	0	124125	100.00
470	0	124125	100.00
480	0	124125	100.00
490	0	124125	100.00
500	0	124125	100.00
510	0	124125	100.00
520	0	124125	100.00
530	0	124125	100.00
540	0	124125	100.00
550	0	124125	100.00

560	0	124125	100.00
570	0	124125	100.00
580	0	124125	100.00
590	0	124125	100.00
600	0	124125	100.00
610	0	124125	100.00
620	0	124125	100.00
630	0	124125	100.00
640	0	124125	100.00
650	0	124125	100.00
660	0	124125	100.00
670	0	124125	100.00
680	0	124125	100.00
690	0	124125	100.00
700	0	124125	100.00
710	0	124125	100.00
720	0	124125	100.00
730	0	124125	100.00
740	0	124125	100.00
750	0	124125	100.00
760	0	124125	100.00
770	0	124125	100.00
780	0	124125	100.00
790	0	124125	100.00
800	0	124125	100.00
810	0	124125	100.00
820	0	124125	100.00
830	0	124125	100.00
840	0	124125	100.00
850	0	124125	100.00
860	0	124125	100.00
870	0	124125	100.00
880	0	124125	100.00
890	0	124125	100.00
900	0	124125	100.00
910	0	124125	100.00
920	0	124125	100.00
930	0	124125	100.00
940	0	124125	100.00
950	0	124125	100.00
960	0	124125	100.00
970	0	124125	100.00
980	0	124125	100.00
990	0	124125	100.00
Above	0	124125	100.00

BWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	0	0	0.00
0.770	0	0	0.00
0.780	0	0	0.00
0.790	0	0	0.00
0.800	0	0	0.00
0.810	12	12	0.01
0.820	0	12	0.01
0.830	16	28	0.02
0.840	0	28	0.02
0.850	5	33	0.03
0.860	114	147	0.12
0.870	0	147	0.12
0.880	0	147	0.12
0.890	0	147	0.12
0.900	191	338	0.27
0.910	64	402	0.32
0.920	555	957	0.77
0.930	412	1369	1.10
0.940	816	2185	1.76
0.950	1114	3299	2.66
0.960	1642	4941	3.98

0.970	2939	7880	6.35
0.980	9013	16893	13.61
0.990	4954	21847	17.60
1.000	6646	28493	22.96
1.010	8956	37449	30.17
1.020	13376	50825	40.95
1.030	11954	62779	50.58
1.040	16468	79247	63.84
1.050	8528	87775	70.72
1.060	9076	96851	78.03
1.070	5694	102545	82.61
1.080	3470	106015	85.41
1.090	3734	109749	88.42
1.100	1995	111744	90.03
1.110	1435	113179	91.18
1.120	2170	115349	92.93
1.130	488	115837	93.32
1.140	1301	117138	94.37
1.150	503	117641	94.78
1.160	789	118430	95.41
1.170	279	118709	95.64
1.180	390	119099	95.95
1.190	192	119291	96.11
1.200	236	119527	96.30
1.210	289	119816	96.53
1.220	238	120054	96.72
1.230	171	120225	96.86
1.240	295	120520	97.10
1.250	442	120962	97.45
1.260	699	121661	98.01
1.270	262	121923	98.23
1.280	168	122091	98.36
1.290	118	122209	98.46
1.300	262	122471	98.67
1.310	173	122644	98.81
1.320	138	122782	98.92
1.330	222	123004	99.10
1.340	19	123023	99.11
1.350	31	123054	99.14
1.360	35	123089	99.17
1.370	43	123132	99.20
1.380	440	123572	99.55
1.390	25	123597	99.57
1.400	19	123616	99.59
1.410	451	124067	99.95
1.420	16	124083	99.97
1.430	3	124086	99.97
1.440	0	124086	99.97
1.450	1	124087	99.97
1.460	5	124092	99.97
1.470	0	124092	99.97
1.480	3	124095	99.98
1.490	25	124120	100.00
1.500	0	124120	100.00
1.510	0	124120	100.00
1.520	0	124120	100.00
1.530	1	124121	100.00
1.540	4	124125	100.00
1.550	0	124125	100.00
1.560	0	124125	100.00
1.570	0	124125	100.00
1.580	0	124125	100.00
1.590	0	124125	100.00
Above	0	124125	100.00

PWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	28	28	0.03
20	15	43	0.05

30	20	63	0.07
40	78	141	0.15
50	53	194	0.20
60	101	295	0.31
70	128	423	0.45
80	161	584	0.62
90	286	870	0.92
100	354	1224	1.29
110	419	1643	1.73
120	483	2126	2.24
130	824	2950	3.11
140	964	3914	4.13
150	713	4627	4.88
160	987	5614	5.92
170	730	6344	6.69
180	729	7073	7.46
190	1144	8217	8.66
200	1110	9327	9.83
210	1247	10574	11.15
220	1900	12474	13.15
230	1589	14063	14.83
240	2027	16090	16.96
250	2005	18095	19.08
260	1763	19858	20.93
270	1961	21819	23.00
280	1697	23516	24.79
290	1817	25333	26.71
300	1320	26653	28.10
310	1723	28376	29.91
320	1844	30220	31.86
330	1731	31951	33.68
340	1239	33190	34.99
350	1269	34459	36.33
360	1217	35676	37.61
370	1053	36729	38.72
380	1241	37970	40.03
390	1104	39074	41.19
400	1319	40393	42.58
410	1444	41837	44.10
420	1515	43352	45.70
430	1416	44768	47.19
440	1681	46449	48.97
450	1310	47759	50.35
460	1759	49518	52.20
470	1634	51152	53.92
480	1914	53066	55.94
490	1465	54531	57.49
500	1738	56269	59.32
510	1219	57488	60.60
520	1267	58755	61.94
530	1195	59950	63.20
540	1170	61120	64.43
550	1411	62531	65.92
560	1332	63863	67.32
570	1089	64952	68.47
580	1446	66398	70.00
590	1411	67809	71.48
600	1929	69738	73.52
610	1651	71389	75.26
620	1452	72841	76.79
630	1491	74332	78.36
640	1584	75916	80.03
650	1425	77341	81.53
660	1508	78849	83.12
670	1168	80017	84.35
680	1174	81191	85.59
690	1455	82646	87.13
700	1631	84277	88.85
710	1327	85604	90.24
720	699	86303	90.98

730	869	87172	91.90
740	602	87774	92.53
750	849	88623	93.43
760	671	89294	94.13
770	756	90050	94.93
780	758	90808	95.73
790	353	91161	96.10
800	528	91689	96.66
810	574	92263	97.26
820	535	92798	97.83
830	317	93115	98.16
840	239	93354	98.41
850	239	93593	98.67
860	298	93891	98.98
870	133	94024	99.12
880	56	94080	99.18
890	32	94112	99.21
900	158	94270	99.38
910	146	94416	99.53
920	48	94464	99.58
930	46	94510	99.63
940	3	94513	99.64
950	78	94591	99.72
960	63	94654	99.78
970	2	94656	99.79
980	44	94700	99.83
990	1	94701	99.83
1000	79	94780	99.92
1010	3	94783	99.92
1020	0	94783	99.92
1030	0	94783	99.92
1040	16	94799	99.94
1050	31	94830	99.97
1060	14	94844	99.99
1070	0	94844	99.99
1080	0	94844	99.99
1090	0	94844	99.99
1100	0	94844	99.99
1110	0	94844	99.99
1120	14	94858	100.00
1130	0	94858	100.00
1140	0	94858	100.00
1150	0	94858	100.00
1160	0	94858	100.00
1170	0	94858	100.00
1180	0	94858	100.00
1190	0	94858	100.00
1200	0	94858	100.00
1210	0	94858	100.00
1220	0	94858	100.00
1230	0	94858	100.00
1240	0	94858	100.00
1250	0	94858	100.00
1260	0	94858	100.00
1270	0	94858	100.00
1280	0	94858	100.00
1290	0	94858	100.00
1300	0	94858	100.00
1310	0	94858	100.00
1320	0	94858	100.00
1330	0	94858	100.00
1340	0	94858	100.00
1350	0	94858	100.00
1360	0	94858	100.00
1370	0	94858	100.00
1380	0	94858	100.00
1390	0	94858	100.00
1400	0	94858	100.00
1410	0	94858	100.00
1420	0	94858	100.00

1430	0	94858	100.00
1440	0	94858	100.00
1450	0	94858	100.00
1460	0	94858	100.00
1470	0	94858	100.00
1480	0	94858	100.00
1490	0	94858	100.00
1500	0	94858	100.00
1510	0	94858	100.00
1520	0	94858	100.00
1530	0	94858	100.00
1540	0	94858	100.00
1550	0	94858	100.00
1560	0	94858	100.00
1570	0	94858	100.00
1580	0	94858	100.00
1590	0	94858	100.00
1600	0	94858	100.00
1610	0	94858	100.00
1620	0	94858	100.00
1630	0	94858	100.00
1640	0	94858	100.00
1650	0	94858	100.00
1660	0	94858	100.00
1670	0	94858	100.00
1680	0	94858	100.00
1690	0	94858	100.00
1700	0	94858	100.00
1710	0	94858	100.00
1720	0	94858	100.00
1730	0	94858	100.00
1740	0	94858	100.00
1750	0	94858	100.00
1760	0	94858	100.00
1770	0	94858	100.00
1780	0	94858	100.00
1790	0	94858	100.00
1800	0	94858	100.00
1810	0	94858	100.00
1820	0	94858	100.00
1830	0	94858	100.00
1840	0	94858	100.00
1850	0	94858	100.00
1860	0	94858	100.00
1870	0	94858	100.00
1880	0	94858	100.00
1890	0	94858	100.00
1900	0	94858	100.00
1910	0	94858	100.00
1920	0	94858	100.00
1930	0	94858	100.00
1940	0	94858	100.00
1950	0	94858	100.00
1960	0	94858	100.00
1970	0	94858	100.00
1980	0	94858	100.00
1990	0	94858	100.00
Above	0	94858	100.00

PWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	5	5	0.01
0.770	0	5	0.01
0.780	0	5	0.01
0.790	0	5	0.01
0.800	0	5	0.01
0.810	11	16	0.02
0.820	0	16	0.02
0.830	0	16	0.02

0.840	1	17	0.02
0.850	1	18	0.02
0.860	1	19	0.02
0.870	2	21	0.02
0.880	38	59	0.06
0.890	28	87	0.09
0.900	69	156	0.16
0.910	116	272	0.29
0.920	193	465	0.49
0.930	254	719	0.76
0.940	738	1457	1.54
0.950	1328	2785	2.94
0.960	2464	5249	5.53
0.970	4652	9901	10.44
0.980	6515	16416	17.31
0.990	8097	24513	25.84
1.000	11004	35517	37.44
1.010	10488	46005	48.50
1.020	9310	55315	58.31
1.030	12345	67660	71.33
1.040	6700	74360	78.39
1.050	5019	79379	83.68
1.060	3236	82615	87.09
1.070	1999	84614	89.20
1.080	1788	86402	91.09
1.090	1478	87880	92.64
1.100	1631	89511	94.36
1.110	1176	90687	95.60
1.120	832	91519	96.48
1.130	682	92201	97.20
1.140	442	92643	97.66
1.150	223	92866	97.90
1.160	372	93238	98.29
1.170	128	93366	98.43
1.180	108	93474	98.54
1.190	232	93706	98.79
1.200	135	93841	98.93
1.210	68	93909	99.00
1.220	32	93941	99.03
1.230	131	94072	99.17
1.240	101	94173	99.28
1.250	114	94287	99.40
1.260	112	94399	99.52
1.270	69	94468	99.59
1.280	33	94501	99.62
1.290	64	94565	99.69
1.300	85	94650	99.78
1.310	30	94680	99.81
1.320	60	94740	99.88
1.330	20	94760	99.90
1.340	8	94768	99.91
1.350	2	94770	99.91
1.360	44	94814	99.95
1.370	7	94821	99.96
1.380	0	94821	99.96
1.390	0	94821	99.96
1.400	0	94821	99.96
1.410	1	94822	99.96
1.420	0	94822	99.96
1.430	12	94834	99.97
1.440	0	94834	99.97
1.450	16	94850	99.99
1.460	8	94858	100.00
1.470	0	94858	100.00
1.480	0	94858	100.00
1.490	0	94858	100.00
1.500	0	94858	100.00
1.510	0	94858	100.00
1.520	0	94858	100.00
1.530	0	94858	100.00

1.540	0	94858	100.00
1.550	0	94858	100.00
1.560	0	94858	100.00
1.570	0	94858	100.00
1.580	0	94858	100.00
1.590	0	94858	100.00
Above	0	94858	100.00

Year	MTU	B Assy	P Assy
2010	295.63	616	420
2011	597.83	1232	861
2012	1191.39	2772	1545
2013	2013.79	3520	3151
2014	2995.15	5697	4614
2015	2989.70	5847	4518
2016	3010.31	5788	4569
2017	3006.31	5192	4740
2018	2991.74	5891	4521
2019	2998.63	5696	4554
2020	3000.01	5304	4716
2021	3002.37	6072	4398
2022	2992.56	5772	4536
2023	3018.49	5412	4728
2024	2981.63	6028	4413
2025	3012.33	6739	4231
2026	2996.05	7765	3927
2027	3006.00	7036	4158
2028	2996.31	6401	4263
2029	3008.99	5961	4515
2030	3016.89	6246	4494
2031	2979.98	4993	4893
2032	2995.87	5123	4929
2033	1902.14	3022	3164
2034	0.00	0	0
2035	0.00	0	0
2036	0.00	0	0
2037	0.00	0	0
2038	0.00	0	0
2039	0.00	0	0
2040	0.00	0	0
2041	0.00	0	0
2042	0.00	0	0
2043	0.00	0	0
2044	0.00	0	0
2045	0.00	0	0

Average age = 27.321

JUNK FILE LISTING:

Nassy=1 burnup=1.87	kinf=1.529	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.45	kinf=1.536	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.53	kinf=1.535	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=1 burnup=6.38	kinf=1.455	Enrch=3.63	Dschg=1969	WEST VALLEY
Nassy=2 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=3 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=8 burnup=0.34	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.18	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.36	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.23	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=6 burnup=0.34	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=4 burnup=0.34	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (

Nassy=7	burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.77	kinf=1.260	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.86	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.79	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8	burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=11	burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.34	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.46	kinf=1.270	Enrch=1.97	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.57	kinf=1.267	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=8	burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.76	kinf=1.261	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.23	kinf=1.279	Enrch=2.00	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.46	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.09	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.27	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.28	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.32	kinf=1.275	Enrch=1.99	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.11	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.42	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.23	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=11	burnup=1.34	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.15	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.15	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8	burnup=1.44	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=15	burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=0.86	kinf=1.291	Enrch=2.04	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.62	kinf=1.265	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.64	kinf=1.264	Enrch=1.95	Dschg=1971	GE MORRIS (
Nassy=10	burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=15	burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.13	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=24	burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.78	kinf=1.260	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=2	burnup=9.28	kinf=1.410	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=4.99	kinf=1.478	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=8.24	kinf=1.426	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=1.53	kinf=1.318	Enrch=2.26	Dschg=1971	DRESDEN
Nassy=1	burnup=4.49	kinf=1.250	Enrch=2.11	Dschg=1971	OYSTER CRK
Nassy=1	burnup=3.27	kinf=1.212	Enrch=1.78	Dschg=1972	GE MORRIS (
Nassy=44	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=16	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=28	burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=8	burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=12	burnup=2.81	kinf=1.227	Enrch=1.83	Dschg=1972	GE MORRIS (
Nassy=10	burnup=3.13	kinf=1.217	Enrch=1.80	Dschg=1972	GE MORRIS (
Nassy=3	burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=11	burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=16	burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=28	burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=6	burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=33	burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=5	burnup=4.62	kinf=1.173	Enrch=1.67	Dschg=1972	GE MORRIS (
Nassy=9	burnup=4.62	kinf=1.173	Enrch=1.67	Dschg=1972	GE MORRIS (
Nassy=13	burnup=3.39	kinf=1.209	Enrch=1.77	Dschg=1972	GE MORRIS (
Nassy=1	burnup=3.34	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=4	burnup=3.34	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=5	burnup=4.77	kinf=1.249	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=5	burnup=3.84	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=1	burnup=3.28	kinf=1.271	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=1	burnup=2.73	kinf=1.279	Enrch=2.13	Dschg=1972	GE MORRIS (

Nassy=5 burnup=4.69	kinf=1.250	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=18 burnup=4.69	kinf=1.250	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=22 burnup=4.31	kinf=1.182	Enrch=1.69	Dschg=1972	GE MORRIS (
Nassy=1 burnup=4.31	kinf=1.182	Enrch=1.69	Dschg=1972	GE MORRIS (
Nassy=3 burnup=3.12	kinf=1.273	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=7 burnup=3.12	kinf=1.273	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=13 burnup=3.60	kinf=1.203	Enrch=1.76	Dschg=1972	GE MORRIS (
Nassy=4 burnup=2.84	kinf=1.277	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=20 burnup=4.38	kinf=1.254	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=13 burnup=4.38	kinf=1.254	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=22 burnup=4.38	kinf=1.254	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=3 burnup=3.91	kinf=1.261	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=6 burnup=3.79	kinf=1.263	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=15 burnup=3.79	kinf=1.263	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=15 burnup=3.77	kinf=1.264	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=14 burnup=3.77	kinf=1.264	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=30 burnup=3.77	kinf=1.264	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=14 burnup=4.39	kinf=1.179	Enrch=1.68	Dschg=1972	GE MORRIS (
Nassy=3 burnup=4.39	kinf=1.179	Enrch=1.68	Dschg=1972	GE MORRIS (
Nassy=7 burnup=4.39	kinf=1.179	Enrch=1.68	Dschg=1972	GE MORRIS (
Nassy=14 burnup=4.64	kinf=1.172	Enrch=1.66	Dschg=1972	GE MORRIS (
Nassy=1 burnup=8.59	kinf=1.421	Enrch=3.63	Dschg=1972	WEST VALLEY
Nassy=1 burnup=9.12	kinf=1.413	Enrch=3.63	Dschg=1972	WEST VALLEY
Nassy=1 burnup=8.73	kinf=1.419	Enrch=3.63	Dschg=1972	WEST VALLEY
Nassy=2 burnup=4.86	kinf=1.239	Enrch=2.08	Dschg=1972	MILLSTONE
Nassy=4 burnup=6.45	kinf=1.454	Enrch=3.63	Dschg=1973	WEST VALLEY
Nassy=1 burnup=8.75	kinf=1.418	Enrch=3.63	Dschg=1973	WEST VALLEY
Nassy=1 burnup=7.35	kinf=1.440	Enrch=3.63	Dschg=1973	WEST VALLEY
Nassy=1 burnup=3.88	kinf=1.262	Enrch=2.13	Dschg=1973	DRESDEN
Nassy=2 burnup=4.96	kinf=1.246	Enrch=2.13	Dschg=1973	DRESDEN
Nassy=1 burnup=1.05	kinf=1.365	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=3 burnup=0.97	kinf=1.366	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=5 burnup=4.32	kinf=1.315	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1 burnup=0.99	kinf=1.366	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=7 burnup=4.39	kinf=1.315	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=7 burnup=4.39	kinf=1.315	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=7 burnup=4.39	kinf=1.315	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=2 burnup=4.00	kinf=1.320	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=5 burnup=4.05	kinf=1.320	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=4 burnup=1.16	kinf=1.364	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=6 burnup=4.66	kinf=1.311	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1 burnup=0.99	kinf=1.366	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1 burnup=4.69	kinf=1.310	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=2 burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=2 burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1 burnup=8.77	kinf=1.418	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=4 burnup=9.10	kinf=1.413	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1 burnup=3.97	kinf=1.271	Enrch=2.19	Dschg=1973	PILGRIM
Nassy=1 burnup=2.63	kinf=1.290	Enrch=2.19	Dschg=1973	PILGRIM
Nassy=1 burnup=8.95	kinf=1.415	Enrch=3.63	Dschg=1974	WEST VALLEY
Nassy=1 burnup=8.15	kinf=1.428	Enrch=3.63	Dschg=1974	WEST VALLEY
Nassy=5 burnup=4.95	kinf=1.306	Enrch=2.50	Dschg=1974	VT YANKEE
Nassy=3 burnup=4.95	kinf=1.306	Enrch=2.50	Dschg=1974	VT YANKEE
Nassy=1 burnup=7.57	kinf=1.476	Enrch=3.92	Dschg=1975	LACROSSE
Nassy=1 burnup=3.71	kinf=1.263	Enrch=2.12	Dschg=1975	DUANE ARNOL
Nassy=1 burnup=3.78	kinf=1.280	Enrch=2.23	Dschg=1975	DRESDEN
Nassy=1 burnup=2.90	kinf=1.273	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=1 burnup=3.30	kinf=1.267	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=2 burnup=2.43	kinf=1.105	Enrch=1.11	Dschg=1976	BRUNSWICK
Nassy=2 burnup=3.05	kinf=1.320	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=3.30	kinf=1.315	Enrch=2.40	Dschg=1976	HUMBOLDT BA
Nassy=4 burnup=2.43	kinf=1.329	Enrch=2.41	Dschg=1976	HUMBOLDT BA
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Nassy=2 burnup=3.89	kinf=1.308	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=4.34	kinf=1.301	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=1.31	kinf=1.346	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=12.04	kinf=1.407	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1 burnup=12.30	kinf=1.403	Enrch=3.93	Dschg=1977	LACROSSE
Nassy=1 burnup=7.61	kinf=1.476	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1 burnup=12.42	kinf=1.401	Enrch=3.92	Dschg=1977	LACROSSE

Nassy=5 burnup=3.65	kinf=1.282 Enrch=2.23 Dschg=1978	DRESDEN
Nassy=2 burnup=3.35	kinf=1.287 Enrch=2.23 Dschg=1978	DRESDEN
Nassy=4 burnup=3.35	kinf=1.287 Enrch=2.23 Dschg=1978	DRESDEN
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Nassy=21 burnup=4.97	kinf=1.263 Enrch=2.23 Dschg=1978	DRESDEN
Nassy=5 burnup=4.97	kinf=1.263 Enrch=2.23 Dschg=1978	DRESDEN
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Nassy=4 burnup=3.58	kinf=1.019 Enrch=0.72 Dschg=1980	HATCH
Nassy=16 burnup=1.89	kinf=1.041 Enrch=0.72 Dschg=1980	HATCH
Nassy=3 burnup=2.53	kinf=1.032 Enrch=0.72 Dschg=1980	HATCH
Nassy=5 burnup=2.53	kinf=1.032 Enrch=0.72 Dschg=1980	HATCH
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Nassy=5 burnup=4.31	kinf=1.009 Enrch=0.72 Dschg=1980	HATCH
Nassy=4 burnup=3.00	kinf=1.026 Enrch=0.72 Dschg=1980	HATCH
Nassy=8 burnup=3.15	kinf=1.024 Enrch=0.72 Dschg=1985	SUSQUEHANNA
Nassy=8 burnup=4.11	kinf=1.012 Enrch=0.72 Dschg=1985	SUSQUEHANNA
Nassy=16 burnup=4.71	kinf=1.004 Enrch=0.72 Dschg=1985	SUSQUEHANNA
Nassy=29 burnup=4.71	kinf=1.004 Enrch=0.72 Dschg=1985	SUSQUEHANNA
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Nassy=8 burnup=2.96	kinf=1.027 Enrch=0.72 Dschg=1985	SUSQUEHANNA
Nassy=4 burnup=3.14	kinf=1.024 Enrch=0.72 Dschg=1985	LASALLE
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Nassy=8 burnup=2.64	kinf=1.031 Enrch=0.72 Dschg=1985	LASALLE
Nassy=8 burnup=2.22	kinf=1.038 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=14 burnup=2.86	kinf=1.030 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=8 burnup=3.07	kinf=1.027 Enrch=0.73 Dschg=1986	WASH NUCLEA
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Nassy=6 burnup=2.76	kinf=1.030 Enrch=0.72 Dschg=1986	SUSQUEHANNA
Nassy=12 burnup=3.50	kinf=1.020 Enrch=0.72 Dschg=1986	SUSQUEHANNA
Nassy=7 burnup=3.98	kinf=1.015 Enrch=0.73 Dschg=1986	SUSQUEHANNA
Nassy=15 burnup=3.98	kinf=1.015 Enrch=0.73 Dschg=1986	SUSQUEHANNA
Nassy=2 burnup=4.00	kinf=1.013 Enrch=0.72 Dschg=1987	LASALLE
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Nassy=1 burnup=4.00	kinf=1.013 Enrch=0.72 Dschg=1987	LASALLE
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Nassy=44 burnup=3.00	kinf=1.026 Enrch=0.72 Dschg=1989	CLINTON
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 Nassy=20 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1990 NINE MILE P
 Nassy=4 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1991 SUSQUEHANNA
 Nassy=36 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1991 LIMERICK
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 Nassy=12 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1991 LIMERICK
 Nassy=1 burnup=1.97 kinf=1.483 Enrch=3.34 Dschg=1994 RVR BEND
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 age=9 , mass= 0.172000
 Nassy=29 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
 Nassy=8 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
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 Nassy=7 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
 Nassy=24 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
 Nassy=16 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
 Nassy=28 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
 Nassy=12 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
 Nassy=176 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
 Nassy=13 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
 Nassy=3 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM

INPUT FILE LISTING:

#bins	Input_file	Output_file	Case_title	Last_delivery
0	case6.wsm	case6.out	W6:off_2dpc_isf_63	2045
Type	Cap	Hmin	Hmax	Kmin
				Kmax

OUTPUT FILE LISTING:

W6:off_2dpc_isf_63
Standard Table

BWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	632	632	0.51
20	1395	2027	1.62
30	1645	3672	2.94
40	2403	6075	4.86
50	2705	8780	7.02
60	3140	11920	9.53
70	4045	15965	12.76
80	6432	22397	17.91
90	8618	31015	24.80
100	8048	39063	31.23
110	5142	44205	35.34
120	3131	47336	37.84
130	2573	49909	39.90
140	3614	53523	42.79
150	3499	57022	45.59
160	3059	60081	48.03
170	2475	62556	50.01
180	2289	64845	51.84
190	2692	67537	53.99
200	4386	71923	57.50
210	3046	74969	59.93
220	3035	78004	62.36
230	4561	82565	66.01
240	4413	86978	69.54
250	4852	91830	73.41
260	4727	96557	77.19
270	4994	101551	81.19
280	5252	106803	85.39
290	4840	111643	89.25
300	3168	114811	91.79
310	3193	118004	94.34
320	1840	119844	95.81
330	1931	121775	97.35
340	1759	123534	98.76
350	1080	124614	99.62
360	470	125084	100.00
370	0	125084	100.00
380	0	125084	100.00
390	0	125084	100.00
400	0	125084	100.00
410	0	125084	100.00
420	0	125084	100.00
430	0	125084	100.00
440	0	125084	100.00
450	0	125084	100.00
460	0	125084	100.00
470	0	125084	100.00
480	0	125084	100.00
490	0	125084	100.00
500	0	125084	100.00
510	0	125084	100.00
520	0	125084	100.00
530	0	125084	100.00
540	0	125084	100.00
550	0	125084	100.00

560	0	125084	100.00
570	0	125084	100.00
580	0	125084	100.00
590	0	125084	100.00
600	0	125084	100.00
610	0	125084	100.00
620	0	125084	100.00
630	0	125084	100.00
640	0	125084	100.00
650	0	125084	100.00
660	0	125084	100.00
670	0	125084	100.00
680	0	125084	100.00
690	0	125084	100.00
700	0	125084	100.00
710	0	125084	100.00
720	0	125084	100.00
730	0	125084	100.00
740	0	125084	100.00
750	0	125084	100.00
760	0	125084	100.00
770	0	125084	100.00
780	0	125084	100.00
790	0	125084	100.00
800	0	125084	100.00
810	0	125084	100.00
820	0	125084	100.00
830	0	125084	100.00
840	0	125084	100.00
850	0	125084	100.00
860	0	125084	100.00
870	0	125084	100.00
880	0	125084	100.00
890	0	125084	100.00
900	0	125084	100.00
910	0	125084	100.00
920	0	125084	100.00
930	0	125084	100.00
940	0	125084	100.00
950	0	125084	100.00
960	0	125084	100.00
970	0	125084	100.00
980	0	125084	100.00
990	0	125084	100.00
Above	0	125084	100.00

BWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	0	0	0.00
0.770	0	0	0.00
0.780	0	0	0.00
0.790	0	0	0.00
0.800	0	0	0.00
0.810	12	12	0.01
0.820	0	12	0.01
0.830	16	28	0.02
0.840	0	28	0.02
0.850	9	37	0.03
0.860	114	151	0.12
0.870	0	151	0.12
0.880	0	151	0.12
0.890	0	151	0.12
0.900	191	342	0.27
0.910	61	403	0.32
0.920	579	982	0.79
0.930	636	1618	1.29
0.940	1111	2729	2.18
0.950	1163	3892	3.11
0.960	1824	5716	4.57

0.970	3084	8800	7.04
0.980	9153	17953	14.35
0.990	5064	23017	18.40
1.000	7068	30085	24.05
1.010	9051	39136	31.29
1.020	13092	52228	41.75
1.030	12000	64228	51.35
1.040	16613	80841	64.63
1.050	8509	89350	71.43
1.060	8937	98287	78.58
1.070	5352	103639	82.86
1.080	3248	106887	85.45
1.090	3476	110363	88.23
1.100	1904	112267	89.75
1.110	1061	113328	90.60
1.120	2111	115439	92.29
1.130	459	115898	92.66
1.140	1307	117205	93.70
1.150	493	117698	94.10
1.160	781	118479	94.72
1.170	458	118937	95.09
1.180	569	119506	95.54
1.190	190	119696	95.69
1.200	226	119922	95.87
1.210	289	120211	96.10
1.220	240	120451	96.30
1.230	122	120573	96.39
1.240	243	120816	96.59
1.250	413	121229	96.92
1.260	671	121900	97.45
1.270	255	122155	97.66
1.280	69	122224	97.71
1.290	263	122487	97.92
1.300	366	122853	98.22
1.310	165	123018	98.35
1.320	100	123118	98.43
1.330	332	123450	98.69
1.340	205	123655	98.86
1.350	79	123734	98.92
1.360	35	123769	98.95
1.370	65	123834	99.00
1.380	588	124422	99.47
1.390	133	124555	99.58
1.400	19	124574	99.59
1.410	451	125025	99.95
1.420	16	125041	99.97
1.430	3	125044	99.97
1.440	0	125044	99.97
1.450	1	125045	99.97
1.460	5	125050	99.97
1.470	1	125051	99.97
1.480	3	125054	99.98
1.490	25	125079	100.00
1.500	0	125079	100.00
1.510	0	125079	100.00
1.520	0	125079	100.00
1.530	1	125080	100.00
1.540	4	125084	100.00
1.550	0	125084	100.00
1.560	0	125084	100.00
1.570	0	125084	100.00
1.580	0	125084	100.00
1.590	0	125084	100.00
Above	0	125084	100.00

PWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	28	28	0.03
20	15	43	0.05

30	22	65	0.07
40	82	147	0.16
50	82	229	0.24
60	114	343	0.36
70	139	482	0.51
80	162	644	0.68
90	244	888	0.94
100	357	1245	1.32
110	446	1691	1.79
120	435	2126	2.25
130	778	2904	3.07
140	768	3672	3.88
150	793	4465	4.72
160	1047	5512	5.83
170	803	6315	6.67
180	783	7098	7.50
190	1078	8176	8.64
200	1151	9327	9.86
210	1180	10507	11.10
220	1680	12187	12.88
230	1558	13745	14.53
240	1983	15728	16.62
250	1914	17642	18.65
260	1740	19382	20.48
270	1819	21201	22.41
280	1652	22853	24.15
290	1845	24698	26.10
300	1313	26011	27.49
310	1617	27628	29.20
320	1819	29447	31.12
330	1574	31021	32.79
340	1339	32360	34.20
350	1507	33867	35.79
360	1082	34949	36.94
370	1005	35954	38.00
380	1277	37231	39.35
390	1179	38410	40.60
400	1305	39715	41.97
410	1343	41058	43.39
420	1630	42688	45.12
430	1346	44034	46.54
440	1663	45697	48.30
450	1251	46948	49.62
460	1653	48601	51.37
470	1832	50433	53.30
480	1481	51914	54.87
490	1228	53142	56.17
500	1506	54648	57.76
510	1172	55820	59.00
520	1737	57557	60.83
530	1404	58961	62.32
540	1034	59995	63.41
550	1606	61601	65.11
560	1122	62723	66.29
570	1372	64095	67.74
580	1160	65255	68.97
590	1312	66567	70.35
600	2078	68645	72.55
610	1800	70445	74.45
620	1658	72103	76.21
630	1638	73741	77.94
640	1460	75201	79.48
650	1253	76454	80.80
660	1543	77997	82.44
670	1261	79258	83.77
680	1295	80553	85.14
690	2221	82774	87.48
700	2276	85050	89.89
710	1895	86945	91.89
720	574	87519	92.50

730	674	88193	93.21
740	525	88718	93.77
750	589	89307	94.39
760	479	89786	94.90
770	771	90557	95.71
780	710	91267	96.46
790	287	91554	96.76
800	452	92006	97.24
810	480	92486	97.75
820	438	92924	98.21
830	290	93214	98.52
840	196	93410	98.73
850	166	93576	98.90
860	239	93815	99.15
870	99	93914	99.26
880	35	93949	99.30
890	35	93984	99.33
900	146	94130	99.49
910	71	94201	99.56
920	53	94254	99.62
930	47	94301	99.67
940	4	94305	99.67
950	52	94357	99.73
960	39	94396	99.77
970	34	94430	99.80
980	45	94475	99.85
990	1	94476	99.85
1000	96	94572	99.95
1010	0	94572	99.95
1020	0	94572	99.95
1030	0	94572	99.95
1040	16	94588	99.97
1050	0	94588	99.97
1060	14	94602	99.99
1070	0	94602	99.99
1080	0	94602	99.99
1090	0	94602	99.99
1100	0	94602	99.99
1110	0	94602	99.99
1120	14	94616	100.00
1130	0	94616	100.00
1140	0	94616	100.00
1150	0	94616	100.00
1160	0	94616	100.00
1170	0	94616	100.00
1180	0	94616	100.00
1190	0	94616	100.00
1200	0	94616	100.00
1210	0	94616	100.00
1220	0	94616	100.00
1230	0	94616	100.00
1240	0	94616	100.00
1250	0	94616	100.00
1260	0	94616	100.00
1270	0	94616	100.00
1280	0	94616	100.00
1290	0	94616	100.00
1300	0	94616	100.00
1310	0	94616	100.00
1320	0	94616	100.00
1330	0	94616	100.00
1340	0	94616	100.00
1350	0	94616	100.00
1360	0	94616	100.00
1370	0	94616	100.00
1380	0	94616	100.00
1390	0	94616	100.00
1400	0	94616	100.00
1410	0	94616	100.00
1420	0	94616	100.00

1430	0	94616	100.00
1440	0	94616	100.00
1450	0	94616	100.00
1460	0	94616	100.00
1470	0	94616	100.00
1480	0	94616	100.00
1490	0	94616	100.00
1500	0	94616	100.00
1510	0	94616	100.00
1520	0	94616	100.00
1530	0	94616	100.00
1540	0	94616	100.00
1550	0	94616	100.00
1560	0	94616	100.00
1570	0	94616	100.00
1580	0	94616	100.00
1590	0	94616	100.00
1600	0	94616	100.00
1610	0	94616	100.00
1620	0	94616	100.00
1630	0	94616	100.00
1640	0	94616	100.00
1650	0	94616	100.00
1660	0	94616	100.00
1670	0	94616	100.00
1680	0	94616	100.00
1690	0	94616	100.00
1700	0	94616	100.00
1710	0	94616	100.00
1720	0	94616	100.00
1730	0	94616	100.00
1740	0	94616	100.00
1750	0	94616	100.00
1760	0	94616	100.00
1770	0	94616	100.00
1780	0	94616	100.00
1790	0	94616	100.00
1800	0	94616	100.00
1810	0	94616	100.00
1820	0	94616	100.00
1830	0	94616	100.00
1840	0	94616	100.00
1850	0	94616	100.00
1860	0	94616	100.00
1870	0	94616	100.00
1880	0	94616	100.00
1890	0	94616	100.00
1900	0	94616	100.00
1910	0	94616	100.00
1920	0	94616	100.00
1930	0	94616	100.00
1940	0	94616	100.00
1950	0	94616	100.00
1960	0	94616	100.00
1970	0	94616	100.00
1980	0	94616	100.00
1990	0	94616	100.00
Above	0	94616	100.00

PWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	5	5	0.01
0.770	0	5	0.01
0.780	0	5	0.01
0.790	0	5	0.01
0.800	0	5	0.01
0.810	0	5	0.01
0.820	6	11	0.01
0.830	5	16	0.02

0.840	83	99	0.10
0.850	1	100	0.11
0.860	1	101	0.11
0.870	3	104	0.11
0.880	38	142	0.15
0.890	27	169	0.18
0.900	69	238	0.25
0.910	116	354	0.37
0.920	183	537	0.57
0.930	253	790	0.83
0.940	740	1530	1.62
0.950	1270	2800	2.96
0.960	2311	5111	5.40
0.970	4495	9606	10.15
0.980	6575	16181	17.10
0.990	8367	24548	25.94
1.000	10841	35389	37.40
1.010	10055	45444	48.03
1.020	9270	54714	57.83
1.030	11213	65927	69.68
1.040	7813	73740	77.94
1.050	5074	78814	83.30
1.060	3164	81978	86.64
1.070	1964	83942	88.72
1.080	1980	85922	90.81
1.090	1463	87385	92.36
1.100	1431	88816	93.87
1.110	1219	90035	95.16
1.120	921	90956	96.13
1.130	699	91655	96.87
1.140	498	92153	97.40
1.150	221	92374	97.63
1.160	440	92814	98.10
1.170	93	92907	98.19
1.180	136	93043	98.34
1.190	231	93274	98.58
1.200	212	93486	98.81
1.210	78	93564	98.89
1.220	55	93619	98.95
1.230	136	93755	99.09
1.240	102	93857	99.20
1.250	107	93964	99.31
1.260	125	94089	99.44
1.270	80	94169	99.53
1.280	66	94235	99.60
1.290	68	94303	99.67
1.300	105	94408	99.78
1.310	30	94438	99.81
1.320	60	94498	99.88
1.330	16	94514	99.89
1.340	8	94522	99.90
1.350	2	94524	99.90
1.360	44	94568	99.95
1.370	7	94575	99.96
1.380	0	94575	99.96
1.390	4	94579	99.96
1.400	0	94579	99.96
1.410	1	94580	99.96
1.420	0	94580	99.96
1.430	12	94592	99.97
1.440	0	94592	99.97
1.450	16	94608	99.99
1.460	8	94616	100.00
1.470	0	94616	100.00
1.480	0	94616	100.00
1.490	0	94616	100.00
1.500	0	94616	100.00
1.510	0	94616	100.00
1.520	0	94616	100.00
1.530	0	94616	100.00

1.540	0	94616	100.00
1.550	0	94616	100.00
1.560	0	94616	100.00
1.570	0	94616	100.00
1.580	0	94616	100.00
1.590	0	94616	100.00
Above	0	94616	100.00

Year	MTU	B Assy	P Assy
2010	307.51	352	546
2011	590.37	1232	840
2012	1202.95	2596	1662
2013	2008.55	3872	3009
2014	2993.28	5741	4605
2015	3000.80	5389	4725
2016	2974.23	5832	4494
2017	3007.83	5552	4644
2018	3002.12	6240	4368
2019	2990.61	5389	4716
2020	3007.17	5456	4704
2021	3003.40	6336	4323
2022	2990.95	5706	4563
2023	3011.69	4752	4972
2024	2990.80	6380	4305
2025	3017.86	7382	3916
2026	2999.16	8117	3780
2027	2988.99	6883	4179
2028	3010.64	6070	4452
2029	2993.74	6313	4284
2030	2996.67	6070	4578
2031	3008.74	5301	4830
2032	2996.49	5211	4866
2033	1914.59	2912	3255
2034	0.00	0	0
2035	0.00	0	0
2036	0.00	0	0
2037	0.00	0	0
2038	0.00	0	0
2039	0.00	0	0
2040	0.00	0	0
2041	0.00	0	0
2042	0.00	0	0
2043	0.00	0	0
2044	0.00	0	0
2045	0.00	0	0

Average age = 26.631

JUNK FILE LISTING:

Nassy=1 burnup=1.87	kinf=1.529	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.45	kinf=1.536	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.53	kinf=1.535	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=1 burnup=6.38	kinf=1.455	Enrch=3.63	Dschg=1969	WEST VALLEY
Nassy=2 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=3 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=8 burnup=0.34	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.18	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.36	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.23	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=10 burnup=0.34	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (

Nassy=7	burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.77	kinf=1.260	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.86	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.79	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=16	burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.34	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.46	kinf=1.270	Enrch=1.97	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.57	kinf=1.267	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=8	burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.76	kinf=1.261	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.23	kinf=1.279	Enrch=2.00	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.46	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.09	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.27	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.27	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.28	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.32	kinf=1.275	Enrch=1.99	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.11	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.42	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.23	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=11	burnup=1.34	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.15	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.44	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.44	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=15	burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=0.86	kinf=1.291	Enrch=2.04	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.62	kinf=1.265	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.64	kinf=1.264	Enrch=1.95	Dschg=1971	GE MORRIS (
Nassy=18	burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=7	burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.13	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=24	burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.78	kinf=1.260	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=2	burnup=9.28	kinf=1.410	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=4.99	kinf=1.478	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=8.24	kinf=1.426	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=1.53	kinf=1.318	Enrch=2.26	Dschg=1971	DRESDEN
Nassy=1	burnup=4.49	kinf=1.250	Enrch=2.11	Dschg=1971	OYSTER CRK
Nassy=1	burnup=3.27	kinf=1.212	Enrch=1.78	Dschg=1972	GE MORRIS (
Nassy=8	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=44	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=8	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=36	burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=12	burnup=2.81	kinf=1.227	Enrch=1.83	Dschg=1972	GE MORRIS (
Nassy=10	burnup=3.13	kinf=1.217	Enrch=1.80	Dschg=1972	GE MORRIS (
Nassy=3	burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=19	burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=8	burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=34	burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=2	burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=31	burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=13	burnup=4.62	kinf=1.173	Enrch=1.67	Dschg=1972	GE MORRIS (
Nassy=1	burnup=4.62	kinf=1.173	Enrch=1.67	Dschg=1972	GE MORRIS (
Nassy=13	burnup=3.39	kinf=1.209	Enrch=1.77	Dschg=1972	GE MORRIS (
Nassy=1	burnup=3.34	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=4	burnup=3.34	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=5	burnup=4.77	kinf=1.249	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=5	burnup=3.84	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=1	burnup=3.28	kinf=1.271	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=1	burnup=2.73	kinf=1.279	Enrch=2.13	Dschg=1972	GE MORRIS (

Nassy=13	burnup=4.69	kinf=1.250	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=10	burnup=4.69	kinf=1.250	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=22	burnup=4.31	kinf=1.182	Enrch=1.69	Dschg=1972	GE MORRIS (
Nassy=1	burnup=4.31	kinf=1.182	Enrch=1.69	Dschg=1972	GE MORRIS (
Nassy=10	burnup=3.12	kinf=1.273	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=1	burnup=3.60	kinf=1.203	Enrch=1.76	Dschg=1972	GE MORRIS (
Nassy=12	burnup=3.60	kinf=1.203	Enrch=1.76	Dschg=1972	GE MORRIS (
Nassy=4	burnup=2.84	kinf=1.277	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=28	burnup=4.38	kinf=1.254	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=5	burnup=4.38	kinf=1.254	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=22	burnup=4.38	kinf=1.254	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=3	burnup=3.91	kinf=1.261	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=14	burnup=3.79	kinf=1.263	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=7	burnup=3.79	kinf=1.263	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=15	burnup=3.77	kinf=1.264	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=22	burnup=3.77	kinf=1.264	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=22	burnup=3.77	kinf=1.264	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=17	burnup=4.39	kinf=1.179	Enrch=1.68	Dschg=1972	GE MORRIS (
Nassy=5	burnup=4.39	kinf=1.179	Enrch=1.68	Dschg=1972	GE MORRIS (
Nassy=2	burnup=4.39	kinf=1.179	Enrch=1.68	Dschg=1972	GE MORRIS (
Nassy=14	burnup=4.64	kinf=1.172	Enrch=1.66	Dschg=1972	GE MORRIS (
Nassy=1	burnup=8.59	kinf=1.421	Enrch=3.63	Dschg=1972	WEST VALLEY
Nassy=1	burnup=9.12	kinf=1.413	Enrch=3.63	Dschg=1972	WEST VALLEY
Nassy=1	burnup=8.73	kinf=1.419	Enrch=3.63	Dschg=1972	WEST VALLEY
Nassy=2	burnup=4.86	kinf=1.239	Enrch=2.08	Dschg=1972	MILLSTONE
Nassy=4	burnup=6.45	kinf=1.454	Enrch=3.63	Dschg=1973	WEST VALLEY
Nassy=1	burnup=8.75	kinf=1.418	Enrch=3.63	Dschg=1973	WEST VALLEY
Nassy=1	burnup=7.35	kinf=1.440	Enrch=3.63	Dschg=1973	WEST VALLEY
Nassy=1	burnup=3.88	kinf=1.262	Enrch=2.13	Dschg=1973	DRESDEN
Nassy=2	burnup=4.96	kinf=1.246	Enrch=2.13	Dschg=1973	DRESDEN
Nassy=4	burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1	burnup=8.77	kinf=1.418	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=4	burnup=9.10	kinf=1.413	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1	burnup=3.97	kinf=1.271	Enrch=2.19	Dschg=1973	PILGRIM
Nassy=1	burnup=2.63	kinf=1.290	Enrch=2.19	Dschg=1973	PILGRIM
Nassy=1	burnup=8.95	kinf=1.415	Enrch=3.63	Dschg=1974	WEST VALLEY
Nassy=1	burnup=8.15	kinf=1.428	Enrch=3.63	Dschg=1974	WEST VALLEY
Nassy=1	burnup=7.57	kinf=1.476	Enrch=3.92	Dschg=1975	LACROSSE
Nassy=1	burnup=3.71	kinf=1.263	Enrch=2.12	Dschg=1975	DUANE ARNOL
Nassy=1	burnup=3.78	kinf=1.280	Enrch=2.23	Dschg=1975	DRESDEN
Nassy=1	burnup=4.80	kinf=1.467	Enrch=3.54	Dschg=1976	BIG ROCK
Nassy=1	burnup=2.90	kinf=1.273	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=1	burnup=3.30	kinf=1.267	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=2	burnup=2.43	kinf=1.105	Enrch=1.11	Dschg=1976	BRUNSWICK
Nassy=2	burnup=3.05	kinf=1.320	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=3.30	kinf=1.315	Enrch=2.40	Dschg=1976	HUMBOLDT BA
Nassy=4	burnup=2.43	kinf=1.329	Enrch=2.41	Dschg=1976	HUMBOLDT BA
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Nassy=2	burnup=3.89	kinf=1.308	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=4.34	kinf=1.301	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1	burnup=1.31	kinf=1.346	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1	burnup=12.04	kinf=1.407	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1	burnup=12.30	kinf=1.403	Enrch=3.93	Dschg=1977	LACROSSE
Nassy=1	burnup=7.61	kinf=1.476	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=5	burnup=12.42	kinf=1.401	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=5	burnup=3.65	kinf=1.282	Enrch=2.23	Dschg=1978	DRESDEN
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Nassy=4	burnup=4.00	kinf=1.277	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=7	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=14	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
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Nassy=1	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=22	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=8	burnup=3.15	kinf=1.024	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=1	burnup=4.11	kinf=1.012	Enrch=0.72	Dschg=1985	SUSQUEHANNA
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Nassy=18 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
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INPUT FILE LISTING:

#bins	Input_file	Output_file	Case_title	Last_delivery
0	case7.wsm	case7.out	W7:off_2dpc_noi_63	2045
Type	Cap	Hmin	Hmax	Kmin
			Kmax	

OUTPUT FILE LISTING:

W7:off_2dpc_noi_63
Standard Table

BWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	464	464	0.37
20	1524	1988	1.59
30	1575	3563	2.84
40	2676	6239	4.98
50	2501	8740	6.97
60	3263	12003	9.58
70	3697	15700	12.53
80	4198	19898	15.88
90	3232	23130	18.46
100	3865	26995	21.54
110	4222	31217	24.91
120	5211	36428	29.07
130	4618	41046	32.75
140	2608	43654	34.83
150	2964	46618	37.20
160	3149	49767	39.71
170	3436	53203	42.45
180	2955	56158	44.81
190	4648	60806	48.52
200	5022	65828	52.53
210	5879	71707	57.22
220	6198	77905	62.16
230	6166	84071	67.09
240	6634	90705	72.38
250	6302	97007	77.41
260	5605	102612	81.88
270	4012	106624	85.08
280	3590	110214	87.95
290	3283	113497	90.57
300	2563	116060	92.61
310	2368	118428	94.50
320	2135	120563	96.20
330	1547	122110	97.44
340	1150	123260	98.36
350	1196	124456	99.31
360	780	125236	99.93
370	84	125320	100.00
380	0	125320	100.00
390	0	125320	100.00
400	0	125320	100.00
410	0	125320	100.00
420	0	125320	100.00
430	0	125320	100.00
440	0	125320	100.00
450	0	125320	100.00
460	0	125320	100.00
470	0	125320	100.00
480	0	125320	100.00
490	0	125320	100.00
500	0	125320	100.00
510	0	125320	100.00
520	0	125320	100.00
530	0	125320	100.00
540	0	125320	100.00
550	0	125320	100.00

560	0	125320	100.00
570	0	125320	100.00
580	0	125320	100.00
590	0	125320	100.00
600	0	125320	100.00
610	0	125320	100.00
620	0	125320	100.00
630	0	125320	100.00
640	0	125320	100.00
650	0	125320	100.00
660	0	125320	100.00
670	0	125320	100.00
680	0	125320	100.00
690	0	125320	100.00
700	0	125320	100.00
710	0	125320	100.00
720	0	125320	100.00
730	0	125320	100.00
740	0	125320	100.00
750	0	125320	100.00
760	0	125320	100.00
770	0	125320	100.00
780	0	125320	100.00
790	0	125320	100.00
800	0	125320	100.00
810	0	125320	100.00
820	0	125320	100.00
830	0	125320	100.00
840	0	125320	100.00
850	0	125320	100.00
860	0	125320	100.00
870	0	125320	100.00
880	0	125320	100.00
890	0	125320	100.00
900	0	125320	100.00
910	0	125320	100.00
920	0	125320	100.00
930	0	125320	100.00
940	0	125320	100.00
950	0	125320	100.00
960	0	125320	100.00
970	0	125320	100.00
980	0	125320	100.00
990	0	125320	100.00
Above	0	125320	100.00

BWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	0	0	0.00
0.770	0	0	0.00
0.780	0	0	0.00
0.790	0	0	0.00
0.800	0	0	0.00
0.810	0	0	0.00
0.820	0	0	0.00
0.830	11	11	0.01
0.840	8	19	0.02
0.850	32	51	0.04
0.860	114	165	0.13
0.870	0	165	0.13
0.880	0	165	0.13
0.890	53	218	0.17
0.900	249	467	0.37
0.910	100	567	0.45
0.920	956	1523	1.22
0.930	1328	2851	2.27
0.940	1550	4401	3.51
0.950	1413	5814	4.64
0.960	1969	7783	6.21

0.970	3488	11271	8.99
0.980	10678	21949	17.51
0.990	5217	27166	21.68
1.000	6802	33968	27.11
1.010	8989	42957	34.28
1.020	12210	55167	44.02
1.030	10695	65862	52.56
1.040	16930	82792	66.06
1.050	7066	89858	71.70
1.060	6641	96499	77.00
1.070	4578	101077	80.66
1.080	2641	103718	82.76
1.090	3191	106909	85.31
1.100	1854	108763	86.79
1.110	1237	110000	87.78
1.120	2178	112178	89.51
1.130	341	112519	89.79
1.140	1170	113689	90.72
1.150	955	114644	91.48
1.160	558	115202	91.93
1.170	1265	116467	92.94
1.180	616	117083	93.43
1.190	318	117401	93.68
1.200	290	117691	93.91
1.210	397	118088	94.23
1.220	242	118330	94.42
1.230	320	118650	94.68
1.240	357	119007	94.96
1.250	375	119382	95.26
1.260	703	120085	95.82
1.270	535	120620	96.25
1.280	300	120920	96.49
1.290	661	121581	97.02
1.300	378	121959	97.32
1.310	172	122131	97.46
1.320	138	122269	97.57
1.330	330	122599	97.83
1.340	370	122969	98.12
1.350	464	123433	98.49
1.360	35	123468	98.52
1.370	242	123710	98.72
1.380	790	124500	99.35
1.390	133	124633	99.45
1.400	125	124758	99.55
1.410	259	125017	99.76
1.420	16	125033	99.77
1.430	3	125036	99.77
1.440	92	125128	99.85
1.450	154	125282	99.97
1.460	5	125287	99.97
1.470	1	125288	99.97
1.480	3	125291	99.98
1.490	24	125315	100.00
1.500	0	125315	100.00
1.510	0	125315	100.00
1.520	0	125315	100.00
1.530	1	125316	100.00
1.540	4	125320	100.00
1.550	0	125320	100.00
1.560	0	125320	100.00
1.570	0	125320	100.00
1.580	0	125320	100.00
1.590	0	125320	100.00
Above	0	125320	100.00

PWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	8	8	0.01
20	31	39	0.04

30	18	57	0.06
40	60	117	0.12
50	98	215	0.23
60	78	293	0.31
70	118	411	0.43
80	186	597	0.63
90	265	862	0.91
100	186	1048	1.11
110	165	1213	1.28
120	474	1687	1.78
130	581	2268	2.40
140	625	2893	3.06
150	591	3484	3.68
160	465	3949	4.17
170	591	4540	4.79
180	913	5453	5.76
190	685	6138	6.48
200	736	6874	7.26
210	497	7371	7.78
220	1148	8519	9.00
230	867	9386	9.91
240	1034	10420	11.00
250	1176	11596	12.25
260	776	12372	13.07
270	1442	13814	14.59
280	1059	14873	15.71
290	1465	16338	17.25
300	1105	17443	18.42
310	1137	18580	19.62
320	1267	19847	20.96
330	1408	21255	22.45
340	1270	22525	23.79
350	1263	23788	25.12
360	1410	25198	26.61
370	1487	26685	28.18
380	1481	28166	29.74
390	1699	29865	31.54
400	1403	31268	33.02
410	1576	32844	34.69
420	1368	34212	36.13
430	1997	36209	38.24
440	1678	37887	40.01
450	2180	40067	42.31
460	2411	42478	44.86
470	1939	44417	46.91
480	1697	46114	48.70
490	1977	48091	50.79
500	1748	49839	52.63
510	1378	51217	54.09
520	1821	53038	56.01
530	1446	54484	57.54
540	1818	56302	59.46
550	2219	58521	61.80
560	2027	60548	63.94
570	1823	62371	65.87
580	1830	64201	67.80
590	1873	66074	69.78
600	2206	68280	72.11
610	2030	70310	74.25
620	1782	72092	76.13
630	1452	73544	77.67
640	1667	75211	79.43
650	2028	77239	81.57
660	1617	78856	83.28
670	1543	80399	84.91
680	1581	81980	86.58
690	2087	84067	88.78
700	2958	87025	91.90
710	2336	89361	94.37
720	529	89890	94.93

730	591	90481	95.55
740	525	91006	96.11
750	534	91540	96.67
760	203	91743	96.89
770	432	92175	97.34
780	376	92551	97.74
790	202	92753	97.95
800	222	92975	98.19
810	161	93136	98.36
820	268	93404	98.64
830	142	93546	98.79
840	64	93610	98.86
850	140	93750	99.01
860	151	93901	99.16
870	160	94061	99.33
880	78	94139	99.42
890	15	94154	99.43
900	24	94178	99.46
910	33	94211	99.49
920	93	94304	99.59
930	22	94326	99.61
940	1	94327	99.61
950	52	94379	99.67
960	110	94489	99.79
970	71	94560	99.86
980	18	94578	99.88
990	52	94630	99.93
1000	62	94692	100.00
1010	0	94692	100.00
1020	0	94692	100.00
1030	0	94692	100.00
1040	0	94692	100.00
1050	0	94692	100.00
1060	0	94692	100.00
1070	0	94692	100.00
1080	0	94692	100.00
1090	0	94692	100.00
1100	0	94692	100.00
1110	0	94692	100.00
1120	0	94692	100.00
1130	0	94692	100.00
1140	0	94692	100.00
1150	0	94692	100.00
1160	0	94692	100.00
1170	0	94692	100.00
1180	0	94692	100.00
1190	0	94692	100.00
1200	0	94692	100.00
1210	0	94692	100.00
1220	0	94692	100.00
1230	0	94692	100.00
1240	0	94692	100.00
1250	0	94692	100.00
1260	0	94692	100.00
1270	0	94692	100.00
1280	0	94692	100.00
1290	0	94692	100.00
1300	0	94692	100.00
1310	0	94692	100.00
1320	0	94692	100.00
1330	0	94692	100.00
1340	0	94692	100.00
1350	0	94692	100.00
1360	0	94692	100.00
1370	0	94692	100.00
1380	0	94692	100.00
1390	0	94692	100.00
1400	0	94692	100.00
1410	0	94692	100.00
1420	0	94692	100.00

1430	0	94692	100.00
1440	0	94692	100.00
1450	0	94692	100.00
1460	0	94692	100.00
1470	0	94692	100.00
1480	0	94692	100.00
1490	0	94692	100.00
1500	0	94692	100.00
1510	0	94692	100.00
1520	0	94692	100.00
1530	0	94692	100.00
1540	0	94692	100.00
1550	0	94692	100.00
1560	0	94692	100.00
1570	0	94692	100.00
1580	0	94692	100.00
1590	0	94692	100.00
1600	0	94692	100.00
1610	0	94692	100.00
1620	0	94692	100.00
1630	0	94692	100.00
1640	0	94692	100.00
1650	0	94692	100.00
1660	0	94692	100.00
1670	0	94692	100.00
1680	0	94692	100.00
1690	0	94692	100.00
1700	0	94692	100.00
1710	0	94692	100.00
1720	0	94692	100.00
1730	0	94692	100.00
1740	0	94692	100.00
1750	0	94692	100.00
1760	0	94692	100.00
1770	0	94692	100.00
1780	0	94692	100.00
1790	0	94692	100.00
1800	0	94692	100.00
1810	0	94692	100.00
1820	0	94692	100.00
1830	0	94692	100.00
1840	0	94692	100.00
1850	0	94692	100.00
1860	0	94692	100.00
1870	0	94692	100.00
1880	0	94692	100.00
1890	0	94692	100.00
1900	0	94692	100.00
1910	0	94692	100.00
1920	0	94692	100.00
1930	0	94692	100.00
1940	0	94692	100.00
1950	0	94692	100.00
1960	0	94692	100.00
1970	0	94692	100.00
1980	0	94692	100.00
1990	0	94692	100.00
Above	0	94692	100.00

PWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	4	4	0.00
0.770	0	4	0.00
0.780	0	4	0.00
0.790	0	4	0.00
0.800	0	4	0.00
0.810	24	28	0.03
0.820	4	32	0.03
0.830	91	123	0.13

0.840	1	124	0.13
0.850	0	124	0.13
0.860	2	126	0.13
0.870	1	127	0.13
0.880	23	150	0.16
0.890	85	235	0.25
0.900	109	344	0.36
0.910	131	475	0.50
0.920	133	608	0.64
0.930	254	862	0.91
0.940	953	1815	1.92
0.950	2367	4182	4.42
0.960	3788	7970	8.42
0.970	5438	13408	14.16
0.980	6590	19998	21.12
0.990	9768	29766	31.43
1.000	10440	40206	42.46
1.010	9808	50014	52.82
1.020	9891	59905	63.26
1.030	11349	71254	75.25
1.040	5784	77038	81.36
1.050	3974	81012	85.55
1.060	2593	83605	88.29
1.070	1865	85470	90.26
1.080	1084	86554	91.41
1.090	1249	87803	92.72
1.100	1152	88955	93.94
1.110	1287	90242	95.30
1.120	638	90880	95.97
1.130	762	91642	96.78
1.140	384	92026	97.18
1.150	142	92168	97.33
1.160	586	92754	97.95
1.170	245	92999	98.21
1.180	123	93122	98.34
1.190	280	93402	98.64
1.200	87	93489	98.73
1.210	147	93636	98.88
1.220	41	93677	98.93
1.230	141	93818	99.08
1.240	144	93962	99.23
1.250	196	94158	99.44
1.260	84	94242	99.52
1.270	54	94296	99.58
1.280	79	94375	99.67
1.290	47	94422	99.71
1.300	47	94469	99.76
1.310	42	94511	99.81
1.320	109	94620	99.92
1.330	18	94638	99.94
1.340	4	94642	99.95
1.350	8	94650	99.96
1.360	4	94654	99.96
1.370	1	94655	99.96
1.380	0	94655	99.96
1.390	1	94656	99.96
1.400	0	94656	99.96
1.410	0	94656	99.96
1.420	12	94668	99.97
1.430	8	94676	99.98
1.440	8	94684	99.99
1.450	8	94692	100.00
1.460	0	94692	100.00
1.470	0	94692	100.00
1.480	0	94692	100.00
1.490	0	94692	100.00
1.500	0	94692	100.00
1.510	0	94692	100.00
1.520	0	94692	100.00
1.530	0	94692	100.00

1.540	0	94692	100.00
1.550	0	94692	100.00
1.560	0	94692	100.00
1.570	0	94692	100.00
1.580	0	94692	100.00
1.590	0	94692	100.00
Above	0	94692	100.00

Year	MTU	B Assy	P Assy
2010	295.52	1100	273
2011	605.55	1892	798
2012	1189.87	3013	1638
2013	2006.60	4597	2877
2014	2993.96	7235	4011
2015	3003.99	6114	4488
2016	3002.50	6313	4467
2017	2996.88	5961	4578
2018	3009.69	6026	4527
2019	2983.20	4949	4851
2020	3014.12	5653	4677
2021	2988.03	5389	4707
2022	3002.58	5961	4539
2023	3004.50	5345	4704
2024	2989.08	5213	4767
2025	2999.40	6049	4431
2026	3007.56	6477	4281
2027	3022.47	4972	4968
2028	2993.96	6116	4326
2029	2986.13	5192	4770
2030	2992.69	6160	4278
2031	3005.76	4928	4854
2032	2983.62	6160	4320
2033	1932.31	4505	2562
2034	0.00	0	0
2035	0.00	0	0
2036	0.00	0	0
2037	0.00	0	0
2038	0.00	0	0
2039	0.00	0	0
2040	0.00	0	0
2041	0.00	0	0
2042	0.00	0	0
2043	0.00	0	0
2044	0.00	0	0
2045	0.00	0	0

Average age = 23.242

JUNK FILE LISTING:

Nassy=1 burnup=1.87	kinf=1.529	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.45	kinf=1.536	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.53	kinf=1.535	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=1 burnup=6.38	kinf=1.455	Enrch=3.63	Dschg=1969	WEST VALLEY
Nassy=2 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=3 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=8 burnup=0.34	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.18	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.36	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.23	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=10 burnup=0.34	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=7 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (

Nassy=3	burnup=1.77	kinf=1.260	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.86	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.79	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.79	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=19	burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.34	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.46	kinf=1.270	Enrch=1.97	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.57	kinf=1.267	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=8	burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.76	kinf=1.261	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.23	kinf=1.279	Enrch=2.00	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.23	kinf=1.279	Enrch=2.00	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.46	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.09	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.27	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.28	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.32	kinf=1.275	Enrch=1.99	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.11	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.42	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.23	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.34	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.34	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.15	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8	burnup=1.44	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=15	burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=0.86	kinf=1.291	Enrch=2.04	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.62	kinf=1.265	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.64	kinf=1.264	Enrch=1.95	Dschg=1971	GE MORRIS (
Nassy=25	burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.13	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=16	burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8	burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.78	kinf=1.260	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=2	burnup=9.28	kinf=1.410	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=4.99	kinf=1.478	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=8.24	kinf=1.426	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=1.53	kinf=1.318	Enrch=2.26	Dschg=1971	DRESDEN
Nassy=1	burnup=4.49	kinf=1.250	Enrch=2.11	Dschg=1971	OYSTER CRK
Nassy=1	burnup=3.27	kinf=1.212	Enrch=1.78	Dschg=1972	GE MORRIS (
Nassy=33	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=27	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=17	burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=19	burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=12	burnup=2.81	kinf=1.227	Enrch=1.83	Dschg=1972	GE MORRIS (
Nassy=10	burnup=3.13	kinf=1.217	Enrch=1.80	Dschg=1972	GE MORRIS (
Nassy=3	burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=27	burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=17	burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=17	burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=27	burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=6	burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=14	burnup=4.62	kinf=1.173	Enrch=1.67	Dschg=1972	GE MORRIS (
Nassy=13	burnup=3.39	kinf=1.209	Enrch=1.77	Dschg=1972	GE MORRIS (
Nassy=1	burnup=3.34	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=4	burnup=3.34	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=5	burnup=4.77	kinf=1.249	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=1	burnup=3.84	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=4	burnup=3.84	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=1	burnup=3.28	kinf=1.271	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=1	burnup=2.73	kinf=1.279	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=23	burnup=4.69	kinf=1.250	Enrch=2.13	Dschg=1972	GE MORRIS (

Nassy=15 burnup=4.31	kinf=1.182 Enrch=1.69 Dschg=1972	GE MORRIS (
Nassy=7 burnup=4.31	kinf=1.182 Enrch=1.69 Dschg=1972	GE MORRIS (
Nassy=1 burnup=4.31	kinf=1.182 Enrch=1.69 Dschg=1972	GE MORRIS (
Nassy=10 burnup=3.12	kinf=1.273 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=13 burnup=3.60	kinf=1.203 Enrch=1.76 Dschg=1972	GE MORRIS (
Nassy=4 burnup=2.84	kinf=1.277 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=9 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=24 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=20 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=2 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=3 burnup=3.91	kinf=1.261 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=21 burnup=3.79	kinf=1.263 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=15 burnup=3.77	kinf=1.264 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=3 burnup=3.77	kinf=1.264 Enrch=2.13 Dschg=1972	GE MORRIS (
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Nassy=14 burnup=4.39	kinf=1.179 Enrch=1.68 Dschg=1972	GE MORRIS (
Nassy=7 burnup=4.39	kinf=1.179 Enrch=1.68 Dschg=1972	GE MORRIS (
Nassy=14 burnup=4.64	kinf=1.172 Enrch=1.66 Dschg=1972	GE MORRIS (
Nassy=1 burnup=8.59	kinf=1.421 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=1 burnup=9.12	kinf=1.413 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=1 burnup=8.73	kinf=1.419 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=2 burnup=4.86	kinf=1.239 Enrch=2.08 Dschg=1972	MILLSTONE
Nassy=4 burnup=6.45	kinf=1.454 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=8.75	kinf=1.418 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=7.35	kinf=1.440 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=3.88	kinf=1.262 Enrch=2.13 Dschg=1973	DRESDEN
Nassy=2 burnup=4.96	kinf=1.246 Enrch=2.13 Dschg=1973	DRESDEN
Nassy=1 burnup=1.05	kinf=1.365 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=3 burnup=0.97	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=5 burnup=4.32	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=0.99	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=11 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=10 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=2 burnup=4.00	kinf=1.320 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=5 burnup=4.05	kinf=1.320 Enrch=2.50 Dschg=1973	VT YANKEE
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Nassy=3 burnup=4.66	kinf=1.311 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=0.99	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=4.69	kinf=1.310 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=9.23	kinf=1.411 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=3 burnup=9.23	kinf=1.411 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=1 burnup=8.77	kinf=1.418 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=4 burnup=9.10	kinf=1.413 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=1 burnup=3.97	kinf=1.271 Enrch=2.19 Dschg=1973	PILGRIM
Nassy=1 burnup=2.63	kinf=1.290 Enrch=2.19 Dschg=1973	PILGRIM
Nassy=1 burnup=8.95	kinf=1.415 Enrch=3.63 Dschg=1974	WEST VALLEY
Nassy=1 burnup=8.15	kinf=1.428 Enrch=3.63 Dschg=1974	WEST VALLEY
Nassy=2 burnup=4.95	kinf=1.306 Enrch=2.50 Dschg=1974	VT YANKEE
Nassy=6 burnup=4.95	kinf=1.306 Enrch=2.50 Dschg=1974	VT YANKEE
Nassy=1 burnup=7.57	kinf=1.476 Enrch=3.92 Dschg=1975	LACROSSE
Nassy=1 burnup=3.71	kinf=1.263 Enrch=2.12 Dschg=1975	DUANE ARNOL
Nassy=1 burnup=3.78	kinf=1.280 Enrch=2.23 Dschg=1975	DRESDEN
Nassy=1 burnup=4.80	kinf=1.467 Enrch=3.54 Dschg=1976	BIG ROCK
Nassy=1 burnup=2.90	kinf=1.273 Enrch=2.11 Dschg=1976	BRUNSWICK
Nassy=1 burnup=3.30	kinf=1.267 Enrch=2.11 Dschg=1976	BRUNSWICK
Nassy=2 burnup=2.43	kinf=1.105 Enrch=1.11 Dschg=1976	BRUNSWICK
Nassy=2 burnup=3.05	kinf=1.320 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=3.30	kinf=1.315 Enrch=2.40 Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=2.43	kinf=1.329 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=3 burnup=2.43	kinf=1.329 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=2.69	kinf=1.325 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=3.89	kinf=1.308 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=4.34	kinf=1.301 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=1.31	kinf=1.346 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=12.04	kinf=1.407 Enrch=3.92 Dschg=1977	LACROSSE
Nassy=1 burnup=12.30	kinf=1.403 Enrch=3.93 Dschg=1977	LACROSSE
Nassy=1 burnup=7.61	kinf=1.476 Enrch=3.92 Dschg=1977	LACROSSE
Nassy=1 burnup=12.42	kinf=1.401 Enrch=3.92 Dschg=1977	LACROSSE

Nassy=5	burnup=3.65	kinf=1.282	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=3.08	kinf=1.291	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=4.00	kinf=1.277	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=21	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=5	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=1	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=22	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=3.58	kinf=1.019	Enrch=0.72	Dschg=1980	HATCH
Nassy=16	burnup=1.89	kinf=1.041	Enrch=0.72	Dschg=1980	HATCH
Nassy=10	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=14	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=1	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=3	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=16	burnup=2.83	kinf=1.028	Enrch=0.72	Dschg=1980	HATCH
Nassy=8	burnup=4.31	kinf=1.009	Enrch=0.72	Dschg=1980	HATCH
Nassy=2	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1980	HATCH
Nassy=2	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1980	HATCH
Nassy=8	burnup=3.15	kinf=1.024	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8	burnup=4.11	kinf=1.012	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=12	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=24	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=12	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8	burnup=2.96	kinf=1.027	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=1	burnup=3.14	kinf=1.024	Enrch=0.72	Dschg=1985	LASALLE
Nassy=3	burnup=3.14	kinf=1.024	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8	burnup=4.86	kinf=1.003	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8	burnup=2.92	kinf=1.027	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8	burnup=3.41	kinf=1.021	Enrch=0.72	Dschg=1985	LASALLE
Nassy=17	burnup=4.08	kinf=1.012	Enrch=0.72	Dschg=1985	LASALLE
Nassy=1	burnup=4.08	kinf=1.012	Enrch=0.72	Dschg=1985	LASALLE
Nassy=30	burnup=3.91	kinf=1.015	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8	burnup=2.64	kinf=1.031	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8	burnup=2.22	kinf=1.038	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=14	burnup=2.86	kinf=1.030	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=8	burnup=3.07	kinf=1.027	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=6	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=16	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=2	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=6	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=6	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=11	burnup=1.77	kinf=1.044	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=5	burnup=1.77	kinf=1.044	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=4	burnup=3.28	kinf=1.024	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=2	burnup=4.17	kinf=1.013	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=4	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE
Nassy=44	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE
Nassy=15	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE
Nassy=22	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE
Nassy=6	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE
Nassy=1	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE
Nassy=18	burnup=5.00	kinf=1.487	Enrch=3.70	Dschg=1987	LACROSSE
Nassy=5	burnup=5.00	kinf=1.487	Enrch=3.70	Dschg=1987	LACROSSE
Nassy=1	burnup=5.00	kinf=1.488	Enrch=3.71	Dschg=1987	LACROSSE
Nassy=30	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=18	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=4	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=8	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=2	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=14	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=1	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=44	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=20	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=2	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=1	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=5	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=7	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=12	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM

Nassy=9	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=24	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=19	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=1	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=28	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=11	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=27	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=44	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=13	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=8	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=28	burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=88	burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=37	burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=4	burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=19	burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=1	burnup=7.59	kinf=1.400	Enrch=3.38	Dschg=2009	OYSTER CRK
Nassy=44	burnup=7.59	kinf=1.400	Enrch=3.38	Dschg=2009	OYSTER CRK
Nassy=27	burnup=7.59	kinf=1.400	Enrch=3.38	Dschg=2009	OYSTER CRK
Nassy=8	burnup=7.59	kinf=1.400	Enrch=3.38	Dschg=2009	OYSTER CRK
Nassy=6	burnup=6.41	kinf=1.443	Enrch=3.55	Dschg=2012	QUAD CITIES
Nassy=88	burnup=6.41	kinf=1.443	Enrch=3.55	Dschg=2012	QUAD CITIES
Nassy=36	burnup=6.41	kinf=1.443	Enrch=3.55	Dschg=2012	QUAD CITIES
Nassy=23	burnup=6.41	kinf=1.443	Enrch=3.55	Dschg=2012	QUAD CITIES
Nassy=30	burnup=6.61	kinf=1.438	Enrch=3.54	Dschg=2014	BRUNSWICK
Nassy=44	burnup=6.61	kinf=1.438	Enrch=3.54	Dschg=2014	BRUNSWICK
Nassy=5	burnup=6.61	kinf=1.438	Enrch=3.54	Dschg=2014	BRUNSWICK
Nassy=13	burnup=6.61	kinf=1.438	Enrch=3.54	Dschg=2014	BRUNSWICK

INPUT FILE LISTING:

#bins	Input_file	Output_file	Case_title	Last_delivery
0	case8.wsm	case8.out	W8:off_aucf_noi_63	2045
Type	Cap	Hmin	Hmax	Kmin
				Kmax

OUTPUT FILE LISTING:

W8:off_aucf_noi_63
Standard Table

BWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	464	464	0.37
20	1520	1984	1.58
30	1590	3574	2.85
40	2652	6226	4.97
50	2513	8739	6.97
60	3258	11997	9.57
70	3718	15715	12.54
80	4219	19934	15.90
90	3195	23129	18.45
100	3850	26979	21.52
110	4187	31166	24.86
120	5243	36409	29.05
130	4633	41042	32.74
140	2580	43622	34.80
150	2992	46614	37.19
160	3149	49763	39.70
170	3359	53122	42.38
180	3028	56150	44.80
190	4652	60802	48.51
200	5037	65839	52.53
210	5860	71699	57.20
220	6193	77892	62.14
230	6272	84164	67.15
240	6552	90716	72.37
250	6314	97030	77.41
260	5601	102631	81.88
270	3998	106629	85.07
280	3604	110233	87.95
290	3315	113548	90.59
300	2555	116103	92.63
310	2348	118451	94.50
320	2135	120586	96.20
330	1547	122133	97.44
340	1150	123283	98.36
350	1196	124479	99.31
360	780	125259	99.93
370	84	125343	100.00
380	0	125343	100.00
390	0	125343	100.00
400	0	125343	100.00
410	0	125343	100.00
420	0	125343	100.00
430	0	125343	100.00
440	0	125343	100.00
450	0	125343	100.00
460	0	125343	100.00
470	0	125343	100.00
480	0	125343	100.00
490	0	125343	100.00
500	0	125343	100.00
510	0	125343	100.00
520	0	125343	100.00
530	0	125343	100.00
540	0	125343	100.00
550	0	125343	100.00

560	0	125343	100.00
570	0	125343	100.00
580	0	125343	100.00
590	0	125343	100.00
600	0	125343	100.00
610	0	125343	100.00
620	0	125343	100.00
630	0	125343	100.00
640	0	125343	100.00
650	0	125343	100.00
660	0	125343	100.00
670	0	125343	100.00
680	0	125343	100.00
690	0	125343	100.00
700	0	125343	100.00
710	0	125343	100.00
720	0	125343	100.00
730	0	125343	100.00
740	0	125343	100.00
750	0	125343	100.00
760	0	125343	100.00
770	0	125343	100.00
780	0	125343	100.00
790	0	125343	100.00
800	0	125343	100.00
810	0	125343	100.00
820	0	125343	100.00
830	0	125343	100.00
840	0	125343	100.00
850	0	125343	100.00
860	0	125343	100.00
870	0	125343	100.00
880	0	125343	100.00
890	0	125343	100.00
900	0	125343	100.00
910	0	125343	100.00
920	0	125343	100.00
930	0	125343	100.00
940	0	125343	100.00
950	0	125343	100.00
960	0	125343	100.00
970	0	125343	100.00
980	0	125343	100.00
990	0	125343	100.00
Above	0	125343	100.00

BWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	0	0	0.00
0.770	0	0	0.00
0.780	0	0	0.00
0.790	0	0	0.00
0.800	0	0	0.00
0.810	0	0	0.00
0.820	0	0	0.00
0.830	11	11	0.01
0.840	8	19	0.02
0.850	32	51	0.04
0.860	114	165	0.13
0.870	0	165	0.13
0.880	0	165	0.13
0.890	53	218	0.17
0.900	249	467	0.37
0.910	100	567	0.45
0.920	956	1523	1.22
0.930	1328	2851	2.27
0.940	1550	4401	3.51
0.950	1413	5814	4.64
0.960	1969	7783	6.21

0.970	3488	11271	8.99
0.980	10678	21949	17.51
0.990	5217	27166	21.67
1.000	6802	33968	27.10
1.010	9010	42978	34.29
1.020	12216	55194	44.03
1.030	10692	65886	52.56
1.040	16930	82816	66.07
1.050	7066	89882	71.71
1.060	6641	96523	77.01
1.070	4578	101101	80.66
1.080	2641	103742	82.77
1.090	3191	106933	85.31
1.100	1847	108780	86.79
1.110	1235	110015	87.77
1.120	2163	112178	89.50
1.130	341	112519	89.77
1.140	1193	113712	90.72
1.150	955	114667	91.48
1.160	558	115225	91.93
1.170	1265	116490	92.94
1.180	616	117106	93.43
1.190	318	117424	93.68
1.200	290	117714	93.91
1.210	397	118111	94.23
1.220	242	118353	94.42
1.230	320	118673	94.68
1.240	357	119030	94.96
1.250	375	119405	95.26
1.260	703	120108	95.82
1.270	535	120643	96.25
1.280	300	120943	96.49
1.290	661	121604	97.02
1.300	378	121982	97.32
1.310	172	122154	97.46
1.320	138	122292	97.57
1.330	330	122622	97.83
1.340	370	122992	98.12
1.350	464	123456	98.49
1.360	35	123491	98.52
1.370	242	123733	98.72
1.380	790	124523	99.35
1.390	133	124656	99.45
1.400	125	124781	99.55
1.410	259	125040	99.76
1.420	16	125056	99.77
1.430	3	125059	99.77
1.440	92	125151	99.85
1.450	154	125305	99.97
1.460	5	125310	99.97
1.470	1	125311	99.97
1.480	3	125314	99.98
1.490	24	125338	100.00
1.500	0	125338	100.00
1.510	0	125338	100.00
1.520	0	125338	100.00
1.530	1	125339	100.00
1.540	4	125343	100.00
1.550	0	125343	100.00
1.560	0	125343	100.00
1.570	0	125343	100.00
1.580	0	125343	100.00
1.590	0	125343	100.00
Above	0	125343	100.00

PWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	8	8	0.01
20	31	39	0.04

30	18	57	0.06
40	60	117	0.12
50	98	215	0.23
60	78	293	0.31
70	118	411	0.43
80	176	587	0.62
90	277	864	0.91
100	184	1048	1.11
110	165	1213	1.28
120	462	1675	1.77
130	590	2265	2.39
140	628	2893	3.06
150	592	3485	3.68
160	457	3942	4.16
170	604	4546	4.80
180	904	5450	5.76
190	703	6153	6.50
200	726	6879	7.27
210	507	7386	7.80
220	1116	8502	8.98
230	886	9388	9.92
240	993	10381	10.97
250	1186	11567	12.22
260	810	12377	13.07
270	1445	13822	14.60
280	1055	14877	15.71
290	1464	16341	17.26
300	1100	17441	18.42
310	1149	18590	19.64
320	1275	19865	20.98
330	1416	21281	22.48
340	1267	22548	23.82
350	1261	23809	25.15
360	1375	25184	26.60
370	1514	26698	28.20
380	1492	28190	29.78
390	1689	29879	31.56
400	1430	31309	33.07
410	1509	32818	34.67
420	1375	34193	36.12
430	1951	36144	38.18
440	1701	37845	39.98
450	2208	40053	42.31
460	2331	42384	44.77
470	1988	44372	46.87
480	1697	46069	48.66
490	1989	48058	50.76
500	1771	49829	52.64
510	1366	51195	54.08
520	1800	52995	55.98
530	1482	54477	57.55
540	1821	56298	59.47
550	2174	58472	61.77
560	2044	60516	63.92
570	1841	62357	65.87
580	1813	64170	67.78
590	1864	66034	69.75
600	2221	68255	72.10
610	2025	70280	74.24
620	1792	72072	76.13
630	1419	73491	77.63
640	1695	75186	79.42
650	2016	77202	81.55
660	1618	78820	83.26
670	1547	80367	84.89
680	1571	81938	86.55
690	2088	84026	88.76
700	2951	86977	91.88
710	2349	89326	94.36
720	541	89867	94.93

730	596	90463	95.56
740	532	90995	96.12
750	533	91528	96.68
760	203	91731	96.90
770	427	92158	97.35
780	375	92533	97.74
790	203	92736	97.96
800	206	92942	98.18
810	165	93107	98.35
820	272	93379	98.64
830	150	93529	98.80
840	64	93593	98.86
850	140	93733	99.01
860	151	93884	99.17
870	160	94044	99.34
880	71	94115	99.42
890	15	94130	99.43
900	24	94154	99.46
910	33	94187	99.49
920	93	94280	99.59
930	22	94302	99.61
940	1	94303	99.61
950	52	94355	99.67
960	110	94465	99.79
970	71	94536	99.86
980	18	94554	99.88
990	52	94606	99.93
1000	62	94668	100.00
1010	0	94668	100.00
1020	0	94668	100.00
1030	0	94668	100.00
1040	0	94668	100.00
1050	0	94668	100.00
1060	0	94668	100.00
1070	0	94668	100.00
1080	0	94668	100.00
1090	0	94668	100.00
1100	0	94668	100.00
1110	0	94668	100.00
1120	0	94668	100.00
1130	0	94668	100.00
1140	0	94668	100.00
1150	0	94668	100.00
1160	0	94668	100.00
1170	0	94668	100.00
1180	0	94668	100.00
1190	0	94668	100.00
1200	0	94668	100.00
1210	0	94668	100.00
1220	0	94668	100.00
1230	0	94668	100.00
1240	0	94668	100.00
1250	0	94668	100.00
1260	0	94668	100.00
1270	0	94668	100.00
1280	0	94668	100.00
1290	0	94668	100.00
1300	0	94668	100.00
1310	0	94668	100.00
1320	0	94668	100.00
1330	0	94668	100.00
1340	0	94668	100.00
1350	0	94668	100.00
1360	0	94668	100.00
1370	0	94668	100.00
1380	0	94668	100.00
1390	0	94668	100.00
1400	0	94668	100.00
1410	0	94668	100.00
1420	0	94668	100.00

1430	0	94668	100.00
1440	0	94668	100.00
1450	0	94668	100.00
1460	0	94668	100.00
1470	0	94668	100.00
1480	0	94668	100.00
1490	0	94668	100.00
1500	0	94668	100.00
1510	0	94668	100.00
1520	0	94668	100.00
1530	0	94668	100.00
1540	0	94668	100.00
1550	0	94668	100.00
1560	0	94668	100.00
1570	0	94668	100.00
1580	0	94668	100.00
1590	0	94668	100.00
1600	0	94668	100.00
1610	0	94668	100.00
1620	0	94668	100.00
1630	0	94668	100.00
1640	0	94668	100.00
1650	0	94668	100.00
1660	0	94668	100.00
1670	0	94668	100.00
1680	0	94668	100.00
1690	0	94668	100.00
1700	0	94668	100.00
1710	0	94668	100.00
1720	0	94668	100.00
1730	0	94668	100.00
1740	0	94668	100.00
1750	0	94668	100.00
1760	0	94668	100.00
1770	0	94668	100.00
1780	0	94668	100.00
1790	0	94668	100.00
1800	0	94668	100.00
1810	0	94668	100.00
1820	0	94668	100.00
1830	0	94668	100.00
1840	0	94668	100.00
1850	0	94668	100.00
1860	0	94668	100.00
1870	0	94668	100.00
1880	0	94668	100.00
1890	0	94668	100.00
1900	0	94668	100.00
1910	0	94668	100.00
1920	0	94668	100.00
1930	0	94668	100.00
1940	0	94668	100.00
1950	0	94668	100.00
1960	0	94668	100.00
1970	0	94668	100.00
1980	0	94668	100.00
1990	0	94668	100.00
Above	0	94668	100.00

PWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	4	4	0.00
0.770	0	4	0.00
0.780	0	4	0.00
0.790	0	4	0.00
0.800	0	4	0.00
0.810	24	28	0.03
0.820	4	32	0.03
0.830	91	123	0.13

0.840	1	124	0.13
0.850	0	124	0.13
0.860	2	126	0.13
0.870	1	127	0.13
0.880	23	150	0.16
0.890	85	235	0.25
0.900	109	344	0.36
0.910	131	475	0.50
0.920	133	608	0.64
0.930	254	862	0.91
0.940	953	1815	1.92
0.950	2371	4186	4.42
0.960	3772	7958	8.41
0.970	5467	13425	14.18
0.980	6579	20004	21.13
0.990	9768	29772	31.45
1.000	10442	40214	42.48
1.010	9808	50022	52.84
1.020	9902	59924	63.30
1.030	11346	71270	75.28
1.040	5784	77054	81.39
1.050	3990	81044	85.61
1.060	2575	83619	88.33
1.070	1828	85447	90.26
1.080	1083	86530	91.40
1.090	1249	87779	92.72
1.100	1152	88931	93.94
1.110	1264	90195	95.28
1.120	661	90856	95.97
1.130	755	91611	96.77
1.140	391	92002	97.18
1.150	142	92144	97.33
1.160	580	92724	97.95
1.170	251	92975	98.21
1.180	123	93098	98.34
1.190	283	93381	98.64
1.200	84	93465	98.73
1.210	139	93604	98.88
1.220	61	93665	98.94
1.230	129	93794	99.08
1.240	144	93938	99.23
1.250	196	94134	99.44
1.260	84	94218	99.52
1.270	54	94272	99.58
1.280	81	94353	99.67
1.290	45	94398	99.71
1.300	45	94443	99.76
1.310	44	94487	99.81
1.320	109	94596	99.92
1.330	14	94610	99.94
1.340	8	94618	99.95
1.350	8	94626	99.96
1.360	4	94630	99.96
1.370	1	94631	99.96
1.380	0	94631	99.96
1.390	1	94632	99.96
1.400	0	94632	99.96
1.410	0	94632	99.96
1.420	12	94644	99.97
1.430	0	94644	99.97
1.440	16	94660	99.99
1.450	8	94668	100.00
1.460	0	94668	100.00
1.470	0	94668	100.00
1.480	0	94668	100.00
1.490	0	94668	100.00
1.500	0	94668	100.00
1.510	0	94668	100.00
1.520	0	94668	100.00
1.530	0	94668	100.00

1.540	0	94668	100.00
1.550	0	94668	100.00
1.560	0	94668	100.00
1.570	0	94668	100.00
1.580	0	94668	100.00
1.590	0	94668	100.00
Above	0	94668	100.00

Year	MTU	B Assy	P Assy
2010	291.05	1100	273
2011	602.95	1936	714
2012	1204.19	3057	1701
2013	1997.48	4597	2868
2014	2996.31	7191	4032
2015	2998.24	6070	4479
2016	3005.01	6269	4500
2017	2997.68	6093	4527
2018	3008.35	5982	4539
2019	3000.92	5081	4830
2020	2987.35	5477	4698
2021	2996.39	5345	4740
2022	3002.01	6005	4518
2023	3017.55	5477	4683
2024	2980.28	5098	4788
2025	3004.13	6028	4452
2026	3005.98	6481	4281
2027	3010.39	4972	4938
2028	3003.92	6072	4368
2029	2994.80	5280	4749
2030	2986.48	6072	4299
2031	3023.46	4928	4905
2032	2971.37	6204	4275
2033	1915.77	4528	2511
2034	0.00	0	0
2035	0.00	0	0
2036	0.00	0	0
2037	0.00	0	0
2038	0.00	0	0
2039	0.00	0	0
2040	0.00	0	0
2041	0.00	0	0
2042	0.00	0	0
2043	0.00	0	0
2044	0.00	0	0
2045	0.00	0	0

Average age = 23.240

JUNK FILE LISTING:

Nassy=1	burnup=1.87	kinf=1.529	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2	burnup=1.45	kinf=1.536	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2	burnup=1.53	kinf=1.535	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=1	burnup=6.38	kinf=1.455	Enrch=3.63	Dschg=1969	WEST VALLEY
Nassy=2	burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.32	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=3	burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=8	burnup=0.34	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.18	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.36	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.23	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=10	burnup=0.34	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (

Nassy=2	burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.77	kinf=1.260	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.86	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.79	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=19	burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.34	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.46	kinf=1.270	Enrch=1.97	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.57	kinf=1.267	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=8	burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.76	kinf=1.261	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.23	kinf=1.279	Enrch=2.00	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.46	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.09	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.27	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.28	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.32	kinf=1.275	Enrch=1.99	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.32	kinf=1.275	Enrch=1.99	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.11	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.42	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.23	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=11	burnup=1.34	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.15	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8	burnup=1.44	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=12	burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=0.86	kinf=1.291	Enrch=2.04	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.62	kinf=1.265	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.64	kinf=1.264	Enrch=1.95	Dschg=1971	GE MORRIS (
Nassy=24	burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.13	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=24	burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.78	kinf=1.260	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=2	burnup=9.28	kinf=1.410	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=4.99	kinf=1.478	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=8.24	kinf=1.426	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=1.53	kinf=1.318	Enrch=2.26	Dschg=1971	DRESDEN
Nassy=1	burnup=4.49	kinf=1.250	Enrch=2.11	Dschg=1971	OYSTER CRK
Nassy=1	burnup=3.27	kinf=1.212	Enrch=1.78	Dschg=1972	GE MORRIS (
Nassy=14	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=44	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=2	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=36	burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=6	burnup=2.81	kinf=1.227	Enrch=1.83	Dschg=1972	GE MORRIS (
Nassy=6	burnup=2.81	kinf=1.227	Enrch=1.83	Dschg=1972	GE MORRIS (
Nassy=10	burnup=3.13	kinf=1.217	Enrch=1.80	Dschg=1972	GE MORRIS (
Nassy=3	burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=25	burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=2	burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=34	burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=8	burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=25	burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=14	burnup=4.62	kinf=1.173	Enrch=1.67	Dschg=1972	GE MORRIS (
Nassy=5	burnup=3.39	kinf=1.209	Enrch=1.77	Dschg=1972	GE MORRIS (
Nassy=8	burnup=3.39	kinf=1.209	Enrch=1.77	Dschg=1972	GE MORRIS (
Nassy=1	burnup=3.34	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=4	burnup=3.34	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=5	burnup=4.77	kinf=1.249	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=5	burnup=3.84	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=1	burnup=3.28	kinf=1.271	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=1	burnup=2.73	kinf=1.279	Enrch=2.13	Dschg=1972	GE MORRIS (

Nassy=19 burnup=4.69	kinf=1.250 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=4 burnup=4.69	kinf=1.250 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=22 burnup=4.31	kinf=1.182 Enrch=1.69 Dschg=1972	GE MORRIS (
Nassy=1 burnup=4.31	kinf=1.182 Enrch=1.69 Dschg=1972	GE MORRIS (
Nassy=10 burnup=3.12	kinf=1.273 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=7 burnup=3.60	kinf=1.203 Enrch=1.76 Dschg=1972	GE MORRIS (
Nassy=6 burnup=3.60	kinf=1.203 Enrch=1.76 Dschg=1972	GE MORRIS (
Nassy=4 burnup=2.84	kinf=1.277 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=33 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=1 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=21 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=3 burnup=3.91	kinf=1.261 Enrch=2.13 Dschg=1972	GE MORRIS (
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Nassy=1 burnup=3.79	kinf=1.263 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=15 burnup=3.77	kinf=1.264 Enrch=2.13 Dschg=1972	GE MORRIS (
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Nassy=7 burnup=4.39	kinf=1.179 Enrch=1.68 Dschg=1972	GE MORRIS (
Nassy=14 burnup=4.64	kinf=1.172 Enrch=1.66 Dschg=1972	GE MORRIS (
Nassy=1 burnup=8.59	kinf=1.421 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=1 burnup=9.12	kinf=1.413 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=1 burnup=8.73	kinf=1.419 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=2 burnup=4.86	kinf=1.239 Enrch=2.08 Dschg=1972	MILLSTONE
Nassy=4 burnup=6.45	kinf=1.454 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=8.75	kinf=1.418 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=7.35	kinf=1.440 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=3.88	kinf=1.262 Enrch=2.13 Dschg=1973	DRESDEN
Nassy=2 burnup=4.96	kinf=1.246 Enrch=2.13 Dschg=1973	DRESDEN
Nassy=1 burnup=1.05	kinf=1.365 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=3 burnup=0.97	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=5 burnup=4.32	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=0.99	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=11 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
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Nassy=2 burnup=4.00	kinf=1.320 Enrch=2.50 Dschg=1973	VT YANKEE
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Nassy=4 burnup=1.16	kinf=1.364 Enrch=2.50 Dschg=1973	VT YANKEE
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Nassy=3 burnup=4.66	kinf=1.311 Enrch=2.50 Dschg=1973	VT YANKEE
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Nassy=1 burnup=4.69	kinf=1.310 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=9.23	kinf=1.411 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=3 burnup=9.23	kinf=1.411 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=1 burnup=8.77	kinf=1.418 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=4 burnup=9.10	kinf=1.413 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=1 burnup=3.97	kinf=1.271 Enrch=2.19 Dschg=1973	PILGRIM
Nassy=1 burnup=2.63	kinf=1.290 Enrch=2.19 Dschg=1973	PILGRIM
Nassy=1 burnup=8.95	kinf=1.415 Enrch=3.63 Dschg=1974	WEST VALLEY
Nassy=1 burnup=8.15	kinf=1.428 Enrch=3.63 Dschg=1974	WEST VALLEY
Nassy=2 burnup=4.95	kinf=1.306 Enrch=2.50 Dschg=1974	VT YANKEE
Nassy=6 burnup=4.95	kinf=1.306 Enrch=2.50 Dschg=1974	VT YANKEE
Nassy=1 burnup=7.57	kinf=1.476 Enrch=3.92 Dschg=1975	LACROSSE
Nassy=1 burnup=3.71	kinf=1.263 Enrch=2.12 Dschg=1975	DUANE ARNOL
Nassy=1 burnup=3.78	kinf=1.280 Enrch=2.23 Dschg=1975	DRESDEN
Nassy=1 burnup=4.80	kinf=1.467 Enrch=3.54 Dschg=1976	BIG ROCK
Nassy=1 burnup=2.90	kinf=1.273 Enrch=2.11 Dschg=1976	BRUNSWICK
Nassy=1 burnup=3.30	kinf=1.267 Enrch=2.11 Dschg=1976	BRUNSWICK
Nassy=2 burnup=2.43	kinf=1.105 Enrch=1.11 Dschg=1976	BRUNSWICK
Nassy=2 burnup=3.05	kinf=1.320 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=3.30	kinf=1.315 Enrch=2.40 Dschg=1976	HUMBOLDT BA
Nassy=4 burnup=2.43	kinf=1.329 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=2.69	kinf=1.325 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=3.89	kinf=1.308 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=3.89	kinf=1.308 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=4.34	kinf=1.301 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=1.31	kinf=1.346 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=12.04	kinf=1.407 Enrch=3.92 Dschg=1977	LACROSSE
Nassy=1 burnup=12.30	kinf=1.403 Enrch=3.93 Dschg=1977	LACROSSE

Nassy=1 burnup=7.61	kinf=1.476	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1 burnup=12.42	kinf=1.401	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=5 burnup=3.65	kinf=1.282	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2 burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4 burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2 burnup=3.08	kinf=1.291	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=3 burnup=4.00	kinf=1.277	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=1 burnup=4.00	kinf=1.277	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=21 burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2 burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=3 burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=1 burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=22 burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4 burnup=3.58	kinf=1.019	Enrch=0.72	Dschg=1980	HATCH
Nassy=15 burnup=1.89	kinf=1.041	Enrch=0.72	Dschg=1980	HATCH
Nassy=1 burnup=1.89	kinf=1.041	Enrch=0.72	Dschg=1980	HATCH
Nassy=24 burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=1 burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=3 burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=15 burnup=2.83	kinf=1.028	Enrch=0.72	Dschg=1980	HATCH
Nassy=1 burnup=2.83	kinf=1.028	Enrch=0.72	Dschg=1980	HATCH
Nassy=8 burnup=4.31	kinf=1.009	Enrch=0.72	Dschg=1980	HATCH
Nassy=4 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1980	HATCH
Nassy=8 burnup=3.15	kinf=1.024	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8 burnup=4.11	kinf=1.012	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=21 burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=15 burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=12 burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=7 burnup=2.96	kinf=1.027	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=1 burnup=2.96	kinf=1.027	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=4 burnup=3.14	kinf=1.024	Enrch=0.72	Dschg=1985	LASALLE
Nassy=6 burnup=4.86	kinf=1.003	Enrch=0.72	Dschg=1985	LASALLE
Nassy=2 burnup=4.86	kinf=1.003	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8 burnup=2.92	kinf=1.027	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8 burnup=3.41	kinf=1.021	Enrch=0.72	Dschg=1985	LASALLE
Nassy=18 burnup=4.08	kinf=1.012	Enrch=0.72	Dschg=1985	LASALLE
Nassy=30 burnup=3.91	kinf=1.015	Enrch=0.72	Dschg=1985	LASALLE
Nassy=1 burnup=2.64	kinf=1.031	Enrch=0.72	Dschg=1985	LASALLE
Nassy=7 burnup=2.64	kinf=1.031	Enrch=0.72	Dschg=1985	LASALLE
Nassy=1 burnup=2.22	kinf=1.038	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=7 burnup=2.22	kinf=1.038	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=14 burnup=2.86	kinf=1.030	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=8 burnup=3.07	kinf=1.027	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=15 burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=7 burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=2 burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=6 burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=6 burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=6 burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=16 burnup=1.77	kinf=1.044	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=4 burnup=3.28	kinf=1.024	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=2 burnup=4.17	kinf=1.013	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=37 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE
Nassy=26 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE
Nassy=28 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE
Nassy=1 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE
Nassy=18 burnup=5.00	kinf=1.487	Enrch=3.70	Dschg=1987	LACROSSE
Nassy=5 burnup=5.00	kinf=1.487	Enrch=3.70	Dschg=1987	LACROSSE
Nassy=1 burnup=5.00	kinf=1.488	Enrch=3.71	Dschg=1987	LACROSSE
Nassy=15 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=33 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=3 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=1 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=8 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=16 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=30 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=35 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=2 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=1 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=12 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM

Nassy=12	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=33	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=5	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=14	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=29	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=1	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=10	burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=36	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=44	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=4	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=8	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=17	burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=132	burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=8	burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=19	burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=22	burnup=7.59	kinf=1.400	Enrch=3.38	Dschg=2009	OYSTER CRK
Nassy=38	burnup=7.59	kinf=1.400	Enrch=3.38	Dschg=2009	OYSTER CRK
Nassy=20	burnup=7.59	kinf=1.400	Enrch=3.38	Dschg=2009	OYSTER CRK
Nassy=10	burnup=6.41	kinf=1.443	Enrch=3.55	Dschg=2012	QUAD CITIES
Nassy=88	burnup=6.41	kinf=1.443	Enrch=3.55	Dschg=2012	QUAD CITIES
Nassy=32	burnup=6.41	kinf=1.443	Enrch=3.55	Dschg=2012	QUAD CITIES
Nassy=23	burnup=6.41	kinf=1.443	Enrch=3.55	Dschg=2012	QUAD CITIES
Nassy=43	burnup=6.61	kinf=1.438	Enrch=3.54	Dschg=2014	BRUNSWICK
Nassy=36	burnup=6.61	kinf=1.438	Enrch=3.54	Dschg=2014	BRUNSWICK
Nassy=8	burnup=6.61	kinf=1.438	Enrch=3.54	Dschg=2014	BRUNSWICK
Nassy=5	burnup=6.61	kinf=1.438	Enrch=3.54	Dschg=2014	BRUNSWICK

INPUT FILE LISTING:

#bins	Input_file	Output_file	Case_title	Last_delivery
0	case9.wsm	case9.out	W9:yff10_7dpc_isf_87	2045
Type	Cap	Hmin	Hmax	Kmin
				Kmax

OUTPUT FILE LISTING:

W9:yff10_7dpc_isf_87
Standard Table

BWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	779	779	0.46
20	1853	2632	1.57
30	1908	4540	2.71
40	2808	7348	4.38
50	3313	10661	6.36
60	3863	14524	8.66
70	7116	21640	12.90
80	8508	30148	17.97
90	12847	42995	25.63
100	7449	50444	30.07
110	5641	56085	33.43
120	5540	61625	36.74
130	6103	67728	40.37
140	7242	74970	44.69
150	8174	83144	49.56
160	5690	88834	52.96
170	3701	92535	55.16
180	4838	97373	58.05
190	2131	99504	59.32
200	1576	101080	60.26
210	1580	102660	61.20
220	2737	105397	62.83
230	2875	108272	64.54
240	2257	110529	65.89
250	1500	112029	66.78
260	2260	114289	68.13
270	6613	120902	72.07
280	4286	125188	74.63
290	5349	130537	77.82
300	4556	135093	80.53
310	4271	139364	83.08
320	3395	142759	85.10
330	5229	147988	88.22
340	4515	152503	90.91
350	7106	159609	95.15
360	2400	162009	96.58
370	540	162549	96.90
380	965	163514	97.47
390	1202	164716	98.19
400	591	165307	98.54
410	456	165763	98.81
420	285	166048	98.98
430	84	166132	99.03
440	417	166549	99.28
450	100	166649	99.34
460	20	166669	99.35
470	23	166692	99.37
480	196	166888	99.48
490	387	167275	99.72
500	0	167275	99.72
510	49	167324	99.74
520	428	167752	100.00
530	0	167752	100.00
540	0	167752	100.00
550	0	167752	100.00

560	0	167752	100.00
570	0	167752	100.00
580	0	167752	100.00
590	0	167752	100.00
600	0	167752	100.00
610	0	167752	100.00
620	0	167752	100.00
630	0	167752	100.00
640	0	167752	100.00
650	0	167752	100.00
660	0	167752	100.00
670	0	167752	100.00
680	0	167752	100.00
690	0	167752	100.00
700	0	167752	100.00
710	0	167752	100.00
720	0	167752	100.00
730	0	167752	100.00
740	0	167752	100.00
750	0	167752	100.00
760	0	167752	100.00
770	0	167752	100.00
780	0	167752	100.00
790	0	167752	100.00
800	0	167752	100.00
810	0	167752	100.00
820	0	167752	100.00
830	0	167752	100.00
840	0	167752	100.00
850	0	167752	100.00
860	0	167752	100.00
870	0	167752	100.00
880	0	167752	100.00
890	0	167752	100.00
900	0	167752	100.00
910	0	167752	100.00
920	0	167752	100.00
930	0	167752	100.00
940	0	167752	100.00
950	0	167752	100.00
960	0	167752	100.00
970	0	167752	100.00
980	0	167752	100.00
990	0	167752	100.00
Above	0	167752	100.00

BWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	0	0	0.00
0.770	0	0	0.00
0.780	0	0	0.00
0.790	0	0	0.00
0.800	0	0	0.00
0.810	12	12	0.01
0.820	0	12	0.01
0.830	27	39	0.02
0.840	8	47	0.03
0.850	32	79	0.05
0.860	114	193	0.12
0.870	53	246	0.15
0.880	487	733	0.44
0.890	239	972	0.58
0.900	608	1580	0.94
0.910	416	1996	1.19
0.920	1211	3207	1.91
0.930	1475	4682	2.79
0.940	2199	6881	4.10
0.950	1806	8687	5.18
0.960	2822	11509	6.86

0.970	5375	16884	10.06
0.980	14383	31267	18.64
0.990	6991	38258	22.81
1.000	8010	46268	27.58
1.010	11643	57911	34.52
1.020	15694	73605	43.88
1.030	13440	87045	51.89
1.040	18974	106019	63.20
1.050	9909	115928	69.11
1.060	9784	125712	74.94
1.070	6461	132173	78.79
1.080	4283	136456	81.34
1.090	4621	141077	84.10
1.100	2791	143868	85.76
1.110	1627	145495	86.73
1.120	2713	148208	88.35
1.130	745	148953	88.79
1.140	1538	150491	89.71
1.150	1218	151709	90.44
1.160	789	152498	90.91
1.170	1541	154039	91.83
1.180	637	154676	92.21
1.190	579	155255	92.55
1.200	632	155887	92.93
1.210	688	156575	93.34
1.220	245	156820	93.48
1.230	355	157175	93.69
1.240	371	157546	93.92
1.250	1403	158949	94.75
1.260	895	159844	95.29
1.270	873	160717	95.81
1.280	403	161120	96.05
1.290	891	162011	96.58
1.300	471	162482	96.86
1.310	596	163078	97.21
1.320	138	163216	97.30
1.330	803	164019	97.77
1.340	370	164389	98.00
1.350	662	165051	98.39
1.360	127	165178	98.47
1.370	242	165420	98.61
1.380	840	166260	99.11
1.390	133	166393	99.19
1.400	193	166586	99.30
1.410	503	167089	99.60
1.420	16	167105	99.61
1.430	3	167108	99.62
1.440	92	167200	99.67
1.450	154	167354	99.76
1.460	169	167523	99.86
1.470	0	167523	99.86
1.480	3	167526	99.87
1.490	25	167551	99.88
1.500	0	167551	99.88
1.510	196	167747	100.00
1.520	0	167747	100.00
1.530	1	167748	100.00
1.540	4	167752	100.00
1.550	0	167752	100.00
1.560	0	167752	100.00
1.570	0	167752	100.00
1.580	0	167752	100.00
1.590	0	167752	100.00
Above	0	167752	100.00

PWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	29	29	0.02
20	14	43	0.03

30	40	83	0.06
40	74	157	0.12
50	58	215	0.16
60	96	311	0.24
70	203	514	0.39
80	157	671	0.51
90	386	1057	0.80
100	348	1405	1.07
110	359	1764	1.34
120	763	2527	1.92
130	698	3225	2.45
140	988	4213	3.20
150	1078	5291	4.02
160	1435	6726	5.11
170	965	7691	5.85
180	914	8605	6.54
190	1139	9744	7.41
200	1382	11126	8.46
210	1983	13109	9.97
220	1865	14974	11.39
230	2089	17063	12.97
240	2181	19244	14.63
250	2644	21888	16.64
260	2182	24070	18.30
270	2262	26332	20.02
280	2436	28768	21.87
290	2280	31048	23.61
300	1982	33030	25.11
310	2454	35484	26.98
320	3315	38799	29.50
330	2698	41497	31.55
340	2302	43799	33.30
350	2240	46039	35.00
360	2750	48789	37.10
370	2303	51092	38.85
380	1948	53040	40.33
390	2322	55362	42.09
400	2373	57735	43.90
410	1774	59509	45.25
420	1748	61257	46.58
430	1351	62608	47.60
440	1268	63876	48.57
450	944	64820	49.28
460	1000	65820	50.04
470	652	66472	50.54
480	921	67393	51.24
490	685	68078	51.76
500	1081	69159	52.58
510	857	70016	53.23
520	846	70862	53.88
530	604	71466	54.34
540	824	72290	54.96
550	826	73116	55.59
560	963	74079	56.32
570	684	74763	56.84
580	935	75698	57.55
590	1914	77612	59.01
600	2208	79820	60.69
610	1872	81692	62.11
620	1613	83305	63.34
630	1227	84532	64.27
640	1752	86284	65.60
650	2161	88445	67.25
660	1246	89691	68.19
670	1464	91155	69.31
680	1914	93069	70.76
690	2009	95078	72.29
700	3444	98522	74.91
710	3602	102124	77.65
720	1868	103992	79.07

730	1315	105307	80.07
740	1082	106389	80.89
750	1393	107782	81.95
760	1301	109083	82.94
770	1473	110556	84.06
780	1076	111632	84.88
790	780	112412	85.47
800	1051	113463	86.27
810	995	114458	87.03
820	818	115276	87.65
830	524	115800	88.05
840	949	116749	88.77
850	909	117658	89.46
860	1100	118758	90.29
870	460	119218	90.64
880	416	119634	90.96
890	746	120380	91.53
900	394	120774	91.83
910	884	121658	92.50
920	482	122140	92.87
930	492	122632	93.24
940	919	123551	93.94
950	561	124112	94.37
960	443	124555	94.70
970	556	125111	95.12
980	536	125647	95.53
990	1059	126706	96.34
1000	829	127535	96.97
1010	299	127834	97.20
1020	621	128455	97.67
1030	291	128746	97.89
1040	34	128780	97.91
1050	101	128881	97.99
1060	173	129054	98.12
1070	192	129246	98.27
1080	66	129312	98.32
1090	104	129416	98.40
1100	163	129579	98.52
1110	84	129663	98.59
1120	78	129741	98.65
1130	95	129836	98.72
1140	0	129836	98.72
1150	57	129893	98.76
1160	2	129895	98.76
1170	45	129940	98.80
1180	98	130038	98.87
1190	126	130164	98.97
1200	53	130217	99.01
1210	2	130219	99.01
1220	32	130251	99.03
1230	0	130251	99.03
1240	45	130296	99.07
1250	1	130297	99.07
1260	6	130303	99.07
1270	12	130315	99.08
1280	129	130444	99.18
1290	53	130497	99.22
1300	100	130597	99.30
1310	17	130614	99.31
1320	0	130614	99.31
1330	246	130860	99.50
1340	41	130901	99.53
1350	96	130997	99.60
1360	32	131029	99.62
1370	13	131042	99.63
1380	86	131128	99.70
1390	50	131178	99.74
1400	1	131179	99.74
1410	0	131179	99.74
1420	0	131179	99.74

1430	0	131179	99.74
1440	0	131179	99.74
1450	35	131214	99.77
1460	78	131292	99.82
1470	0	131292	99.82
1480	1	131293	99.83
1490	76	131369	99.88
1500	0	131369	99.88
1510	0	131369	99.88
1520	0	131369	99.88
1530	44	131413	99.92
1540	0	131413	99.92
1550	0	131413	99.92
1560	33	131446	99.94
1570	0	131446	99.94
1580	41	131487	99.97
1590	1	131488	99.97
1600	0	131488	99.97
1610	1	131489	99.97
1620	0	131489	99.97
1630	0	131489	99.97
1640	1	131490	99.97
1650	0	131490	99.97
1660	33	131523	100.00
1670	0	131523	100.00
1680	0	131523	100.00
1690	0	131523	100.00
1700	0	131523	100.00
1710	0	131523	100.00
1720	0	131523	100.00
1730	0	131523	100.00
1740	0	131523	100.00
1750	0	131523	100.00
1760	0	131523	100.00
1770	0	131523	100.00
1780	0	131523	100.00
1790	0	131523	100.00
1800	0	131523	100.00
1810	0	131523	100.00
1820	0	131523	100.00
1830	0	131523	100.00
1840	0	131523	100.00
1850	0	131523	100.00
1860	0	131523	100.00
1870	0	131523	100.00
1880	0	131523	100.00
1890	0	131523	100.00
1900	0	131523	100.00
1910	0	131523	100.00
1920	0	131523	100.00
1930	0	131523	100.00
1940	0	131523	100.00
1950	0	131523	100.00
1960	0	131523	100.00
1970	0	131523	100.00
1980	0	131523	100.00
1990	0	131523	100.00
Above	0	131523	100.00

PWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	5	5	0.00
0.770	0	5	0.00
0.780	0	5	0.00
0.790	0	5	0.00
0.800	0	5	0.00
0.810	11	16	0.01
0.820	24	40	0.03
0.830	84	124	0.09

0.840	1	125	0.10
0.850	1	126	0.10
0.860	18	144	0.11
0.870	2	146	0.11
0.880	40	186	0.14
0.890	14	200	0.15
0.900	27	227	0.17
0.910	192	419	0.32
0.920	280	699	0.53
0.930	401	1100	0.84
0.940	766	1866	1.42
0.950	1693	3559	2.71
0.960	3151	6710	5.10
0.970	5411	12121	9.22
0.980	8033	20154	15.32
0.990	11870	32024	24.35
1.000	13339	45363	34.49
1.010	13971	59334	45.11
1.020	13072	72406	55.05
1.030	13823	86229	65.56
1.040	11048	97277	73.96
1.050	9556	106833	81.23
1.060	4208	111041	84.43
1.070	3700	114741	87.24
1.080	2685	117426	89.28
1.090	2056	119482	90.84
1.100	2328	121810	92.61
1.110	1698	123508	93.91
1.120	1203	124711	94.82
1.130	1213	125924	95.74
1.140	655	126579	96.24
1.150	519	127098	96.64
1.160	668	127766	97.14
1.170	261	128027	97.34
1.180	321	128348	97.59
1.190	558	128906	98.01
1.200	278	129184	98.22
1.210	266	129450	98.42
1.220	109	129559	98.51
1.230	243	129802	98.69
1.240	385	130187	98.98
1.250	340	130527	99.24
1.260	148	130675	99.36
1.270	281	130956	99.57
1.280	66	131022	99.62
1.290	186	131208	99.76
1.300	107	131315	99.84
1.310	29	131344	99.86
1.320	61	131405	99.91
1.330	20	131425	99.93
1.340	8	131433	99.93
1.350	2	131435	99.93
1.360	44	131479	99.97
1.370	7	131486	99.97
1.380	0	131486	99.97
1.390	0	131486	99.97
1.400	0	131486	99.97
1.410	1	131487	99.97
1.420	0	131487	99.97
1.430	12	131499	99.98
1.440	0	131499	99.98
1.450	16	131515	99.99
1.460	8	131523	100.00
1.470	0	131523	100.00
1.480	0	131523	100.00
1.490	0	131523	100.00
1.500	0	131523	100.00
1.510	0	131523	100.00
1.520	0	131523	100.00
1.530	0	131523	100.00

1.540	0	131523	100.00
1.550	0	131523	100.00
1.560	0	131523	100.00
1.570	0	131523	100.00
1.580	0	131523	100.00
1.590	0	131523	100.00
Above	0	131523	100.00

Year	MTU	B Assy	P Assy
2010	289.94	572	420
2011	603.78	1584	747
2012	1211.75	2508	1742
2013	1986.60	3256	3207
2014	2998.60	5837	4569
2015	2999.74	5345	4698
2016	2994.44	5961	4434
2017	3017.16	5323	4686
2018	2994.21	5890	4456
2019	3012.98	5367	4651
2020	3016.49	5676	4557
2021	2987.63	5720	4452
2022	3004.32	5456	4641
2023	3001.55	5368	4668
2024	2983.97	5720	4503
2025	3007.05	6776	4191
2026	2997.89	5280	4683
2027	2985.68	6336	4320
2028	3000.00	6116	4371
2029	3021.05	4224	5162
2030	2998.63	5016	4767
2031	3007.36	5984	4455
2032	3006.63	6364	4374
2033	2993.53	6436	4401
2034	2989.39	7689	4152
2035	3015.89	7233	4060
2036	3014.04	6165	4494
2037	2996.64	5544	4623
2038	3018.03	6182	4575
2039	2990.63	5104	4851
2040	3006.05	4595	5124
2041	1618.70	3125	2489
2042	0.00	0	0
2043	0.00	0	0
2044	0.00	0	0
2045	0.00	0	0

Average age = 25.828

JUNK FILE LISTING:

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Nassy=1 burnup=1.87 kinf=1.529 Enrch=3.63 Dschg=1968 WEST VALLEY
Nassy=2 burnup=1.45 kinf=1.536 Enrch=3.63 Dschg=1968 WEST VALLEY
Nassy=2 burnup=1.53 kinf=1.535 Enrch=3.63 Dschg=1968 WEST VALLEY
Nassy=1 burnup=6.38 kinf=1.455 Enrch=3.63 Dschg=1969 WEST VALLEY
Nassy=2 burnup=0.32 kinf=1.314 Enrch=2.13 Dschg=1970 GE MORRIS (
Nassy=1 burnup=0.32 kinf=1.315 Enrch=2.13 Dschg=1970 GE MORRIS (
Nassy=3 burnup=0.35 kinf=1.314 Enrch=2.13 Dschg=1970 GE MORRIS (
Nassy=8 burnup=0.34 kinf=1.314 Enrch=2.13 Dschg=1970 GE MORRIS (
Nassy=1 burnup=0.35 kinf=1.314 Enrch=2.13 Dschg=1970 GE MORRIS (
Nassy=1 burnup=0.18 kinf=1.317 Enrch=2.13 Dschg=1970 GE MORRIS (
Nassy=1 burnup=0.36 kinf=1.314 Enrch=2.13 Dschg=1970 GE MORRIS (
Nassy=1 burnup=0.23 kinf=1.317 Enrch=2.13 Dschg=1970 GE MORRIS (
Nassy=1 burnup=0.32 kinf=1.314 Enrch=2.13 Dschg=1970 GE MORRIS (
Nassy=10 burnup=0.34 kinf=1.315 Enrch=2.13 Dschg=1970 GE MORRIS (
Nassy=1 burnup=1.48 kinf=1.297 Enrch=2.13 Dschg=1971 GE MORRIS (
Nassy=1 burnup=0.86 kinf=1.307 Enrch=2.13 Dschg=1971 GE MORRIS (
Nassy=3 burnup=1.22 kinf=1.301 Enrch=2.13 Dschg=1971 GE MORRIS (
Nassy=7 burnup=1.63 kinf=1.295 Enrch=2.13 Dschg=1971 GE MORRIS (

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Nassy=3	burnup=1.77	kinf=1.260	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.86	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.79	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8	burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=11	burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.34	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=1	burnup=1.57	kinf=1.267	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.76	kinf=1.261	Enrch=1.94	Dschg=1971	GE MORRIS (
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Nassy=2	burnup=1.46	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.09	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.27	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.28	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.32	kinf=1.275	Enrch=1.99	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.11	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.42	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.23	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=11	burnup=1.34	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.15	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8	burnup=1.44	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=20	burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=1	burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=1	burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=1.53	kinf=1.318	Enrch=2.26	Dschg=1971	DRESDEN
Nassy=1	burnup=4.49	kinf=1.250	Enrch=2.11	Dschg=1971	OYSTER CRK
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INPUT FILE LISTING:

#bins	Input_file	Output_file	Case_title	Last_delivery
0	case10.wsm	case10.out	W10:yff10_aucf_noi_87	2045
Type	Cap	Hmin Hmax Kmin	Kmax	

OUTPUT FILE LISTING:

W10:yff10_aucf_noi_87
Standard Table

BWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	482	482	0.29
20	2028	2510	1.50
30	2050	4560	2.72
40	3536	8096	4.83
50	3574	11670	6.96
60	5213	16883	10.06
70	7999	24882	14.83
80	8238	33120	19.74
90	9072	42192	25.15
100	7525	49717	29.64
110	5754	55471	33.07
120	5614	61085	36.42
130	4324	65409	38.99
140	4187	69596	41.49
150	5023	74619	44.48
160	4972	79591	47.45
170	3971	83562	49.81
180	3510	87072	51.91
190	3179	90251	53.80
200	3835	94086	56.09
210	3271	97357	58.04
220	3130	100487	59.90
230	3482	103969	61.98
240	5253	109222	65.11
250	3950	113172	67.47
260	3620	116792	69.62
270	7474	124266	74.08
280	4575	128841	76.81
290	5407	134248	80.03
300	2775	137023	81.69
310	4069	141092	84.11
320	5165	146257	87.19
330	4294	150551	89.75
340	5099	155650	92.79
350	7368	163018	97.18
360	3412	166430	99.22
370	253	166683	99.37
380	428	167111	99.62
390	440	167551	99.88
400	140	167691	99.97
410	54	167745	100.00
420	0	167745	100.00
430	0	167745	100.00
440	0	167745	100.00
450	0	167745	100.00
460	0	167745	100.00
470	0	167745	100.00
480	0	167745	100.00
490	0	167745	100.00
500	0	167745	100.00
510	0	167745	100.00
520	0	167745	100.00
530	0	167745	100.00
540	0	167745	100.00
550	0	167745	100.00

560	0	167745	100.00
570	0	167745	100.00
580	0	167745	100.00
590	0	167745	100.00
600	0	167745	100.00
610	0	167745	100.00
620	0	167745	100.00
630	0	167745	100.00
640	0	167745	100.00
650	0	167745	100.00
660	0	167745	100.00
670	0	167745	100.00
680	0	167745	100.00
690	0	167745	100.00
700	0	167745	100.00
710	0	167745	100.00
720	0	167745	100.00
730	0	167745	100.00
740	0	167745	100.00
750	0	167745	100.00
760	0	167745	100.00
770	0	167745	100.00
780	0	167745	100.00
790	0	167745	100.00
800	0	167745	100.00
810	0	167745	100.00
820	0	167745	100.00
830	0	167745	100.00
840	0	167745	100.00
850	0	167745	100.00
860	0	167745	100.00
870	0	167745	100.00
880	0	167745	100.00
890	0	167745	100.00
900	0	167745	100.00
910	0	167745	100.00
920	0	167745	100.00
930	0	167745	100.00
940	0	167745	100.00
950	0	167745	100.00
960	0	167745	100.00
970	0	167745	100.00
980	0	167745	100.00
990	0	167745	100.00
Above	0	167745	100.00

BWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	0	0	0.00
0.770	0	0	0.00
0.780	0	0	0.00
0.790	0	0	0.00
0.800	0	0	0.00
0.810	12	12	0.01
0.820	0	12	0.01
0.830	27	39	0.02
0.840	8	47	0.03
0.850	32	79	0.05
0.860	114	193	0.12
0.870	53	246	0.15
0.880	487	733	0.44
0.890	239	972	0.58
0.900	608	1580	0.94
0.910	416	1996	1.19
0.920	1211	3207	1.91
0.930	1475	4682	2.79
0.940	2199	6881	4.10
0.950	1806	8687	5.18
0.960	2822	11509	6.86

0.970	5375	16884	10.07
0.980	14383	31267	18.64
0.990	6991	38258	22.81
1.000	8010	46268	27.58
1.010	11642	57910	34.52
1.020	15691	73601	43.88
1.030	13437	87038	51.89
1.040	18971	106009	63.20
1.050	9909	115918	69.10
1.060	9784	125702	74.94
1.070	6461	132163	78.79
1.080	4283	136446	81.34
1.090	4623	141069	84.10
1.100	2791	143860	85.76
1.110	1627	145487	86.73
1.120	2713	148200	88.35
1.130	745	148945	88.79
1.140	1538	150483	89.71
1.150	1218	151701	90.44
1.160	789	152490	90.91
1.170	1541	154031	91.82
1.180	637	154668	92.20
1.190	579	155247	92.55
1.200	632	155879	92.93
1.210	687	156566	93.34
1.220	245	156811	93.48
1.230	355	157166	93.69
1.240	371	157537	93.91
1.250	1403	158940	94.75
1.260	895	159835	95.28
1.270	873	160708	95.80
1.280	404	161112	96.05
1.290	891	162003	96.58
1.300	471	162474	96.86
1.310	596	163070	97.21
1.320	138	163208	97.30
1.330	803	164011	97.77
1.340	370	164381	97.99
1.350	662	165043	98.39
1.360	127	165170	98.46
1.370	242	165412	98.61
1.380	840	166252	99.11
1.390	133	166385	99.19
1.400	193	166578	99.30
1.410	503	167081	99.60
1.420	16	167097	99.61
1.430	3	167100	99.62
1.440	92	167192	99.67
1.450	154	167346	99.76
1.460	169	167515	99.86
1.470	1	167516	99.86
1.480	3	167519	99.87
1.490	25	167544	99.88
1.500	0	167544	99.88
1.510	196	167740	100.00
1.520	0	167740	100.00
1.530	1	167741	100.00
1.540	4	167745	100.00
1.550	0	167745	100.00
1.560	0	167745	100.00
1.570	0	167745	100.00
1.580	0	167745	100.00
1.590	0	167745	100.00
Above	0	167745	100.00

PWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	8	8	0.01
20	31	39	0.03

30	18	57	0.04
40	31	88	0.07
50	97	185	0.14
60	148	333	0.25
70	115	448	0.34
80	242	690	0.52
90	300	990	0.75
100	380	1370	1.04
110	612	1982	1.51
120	746	2728	2.07
130	1004	3732	2.84
140	1162	4894	3.72
150	948	5842	4.44
160	743	6585	5.01
170	849	7434	5.65
180	1581	9015	6.85
190	1801	10816	8.22
200	1728	12544	9.54
210	1777	14321	10.89
220	2113	16434	12.50
230	1962	18396	13.99
240	2131	20527	15.61
250	2248	22775	17.32
260	2139	24914	18.94
270	2266	27180	20.67
280	2170	29350	22.32
290	2482	31832	24.20
300	2135	33967	25.83
310	2154	36121	27.46
320	1852	37973	28.87
330	1880	39853	30.30
340	1926	41779	31.77
350	1762	43541	33.11
360	1874	45415	34.53
370	2123	47538	36.15
380	2099	49637	37.74
390	1976	51613	39.24
400	1616	53229	40.47
410	1651	54880	41.73
420	1453	56333	42.83
430	1208	57541	43.75
440	1424	58965	44.83
450	1137	60102	45.70
460	1261	61363	46.66
470	934	62297	47.37
480	1299	63596	48.35
490	1205	64801	49.27
500	1634	66435	50.51
510	1114	67549	51.36
520	1152	68701	52.24
530	1244	69945	53.18
540	1095	71040	54.02
550	1429	72469	55.10
560	1525	73994	56.26
570	901	74895	56.95
580	1281	76176	57.92
590	1911	78087	59.37
600	2542	80629	61.31
610	2382	83011	63.12
620	2110	85121	64.72
630	1527	86648	65.88
640	1948	88596	67.36
650	3010	91606	69.65
660	1807	93413	71.03
670	1722	95135	72.34
680	1799	96934	73.70
690	3028	99962	76.01
700	6434	106396	80.90
710	5568	111964	85.13
720	1184	113148	86.03

730	605	113753	86.49
740	1110	114863	87.34
750	1116	115979	88.18
760	848	116827	88.83
770	789	117616	89.43
780	1058	118674	90.23
790	515	119189	90.62
800	555	119744	91.05
810	564	120308	91.48
820	685	120993	92.00
830	378	121371	92.28
840	310	121681	92.52
850	466	122147	92.87
860	418	122565	93.19
870	285	122850	93.41
880	187	123037	93.55
890	560	123597	93.98
900	540	124137	94.39
910	641	124778	94.87
920	365	125143	95.15
930	291	125434	95.37
940	773	126207	95.96
950	535	126742	96.37
960	437	127179	96.70
970	732	127911	97.26
980	703	128614	97.79
990	786	129400	98.39
1000	1246	130646	99.34
1010	136	130782	99.44
1020	520	131302	99.84
1030	83	131385	99.90
1040	17	131402	99.91
1050	0	131402	99.91
1060	0	131402	99.91
1070	0	131402	99.91
1080	0	131402	99.91
1090	0	131402	99.91
1100	33	131435	99.94
1110	0	131435	99.94
1120	0	131435	99.94
1130	0	131435	99.94
1140	1	131436	99.94
1150	0	131436	99.94
1160	0	131436	99.94
1170	0	131436	99.94
1180	0	131436	99.94
1190	3	131439	99.94
1200	0	131439	99.94
1210	0	131439	99.94
1220	0	131439	99.94
1230	0	131439	99.94
1240	0	131439	99.94
1250	0	131439	99.94
1260	0	131439	99.94
1270	0	131439	99.94
1280	45	131484	99.97
1290	0	131484	99.97
1300	0	131484	99.97
1310	0	131484	99.97
1320	0	131484	99.97
1330	0	131484	99.97
1340	0	131484	99.97
1350	0	131484	99.97
1360	0	131484	99.97
1370	0	131484	99.97
1380	0	131484	99.97
1390	0	131484	99.97
1400	1	131485	99.97
1410	0	131485	99.97
1420	0	131485	99.97

1430	0	131485	99.97
1440	0	131485	99.97
1450	0	131485	99.97
1460	0	131485	99.97
1470	0	131485	99.97
1480	1	131486	99.97
1490	0	131486	99.97
1500	0	131486	99.97
1510	0	131486	99.97
1520	0	131486	99.97
1530	0	131486	99.97
1540	0	131486	99.97
1550	0	131486	99.97
1560	33	131519	100.00
1570	0	131519	100.00
1580	0	131519	100.00
1590	0	131519	100.00
1600	0	131519	100.00
1610	0	131519	100.00
1620	0	131519	100.00
1630	0	131519	100.00
1640	0	131519	100.00
1650	0	131519	100.00
1660	0	131519	100.00
1670	0	131519	100.00
1680	0	131519	100.00
1690	0	131519	100.00
1700	0	131519	100.00
1710	0	131519	100.00
1720	0	131519	100.00
1730	0	131519	100.00
1740	0	131519	100.00
1750	0	131519	100.00
1760	0	131519	100.00
1770	0	131519	100.00
1780	0	131519	100.00
1790	0	131519	100.00
1800	0	131519	100.00
1810	0	131519	100.00
1820	0	131519	100.00
1830	0	131519	100.00
1840	0	131519	100.00
1850	0	131519	100.00
1860	0	131519	100.00
1870	0	131519	100.00
1880	0	131519	100.00
1890	0	131519	100.00
1900	0	131519	100.00
1910	0	131519	100.00
1920	0	131519	100.00
1930	0	131519	100.00
1940	0	131519	100.00
1950	0	131519	100.00
1960	0	131519	100.00
1970	0	131519	100.00
1980	0	131519	100.00
1990	0	131519	100.00
Above	0	131519	100.00

PWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	5	5	0.00
0.770	0	5	0.00
0.780	0	5	0.00
0.790	0	5	0.00
0.800	0	5	0.00
0.810	0	5	0.00
0.820	0	5	0.00
0.830	36	41	0.03

0.840	84	125	0.10
0.850	1	126	0.10
0.860	2	128	0.10
0.870	19	147	0.11
0.880	8	155	0.12
0.890	24	179	0.14
0.900	198	377	0.29
0.910	151	528	0.40
0.920	271	799	0.61
0.930	451	1250	0.95
0.940	998	2248	1.71
0.950	2205	4453	3.39
0.960	3444	7897	6.00
0.970	6026	13923	10.59
0.980	9099	23022	17.50
0.990	11398	34420	26.17
1.000	13133	47553	36.16
1.010	13828	61381	46.67
1.020	12865	74246	56.45
1.030	13636	87882	66.82
1.040	10222	98104	74.59
1.050	9102	107206	81.51
1.060	4240	111446	84.74
1.070	3832	115278	87.65
1.080	2319	117597	89.41
1.090	1949	119546	90.90
1.100	1879	121425	92.33
1.110	2173	123598	93.98
1.120	1226	124824	94.91
1.130	1213	126037	95.83
1.140	724	126761	96.38
1.150	273	127034	96.59
1.160	610	127644	97.05
1.170	389	128033	97.35
1.180	386	128419	97.64
1.190	480	128899	98.01
1.200	239	129138	98.19
1.210	299	129437	98.42
1.220	161	129598	98.54
1.230	284	129882	98.76
1.240	364	130246	99.03
1.250	338	130584	99.29
1.260	147	130731	99.40
1.270	225	130956	99.57
1.280	76	131032	99.63
1.290	182	131214	99.77
1.300	105	131319	99.85
1.310	71	131390	99.90
1.320	55	131445	99.94
1.330	22	131467	99.96
1.340	6	131473	99.97
1.350	4	131477	99.97
1.360	0	131477	99.97
1.370	5	131482	99.97
1.380	0	131482	99.97
1.390	0	131482	99.97
1.400	0	131482	99.97
1.410	1	131483	99.97
1.420	12	131495	99.98
1.430	0	131495	99.98
1.440	16	131511	99.99
1.450	8	131519	100.00
1.460	0	131519	100.00
1.470	0	131519	100.00
1.480	0	131519	100.00
1.490	0	131519	100.00
1.500	0	131519	100.00
1.510	0	131519	100.00
1.520	0	131519	100.00
1.530	0	131519	100.00

1.540	0	131519	100.00
1.550	0	131519	100.00
1.560	0	131519	100.00
1.570	0	131519	100.00
1.580	0	131519	100.00
1.590	0	131519	100.00
Above	0	131519	100.00

Year	MTU	B Assy	P Assy
2010	300.20	1100	357
2011	599.87	2068	693
2012	1196.03	3233	1659
2013	1998.83	4905	2868
2014	3002.05	7543	3912
2015	2998.22	6357	4398
2016	3004.75	5718	4692
2017	2998.18	5961	4563
2018	3002.89	6246	4434
2019	2985.24	5081	4827
2020	3003.92	5389	4776
2021	2995.24	5653	4626
2022	3003.95	6049	4503
2023	2998.29	5081	4806
2024	3001.16	5521	4665
2025	2998.91	5917	4470
2026	3003.93	6125	4416
2027	2993.25	4664	4992
2028	3012.96	5940	4437
2029	2990.88	5148	4752
2030	2995.00	5984	4350
2031	3034.28	5280	4746
2032	2972.65	5764	4446
2033	3012.23	6556	4158
2034	2989.12	5324	4560
2035	2993.52	5280	4647
2036	3010.81	5764	4560
2037	2991.91	5588	4449
2038	3006.58	4268	5049
2039	3003.87	6732	4158
2040	3003.35	5852	4464
2041	1665.31	1654	3086
2042	0.00	0	0
2043	0.00	0	0
2044	0.00	0	0
2045	0.00	0	0

Average age = 25.447

JUNK FILE LISTING:

Nassy=1 burnup=1.87	kinf=1.529	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.45	kinf=1.536	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.53	kinf=1.535	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=1 burnup=6.38	kinf=1.455	Enrch=3.63	Dschg=1969	WEST VALLEY
Nassy=2 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=3 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=8 burnup=0.34	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.18	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.36	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.23	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=10 burnup=0.34	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=7 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (

Nassy=3 burnup=1.77	kinf=1.260	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.86	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.79	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=19 burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.34	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.46	kinf=1.270	Enrch=1.97	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.57	kinf=1.267	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.76	kinf=1.261	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.23	kinf=1.279	Enrch=2.00	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.46	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.09	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.27	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.28	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.32	kinf=1.275	Enrch=1.99	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.11	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.42	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.23	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.34	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=7 burnup=1.34	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.15	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8 burnup=1.44	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=20 burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=0.86	kinf=1.291	Enrch=2.04	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.62	kinf=1.265	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.64	kinf=1.264	Enrch=1.95	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=19 burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.13	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=21 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.78	kinf=1.260	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=2 burnup=9.28	kinf=1.410	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1 burnup=4.99	kinf=1.478	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1 burnup=8.24	kinf=1.426	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1 burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1 burnup=1.53	kinf=1.318	Enrch=2.26	Dschg=1971	DRESDEN
Nassy=1 burnup=4.49	kinf=1.250	Enrch=2.11	Dschg=1971	OYSTER CRK
Nassy=1 burnup=3.27	kinf=1.212	Enrch=1.78	Dschg=1972	GE MORRIS (
Nassy=22 burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=13 burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=25 burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=19 burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=4 burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=13 burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=12 burnup=2.81	kinf=1.227	Enrch=1.83	Dschg=1972	GE MORRIS (
Nassy=10 burnup=3.13	kinf=1.217	Enrch=1.80	Dschg=1972	GE MORRIS (
Nassy=5 burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=21 burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=4 burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=19 burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=38 burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=6 burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=4 burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=14 burnup=4.62	kinf=1.173	Enrch=1.67	Dschg=1972	GE MORRIS (
Nassy=13 burnup=3.39	kinf=1.209	Enrch=1.77	Dschg=1972	GE MORRIS (
Nassy=5 burnup=3.34	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=5 burnup=4.77	kinf=1.249	Enrch=2.13	Dschg=1972	GE MORRIS (
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age=5 , mass= 8.767000
age=5 , mass= 3.230000

INPUT FILE LISTING:

#bins	Input_file	Output_file	Case_title	Last_delivery
0	case11.wsm	case11.out	W11:off_7dpc_isf_87	2045
Type	Cap	Hmin	Hmax	Kmin
				Kmax

OUTPUT FILE LISTING:

W11:off_7dpc_isf_87
Standard Table

BWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	778	778	0.46
20	1842	2620	1.56
30	2245	4865	2.90
40	3024	7889	4.70
50	3280	11169	6.66
60	5143	16312	9.72
70	8969	25281	15.07
80	10371	35652	21.25
90	11947	47599	28.37
100	6827	54426	32.44
110	3944	58370	34.80
120	3762	62132	37.04
130	4420	66552	39.67
140	4564	71116	42.39
150	3476	74592	44.47
160	2471	77063	45.94
170	2812	79875	47.61
180	3064	82939	49.44
190	3033	85972	51.25
200	4091	90063	53.69
210	3164	93227	55.57
220	4818	98045	58.45
230	5330	103375	61.62
240	5417	108792	64.85
250	5000	113792	67.83
260	5782	119574	71.28
270	6561	126135	75.19
280	6523	132658	79.08
290	7111	139769	83.32
300	5597	145366	86.66
310	4930	150296	89.59
320	2308	152604	90.97
330	3790	156394	93.23
340	2521	158915	94.73
350	2558	161473	96.26
360	889	162362	96.79
370	520	162882	97.10
380	771	163653	97.56
390	1063	164716	98.19
400	591	165307	98.54
410	456	165763	98.81
420	285	166048	98.98
430	84	166132	99.03
440	398	166530	99.27
450	106	166636	99.33
460	0	166636	99.33
470	42	166678	99.36
480	196	166874	99.48
490	381	167255	99.70
500	0	167255	99.70
510	49	167304	99.73
520	448	167752	100.00
530	0	167752	100.00
540	0	167752	100.00
550	0	167752	100.00

560	0	167752	100.00
570	0	167752	100.00
580	0	167752	100.00
590	0	167752	100.00
600	0	167752	100.00
610	0	167752	100.00
620	0	167752	100.00
630	0	167752	100.00
640	0	167752	100.00
650	0	167752	100.00
660	0	167752	100.00
670	0	167752	100.00
680	0	167752	100.00
690	0	167752	100.00
700	0	167752	100.00
710	0	167752	100.00
720	0	167752	100.00
730	0	167752	100.00
740	0	167752	100.00
750	0	167752	100.00
760	0	167752	100.00
770	0	167752	100.00
780	0	167752	100.00
790	0	167752	100.00
800	0	167752	100.00
810	0	167752	100.00
820	0	167752	100.00
830	0	167752	100.00
840	0	167752	100.00
850	0	167752	100.00
860	0	167752	100.00
870	0	167752	100.00
880	0	167752	100.00
890	0	167752	100.00
900	0	167752	100.00
910	0	167752	100.00
920	0	167752	100.00
930	0	167752	100.00
940	0	167752	100.00
950	0	167752	100.00
960	0	167752	100.00
970	0	167752	100.00
980	0	167752	100.00
990	0	167752	100.00
Above	0	167752	100.00

BWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	0	0	0.00
0.770	0	0	0.00
0.780	0	0	0.00
0.790	0	0	0.00
0.800	0	0	0.00
0.810	12	12	0.01
0.820	0	12	0.01
0.830	27	39	0.02
0.840	8	47	0.03
0.850	32	79	0.05
0.860	114	193	0.12
0.870	53	246	0.15
0.880	487	733	0.44
0.890	239	972	0.58
0.900	608	1580	0.94
0.910	416	1996	1.19
0.920	1211	3207	1.91
0.930	1475	4682	2.79
0.940	2199	6881	4.10
0.950	1806	8687	5.18
0.960	2822	11509	6.86

0.970	5375	16884	10.06
0.980	14383	31267	18.64
0.990	6991	38258	22.81
1.000	8010	46268	27.58
1.010	11643	57911	34.52
1.020	15694	73605	43.88
1.030	13440	87045	51.89
1.040	18974	106019	63.20
1.050	9909	115928	69.11
1.060	9784	125712	74.94
1.070	6461	132173	78.79
1.080	4283	136456	81.34
1.090	4621	141077	84.10
1.100	2791	143868	85.76
1.110	1627	145495	86.73
1.120	2713	148208	88.35
1.130	745	148953	88.79
1.140	1538	150491	89.71
1.150	1218	151709	90.44
1.160	789	152498	90.91
1.170	1541	154039	91.83
1.180	637	154676	92.21
1.190	579	155255	92.55
1.200	632	155887	92.93
1.210	688	156575	93.34
1.220	245	156820	93.48
1.230	355	157175	93.69
1.240	371	157546	93.92
1.250	1403	158949	94.75
1.260	895	159844	95.29
1.270	873	160717	95.81
1.280	403	161120	96.05
1.290	891	162011	96.58
1.300	471	162482	96.86
1.310	596	163078	97.21
1.320	138	163216	97.30
1.330	803	164019	97.77
1.340	370	164389	98.00
1.350	662	165051	98.39
1.360	127	165178	98.47
1.370	242	165420	98.61
1.380	840	166260	99.11
1.390	133	166393	99.19
1.400	193	166586	99.30
1.410	503	167089	99.60
1.420	16	167105	99.61
1.430	3	167108	99.62
1.440	92	167200	99.67
1.450	154	167354	99.76
1.460	169	167523	99.86
1.470	0	167523	99.86
1.480	3	167526	99.87
1.490	25	167551	99.88
1.500	0	167551	99.88
1.510	196	167747	100.00
1.520	0	167747	100.00
1.530	1	167748	100.00
1.540	4	167752	100.00
1.550	0	167752	100.00
1.560	0	167752	100.00
1.570	0	167752	100.00
1.580	0	167752	100.00
1.590	0	167752	100.00
Above	0	167752	100.00

PWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	28	28	0.02
20	15	43	0.03

30	84	127	0.10
40	24	151	0.11
50	77	228	0.17
60	106	334	0.25
70	176	510	0.39
80	154	664	0.50
90	431	1095	0.83
100	514	1609	1.22
110	511	2120	1.61
120	830	2950	2.24
130	1022	3972	3.02
140	1357	5329	4.05
150	973	6302	4.79
160	1251	7553	5.74
170	985	8538	6.49
180	1264	9802	7.45
190	1470	11272	8.57
200	1971	13243	10.07
210	2534	15777	12.00
220	2579	18356	13.96
230	2426	20782	15.80
240	2292	23074	17.54
250	2219	25293	19.23
260	2295	27588	20.98
270	1928	29516	22.44
280	2311	31827	24.20
290	1975	33802	25.70
300	1763	35565	27.04
310	1593	37158	28.25
320	1666	38824	29.52
330	1361	40185	30.55
340	1183	41368	31.45
350	1243	42611	32.40
360	1240	43851	33.34
370	1122	44973	34.19
380	1202	46175	35.11
390	1306	47481	36.10
400	1455	48936	37.21
410	1560	50496	38.39
420	1552	52048	39.57
430	1163	53211	40.46
440	1329	54540	41.47
450	1148	55688	42.34
460	1431	57119	43.43
470	1644	58763	44.68
480	1875	60638	46.10
490	1578	62216	47.30
500	1874	64090	48.73
510	1530	65620	49.89
520	1628	67248	51.13
530	1729	68977	52.45
540	1437	70414	53.54
550	1858	72272	54.95
560	1731	74003	56.27
570	1432	75435	57.36
580	1961	77396	58.85
590	1886	79282	60.28
600	2784	82066	62.40
610	2308	84374	64.15
620	2044	86418	65.71
630	2018	88436	67.24
640	2084	90520	68.82
650	2123	92643	70.44
660	1892	94535	71.88
670	1815	96350	73.26
680	2282	98632	74.99
690	1978	100610	76.50
700	2502	103112	78.40
710	2229	105341	80.09
720	1508	106849	81.24

730	1640	108489	82.49
740	1123	109612	83.34
750	1411	111023	84.41
760	1441	112464	85.51
770	1562	114026	86.70
780	1598	115624	87.91
790	911	116535	88.60
800	956	117491	89.33
810	1236	118727	90.27
820	826	119553	90.90
830	691	120244	91.43
840	876	121120	92.09
850	761	121881	92.67
860	1081	122962	93.49
870	441	123403	93.83
880	428	123831	94.15
890	457	124288	94.50
900	403	124691	94.81
910	574	125265	95.24
920	296	125561	95.47
930	299	125860	95.70
940	420	126280	96.01
950	381	126661	96.30
960	303	126964	96.53
970	265	127229	96.74
980	155	127384	96.85
990	410	127794	97.17
1000	368	128162	97.45
1010	280	128442	97.66
1020	166	128608	97.78
1030	174	128782	97.92
1040	50	128832	97.95
1050	90	128922	98.02
1060	203	129125	98.18
1070	186	129311	98.32
1080	38	129349	98.35
1090	97	129446	98.42
1100	166	129612	98.55
1110	76	129688	98.61
1120	93	129781	98.68
1130	115	129896	98.76
1140	0	129896	98.76
1150	52	129948	98.80
1160	0	129948	98.80
1170	45	129993	98.84
1180	98	130091	98.91
1190	126	130217	99.01
1200	53	130270	99.05
1210	1	130271	99.05
1220	32	130303	99.07
1230	0	130303	99.07
1240	45	130348	99.11
1250	1	130349	99.11
1260	6	130355	99.11
1270	12	130367	99.12
1280	128	130495	99.22
1290	49	130544	99.26
1300	88	130632	99.32
1310	17	130649	99.34
1320	0	130649	99.34
1330	218	130867	99.50
1340	41	130908	99.53
1350	96	131004	99.61
1360	32	131036	99.63
1370	0	131036	99.63
1380	86	131122	99.70
1390	50	131172	99.73
1400	1	131173	99.73
1410	0	131173	99.73
1420	0	131173	99.73

1430	0	131173	99.73
1440	0	131173	99.73
1450	28	131201	99.76
1460	78	131279	99.82
1470	0	131279	99.82
1480	1	131280	99.82
1490	81	131361	99.88
1500	0	131361	99.88
1510	0	131361	99.88
1520	0	131361	99.88
1530	44	131405	99.91
1540	0	131405	99.91
1550	0	131405	99.91
1560	33	131438	99.94
1570	0	131438	99.94
1580	41	131479	99.97
1590	1	131480	99.97
1600	0	131480	99.97
1610	1	131481	99.97
1620	0	131481	99.97
1630	0	131481	99.97
1640	1	131482	99.97
1650	0	131482	99.97
1660	40	131522	100.00
1670	0	131522	100.00
1680	0	131522	100.00
1690	0	131522	100.00
1700	0	131522	100.00
1710	0	131522	100.00
1720	0	131522	100.00
1730	0	131522	100.00
1740	0	131522	100.00
1750	0	131522	100.00
1760	0	131522	100.00
1770	0	131522	100.00
1780	0	131522	100.00
1790	0	131522	100.00
1800	0	131522	100.00
1810	0	131522	100.00
1820	0	131522	100.00
1830	0	131522	100.00
1840	0	131522	100.00
1850	0	131522	100.00
1860	0	131522	100.00
1870	0	131522	100.00
1880	0	131522	100.00
1890	0	131522	100.00
1900	0	131522	100.00
1910	0	131522	100.00
1920	0	131522	100.00
1930	0	131522	100.00
1940	0	131522	100.00
1950	0	131522	100.00
1960	0	131522	100.00
1970	0	131522	100.00
1980	0	131522	100.00
1990	0	131522	100.00
Above	0	131522	100.00

PWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	5	5	0.00
0.770	0	5	0.00
0.780	0	5	0.00
0.790	0	5	0.00
0.800	0	5	0.00
0.810	11	16	0.01
0.820	24	40	0.03
0.830	84	124	0.09

0.840	1	125	0.10
0.850	1	126	0.10
0.860	1	127	0.10
0.870	2	129	0.10
0.880	38	167	0.13
0.890	28	195	0.15
0.900	68	263	0.20
0.910	156	419	0.32
0.920	178	597	0.45
0.930	324	921	0.70
0.940	687	1608	1.22
0.950	1613	3221	2.45
0.960	3715	6936	5.27
0.970	6209	13145	9.99
0.980	8886	22031	16.75
0.990	11496	33527	25.49
1.000	13957	47484	36.10
1.010	13759	61243	46.56
1.020	12348	73591	55.95
1.030	16440	90031	68.45
1.040	10665	100696	76.56
1.050	6703	107399	81.66
1.060	4514	111913	85.09
1.070	3176	115089	87.51
1.080	2181	117270	89.16
1.090	2212	119482	90.85
1.100	2343	121825	92.63
1.110	1655	123480	93.89
1.120	1215	124695	94.81
1.130	1265	125960	95.77
1.140	611	126571	96.24
1.150	533	127104	96.64
1.160	652	127756	97.14
1.170	275	128031	97.35
1.180	324	128355	97.59
1.190	548	128903	98.01
1.200	272	129175	98.22
1.210	266	129441	98.42
1.220	117	129558	98.51
1.230	247	129805	98.69
1.240	394	130199	98.99
1.250	324	130523	99.24
1.260	141	130664	99.35
1.270	290	130954	99.57
1.280	67	131021	99.62
1.290	186	131207	99.76
1.300	107	131314	99.84
1.310	29	131343	99.86
1.320	61	131404	99.91
1.330	20	131424	99.93
1.340	8	131432	99.93
1.350	2	131434	99.93
1.360	44	131478	99.97
1.370	7	131485	99.97
1.380	0	131485	99.97
1.390	0	131485	99.97
1.400	0	131485	99.97
1.410	1	131486	99.97
1.420	0	131486	99.97
1.430	12	131498	99.98
1.440	0	131498	99.98
1.450	16	131514	99.99
1.460	8	131522	100.00
1.470	0	131522	100.00
1.480	0	131522	100.00
1.490	0	131522	100.00
1.500	0	131522	100.00
1.510	0	131522	100.00
1.520	0	131522	100.00
1.530	0	131522	100.00

1.540	0	131522	100.00
1.550	0	131522	100.00
1.560	0	131522	100.00
1.570	0	131522	100.00
1.580	0	131522	100.00
1.590	0	131522	100.00
Above	0	131522	100.00

Year	MTU	B Assy	P Assy
2010	295.63	616	420
2011	597.83	1232	861
2012	1191.39	2772	1545
2013	2013.79	3520	3151
2014	2995.15	5697	4614
2015	2989.70	5847	4518
2016	3010.31	5788	4569
2017	3006.31	5192	4740
2018	2991.74	5891	4521
2019	2998.63	5696	4554
2020	3000.01	5304	4716
2021	3002.37	6072	4398
2022	2992.56	5772	4536
2023	3018.49	5412	4728
2024	2981.63	6028	4413
2025	3006.06	6556	4287
2026	3003.30	5808	4506
2027	3020.78	5720	4656
2028	2983.36	6204	4314
2029	3002.33	4444	5031
2030	3005.59	5104	4758
2031	2998.53	5852	4470
2032	3005.33	6428	4347
2033	2987.32	6280	4338
2034	2993.73	7319	4108
2035	2996.20	6948	4032
2036	3016.83	6165	4452
2037	2985.21	5236	4749
2038	3020.84	6534	4386
2039	2988.14	4928	4935
2040	3012.50	4507	5202
2041	1658.45	2880	2667
2042	0.00	0	0
2043	0.00	0	0
2044	0.00	0	0
2045	0.00	0	0

Average age = 25.774

JUNK FILE LISTING:

Nassy=1	burnup=1.87	kinf=1.529	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2	burnup=1.45	kinf=1.536	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2	burnup=1.53	kinf=1.535	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=1	burnup=6.38	kinf=1.455	Enrch=3.63	Dschg=1969	WEST VALLEY
Nassy=2	burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.32	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=3	burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=8	burnup=0.34	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.18	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.36	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.23	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=6	burnup=0.34	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=4	burnup=0.34	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (

Nassy=7 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.77	kinf=1.260	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.86	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.79	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8 burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=11 burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.34	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.46	kinf=1.270	Enrch=1.97	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.57	kinf=1.267	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=8 burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.76	kinf=1.261	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.23	kinf=1.279	Enrch=2.00	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.46	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.09	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.27	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.28	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.32	kinf=1.275	Enrch=1.99	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.11	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.42	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.23	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=11 burnup=1.34	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.15	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.15	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8 burnup=1.44	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=15 burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=0.86	kinf=1.291	Enrch=2.04	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.62	kinf=1.265	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.64	kinf=1.264	Enrch=1.95	Dschg=1971	GE MORRIS (
Nassy=10 burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=15 burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.13	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=24 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.78	kinf=1.260	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=2 burnup=0.86	kinf=1.410	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1 burnup=4.99	kinf=1.478	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1 burnup=8.24	kinf=1.426	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1 burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1 burnup=1.53	kinf=1.318	Enrch=2.26	Dschg=1971	DRESDEN
Nassy=1 burnup=4.49	kinf=1.250	Enrch=2.11	Dschg=1971	OYSTER CRK
Nassy=1 burnup=3.27	kinf=1.212	Enrch=1.78	Dschg=1972	GE MORRIS (
Nassy=44 burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=16 burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=28 burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=8 burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=12 burnup=2.81	kinf=1.227	Enrch=1.83	Dschg=1972	GE MORRIS (
Nassy=10 burnup=3.13	kinf=1.217	Enrch=1.80	Dschg=1972	GE MORRIS (
Nassy=3 burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=11 burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=16 burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=28 burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=6 burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=33 burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=5 burnup=4.62	kinf=1.173	Enrch=1.67	Dschg=1972	GE MORRIS (
Nassy=9 burnup=4.62	kinf=1.173	Enrch=1.67	Dschg=1972	GE MORRIS (
Nassy=13 burnup=3.39	kinf=1.209	Enrch=1.77	Dschg=1972	GE MORRIS (
Nassy=1 burnup=3.34	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=4 burnup=3.34	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=5 burnup=4.77	kinf=1.249	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=5 burnup=3.84	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=1 burnup=3.28	kinf=1.271	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=1 burnup=2.73	kinf=1.279	Enrch=2.13	Dschg=1972	GE MORRIS (

Nassy=5 burnup=4.69	kinf=1.250 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=18 burnup=4.69	kinf=1.250 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=22 burnup=4.31	kinf=1.182 Enrch=1.69 Dschg=1972	GE MORRIS (
Nassy=1 burnup=4.31	kinf=1.182 Enrch=1.69 Dschg=1972	GE MORRIS (
Nassy=3 burnup=3.12	kinf=1.273 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=7 burnup=3.12	kinf=1.273 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=13 burnup=3.60	kinf=1.203 Enrch=1.76 Dschg=1972	GE MORRIS (
Nassy=4 burnup=2.84	kinf=1.277 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=20 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=13 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=22 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=3 burnup=3.91	kinf=1.261 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=6 burnup=3.79	kinf=1.263 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=15 burnup=3.79	kinf=1.263 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=15 burnup=3.77	kinf=1.264 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=14 burnup=3.77	kinf=1.264 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=30 burnup=3.77	kinf=1.264 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=14 burnup=4.39	kinf=1.179 Enrch=1.68 Dschg=1972	GE MORRIS (
Nassy=3 burnup=4.39	kinf=1.179 Enrch=1.68 Dschg=1972	GE MORRIS (
Nassy=7 burnup=4.39	kinf=1.179 Enrch=1.68 Dschg=1972	GE MORRIS (
Nassy=14 burnup=4.64	kinf=1.172 Enrch=1.66 Dschg=1972	GE MORRIS (
Nassy=1 burnup=8.59	kinf=1.421 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=1 burnup=9.12	kinf=1.413 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=1 burnup=8.73	kinf=1.419 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=2 burnup=4.86	kinf=1.239 Enrch=2.08 Dschg=1972	MILLSTONE
Nassy=4 burnup=6.45	kinf=1.454 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=8.75	kinf=1.418 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=7.35	kinf=1.440 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=3.88	kinf=1.262 Enrch=2.13 Dschg=1973	DRESDEN
Nassy=2 burnup=4.96	kinf=1.246 Enrch=2.13 Dschg=1973	DRESDEN
Nassy=1 burnup=1.05	kinf=1.365 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=3 burnup=0.97	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=5 burnup=4.32	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=0.99	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=7 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=7 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=7 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=2 burnup=4.00	kinf=1.320 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=5 burnup=4.05	kinf=1.320 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=4 burnup=1.16	kinf=1.364 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=6 burnup=4.66	kinf=1.311 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=0.99	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=4.69	kinf=1.310 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=2 burnup=9.23	kinf=1.411 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=2 burnup=9.23	kinf=1.411 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=1 burnup=8.77	kinf=1.418 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=4 burnup=9.10	kinf=1.413 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=1 burnup=3.97	kinf=1.271 Enrch=2.19 Dschg=1973	PILGRIM
Nassy=1 burnup=2.63	kinf=1.290 Enrch=2.19 Dschg=1973	PILGRIM
Nassy=1 burnup=8.95	kinf=1.415 Enrch=3.63 Dschg=1974	WEST VALLEY
Nassy=1 burnup=8.15	kinf=1.428 Enrch=3.63 Dschg=1974	WEST VALLEY
Nassy=5 burnup=4.95	kinf=1.306 Enrch=2.50 Dschg=1974	VT YANKEE
Nassy=3 burnup=4.95	kinf=1.306 Enrch=2.50 Dschg=1974	VT YANKEE
Nassy=1 burnup=7.57	kinf=1.476 Enrch=3.92 Dschg=1975	LACROSSE
Nassy=1 burnup=3.71	kinf=1.263 Enrch=2.12 Dschg=1975	DUANE ARNOL
Nassy=1 burnup=3.78	kinf=1.280 Enrch=2.23 Dschg=1975	DRESDEN
Nassy=1 burnup=2.90	kinf=1.273 Enrch=2.11 Dschg=1976	BRUNSWICK
Nassy=1 burnup=3.30	kinf=1.267 Enrch=2.11 Dschg=1976	BRUNSWICK
Nassy=2 burnup=2.43	kinf=1.105 Enrch=1.11 Dschg=1976	BRUNSWICK
Nassy=2 burnup=3.05	kinf=1.320 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=3.30	kinf=1.315 Enrch=2.40 Dschg=1976	HUMBOLDT BA
Nassy=4 burnup=2.43	kinf=1.329 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=2.69	kinf=1.325 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=3.89	kinf=1.308 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=4.34	kinf=1.301 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=1.31	kinf=1.346 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=12.04	kinf=1.407 Enrch=3.92 Dschg=1977	LACROSSE
Nassy=1 burnup=12.30	kinf=1.403 Enrch=3.93 Dschg=1977	LACROSSE
Nassy=1 burnup=7.61	kinf=1.476 Enrch=3.92 Dschg=1977	LACROSSE
Nassy=1 burnup=12.42	kinf=1.401 Enrch=3.92 Dschg=1977	LACROSSE

Nassy=5 burnup=3.65	kinf=1.282 Enrch=2.23 Dschg=1978	DRESDEN
Nassy=2 burnup=3.35	kinf=1.287 Enrch=2.23 Dschg=1978	DRESDEN
Nassy=4 burnup=3.35	kinf=1.287 Enrch=2.23 Dschg=1978	DRESDEN
Nassy=2 burnup=3.08	kinf=1.291 Enrch=2.23 Dschg=1978	DRESDEN
Nassy=4 burnup=4.00	kinf=1.277 Enrch=2.23 Dschg=1978	DRESDEN
Nassy=3 burnup=4.97	kinf=1.263 Enrch=2.23 Dschg=1978	DRESDEN
Nassy=18 burnup=4.97	kinf=1.263 Enrch=2.23 Dschg=1978	DRESDEN
Nassy=5 burnup=4.97	kinf=1.263 Enrch=2.23 Dschg=1978	DRESDEN
Nassy=1 burnup=4.53	kinf=1.269 Enrch=2.23 Dschg=1978	DRESDEN
Nassy=2 burnup=4.53	kinf=1.269 Enrch=2.23 Dschg=1978	DRESDEN
Nassy=20 burnup=4.53	kinf=1.269 Enrch=2.23 Dschg=1978	DRESDEN
Nassy=4 burnup=3.58	kinf=1.019 Enrch=0.72 Dschg=1980	HATCH
Nassy=16 burnup=1.89	kinf=1.041 Enrch=0.72 Dschg=1980	HATCH
Nassy=3 burnup=2.53	kinf=1.032 Enrch=0.72 Dschg=1980	HATCH
Nassy=5 burnup=2.53	kinf=1.032 Enrch=0.72 Dschg=1980	HATCH
Nassy=20 burnup=2.53	kinf=1.032 Enrch=0.72 Dschg=1980	HATCH
Nassy=16 burnup=2.83	kinf=1.028 Enrch=0.72 Dschg=1980	HATCH
Nassy=3 burnup=4.31	kinf=1.009 Enrch=0.72 Dschg=1980	HATCH
Nassy=5 burnup=4.31	kinf=1.009 Enrch=0.72 Dschg=1980	HATCH
Nassy=4 burnup=3.00	kinf=1.026 Enrch=0.72 Dschg=1980	HATCH
Nassy=8 burnup=3.15	kinf=1.024 Enrch=0.72 Dschg=1985	SUSQUEHANNA
Nassy=8 burnup=4.11	kinf=1.012 Enrch=0.72 Dschg=1985	SUSQUEHANNA
Nassy=16 burnup=4.71	kinf=1.004 Enrch=0.72 Dschg=1985	SUSQUEHANNA
Nassy=29 burnup=4.71	kinf=1.004 Enrch=0.72 Dschg=1985	SUSQUEHANNA
Nassy=3 burnup=4.71	kinf=1.004 Enrch=0.72 Dschg=1985	SUSQUEHANNA
Nassy=8 burnup=2.96	kinf=1.027 Enrch=0.72 Dschg=1985	SUSQUEHANNA
Nassy=4 burnup=3.14	kinf=1.024 Enrch=0.72 Dschg=1985	LASALLE
Nassy=8 burnup=4.86	kinf=1.003 Enrch=0.72 Dschg=1985	LASALLE
Nassy=6 burnup=2.92	kinf=1.027 Enrch=0.72 Dschg=1985	LASALLE
Nassy=2 burnup=2.92	kinf=1.027 Enrch=0.72 Dschg=1985	LASALLE
Nassy=8 burnup=3.41	kinf=1.021 Enrch=0.72 Dschg=1985	LASALLE
Nassy=18 burnup=4.08	kinf=1.012 Enrch=0.72 Dschg=1985	LASALLE
Nassy=30 burnup=3.91	kinf=1.015 Enrch=0.72 Dschg=1985	LASALLE
Nassy=8 burnup=2.64	kinf=1.031 Enrch=0.72 Dschg=1985	LASALLE
Nassy=8 burnup=2.22	kinf=1.038 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=14 burnup=2.86	kinf=1.030 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=8 burnup=3.07	kinf=1.027 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=1 burnup=2.65	kinf=1.033 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=30 burnup=2.65	kinf=1.033 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=11 burnup=2.65	kinf=1.033 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=16 burnup=1.77	kinf=1.044 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=1 burnup=3.28	kinf=1.024 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=3 burnup=3.28	kinf=1.024 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=26 burnup=4.17	kinf=1.013 Enrch=0.73 Dschg=1986	SUSQUEHANNA
Nassy=8 burnup=3.09	kinf=1.026 Enrch=0.73 Dschg=1986	SUSQUEHANNA
Nassy=2 burnup=2.76	kinf=1.030 Enrch=0.72 Dschg=1986	SUSQUEHANNA
Nassy=6 burnup=2.76	kinf=1.030 Enrch=0.72 Dschg=1986	SUSQUEHANNA
Nassy=12 burnup=3.50	kinf=1.020 Enrch=0.72 Dschg=1986	SUSQUEHANNA
Nassy=7 burnup=3.98	kinf=1.015 Enrch=0.73 Dschg=1986	SUSQUEHANNA
Nassy=15 burnup=3.98	kinf=1.015 Enrch=0.73 Dschg=1986	SUSQUEHANNA
Nassy=8 burnup=4.72	kinf=1.006 Enrch=0.73 Dschg=1986	SUSQUEHANNA
Nassy=11 burnup=3.35	kinf=1.022 Enrch=0.72 Dschg=1986	GRAND GULF
Nassy=21 burnup=3.35	kinf=1.022 Enrch=0.72 Dschg=1986	GRAND GULF
Nassy=40 burnup=3.35	kinf=1.022 Enrch=0.72 Dschg=1986	GRAND GULF
Nassy=4 burnup=3.35	kinf=1.022 Enrch=0.72 Dschg=1986	GRAND GULF
Nassy=16 burnup=3.35	kinf=1.022 Enrch=0.72 Dschg=1986	GRAND GULF
Nassy=2 burnup=4.00	kinf=1.013 Enrch=0.72 Dschg=1987	LASALLE
Nassy=4 burnup=4.00	kinf=1.013 Enrch=0.72 Dschg=1987	LASALLE
Nassy=44 burnup=4.00	kinf=1.013 Enrch=0.72 Dschg=1987	LASALLE
Nassy=13 burnup=4.00	kinf=1.013 Enrch=0.72 Dschg=1987	LASALLE
Nassy=28 burnup=4.00	kinf=1.013 Enrch=0.72 Dschg=1987	LASALLE
Nassy=1 burnup=4.00	kinf=1.013 Enrch=0.72 Dschg=1987	LASALLE
Nassy=1 burnup=5.00	kinf=1.487 Enrch=3.70 Dschg=1987	LACROSSE
Nassy=6 burnup=5.00	kinf=1.487 Enrch=3.70 Dschg=1987	LACROSSE
Nassy=9 burnup=5.00	kinf=1.487 Enrch=3.70 Dschg=1987	LACROSSE
Nassy=7 burnup=5.00	kinf=1.487 Enrch=3.70 Dschg=1987	LACROSSE
Nassy=1 burnup=5.00	kinf=1.488 Enrch=3.71 Dschg=1987	LACROSSE
Nassy=18 burnup=3.00	kinf=1.026 Enrch=0.72 Dschg=1987	RVR BEND
Nassy=16 burnup=3.00	kinf=1.026 Enrch=0.72 Dschg=1987	RVR BEND
Nassy=28 burnup=3.00	kinf=1.026 Enrch=0.72 Dschg=1987	RVR BEND

Nassy=14	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1987	RVR BEND
Nassy=41	burnup=3.00	kinf=1.028	Enrch=0.73	Dschg=1988	HOPE CREEK
Nassy=19	burnup=3.00	kinf=1.028	Enrch=0.73	Dschg=1988	HOPE CREEK
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Nassy=36	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
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INPUT FILE LISTING:

#bins	Input_file	Output_file	Case_title	Last_delivery
0	case12.wsm	case12.out	W12:off_aucf_noi_87	2045
Type	Cap	Hmin	Hmax	Kmin
				Kmax

OUTPUT FILE LISTING:

W12:off_aucf_noi_87
Standard Table

BWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	465	465	0.28
20	2027	2492	1.49
30	1898	4390	2.62
40	3639	8029	4.79
50	3051	11080	6.61
60	5536	16616	9.91
70	6399	23015	13.72
80	7629	30644	18.27
90	7186	37830	22.55
100	6448	44278	26.40
110	6705	50983	30.39
120	7171	58154	34.67
130	6654	64808	38.63
140	3917	68725	40.97
150	4525	73250	43.67
160	4274	77524	46.22
170	4386	81910	48.83
180	3997	85907	51.21
190	5076	90983	54.24
200	5073	96056	57.26
210	6274	102330	61.00
220	6384	108714	64.81
230	6599	115313	68.74
240	7409	122722	73.16
250	6864	129586	77.25
260	6700	136286	81.25
270	5729	142015	84.66
280	5174	147189	87.75
290	3975	151164	90.12
300	3658	154822	92.30
310	2912	157734	94.03
320	2545	160279	95.55
330	2111	162390	96.81
340	1375	163765	97.63
350	2073	165838	98.86
360	1483	167321	99.75
370	197	167518	99.86
380	170	167688	99.97
390	57	167745	100.00
400	0	167745	100.00
410	0	167745	100.00
420	0	167745	100.00
430	0	167745	100.00
440	0	167745	100.00
450	0	167745	100.00
460	0	167745	100.00
470	0	167745	100.00
480	0	167745	100.00
490	0	167745	100.00
500	0	167745	100.00
510	0	167745	100.00
520	0	167745	100.00
530	0	167745	100.00
540	0	167745	100.00
550	0	167745	100.00

560	0	167745	100.00
570	0	167745	100.00
580	0	167745	100.00
590	0	167745	100.00
600	0	167745	100.00
610	0	167745	100.00
620	0	167745	100.00
630	0	167745	100.00
640	0	167745	100.00
650	0	167745	100.00
660	0	167745	100.00
670	0	167745	100.00
680	0	167745	100.00
690	0	167745	100.00
700	0	167745	100.00
710	0	167745	100.00
720	0	167745	100.00
730	0	167745	100.00
740	0	167745	100.00
750	0	167745	100.00
760	0	167745	100.00
770	0	167745	100.00
780	0	167745	100.00
790	0	167745	100.00
800	0	167745	100.00
810	0	167745	100.00
820	0	167745	100.00
830	0	167745	100.00
840	0	167745	100.00
850	0	167745	100.00
860	0	167745	100.00
870	0	167745	100.00
880	0	167745	100.00
890	0	167745	100.00
900	0	167745	100.00
910	0	167745	100.00
920	0	167745	100.00
930	0	167745	100.00
940	0	167745	100.00
950	0	167745	100.00
960	0	167745	100.00
970	0	167745	100.00
980	0	167745	100.00
990	0	167745	100.00
Above	0	167745	100.00

BWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	0	0	0.00
0.770	0	0	0.00
0.780	0	0	0.00
0.790	0	0	0.00
0.800	0	0	0.00
0.810	12	12	0.01
0.820	0	12	0.01
0.830	27	39	0.02
0.840	8	47	0.03
0.850	32	79	0.05
0.860	114	193	0.12
0.870	53	246	0.15
0.880	487	733	0.44
0.890	239	972	0.58
0.900	608	1580	0.94
0.910	416	1996	1.19
0.920	1211	3207	1.91
0.930	1475	4682	2.79
0.940	2199	6881	4.10
0.950	1806	8687	5.18
0.960	2822	11509	6.86

0.970	5375	16884	10.07
0.980	14383	31267	18.64
0.990	6991	38258	22.81
1.000	8010	46268	27.58
1.010	11642	57910	34.52
1.020	15691	73601	43.88
1.030	13437	87038	51.89
1.040	18972	106010	63.20
1.050	9909	115919	69.10
1.060	9784	125703	74.94
1.070	6461	132164	78.79
1.080	4283	136447	81.34
1.090	4623	141070	84.10
1.100	2791	143861	85.76
1.110	1627	145488	86.73
1.120	2713	148201	88.35
1.130	744	148945	88.79
1.140	1537	150482	89.71
1.150	1218	151700	90.43
1.160	789	152489	90.91
1.170	1541	154030	91.82
1.180	637	154667	92.20
1.190	579	155246	92.55
1.200	632	155878	92.93
1.210	688	156566	93.34
1.220	245	156811	93.48
1.230	355	157166	93.69
1.240	371	157537	93.91
1.250	1403	158940	94.75
1.260	895	159835	95.28
1.270	873	160708	95.80
1.280	404	161112	96.05
1.290	891	162003	96.58
1.300	471	162474	96.86
1.310	596	163070	97.21
1.320	138	163208	97.30
1.330	803	164011	97.77
1.340	370	164381	97.99
1.350	662	165043	98.39
1.360	127	165170	98.46
1.370	242	165412	98.61
1.380	840	166252	99.11
1.390	133	166385	99.19
1.400	193	166578	99.30
1.410	503	167081	99.60
1.420	16	167097	99.61
1.430	3	167100	99.62
1.440	92	167192	99.67
1.450	154	167346	99.76
1.460	169	167515	99.86
1.470	1	167516	99.86
1.480	3	167519	99.87
1.490	25	167544	99.88
1.500	0	167544	99.88
1.510	196	167740	100.00
1.520	0	167740	100.00
1.530	1	167741	100.00
1.540	4	167745	100.00
1.550	0	167745	100.00
1.560	0	167745	100.00
1.570	0	167745	100.00
1.580	0	167745	100.00
1.590	0	167745	100.00
Above	0	167745	100.00

PWR Heat Percentiles

Watts/Assy	Assy	Cum Assy	Percent
10	8	8	0.01
20	31	39	0.03

30	18	57	0.04
40	60	117	0.09
50	119	236	0.18
60	96	332	0.25
70	125	457	0.35
80	227	684	0.52
90	312	996	0.76
100	231	1227	0.93
110	490	1717	1.31
120	642	2359	1.79
130	1106	3465	2.63
140	1193	4658	3.54
150	808	5466	4.16
160	605	6071	4.62
170	770	6841	5.20
180	1431	8272	6.29
190	1459	9731	7.40
200	1246	10977	8.35
210	1299	12276	9.33
220	1951	14227	10.82
230	1434	15661	11.91
240	1667	17328	13.18
250	2113	19441	14.78
260	1682	21123	16.06
270	2360	23483	17.86
280	2068	25551	19.43
290	2349	27900	21.21
300	1762	29662	22.55
310	1888	31550	23.99
320	1817	33367	25.37
330	2007	35374	26.90
340	1699	37073	28.19
350	1909	38982	29.64
360	2206	41188	31.32
370	2317	43505	33.08
380	2323	45828	34.85
390	2485	48313	36.73
400	1997	50310	38.25
410	1867	52177	39.67
420	1520	53697	40.83
430	2356	56053	42.62
440	1892	57945	44.06
450	2393	60338	45.88
460	2448	62786	47.74
470	2287	65073	49.48
480	1979	67052	50.98
490	2281	69333	52.72
500	2225	71558	54.41
510	1827	73385	55.80
520	2117	75502	57.41
530	1691	77193	58.69
540	2143	79336	60.32
550	2391	81727	62.14
560	2536	84263	64.07
570	2021	86284	65.61
580	2619	88903	67.60
590	2138	91041	69.22
600	2820	93861	71.37
610	2313	96174	73.13
620	2323	98497	74.89
630	1525	100022	76.05
640	2118	102140	77.66
650	2310	104450	79.42
660	1854	106304	80.83
670	1858	108162	82.24
680	2073	110235	83.82
690	2563	112798	85.77
700	4068	116866	88.86
710	3249	120115	91.33
720	881	120996	92.00

730	957	121953	92.73
740	878	122831	93.39
750	722	123553	93.94
760	611	124164	94.41
770	751	124915	94.98
780	694	125609	95.51
790	340	125949	95.76
800	538	126487	96.17
810	289	126776	96.39
820	707	127483	96.93
830	293	127776	97.15
840	291	128067	97.38
850	181	128248	97.51
860	385	128633	97.81
870	424	129057	98.13
880	268	129325	98.33
890	66	129391	98.38
900	139	129530	98.49
910	100	129630	98.56
920	269	129899	98.77
930	99	129998	98.84
940	75	130073	98.90
950	275	130348	99.11
960	328	130676	99.36
970	217	130893	99.52
980	59	130952	99.57
990	53	131005	99.61
1000	209	131214	99.77
1010	146	131360	99.88
1020	0	131360	99.88
1030	41	131401	99.91
1040	1	131402	99.91
1050	0	131402	99.91
1060	0	131402	99.91
1070	0	131402	99.91
1080	0	131402	99.91
1090	0	131402	99.91
1100	33	131435	99.94
1110	0	131435	99.94
1120	0	131435	99.94
1130	0	131435	99.94
1140	1	131436	99.94
1150	0	131436	99.94
1160	0	131436	99.94
1170	0	131436	99.94
1180	0	131436	99.94
1190	3	131439	99.94
1200	0	131439	99.94
1210	0	131439	99.94
1220	0	131439	99.94
1230	0	131439	99.94
1240	0	131439	99.94
1250	0	131439	99.94
1260	0	131439	99.94
1270	0	131439	99.94
1280	45	131484	99.97
1290	0	131484	99.97
1300	0	131484	99.97
1310	0	131484	99.97
1320	0	131484	99.97
1330	0	131484	99.97
1340	0	131484	99.97
1350	0	131484	99.97
1360	0	131484	99.97
1370	0	131484	99.97
1380	0	131484	99.97
1390	0	131484	99.97
1400	1	131485	99.97
1410	0	131485	99.97
1420	0	131485	99.97

1430	0	131485	99.97
1440	0	131485	99.97
1450	0	131485	99.97
1460	0	131485	99.97
1470	0	131485	99.97
1480	1	131486	99.97
1490	0	131486	99.97
1500	0	131486	99.97
1510	0	131486	99.97
1520	0	131486	99.97
1530	0	131486	99.97
1540	0	131486	99.97
1550	0	131486	99.97
1560	33	131519	100.00
1570	0	131519	100.00
1580	0	131519	100.00
1590	0	131519	100.00
1600	0	131519	100.00
1610	0	131519	100.00
1620	0	131519	100.00
1630	0	131519	100.00
1640	0	131519	100.00
1650	0	131519	100.00
1660	0	131519	100.00
1670	0	131519	100.00
1680	0	131519	100.00
1690	0	131519	100.00
1700	0	131519	100.00
1710	0	131519	100.00
1720	0	131519	100.00
1730	0	131519	100.00
1740	0	131519	100.00
1750	0	131519	100.00
1760	0	131519	100.00
1770	0	131519	100.00
1780	0	131519	100.00
1790	0	131519	100.00
1800	0	131519	100.00
1810	0	131519	100.00
1820	0	131519	100.00
1830	0	131519	100.00
1840	0	131519	100.00
1850	0	131519	100.00
1860	0	131519	100.00
1870	0	131519	100.00
1880	0	131519	100.00
1890	0	131519	100.00
1900	0	131519	100.00
1910	0	131519	100.00
1920	0	131519	100.00
1930	0	131519	100.00
1940	0	131519	100.00
1950	0	131519	100.00
1960	0	131519	100.00
1970	0	131519	100.00
1980	0	131519	100.00
1990	0	131519	100.00
Above	0	131519	100.00

PWR Kinf Percentiles

Kinf	Assy	CumAssy	Percent
0.760	5	5	0.00
0.770	0	5	0.00
0.780	0	5	0.00
0.790	0	5	0.00
0.800	0	5	0.00
0.810	24	29	0.02
0.820	4	33	0.03
0.830	91	124	0.09

0.840	1	125	0.10
0.850	0	125	0.10
0.860	3	128	0.10
0.870	1	129	0.10
0.880	27	156	0.12
0.890	103	259	0.20
0.900	183	442	0.34
0.910	151	593	0.45
0.920	183	776	0.59
0.930	525	1301	0.99
0.940	1753	3054	2.32
0.950	3326	6380	4.85
0.960	5733	12113	9.21
0.970	7820	19933	15.16
0.980	8907	28840	21.93
0.990	12147	40987	31.16
1.000	13816	54803	41.67
1.010	12992	67795	51.55
1.020	13191	80986	61.58
1.030	15288	96274	73.20
1.040	8092	104366	79.35
1.050	5859	110225	83.81
1.060	3575	113800	86.53
1.070	2614	116414	88.51
1.080	1653	118067	89.77
1.090	2149	120216	91.41
1.100	1837	122053	92.80
1.110	1924	123977	94.27
1.120	1169	125146	95.15
1.130	1027	126173	95.94
1.140	668	126841	96.44
1.150	267	127108	96.65
1.160	659	127767	97.15
1.170	291	128058	97.37
1.180	440	128498	97.70
1.190	521	129019	98.10
1.200	163	129182	98.22
1.210	273	129455	98.43
1.220	128	129583	98.53
1.230	261	129844	98.73
1.240	378	130222	99.01
1.250	362	130584	99.29
1.260	153	130737	99.41
1.270	213	130950	99.57
1.280	82	131032	99.63
1.290	162	131194	99.75
1.300	45	131239	99.79
1.310	99	131338	99.86
1.320	109	131447	99.95
1.330	14	131461	99.96
1.340	8	131469	99.96
1.350	8	131477	99.97
1.360	4	131481	99.97
1.370	1	131482	99.97
1.380	0	131482	99.97
1.390	1	131483	99.97
1.400	0	131483	99.97
1.410	0	131483	99.97
1.420	12	131495	99.98
1.430	0	131495	99.98
1.440	16	131511	99.99
1.450	8	131519	100.00
1.460	0	131519	100.00
1.470	0	131519	100.00
1.480	0	131519	100.00
1.490	0	131519	100.00
1.500	0	131519	100.00
1.510	0	131519	100.00
1.520	0	131519	100.00
1.530	0	131519	100.00

1.540	0	131519	100.00
1.550	0	131519	100.00
1.560	0	131519	100.00
1.570	0	131519	100.00
1.580	0	131519	100.00
1.590	0	131519	100.00
Above	0	131519	100.00

Year	MTU	B Assy	P Assy
2010	291.05	1100	273
2011	602.95	1936	714
2012	1204.19	3057	1701
2013	1997.48	4597	2868
2014	2996.31	7191	4032
2015	2998.24	6070	4479
2016	3005.01	6269	4500
2017	2997.68	6093	4527
2018	3008.35	5982	4539
2019	3000.92	5081	4830
2020	2987.35	5477	4698
2021	2996.39	5345	4740
2022	3002.01	6005	4518
2023	3017.55	5477	4683
2024	2980.28	5098	4788
2025	3004.13	6028	4452
2026	3005.98	6481	4281
2027	3010.39	4972	4938
2028	3003.92	6072	4368
2029	2994.80	5280	4749
2030	2986.48	6072	4299
2031	3023.46	4928	4905
2032	2971.37	6204	4275
2033	3004.10	6204	4314
2034	3000.33	5368	4635
2035	3006.73	5148	4728
2036	3004.81	5632	4581
2037	2985.90	5808	4380
2038	2999.40	4444	4983
2039	3017.37	6688	4212
2040	2993.90	6072	4386
2041	1668.48	1566	3143
2042	0.00	0	0
2043	0.00	0	0
2044	0.00	0	0
2045	0.00	0	0

Average age = 25.500

JUNK FILE LISTING:

Nassy=1 burnup=1.87	kinf=1.529	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.45	kinf=1.536	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.53	kinf=1.535	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=1 burnup=6.38	kinf=1.455	Enrch=3.63	Dschg=1969	WEST VALLEY
Nassy=2 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=3 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=8 burnup=0.34	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.18	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.36	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.23	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=10 burnup=0.34	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (

Nassy=2	burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.77	kinf=1.260	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.86	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.79	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=19	burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.34	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.46	kinf=1.270	Enrch=1.97	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.57	kinf=1.267	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=8	burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.76	kinf=1.261	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.23	kinf=1.279	Enrch=2.00	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.46	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.09	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.27	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.28	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.32	kinf=1.275	Enrch=1.99	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.32	kinf=1.275	Enrch=1.99	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.11	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.42	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.23	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=11	burnup=1.34	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.15	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8	burnup=1.44	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=12	burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=0.86	kinf=1.291	Enrch=2.04	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.62	kinf=1.265	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.64	kinf=1.264	Enrch=1.95	Dschg=1971	GE MORRIS (
Nassy=24	burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.13	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=2	burnup=1.78	kinf=1.260	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=2	burnup=9.28	kinf=1.410	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=4.99	kinf=1.478	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=8.24	kinf=1.426	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=1.53	kinf=1.318	Enrch=2.26	Dschg=1971	DRESDEN
Nassy=1	burnup=4.49	kinf=1.250	Enrch=2.11	Dschg=1971	OYSTER CRK
Nassy=1	burnup=3.27	kinf=1.212	Enrch=1.78	Dschg=1972	GE MORRIS (
Nassy=14	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=44	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=2	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=36	burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=6	burnup=2.81	kinf=1.227	Enrch=1.83	Dschg=1972	GE MORRIS (
Nassy=6	burnup=2.81	kinf=1.227	Enrch=1.83	Dschg=1972	GE MORRIS (
Nassy=10	burnup=3.13	kinf=1.217	Enrch=1.80	Dschg=1972	GE MORRIS (
Nassy=3	burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=25	burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=2	burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=34	burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=8	burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=25	burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
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Nassy=5	burnup=3.39	kinf=1.209	Enrch=1.77	Dschg=1972	GE MORRIS (
Nassy=8	burnup=3.39	kinf=1.209	Enrch=1.77	Dschg=1972	GE MORRIS (
Nassy=1	burnup=3.34	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=4	burnup=3.34	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=5	burnup=4.77	kinf=1.249	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=5	burnup=3.84	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=1	burnup=3.28	kinf=1.271	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=1	burnup=2.73	kinf=1.279	Enrch=2.13	Dschg=1972	GE MORRIS (

Nassy=19 burnup=4.69	kinf=1.250 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=4 burnup=4.69	kinf=1.250 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=22 burnup=4.31	kinf=1.182 Enrch=1.69 Dschg=1972	GE MORRIS (
Nassy=1 burnup=4.31	kinf=1.182 Enrch=1.69 Dschg=1972	GE MORRIS (
Nassy=10 burnup=3.12	kinf=1.273 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=7 burnup=3.60	kinf=1.203 Enrch=1.76 Dschg=1972	GE MORRIS (
Nassy=6 burnup=3.60	kinf=1.203 Enrch=1.76 Dschg=1972	GE MORRIS (
Nassy=4 burnup=2.84	kinf=1.277 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=33 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
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Nassy=3 burnup=3.91	kinf=1.261 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=20 burnup=3.79	kinf=1.263 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=1 burnup=3.79	kinf=1.263 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=15 burnup=3.77	kinf=1.264 Enrch=2.13 Dschg=1972	GE MORRIS (
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Nassy=17 burnup=4.39	kinf=1.179 Enrch=1.68 Dschg=1972	GE MORRIS (
Nassy=7 burnup=4.39	kinf=1.179 Enrch=1.68 Dschg=1972	GE MORRIS (
Nassy=14 burnup=4.64	kinf=1.172 Enrch=1.66 Dschg=1972	GE MORRIS (
Nassy=1 burnup=8.59	kinf=1.421 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=1 burnup=9.12	kinf=1.413 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=1 burnup=8.73	kinf=1.419 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=2 burnup=4.86	kinf=1.239 Enrch=2.08 Dschg=1972	MILLSTONE
Nassy=4 burnup=6.45	kinf=1.454 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=8.75	kinf=1.418 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=7.35	kinf=1.440 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=3.88	kinf=1.262 Enrch=2.13 Dschg=1973	DRESDEN
Nassy=2 burnup=4.96	kinf=1.246 Enrch=2.13 Dschg=1973	DRESDEN
Nassy=1 burnup=1.05	kinf=1.365 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=3 burnup=0.97	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=5 burnup=4.32	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=0.99	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=11 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=9 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=2 burnup=4.00	kinf=1.320 Enrch=2.50 Dschg=1973	VT YANKEE
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Nassy=4 burnup=1.16	kinf=1.364 Enrch=2.50 Dschg=1973	VT YANKEE
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Nassy=3 burnup=4.66	kinf=1.311 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=0.99	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=4.69	kinf=1.310 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=9.23	kinf=1.411 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=3 burnup=9.23	kinf=1.411 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=1 burnup=8.77	kinf=1.418 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=4 burnup=9.10	kinf=1.413 Enrch=3.63 Dschg=1973	LACROSSE
Nassy=1 burnup=3.97	kinf=1.271 Enrch=2.19 Dschg=1973	PILGRIM
Nassy=1 burnup=2.63	kinf=1.290 Enrch=2.19 Dschg=1973	PILGRIM
Nassy=1 burnup=8.95	kinf=1.415 Enrch=3.63 Dschg=1974	WEST VALLEY
Nassy=1 burnup=8.15	kinf=1.428 Enrch=3.63 Dschg=1974	WEST VALLEY
Nassy=2 burnup=4.95	kinf=1.306 Enrch=2.50 Dschg=1974	VT YANKEE
Nassy=6 burnup=4.95	kinf=1.306 Enrch=2.50 Dschg=1974	VT YANKEE
Nassy=1 burnup=7.57	kinf=1.476 Enrch=3.92 Dschg=1975	LACROSSE
Nassy=1 burnup=3.71	kinf=1.263 Enrch=2.12 Dschg=1975	DUANE ARNOL
Nassy=1 burnup=3.78	kinf=1.280 Enrch=2.23 Dschg=1975	DRESDEN
Nassy=1 burnup=4.80	kinf=1.467 Enrch=3.54 Dschg=1976	BIG ROCK
Nassy=1 burnup=2.90	kinf=1.273 Enrch=2.11 Dschg=1976	BRUNSWICK
Nassy=1 burnup=3.30	kinf=1.267 Enrch=2.11 Dschg=1976	BRUNSWICK
Nassy=2 burnup=2.43	kinf=1.105 Enrch=1.11 Dschg=1976	BRUNSWICK
Nassy=2 burnup=3.05	kinf=1.320 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=3.30	kinf=1.315 Enrch=2.40 Dschg=1976	HUMBOLDT BA
Nassy=4 burnup=2.43	kinf=1.329 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=2.69	kinf=1.325 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=3.89	kinf=1.308 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=3.89	kinf=1.308 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=4.34	kinf=1.301 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=1.31	kinf=1.346 Enrch=2.41 Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=12.04	kinf=1.407 Enrch=3.92 Dschg=1977	LACROSSE
Nassy=1 burnup=12.30	kinf=1.403 Enrch=3.93 Dschg=1977	LACROSSE

Nassy=1 burnup=7.61	kinf=1.476	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1 burnup=12.42	kinf=1.401	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=5 burnup=3.65	kinf=1.282	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2 burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4 burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2 burnup=3.08	kinf=1.291	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=3 burnup=4.00	kinf=1.277	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=1 burnup=4.00	kinf=1.277	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=21 burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2 burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=3 burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=1 burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=22 burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4 burnup=3.58	kinf=1.019	Enrch=0.72	Dschg=1980	HATCH
Nassy=15 burnup=1.89	kinf=1.041	Enrch=0.72	Dschg=1980	HATCH
Nassy=1 burnup=1.89	kinf=1.041	Enrch=0.72	Dschg=1980	HATCH
Nassy=24 burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=1 burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=3 burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=15 burnup=2.83	kinf=1.028	Enrch=0.72	Dschg=1980	HATCH
Nassy=1 burnup=2.83	kinf=1.028	Enrch=0.72	Dschg=1980	HATCH
Nassy=8 burnup=4.31	kinf=1.009	Enrch=0.72	Dschg=1980	HATCH
Nassy=4 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1980	HATCH
Nassy=8 burnup=3.15	kinf=1.024	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8 burnup=4.11	kinf=1.012	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=21 burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=15 burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=12 burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=7 burnup=2.96	kinf=1.027	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=1 burnup=2.96	kinf=1.027	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=4 burnup=3.14	kinf=1.024	Enrch=0.72	Dschg=1985	LASALLE
Nassy=6 burnup=4.86	kinf=1.003	Enrch=0.72	Dschg=1985	LASALLE
Nassy=2 burnup=4.86	kinf=1.003	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8 burnup=2.92	kinf=1.027	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8 burnup=3.41	kinf=1.021	Enrch=0.72	Dschg=1985	LASALLE
Nassy=18 burnup=4.08	kinf=1.012	Enrch=0.72	Dschg=1985	LASALLE
Nassy=30 burnup=3.91	kinf=1.015	Enrch=0.72	Dschg=1985	LASALLE
Nassy=1 burnup=2.64	kinf=1.031	Enrch=0.72	Dschg=1985	LASALLE
Nassy=7 burnup=2.64	kinf=1.031	Enrch=0.72	Dschg=1985	LASALLE
Nassy=1 burnup=2.22	kinf=1.038	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=7 burnup=2.22	kinf=1.038	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=14 burnup=2.86	kinf=1.030	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=8 burnup=3.07	kinf=1.027	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=15 burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=7 burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=2 burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
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Nassy=6 burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=16 burnup=1.77	kinf=1.044	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=4 burnup=3.28	kinf=1.024	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=2 burnup=4.17	kinf=1.013	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=12 burnup=4.17	kinf=1.013	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=12 burnup=4.17	kinf=1.013	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=6 burnup=3.09	kinf=1.026	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=2 burnup=3.09	kinf=1.026	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=4 burnup=2.76	kinf=1.030	Enrch=0.72	Dschg=1986	SUSQUEHANNA
Nassy=4 burnup=2.76	kinf=1.030	Enrch=0.72	Dschg=1986	SUSQUEHANNA
Nassy=12 burnup=3.50	kinf=1.020	Enrch=0.72	Dschg=1986	SUSQUEHANNA
Nassy=9 burnup=3.98	kinf=1.015	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=13 burnup=3.98	kinf=1.015	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=8 burnup=4.72	kinf=1.006	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=11 burnup=3.35	kinf=1.022	Enrch=0.72	Dschg=1986	GRAND GULF
Nassy=44 burnup=3.35	kinf=1.022	Enrch=0.72	Dschg=1986	GRAND GULF
Nassy=7 burnup=3.35	kinf=1.022	Enrch=0.72	Dschg=1986	GRAND GULF
Nassy=26 burnup=3.35	kinf=1.022	Enrch=0.72	Dschg=1986	GRAND GULF
Nassy=4 burnup=3.35	kinf=1.022	Enrch=0.72	Dschg=1986	GRAND GULF
Nassy=37 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE
Nassy=26 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE
Nassy=28 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE

Nassy=1 burnup=4.00	kinf=1.013 Enrch=0.72 Dschg=1987	LASALLE
Nassy=18 burnup=5.00	kinf=1.487 Enrch=3.70 Dschg=1987	LACROSSE
Nassy=5 burnup=5.00	kinf=1.487 Enrch=3.70 Dschg=1987	LACROSSE
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Nassy=37 burnup=3.00	kinf=1.026 Enrch=0.72 Dschg=1987	RVR BEND
Nassy=4 burnup=3.00	kinf=1.026 Enrch=0.72 Dschg=1987	RVR BEND
Nassy=27 burnup=3.00	kinf=1.026 Enrch=0.72 Dschg=1987	RVR BEND
Nassy=8 burnup=3.00	kinf=1.026 Enrch=0.72 Dschg=1987	RVR BEND
Nassy=7 burnup=3.00	kinf=1.028 Enrch=0.73 Dschg=1988	HOPE CREEK
Nassy=19 burnup=3.00	kinf=1.028 Enrch=0.73 Dschg=1988	HOPE CREEK
Nassy=16 burnup=3.00	kinf=1.028 Enrch=0.73 Dschg=1988	HOPE CREEK
Nassy=26 burnup=3.00	kinf=1.028 Enrch=0.73 Dschg=1988	HOPE CREEK
Nassy=20 burnup=3.00	kinf=1.028 Enrch=0.73 Dschg=1988	HOPE CREEK
Nassy=4 burnup=3.00	kinf=1.028 Enrch=0.73 Dschg=1988	HOPE CREEK
Nassy=15 burnup=3.00	kinf=1.026 Enrch=0.72 Dschg=1989	CLINTON
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Nassy=30 burnup=3.00	kinf=1.026 Enrch=0.72 Dschg=1989	ENRICO FERM
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Nassy=33 burnup=4.00	kinf=1.013 Enrch=0.72 Dschg=1990	NINE MILE P
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INPUT FILE LISTING:

#bins	Input_file	Output_file	Case_title	Last_delivery	
8	case1.wsm	finalw1.out	FINAL-W1	2045	
Type	Cap	Hmin	Hmax	Kmin	Kmax
p	21	0	850	0.00	1.00
p	21	0	850	1.00	1.13
p	21	0	850	1.13	1.45
p	12	850	1500	0.00	1.02
s	12	0	1500	0.00	1.13
b	44	0	400	0.00	1.00
b	44	0	400	1.00	1.37
b	24	0	520	0.00	1.54

OUTPUT FILE LISTING:

FINAL-W1
8 Bins

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	60	2.86	26.98
2011	81	3.86	36.11
2012	386	18.38	171.11
2013	607	28.90	265.51
2014	940	44.76	392.02
2015	1031	49.10	448.21
2016	1194	56.86	514.70
2017	899	42.81	389.64
2018	1088	51.81	468.24
2019	1022	48.67	442.90
2020	1053	50.14	458.81
2021	1290	61.43	557.52
2022	1277	60.81	551.40
2023	1234	58.76	533.01
2024	1310	62.38	575.96
2025	1207	57.48	512.39
2026	1599	76.14	637.78
2027	2385	113.57	989.00
2028	1921	91.48	822.49
2029	1865	88.81	802.43
2030	1835	87.38	776.74
2031	2335	111.19	1012.79
2032	2205	105.00	933.07
2033	1493	71.10	642.58

Bin Total 30317 1443.67 12961.40

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	339	16.14	151.09
2011	551	26.24	237.07
2012	1169	55.67	507.56
2013	1956	93.14	848.18
2014	3136	149.33	1368.67
2015	3246	154.57	1398.22
2016	2737	130.33	1189.58
2017	3176	151.24	1380.04
2018	2773	132.05	1199.63
2019	2918	138.95	1264.78
2020	2884	137.33	1240.88
2021	2674	127.33	1159.38
2022	2736	130.29	1189.99

2023	2780	132.38	1198.37
2024	2478	118.00	1069.48
2025	2449	116.62	1062.10
2026	1969	93.76	824.11
2027	1743	83.00	729.03
2028	2288	108.95	972.43
2029	2501	119.10	1081.59
2030	2698	128.48	1150.11
2031	2474	117.81	1054.47
2032	2473	117.76	1058.77
2033	1307	62.24	561.34

Bin Total 55455 2640.71 23896.88

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.13 Kmax=1.45

Year	Num_Assy	Num_Pkgs	MTU
2010	2	0.10	0.90
2011	96	4.57	44.46
2012	0	0.00	0.00
2013	188	8.95	77.85
2014	133	6.33	50.92
2015	6	0.29	2.54
2016	43	2.05	16.03
2017	60	2.86	24.00
2018	79	3.76	32.05
2019	135	6.43	54.08
2020	100	4.76	41.56
2021	48	2.29	21.04
2022	57	2.71	26.25
2023	240	11.43	106.23
2024	299	14.24	127.67
2025	83	3.95	35.36
2026	414	19.71	122.72
2027	135	6.43	50.39
2028	33	1.57	9.62
2029	44	2.10	17.88
2030	87	4.14	28.94
2031	63	3.00	22.58
2032	131	6.24	43.87
2033	44	2.10	19.89

Bin Total 2520 120.00 976.81

Type=p Cap=12 Hmin=850.0 Hmax=1500.0 Kmin=0.00 Kmax=1.02

Year	Num_Assy	Num_Pkgs	MTU
2010	19	1.58	8.82
2011	19	1.58	8.06
2012	106	8.83	48.08
2013	269	22.42	122.34
2014	360	30.00	168.94
2015	256	21.33	115.23
2016	373	31.08	169.77
2017	374	31.17	174.29
2018	372	31.00	169.65
2019	409	34.08	190.34
2020	430	35.83	189.26
2021	344	28.67	155.12
2022	448	37.33	202.89
2023	292	24.33	129.96
2024	302	25.17	133.77
2025	301	25.08	132.03
2026	0	0.00	0.00
2027	0	0.00	0.00
2028	0	0.00	0.00

2029	0	0.00	0.00
2030	0	0.00	0.00
2031	0	0.00	0.00
2032	0	0.00	0.00
2033	0	0.00	0.00
Bin Total	4674	389.50	2118.54

Type=s Cap=12 Hmin=0.0 Hmax=1500.0 Kmin=0.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	81	6.75	43.60
2013	171	14.25	92.05
2014	0	0.00	0.00
2015	144	12.00	77.52
2016	87	7.25	46.83
2017	177	14.75	95.28
2018	144	12.00	77.52
2019	153	12.75	82.37
2020	90	7.50	48.47
2021	96	8.00	51.70
2022	123	10.25	66.37
2023	108	9.00	58.20
2024	114	9.50	61.37
2025	116	9.67	62.59
2026	0	0.00	0.00
2027	0	0.00	0.00
2028	0	0.00	0.00
2029	0	0.00	0.00
2030	0	0.00	0.00
2031	0	0.00	0.00
2032	168	14.00	90.44
2033	28	2.33	15.07
Bin Total	1800	150.00	969.37

Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	96	2.18	17.12
2011	544	12.36	93.47
2012	845	19.20	144.20
2013	940	21.36	162.38
2014	1617	36.75	280.45
2015	1470	33.41	257.19
2016	1780	40.45	306.81
2017	1436	32.64	250.92
2018	2143	48.70	370.47
2019	1366	31.05	237.69
2020	1505	34.20	263.57
2021	1438	32.68	254.37
2022	1660	37.73	290.43
2023	1653	37.57	293.91
2024	1887	42.89	332.40
2025	2357	53.57	407.55
2026	527	11.98	92.30
2027	1297	29.48	232.86
2028	721	16.39	127.79
2029	790	17.95	138.32
2030	1197	27.20	206.89
2031	1478	33.59	255.82
2032	1336	30.36	231.36
2033	504	11.45	85.86

Bin Total 30587 695.16 5334.16

Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=1.00 Kmax=1.37

Year	Num_Assy	Num_Pkgs	MTU
2010	476	10.82	85.02
2011	1040	23.64	184.62
2012	1663	37.80	297.20
2013	2316	52.64	410.88
2014	4220	95.91	737.58
2015	3875	88.07	693.88
2016	4181	95.02	750.71
2017	3887	88.34	702.99
2018	3747	85.16	676.67
2019	4001	90.93	734.34
2020	4171	94.80	773.93
2021	4176	94.91	771.01
2022	3452	78.45	618.07
2023	3712	84.36	674.86
2024	3657	83.11	653.46
2025	4209	95.66	742.08
2026	7718	175.41	1320.03
2027	5870	133.41	1009.75
2028	5899	134.07	1065.03
2029	5207	118.34	947.69
2030	4844	110.09	859.75
2031	3598	81.77	637.76
2032	3699	84.07	654.04
2033	3071	69.80	546.46

Bin Total 92689 2106.57 16547.84

Type=b Cap=24 Hmin=0.0 Hmax=520.0 Kmin=0.00 Kmax=1.54

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	0	0.00	0.00
2013	0	0.00	0.00
2014	0	0.00	0.00
2015	0	0.00	0.00
2016	0	0.00	0.00
2017	0	0.00	0.00
2018	0	0.00	0.00
2019	0	0.00	0.00
2020	0	0.00	0.00
2021	106	4.42	17.50
2022	344	14.33	58.93
2023	3	0.13	0.51
2024	176	7.33	29.86
2025	272	11.33	46.08
2026	48	2.00	5.21
2027	1	0.04	0.12
2028	1	0.04	0.12
2029	8	0.33	1.03
2030	29	1.21	3.54
2031	5	0.21	0.60
2032	0	0.00	0.00
2033	0	0.00	0.00

Bin Total 993 41.38 163.50

Summary Table

Type	Cap	Num_Assy	PctType	Num_Pkg	MTU
p	21	30317	31.96	1443.67	12961.40

p	21	55455	58.47	2640.71	23896.88
p	21	2520	2.66	120.00	976.81
p	12	4674	4.93	389.50	2118.54
s	12	1800	1.90	150.00	969.37
b	44	30587	24.61	695.16	5334.16
b	44	92689	74.59	2106.57	16547.84
b	24	993	0.80	41.38	163.50
b	1	0	0.00	0.00	0.00
p	1	81	0.09	81.00	35.20
s	1	0	0.00	0.00	0.00

Totals	219116	7586.98	63003.69
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JUNK FILE LISTING:

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Nassy=2	burnup=1.53	kinf=1.535	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=1	burnup=6.38	kinf=1.455	Enrch=3.63	Dschg=1969	WEST VALLEY
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Nassy=1	burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=7	burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.77	kinf=1.260	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.86	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.79	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=3	burnup=1.23	kinf=1.279	Enrch=2.00	Dschg=1971	GE MORRIS (
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Nassy=3	burnup=1.27	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=6	burnup=1.23	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=11	burnup=1.34	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
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 Nassy=25 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
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 No bin for p 887.186035 1.020675
 No bin for p 888.449402 1.020434
 No bin for p 888.449463 1.020434

INPUT FILE LISTING:

#bins	Input_file_	Output_file_	Case_title_	Last_delivery
8	case2.wsm	finalw2.out	FINAL-W2	2045
Type	Cap	Hmin	Hmax	Kmin
			Kmax	
p	21	0	850	0.00
p	21	0	850	1.00
p	21	0	850	1.13
p	21	0	850	1.45
p	12	850	1500	0.00
s	12	0	1500	1.02
b	44	0	400	0.00
b	44	0	400	1.13
b	24	0	520	1.00
			1.37	1.54

OUTPUT FILE LISTING:

FINAL-W2
8 Bins

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	57	2.71	25.96
2011	196	9.33	85.74
2012	362	17.24	159.17
2013	553	26.33	240.62
2014	1128	53.71	473.19
2015	1092	52.00	477.71
2016	1227	58.43	522.13
2017	982	46.76	423.82
2018	1107	52.71	481.19
2019	1405	66.90	606.96
2020	1206	57.43	530.52
2021	1193	56.81	521.87
2022	1143	54.43	486.63
2023	1108	52.76	478.35
2024	809	38.52	354.84
2025	1229	58.52	530.50
2026	1534	73.05	608.67
2027	2321	110.52	962.40
2028	2053	97.76	879.01
2029	1796	85.52	772.29
2030	1765	84.05	743.41
2031	2330	110.95	1016.43
2032	2094	99.71	888.81
2033	1639	78.05	704.45

Bin Total 30329 1444.24 12974.65

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	527	25.10	230.67
2011	751	35.76	324.76
2012	1089	51.86	471.10
2013	2124	101.14	921.91
2014	3125	148.81	1356.00
2015	3238	154.19	1389.74
2016	2679	127.57	1165.02
2017	3048	145.14	1323.08
2018	2660	126.67	1157.51
2019	2774	132.10	1195.16
2020	2814	134.00	1213.48
2021	2793	133.00	1201.67
2022	2627	125.10	1135.18

2023	2865	136.43	1243.69
2024	2427	115.57	1039.26
2025	2218	105.62	972.45
2026	1873	89.19	779.78
2027	1699	80.90	714.21
2028	2193	104.43	931.40
2029	2423	115.38	1049.49
2030	2751	131.00	1166.39
2031	2242	106.76	959.27
2032	2495	118.81	1070.10
2033	1441	68.62	620.09

Bin Total 54876 2613.14 23631.41

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.13 Kmax=1.45

Year	Num_Assy	Num_Pkgs	MTU
2010	4	0.19	1.75
2011	0	0.00	0.00
2012	0	0.00	0.00
2013	53	2.52	20.74
2014	40	1.90	17.03
2015	42	2.00	19.51
2016	3	0.14	1.19
2017	62	2.95	25.82
2018	86	4.10	33.93
2019	44	2.10	17.93
2020	123	5.86	49.05
2021	46	2.19	18.13
2022	139	6.62	63.30
2023	505	24.05	215.41
2024	654	31.14	278.42
2025	110	5.24	46.90
2026	407	19.38	119.79
2027	285	13.57	119.55
2028	101	4.81	40.05
2029	44	2.10	17.96
2030	104	4.95	36.45
2031	132	6.29	48.49
2032	94	4.48	28.73
2033	34	1.62	15.62

Bin Total 3112 148.19 1235.75

Type=p Cap=12 Hmin=850.0 Hmax=1500.0 Kmin=0.00 Kmax=1.02

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	34	2.83	14.42
2012	61	5.08	27.40
2013	239	19.92	108.21
2014	282	23.50	127.52
2015	227	18.92	102.56
2016	375	31.25	170.61
2017	318	26.50	142.55
2018	341	28.42	155.08
2019	368	30.67	165.26
2020	372	31.00	167.94
2021	276	23.00	124.63
2022	559	46.58	253.08
2023	332	27.67	147.27
2024	274	22.83	121.54
2025	389	32.42	173.27
2026	0	0.00	0.00
2027	0	0.00	0.00
2028	0	0.00	0.00

2029	0	0.00	0.00
2030	0	0.00	0.00
2031	0	0.00	0.00
2032	0	0.00	0.00
2033	0	0.00	0.00
Bin Total	4447	370.58	2001.35

Type=s Cap=12 Hmin=0.0 Hmax=1500.0 Kmin=0.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	81	6.75	43.60
2013	171	14.25	92.05
2014	0	0.00	0.00
2015	102	8.50	54.91
2016	147	12.25	79.14
2017	183	15.25	98.51
2018	141	11.75	75.90
2019	165	13.75	88.83
2020	90	7.50	48.49
2021	96	8.00	51.68
2022	123	10.25	66.38
2023	99	8.25	53.34
2024	126	10.50	67.83
2025	108	9.00	58.28
2026	0	0.00	0.00
2027	0	0.00	0.00
2028	0	0.00	0.00
2029	0	0.00	0.00
2030	0	0.00	0.00
2031	0	0.00	0.00
2032	168	14.00	90.44
2033	0	0.00	0.00
Bin Total	1800	150.00	969.38

Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	80	1.82	14.20
2011	200	4.55	34.62
2012	1029	23.39	175.31
2013	1196	27.18	206.86
2014	1597	36.30	276.64
2015	1618	36.77	282.33
2016	1663	37.80	286.76
2017	1668	37.91	290.30
2018	2167	49.25	375.31
2019	1607	36.52	281.52
2020	1516	34.45	262.79
2021	2251	51.16	399.88
2022	1901	43.20	334.38
2023	1448	32.91	253.41
2024	1964	44.64	345.98
2025	2394	54.41	413.88
2026	608	13.82	107.23
2027	1211	27.52	217.04
2028	698	15.86	123.98
2029	703	15.98	122.38
2030	1508	34.27	260.79
2031	1358	30.86	234.55
2032	1391	31.61	241.07
2033	321	7.30	55.73

Bin Total 32097 729.48 5596.91

Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=1.00 Kmax=1.37

Year	Num_Assy	Num_Pkgs	MTU
2010	140	3.18	24.69
2011	768	17.45	136.28
2012	1831	41.61	327.96
2013	2324	52.82	409.82
2014	4232	96.18	746.66
2015	3663	83.25	652.21
2016	4266	96.95	758.54
2017	3780	85.91	683.66
2018	4094	93.05	727.47
2019	3523	80.07	619.66
2020	3956	89.91	709.39
2021	3671	83.43	660.23
2022	3495	79.43	630.20
2023	2978	67.68	532.31
2024	4124	93.73	740.35
2025	4497	102.20	826.00
2026	7949	180.66	1358.16
2027	5671	128.89	976.75
2028	5698	129.50	1028.30
2029	5708	129.73	1035.48
2030	4410	100.23	785.32
2031	4207	95.61	747.66
2032	3864	87.82	681.63
2033	3086	70.14	549.15

Bin Total 91935 2089.43 16347.88

Type=b Cap=24 Hmin=0.0 Hmax=520.0 Kmin=0.00 Kmax=1.54

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	0	0.00	0.00
2013	0	0.00	0.00
2014	0	0.00	0.00
2015	0	0.00	0.00
2016	145	6.04	24.77
2017	8	0.33	1.37
2018	7	0.29	0.96
2019	80	3.33	13.76
2020	168	7.00	28.50
2021	114	4.75	18.86
2022	192	8.00	32.93
2023	414	17.25	71.72
2024	248	10.33	42.44
2025	8	0.33	1.36
2026	88	3.67	10.62
2027	1	0.04	0.12
2028	5	0.21	0.60
2029	11	0.46	1.33
2030	20	0.83	2.40
2031	0	0.00	0.00
2032	0	0.00	0.00
2033	0	0.00	0.00

Bin Total 1509 62.87 251.72

Summary Table

Type	Cap	Num_Assy	PctType	Num_Pkg	MTU
p	21	30329	32.05	1444.24	12974.65

p	21	54876	57.99	2613.14	23631.41
p	21	3112	3.29	148.19	1235.75
p	12	4447	4.70	370.58	2001.35
s	12	1800	1.90	150.00	969.38
b	44	32097	25.57	729.48	5596.91
b	44	91935	73.23	2089.43	16347.88
b	24	1509	1.20	62.87	251.72
b	1	0	0.00	0.00	0.00
p	1	67	0.07	67.00	28.72
s	1	0	0.00	0.00	0.00

Totals	220172	7607.94	63037.77
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JUNK FILE LISTING:

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 No bin for p 882.116028 1.021649
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No bin for p 887.186035 1.020675

INPUT FILE LISTING:

#bins	Input_file	Output_file	Case_title	Last_delivery
8	case3.wsm	finalw3.out	FINAL-W3	2045
Type	Cap	Hmin	Hmax	Kmin
p	21	0	850	0.00
p	21	0	850	1.00
p	21	0	850	1.13
p	12	850	1500	0.00
s	12	0	1500	0.00
b	44	0	400	0.00
b	44	0	400	1.00
b	24	0	520	0.00
				Kmax
				1.00
				1.13
				1.45
				1.02
				1.13
				1.00
				1.37
				1.54

OUTPUT FILE LISTING:

FINAL-W3
8 Bins

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	215	10.24	81.41
2012	312	14.86	127.78
2013	1116	53.14	457.10
2014	1021	48.62	414.69
2015	1522	72.48	640.13
2016	1775	84.52	740.27
2017	1456	69.33	614.62
2018	1586	75.52	691.02
2019	1452	69.14	628.25
2020	1093	52.05	474.04
2021	1199	57.10	524.28
2022	1481	70.52	620.43
2023	1204	57.33	514.54
2024	1185	56.43	510.21
2025	1346	64.10	579.87
2026	1455	69.29	632.62
2027	1548	73.71	682.54
2028	1421	67.67	627.43
2029	1554	74.00	669.49
2030	1158	55.14	512.64
2031	1368	65.14	595.67
2032	1410	67.14	618.67
2033	751	35.76	328.38

Bin Total 28628 1363.24 12286.09

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	218	10.38	76.71
2011	319	15.19	130.63
2012	1207	57.48	496.79
2013	1723	82.05	716.37
2014	2671	127.19	1153.56
2015	2449	116.62	1041.27
2016	2610	124.29	1114.29
2017	2938	139.90	1264.62
2018	2480	118.10	1068.70
2019	2824	134.48	1211.16
2020	3184	151.62	1379.79
2021	2940	140.00	1251.15
2022	2460	117.14	1070.11

2023	2721	129.57	1182.31
2024	2588	123.24	1115.20
2025	2422	115.33	1058.35
2026	2246	106.95	963.27
2027	2727	129.86	1171.98
2028	2384	113.52	1040.23
2029	2490	118.57	1080.63
2030	2524	120.19	1083.15
2031	2596	123.62	1123.50
2032	2606	124.10	1119.87
2033	1317	62.71	568.78

Bin Total 54644 2602.10 23482.41

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.13 Kmax=1.45

Year	Num_Assy	Num_Pkgs	MTU
2010	76	3.62	28.34
2011	264	12.57	68.35
2012	119	5.67	43.44
2013	12	0.57	5.54
2014	124	5.90	55.68
2015	77	3.67	34.90
2016	25	1.19	9.43
2017	65	3.10	21.30
2018	174	8.29	64.42
2019	107	5.10	42.21
2020	214	10.19	78.67
2021	89	4.24	36.68
2022	93	4.43	41.62
2023	394	18.76	173.60
2024	423	20.14	186.26
2025	242	11.52	101.16
2026	116	5.52	49.67
2027	254	12.10	104.65
2028	165	7.86	70.85
2029	155	7.38	61.95
2030	206	9.81	85.32
2031	273	13.00	119.72
2032	158	7.52	68.13
2033	108	5.14	49.19

Bin Total 3933 187.29 1601.07

Type=p Cap=12 Hmin=850.0 Hmax=1500.0 Kmin=0.00 Kmax=1.02

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	0	0.00	0.00
2013	26	2.17	11.96
2014	99	8.25	44.38
2015	308	25.67	141.24
2016	228	19.00	104.52
2017	155	12.92	67.34
2018	212	17.67	95.63
2019	264	22.00	117.15
2020	228	19.00	103.03
2021	218	18.17	97.08
2022	409	34.08	183.38
2023	365	30.42	162.09
2024	259	21.58	115.87
2025	371	30.92	165.92
2026	470	39.17	210.85
2027	364	30.33	159.45
2028	335	27.92	150.91

2029	409	34.08	180.27
2030	315	26.25	141.09
2031	359	29.92	159.59
2032	224	18.67	98.07
2033	143	11.92	61.75
Bin Total	5761	480.08	2571.55

Type=s Cap=12 Hmin=0.0 Hmax=1500.0 Kmin=0.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	0	0.00	0.00
2013	0	0.00	0.00
2014	0	0.00	0.00
2015	0	0.00	0.00
2016	0	0.00	0.00
2017	0	0.00	0.00
2018	0	0.00	0.00
2019	177	14.75	95.28
2020	90	7.50	48.45
2021	156	13.00	83.98
2022	54	4.50	29.07
2023	126	10.50	67.83
2024	123	10.25	66.21
2025	135	11.25	72.67
2026	132	11.00	71.06
2027	129	10.75	69.44
2028	117	9.75	62.98
2029	150	12.50	80.75
2030	129	10.75	69.44
2031	123	10.25	66.21
2032	99	8.25	53.29
2033	60	5.00	32.30
Bin Total	1800	150.00	968.96

Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	30	0.68	5.32
2011	280	6.36	47.33
2012	939	21.34	159.91
2013	1745	39.66	299.22
2014	2455	55.80	431.48
2015	1864	42.36	329.79
2016	1208	27.45	214.01
2017	1188	27.00	205.28
2018	2042	46.41	352.55
2019	1831	41.61	317.78
2020	2131	48.43	366.93
2021	2383	54.16	410.70
2022	1962	44.59	339.40
2023	1841	41.84	319.76
2024	1275	28.98	221.47
2025	2347	53.34	408.53
2026	1741	39.57	301.97
2027	1688	38.36	292.45
2028	1462	33.23	254.93
2029	2092	47.55	364.78
2030	1606	36.50	285.51
2031	1790	40.68	311.24
2032	1089	24.75	190.94
2033	942	21.41	161.63

Bin Total 37931 862.07 6592.94

Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=1.00 Kmax=1.37

Year	Num_Assy	Num_Pkgs	MTU
2010	1142	25.95	188.65
2011	1588	36.09	259.58
2012	2290	52.05	367.93
2013	3116	70.82	513.41
2014	5131	116.61	897.39
2015	4524	102.82	811.80
2016	4492	102.09	797.15
2017	4660	105.91	823.69
2018	4160	94.55	732.19
2019	3170	72.05	558.48
2020	3021	68.66	530.13
2021	3399	77.25	600.17
2022	3578	81.32	630.96
2023	2847	64.70	504.98
2024	4424	100.55	775.60
2025	3386	76.95	602.06
2026	4355	98.98	770.11
2027	2976	67.64	530.32
2028	4236	96.27	758.37
2029	3056	69.45	555.92
2030	4466	101.50	827.02
2031	3534	80.32	651.01
2032	4465	101.48	811.75
2033	3615	82.16	670.84

Bin Total 85631 1946.16 15169.50

Type=b Cap=24 Hmin=0.0 Hmax=520.0 Kmin=0.00 Kmax=1.54

Year	Num_Assy	Num_Pkgs	MTU
2010	16	0.67	2.19
2011	24	1.00	3.22
2012	48	2.00	5.21
2013	0	0.00	0.00
2014	1	0.04	0.12
2015	13	0.54	1.56
2016	150	6.25	25.36
2017	25	1.04	3.40
2018	0	0.00	0.00
2019	80	3.33	13.76
2020	105	4.38	17.33
2021	3	0.13	0.50
2022	509	21.21	87.84
2023	349	14.54	59.48
2024	63	2.63	10.99
2025	8	0.33	1.36
2026	8	0.33	1.10
2027	0	0.00	0.00
2028	198	8.25	34.50
2029	0	0.00	0.00
2030	0	0.00	0.00
2031	0	0.00	0.00
2032	122	5.08	21.72
2033	205	8.54	36.08

Bin Total 1927 80.29 325.72

Summary Table

Type	Cap	Num_Assy	PctType	Num_Pkg	MTU
p	21	28628	30.20	1363.24	12286.09

p	21	54644	57.64	2602.10	23482.41
p	21	3933	4.15	187.29	1601.07
p	12	5761	6.08	480.08	2571.55
s	12	1800	1.90	150.00	968.96
b	44	37931	30.23	862.07	6592.94
b	44	85631	68.24	1946.16	15169.50
b	24	1927	1.54	80.29	325.72
b	1	0	0.00	0.00	0.00
p	1	28	0.03	28.00	12.96
s	1	0	0.00	0.00	0.00

Totals	220283	7671.22	63011.21
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JUNK FILE LISTING:

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Nassy=2	burnup=1.45	kinf=1.536	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2	burnup=1.53	kinf=1.535	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=1	burnup=6.38	kinf=1.455	Enrch=3.63	Dschg=1969	WEST VALLEY
Nassy=2	burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=0.32	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=3	burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=8	burnup=0.34	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
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Nassy=1	burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=10	burnup=0.34	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1	burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=7	burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.77	kinf=1.260	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.86	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.79	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=10	burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=9	burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.34	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.46	kinf=1.270	Enrch=1.97	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.57	kinf=1.267	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.76	kinf=1.261	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.23	kinf=1.279	Enrch=2.00	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.46	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.09	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.27	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.28	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.32	kinf=1.275	Enrch=1.99	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.11	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5	burnup=1.42	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=2	burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2	burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4	burnup=1.15	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8	burnup=1.44	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=20	burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1	burnup=0.86	kinf=1.291	Enrch=2.04	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.62	kinf=1.265	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=1	burnup=1.64	kinf=1.264	Enrch=1.95	Dschg=1971	GE MORRIS (

Nassy=7 burnup=1.83	kinf=1.292 Enrch=2.13 Dschg=1971	GE MORRIS (
Nassy=16 burnup=1.83	kinf=1.292 Enrch=2.13 Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.83	kinf=1.292 Enrch=2.13 Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.13	kinf=1.303 Enrch=2.13 Dschg=1971	GE MORRIS (
Nassy=24 burnup=1.63	kinf=1.295 Enrch=2.13 Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.78	kinf=1.260 Enrch=1.94 Dschg=1971	GE MORRIS (
Nassy=2 burnup=9.28	kinf=1.410 Enrch=3.63 Dschg=1971	WEST VALLEY
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Nassy=1 burnup=8.24	kinf=1.426 Enrch=3.63 Dschg=1971	WEST VALLEY
Nassy=1 burnup=9.23	kinf=1.411 Enrch=3.63 Dschg=1971	WEST VALLEY
Nassy=1 burnup=1.53	kinf=1.318 Enrch=2.26 Dschg=1971	DRESDEN
Nassy=1 burnup=4.49	kinf=1.250 Enrch=2.11 Dschg=1971	OYSTER CRK
Nassy=1 burnup=3.27	kinf=1.212 Enrch=1.78 Dschg=1972	GE MORRIS (
Nassy=6 burnup=4.52	kinf=1.253 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=16 burnup=4.52	kinf=1.253 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=28 burnup=4.52	kinf=1.253 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=10 burnup=4.52	kinf=1.253 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=23 burnup=3.43	kinf=1.269 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=11 burnup=3.43	kinf=1.269 Enrch=2.13 Dschg=1972	GE MORRIS (
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Nassy=12 burnup=2.81	kinf=1.227 Enrch=1.83 Dschg=1972	GE MORRIS (
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Nassy=20 burnup=3.87	kinf=1.195 Enrch=1.73 Dschg=1972	GE MORRIS (
Nassy=6 burnup=3.87	kinf=1.195 Enrch=1.73 Dschg=1972	GE MORRIS (
Nassy=4 burnup=3.87	kinf=1.195 Enrch=1.73 Dschg=1972	GE MORRIS (
Nassy=34 burnup=4.14	kinf=1.258 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=23 burnup=4.14	kinf=1.258 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=10 burnup=4.14	kinf=1.258 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=11 burnup=4.62	kinf=1.173 Enrch=1.67 Dschg=1972	GE MORRIS (
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Nassy=5 burnup=3.34	kinf=1.269 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=5 burnup=4.77	kinf=1.249 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=5 burnup=3.84	kinf=1.195 Enrch=1.73 Dschg=1972	GE MORRIS (
Nassy=1 burnup=3.28	kinf=1.271 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=1 burnup=2.73	kinf=1.279 Enrch=2.13 Dschg=1972	GE MORRIS (
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Nassy=9 burnup=3.12	kinf=1.273 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=1 burnup=3.12	kinf=1.273 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=12 burnup=3.60	kinf=1.203 Enrch=1.76 Dschg=1972	GE MORRIS (
Nassy=1 burnup=3.60	kinf=1.203 Enrch=1.76 Dschg=1972	GE MORRIS (
Nassy=4 burnup=2.84	kinf=1.277 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=26 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=29 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=1 burnup=3.91	kinf=1.261 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=2 burnup=3.91	kinf=1.261 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=12 burnup=3.79	kinf=1.263 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=9 burnup=3.79	kinf=1.263 Enrch=2.13 Dschg=1972	GE MORRIS (
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Nassy=3 burnup=3.77	kinf=1.264 Enrch=2.13 Dschg=1972	GE MORRIS (
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Nassy=20 burnup=4.39	kinf=1.179 Enrch=1.68 Dschg=1972	GE MORRIS (
Nassy=4 burnup=4.39	kinf=1.179 Enrch=1.68 Dschg=1972	GE MORRIS (
Nassy=14 burnup=4.64	kinf=1.172 Enrch=1.66 Dschg=1972	GE MORRIS (
Nassy=1 burnup=8.59	kinf=1.421 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=1 burnup=9.12	kinf=1.413 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=1 burnup=8.73	kinf=1.419 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=2 burnup=4.86	kinf=1.239 Enrch=2.08 Dschg=1972	MILLSTONE
Nassy=4 burnup=6.45	kinf=1.454 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=8.75	kinf=1.418 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=7.35	kinf=1.440 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=3.88	kinf=1.262 Enrch=2.13 Dschg=1973	DRESDEN
Nassy=2 burnup=4.96	kinf=1.246 Enrch=2.13 Dschg=1973	DRESDEN
Nassy=1 burnup=1.05	kinf=1.365 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=3 burnup=0.97	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=5 burnup=4.32	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=0.99	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE

Nassy=11	burnup=4.39	kinf=1.315	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=10	burnup=4.39	kinf=1.315	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=2	burnup=4.00	kinf=1.320	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=4	burnup=4.05	kinf=1.320	Enrch=2.50	Dschg=1973	VT YANKEE
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Nassy=3	burnup=4.66	kinf=1.311	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1	burnup=0.99	kinf=1.366	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1	burnup=4.69	kinf=1.310	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=4	burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1	burnup=8.77	kinf=1.418	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=3	burnup=9.10	kinf=1.413	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1	burnup=9.10	kinf=1.413	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1	burnup=8.95	kinf=1.415	Enrch=3.63	Dschg=1974	WEST VALLEY
Nassy=1	burnup=8.15	kinf=1.428	Enrch=3.63	Dschg=1974	WEST VALLEY
Nassy=2	burnup=4.95	kinf=1.306	Enrch=2.50	Dschg=1974	VT YANKEE
Nassy=4	burnup=4.95	kinf=1.306	Enrch=2.50	Dschg=1974	VT YANKEE
Nassy=2	burnup=4.95	kinf=1.306	Enrch=2.50	Dschg=1974	VT YANKEE
Nassy=1	burnup=7.57	kinf=1.476	Enrch=3.92	Dschg=1975	LACROSSE
Nassy=1	burnup=3.71	kinf=1.263	Enrch=2.12	Dschg=1975	DUANE ARNOL
Nassy=1	burnup=3.78	kinf=1.280	Enrch=2.23	Dschg=1975	DRESDEN
Nassy=1	burnup=4.80	kinf=1.467	Enrch=3.54	Dschg=1976	BIG ROCK
Nassy=1	burnup=2.90	kinf=1.273	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=1	burnup=3.30	kinf=1.267	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=2	burnup=2.43	kinf=1.105	Enrch=1.11	Dschg=1976	BRUNSWICK
Nassy=2	burnup=3.05	kinf=1.320	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=3.30	kinf=1.315	Enrch=2.40	Dschg=1976	HUMBOLDT BA
Nassy=1	burnup=2.43	kinf=1.329	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1	burnup=2.43	kinf=1.329	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=2.43	kinf=1.329	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=2.69	kinf=1.325	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=3.89	kinf=1.308	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=4.34	kinf=1.301	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1	burnup=1.31	kinf=1.346	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1	burnup=12.04	kinf=1.407	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1	burnup=12.30	kinf=1.403	Enrch=3.93	Dschg=1977	LACROSSE
Nassy=1	burnup=7.61	kinf=1.476	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1	burnup=12.42	kinf=1.401	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=5	burnup=3.65	kinf=1.282	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=1	burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=1	burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=3.08	kinf=1.291	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=4.00	kinf=1.277	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=19	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=5	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=15	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=3.58	kinf=1.019	Enrch=0.72	Dschg=1980	HATCH
Nassy=2	burnup=3.58	kinf=1.019	Enrch=0.72	Dschg=1980	HATCH
Nassy=16	burnup=1.89	kinf=1.041	Enrch=0.72	Dschg=1980	HATCH
Nassy=24	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=1	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=1	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=2	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=16	burnup=2.83	kinf=1.028	Enrch=0.72	Dschg=1980	HATCH
Nassy=8	burnup=4.31	kinf=1.009	Enrch=0.72	Dschg=1980	HATCH
Nassy=4	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1980	HATCH
Nassy=8	burnup=3.15	kinf=1.024	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8	burnup=4.11	kinf=1.012	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=26	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=10	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=12	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8	burnup=2.96	kinf=1.027	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8	burnup=2.22	kinf=1.038	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=14	burnup=2.86	kinf=1.030	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=3	burnup=3.07	kinf=1.027	Enrch=0.73	Dschg=1986	WASH NUCLEA

Nassy=5 burnup=3.07	kinf=1.027 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=22 burnup=2.65	kinf=1.033 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=2 burnup=2.65	kinf=1.033 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=6 burnup=2.65	kinf=1.033 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=6 burnup=2.65	kinf=1.033 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=16 burnup=1.77	kinf=1.044 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=2 burnup=3.28	kinf=1.024 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=2 burnup=3.28	kinf=1.024 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=2 burnup=4.17	kinf=1.013 Enrch=0.73 Dschg=1986	SUSQUEHANNA
Nassy=18 burnup=5.00	kinf=1.487 Enrch=3.70 Dschg=1987	LACROSSE
Nassy=5 burnup=5.00	kinf=1.487 Enrch=3.70 Dschg=1987	LACROSSE
Nassy=1 burnup=5.00	kinf=1.488 Enrch=3.71 Dschg=1987	LACROSSE
Nassy=32 burnup=3.00	kinf=1.026 Enrch=0.72 Dschg=1989	CLINTON
Nassy=16 burnup=3.00	kinf=1.026 Enrch=0.72 Dschg=1989	CLINTON
Nassy=2 burnup=3.00	kinf=1.026 Enrch=0.72 Dschg=1989	CLINTON
Nassy=2 burnup=3.00	kinf=1.026 Enrch=0.72 Dschg=1989	CLINTON
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Nassy=24 burnup=3.00	kinf=1.026 Enrch=0.72 Dschg=1989	ENRICO FERM
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Nassy=33 burnup=4.00	kinf=1.013 Enrch=0.72 Dschg=1990	NINE MILE P
Nassy=2 burnup=4.00	kinf=1.013 Enrch=0.72 Dschg=1990	NINE MILE P
Nassy=17 burnup=4.00	kinf=1.013 Enrch=0.72 Dschg=1990	NINE MILE P
Nassy=27 burnup=4.00	kinf=1.013 Enrch=0.72 Dschg=1990	NINE MILE P
Nassy=2 burnup=4.00	kinf=1.013 Enrch=0.72 Dschg=1990	NINE MILE P
Nassy=11 burnup=4.00	kinf=1.013 Enrch=0.72 Dschg=1990	NINE MILE P
Nassy=6 burnup=7.19	kinf=1.402 Enrch=3.35 Dschg=2009	NINE MILE P
Nassy=132 burnup=7.19	kinf=1.402 Enrch=3.35 Dschg=2009	NINE MILE P
Nassy=30 burnup=7.19	kinf=1.402 Enrch=3.35 Dschg=2009	NINE MILE P
Nassy=8 burnup=7.19	kinf=1.402 Enrch=3.35 Dschg=2009	NINE MILE P
Nassy=15 burnup=7.59	kinf=1.400 Enrch=3.38 Dschg=2009	OYSTER CRK
Nassy=44 burnup=7.59	kinf=1.400 Enrch=3.38 Dschg=2009	OYSTER CRK
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Nassy=8 burnup=8.57	kinf=1.410 Enrch=3.56 Dschg=2012	PILGRIM
Nassy=176 burnup=8.57	kinf=1.410 Enrch=3.56 Dschg=2012	PILGRIM
Nassy=5 burnup=8.57	kinf=1.410 Enrch=3.56 Dschg=2012	PILGRIM
Nassy=3 burnup=8.57	kinf=1.410 Enrch=3.56 Dschg=2012	PILGRIM
Nassy=23 burnup=6.41	kinf=1.443 Enrch=3.55 Dschg=2012	QUAD CITIES
Nassy=88 burnup=6.41	kinf=1.443 Enrch=3.55 Dschg=2012	QUAD CITIES
Nassy=22 burnup=6.41	kinf=1.443 Enrch=3.55 Dschg=2012	QUAD CITIES
Nassy=12 burnup=6.41	kinf=1.443 Enrch=3.55 Dschg=2012	QUAD CITIES
Nassy=8 burnup=6.41	kinf=1.443 Enrch=3.55 Dschg=2012	QUAD CITIES
No bin for p 887.186035 1.020675		
No bin for p 887.186096 1.020675		
Nassy=8 burnup=6.61	kinf=1.438 Enrch=3.54 Dschg=2014	BRUNSWICK
Nassy=44 burnup=6.61	kinf=1.438 Enrch=3.54 Dschg=2014	BRUNSWICK
Nassy=33 burnup=6.61	kinf=1.438 Enrch=3.54 Dschg=2014	BRUNSWICK
Nassy=7 burnup=6.61	kinf=1.438 Enrch=3.54 Dschg=2014	BRUNSWICK
No bin for p 888.449402 1.020434		
Nassy=14 burnup=3.22	kinf=1.457 Enrch=3.30 Dschg=2022	LASALLE
Nassy=88 burnup=3.22	kinf=1.457 Enrch=3.30 Dschg=2022	LASALLE
Nassy=20 burnup=3.22	kinf=1.457 Enrch=3.30 Dschg=2022	LASALLE

INPUT FILE LISTING:

#bins	Input_file	Output_file	Case_title	Last_delivery
8	case4.wsm	finalw4.out	FINAL-W4	2045
Type	Cap	Hmin	Hmax	Kmin
p	21	0	850	0.00
p	21	0	850	1.00
p	21	0	850	1.13
p	12	850	1500	0.00
s	12	0	1500	0.00
b	44	0	400	0.00
b	44	0	400	1.00
b	24	0	520	0.00
			Kmax	
				1.00
				1.13
				1.45
				1.02
				1.13
				1.00
				1.37
				1.54

OUTPUT FILE LISTING:

FINAL-W4
8 Bins

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	16	0.76	5.63
2011	148	7.05	54.81
2012	336	16.00	138.70
2013	1152	54.86	470.50
2014	975	46.43	398.37
2015	1592	75.81	662.99
2016	1801	85.76	751.94
2017	1406	66.95	597.31
2018	1596	76.00	693.16
2019	1419	67.57	615.35
2020	1095	52.14	475.20
2021	1241	59.10	540.12
2022	1491	71.00	624.28
2023	1240	59.05	534.78
2024	1218	58.00	524.99
2025	1313	62.52	567.55
2026	1421	67.67	616.62
2027	1545	73.57	675.93
2028	1416	67.43	625.33
2029	1559	74.24	671.60
2030	1180	56.19	522.67
2031	1406	66.95	612.15
2032	1348	64.19	591.22
2033	783	37.29	342.87

Bin Total 28697 1366.52 12314.09

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	246	11.71	85.59
2011	408	19.43	162.62
2012	1107	52.71	465.83
2013	1673	79.67	696.90
2014	2695	128.33	1164.93
2015	2437	116.05	1031.83
2016	2638	125.62	1125.24
2017	2937	139.86	1264.36
2018	2452	116.76	1057.08
2019	2860	136.19	1226.38
2020	3165	150.71	1370.36
2021	2915	138.81	1243.11
2022	2471	117.67	1073.90

2023	2674	127.33	1164.53
2024	2578	122.76	1111.49
2025	2441	116.24	1064.05
2026	2276	108.38	977.32
2027	2694	128.29	1159.32
2028	2400	114.29	1045.28
2029	2468	117.52	1070.16
2030	2555	121.67	1097.93
2031	2571	122.43	1115.85
2032	2621	124.81	1122.41
2033	1274	60.67	552.02

Bin Total 54556 2597.91 23448.49

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.13 Kmax=1.45

Year	Num_Assy	Num_Pkgs	MTU
2010	95	4.52	29.47
2011	137	6.52	46.22
2012	216	10.29	60.23
2013	17	0.81	7.60
2014	143	6.81	63.93
2015	61	2.90	27.52
2016	25	1.19	9.43
2017	65	3.10	21.30
2018	174	8.29	64.42
2019	107	5.10	42.21
2020	222	10.57	81.56
2021	72	3.43	29.58
2022	78	3.71	35.19
2023	405	19.29	178.18
2024	466	22.19	206.18
2025	196	9.33	80.08
2026	119	5.67	50.83
2027	263	12.52	108.87
2028	169	8.05	72.29
2029	155	7.38	61.95
2030	200	9.52	83.17
2031	278	13.24	121.93
2032	154	7.33	66.36
2033	113	5.38	51.31

Bin Total 3930 187.14 1599.81

Type=p Cap=12 Hmin=850.0 Hmax=1500.0 Kmin=0.00 Kmax=1.02

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	0	0.00	0.00
2013	26	2.17	11.96
2014	99	8.25	44.38
2015	308	25.67	141.23
2016	228	19.00	104.52
2017	155	12.92	67.34
2018	212	17.67	95.63
2019	264	22.00	117.15
2020	228	19.00	103.03
2021	218	18.17	97.08
2022	409	34.08	183.38
2023	347	28.92	154.46
2024	280	23.33	124.78
2025	371	30.92	165.92
2026	447	37.25	201.09
2027	373	31.08	163.28
2028	335	27.92	150.91

2029	417	34.75	183.98
2030	307	25.58	137.37
2031	359	29.92	159.59
2032	224	18.67	98.07
2033	143	11.92	61.75
Bin Total	5750	479.17	2566.89

Type=s Cap=12 Hmin=0.0 Hmax=1500.0 Kmin=0.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	0	0.00	0.00
2013	0	0.00	0.00
2014	0	0.00	0.00
2015	0	0.00	0.00
2016	0	0.00	0.00
2017	0	0.00	0.00
2018	0	0.00	0.00
2019	177	14.75	95.28
2020	66	5.50	35.53
2021	180	15.00	96.90
2022	54	4.50	29.07
2023	126	10.50	67.83
2024	123	10.25	66.21
2025	135	11.25	72.67
2026	153	12.75	82.36
2027	117	9.75	62.98
2028	117	9.75	62.98
2029	153	12.75	82.36
2030	108	9.00	58.14
2031	132	11.00	71.06
2032	99	8.25	53.29
2033	60	5.00	32.30
Bin Total	1800	150.00	968.96

Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	30	0.68	5.32
2011	180	4.09	30.50
2012	1039	23.61	176.74
2013	1732	39.36	296.54
2014	2468	56.09	434.16
2015	1864	42.36	329.80
2016	1208	27.45	214.01
2017	1195	27.16	206.46
2018	2055	46.70	354.78
2019	1842	41.86	319.64
2020	2085	47.39	359.10
2021	2422	55.05	417.38
2022	1962	44.59	339.33
2023	1832	41.64	318.25
2024	1260	28.64	218.93
2025	2347	53.34	408.54
2026	1741	39.57	301.97
2027	1688	38.36	292.45
2028	1462	33.23	254.93
2029	2092	47.55	364.78
2030	1606	36.50	285.51
2031	1790	40.68	311.23
2032	1089	24.75	190.94
2033	942	21.41	161.63

Bin Total 37931 862.07 6592.93

Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=1.00 Kmax=1.37

Year	Num_Assy	Num_Pkgs	MTU
2010	1070	24.32	174.18
2011	1801	40.93	295.22
2012	2193	49.84	354.41
2013	3173	72.11	515.32
2014	5074	115.32	896.15
2015	4480	101.82	803.28
2016	4360	99.09	774.26
2017	4741	107.75	838.01
2018	4191	95.25	737.81
2019	3159	71.80	555.46
2020	3199	72.70	561.80
2021	3228	73.36	570.58
2022	3578	81.32	630.96
2023	2900	65.91	514.29
2024	4198	95.41	737.59
2025	3562	80.95	632.25
2026	4376	99.45	772.65
2027	2976	67.64	530.41
2028	4280	97.27	766.75
2029	3056	69.45	556.04
2030	4378	99.50	810.21
2031	3490	79.32	642.47
2032	4553	103.48	828.64
2033	3635	82.61	674.42

Bin Total 85651 1946.61 15173.16

Type=b Cap=24 Hmin=0.0 Hmax=520.0 Kmin=0.00 Kmax=1.54

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	87	3.63	10.51
2012	1	0.04	0.11
2013	0	0.00	0.00
2014	1	0.04	0.12
2015	13	0.54	1.56
2016	150	6.25	25.36
2017	25	1.04	3.40
2018	0	0.00	0.00
2019	80	3.33	13.76
2020	105	4.38	17.33
2021	3	0.13	0.50
2022	509	21.21	87.84
2023	349	14.54	59.48
2024	63	2.63	10.99
2025	8	0.33	1.36
2026	8	0.33	1.10
2027	0	0.00	0.00
2028	198	8.25	34.50
2029	0	0.00	0.00
2030	0	0.00	0.00
2031	0	0.00	0.00
2032	122	5.08	21.72
2033	205	8.54	36.08

Bin Total 1927 80.29 325.72

Summary Table

Type	Cap	Num_Assy	PctType	Num_Pkg	MTU
p	21	28697	30.28	1366.52	12314.09

p	21	54556	57.57	2597.91	23448.49
p	21	3930	4.15	187.14	1599.81
p	12	5750	6.07	479.17	2566.89
s	12	1800	1.90	150.00	968.96
b	44	37931	30.22	862.07	6592.93
b	44	85651	68.24	1946.61	15173.16
b	24	1927	1.54	80.29	325.72
b	1	0	0.00	0.00	0.00
p	1	28	0.03	28.00	12.96
s	1	0	0.00	0.00	0.00

Totals	220270	7669.71	63003.01
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JUNK FILE LISTING:

Nassy=1 burnup=1.87	kinf=1.529	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.45	kinf=1.536	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.53	kinf=1.535	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=1 burnup=6.38	kinf=1.455	Enrch=3.63	Dschg=1969	WEST VALLEY
Nassy=2 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=3 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=8 burnup=0.34	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
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Nassy=1 burnup=0.18	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.36	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.23	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
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Nassy=1 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=7 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.77	kinf=1.260	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.86	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.79	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=19 burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.34	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.46	kinf=1.270	Enrch=1.97	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.57	kinf=1.267	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=5 burnup=1.76	kinf=1.261	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.23	kinf=1.279	Enrch=2.00	Dschg=1971	GE MORRIS (
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Nassy=2 burnup=1.46	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=2 burnup=1.09	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=3 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.28	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=3 burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.15	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8 burnup=1.44	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=20 burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
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 Nassy=2 burnup=1.13 kinf=1.303 Enrch=2.13 Dschg=1971 GE MORRIS (
 Nassy=21 burnup=1.63 kinf=1.295 Enrch=2.13 Dschg=1971 GE MORRIS (
 Nassy=3 burnup=1.63 kinf=1.295 Enrch=2.13 Dschg=1971 GE MORRIS (
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 Nassy=2 burnup=9.28 kinf=1.410 Enrch=3.63 Dschg=1971 WEST VALLEY
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 Nassy=6 burnup=4.14 kinf=1.258 Enrch=2.13 Dschg=1972 GE MORRIS (
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 Nassy=5 burnup=4.77 kinf=1.249 Enrch=2.13 Dschg=1972 GE MORRIS (
 Nassy=3 burnup=3.84 kinf=1.195 Enrch=1.73 Dschg=1972 GE MORRIS (
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 Nassy=5 burnup=4.32 kinf=1.315 Enrch=2.50 Dschg=1973 VT YANKEE
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Nassy=10 burnup=4.39	kinf=1.315	Enrch=2.50	Dschg=1973	VT YANKEE
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Nassy=5 burnup=4.05	kinf=1.320	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=4 burnup=1.16	kinf=1.364	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=3 burnup=4.66	kinf=1.311	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=3 burnup=4.66	kinf=1.311	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1 burnup=0.99	kinf=1.366	Enrch=2.50	Dschg=1973	VT YANKEE
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Nassy=1 burnup=8.95	kinf=1.415	Enrch=3.63	Dschg=1974	WEST VALLEY
Nassy=1 burnup=8.15	kinf=1.428	Enrch=3.63	Dschg=1974	WEST VALLEY
Nassy=2 burnup=4.95	kinf=1.306	Enrch=2.50	Dschg=1974	VT YANKEE
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Nassy=1 burnup=7.57	kinf=1.476	Enrch=3.92	Dschg=1975	LACROSSE
Nassy=1 burnup=3.71	kinf=1.263	Enrch=2.12	Dschg=1975	DUANE ARNOL
Nassy=1 burnup=3.78	kinf=1.280	Enrch=2.23	Dschg=1975	DRESDEN
Nassy=1 burnup=4.80	kinf=1.467	Enrch=3.54	Dschg=1976	BIG ROCK
Nassy=1 burnup=2.90	kinf=1.273	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=1 burnup=3.30	kinf=1.267	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=2 burnup=2.43	kinf=1.105	Enrch=1.11	Dschg=1976	BRUNSWICK
Nassy=2 burnup=3.05	kinf=1.320	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=3.30	kinf=1.315	Enrch=2.40	Dschg=1976	HUMBOLDT BA
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Nassy=2 burnup=3.89	kinf=1.308	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=4.34	kinf=1.301	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=1.31	kinf=1.346	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=12.04	kinf=1.407	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1 burnup=12.30	kinf=1.403	Enrch=3.93	Dschg=1977	LACROSSE
Nassy=1 burnup=7.61	kinf=1.476	Enrch=3.92	Dschg=1977	LACROSSE
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Nassy=8 burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=16 burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2 burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4 burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
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Nassy=4 burnup=3.58	kinf=1.019	Enrch=0.72	Dschg=1980	HATCH
Nassy=16 burnup=1.89	kinf=1.041	Enrch=0.72	Dschg=1980	HATCH
Nassy=15 burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
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Nassy=1 burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
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Nassy=16 burnup=2.83	kinf=1.028	Enrch=0.72	Dschg=1980	HATCH
Nassy=8 burnup=4.31	kinf=1.009	Enrch=0.72	Dschg=1980	HATCH
Nassy=4 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1980	HATCH
Nassy=7 burnup=3.15	kinf=1.024	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=1 burnup=3.15	kinf=1.024	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8 burnup=4.11	kinf=1.012	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=35 burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=1 burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=12 burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
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Nassy=8 burnup=2.22	kinf=1.038	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=14 burnup=2.86	kinf=1.030	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=8 burnup=3.07	kinf=1.027	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=4 burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=18 burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=2 burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=1 burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=5 burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=6 burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA

Nassy=6 burnup=2.65	kinf=1.033 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=16 burnup=1.77	kinf=1.044 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=4 burnup=3.28	kinf=1.024 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=2 burnup=4.17	kinf=1.013 Enrch=0.73 Dschg=1986	SUSQUEHANNA
Nassy=18 burnup=5.00	kinf=1.487 Enrch=3.70 Dschg=1987	LACROSSE
Nassy=5 burnup=5.00	kinf=1.487 Enrch=3.70 Dschg=1987	LACROSSE
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Nassy=11 burnup=3.00	kinf=1.026 Enrch=0.72 Dschg=1989	CLINTON
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Nassy=16 burnup=3.00	kinf=1.026 Enrch=0.72 Dschg=1989	CLINTON
Nassy=33 burnup=3.00	kinf=1.026 Enrch=0.72 Dschg=1989	ENRICO FERM
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Nassy=20 burnup=4.00	kinf=1.013 Enrch=0.72 Dschg=1990	NINE MILE P
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Nassy=19 burnup=4.00	kinf=1.013 Enrch=0.72 Dschg=1990	NINE MILE P
Nassy=12 burnup=4.00	kinf=1.013 Enrch=0.72 Dschg=1990	NINE MILE P
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Nassy=11 burnup=4.00	kinf=1.013 Enrch=0.72 Dschg=1990	NINE MILE P
Nassy=15 burnup=7.19	kinf=1.402 Enrch=3.35 Dschg=2009	NINE MILE P
Nassy=132 burnup=7.19	kinf=1.402 Enrch=3.35 Dschg=2009	NINE MILE P
Nassy=21 burnup=7.19	kinf=1.402 Enrch=3.35 Dschg=2009	NINE MILE P
Nassy=8 burnup=7.19	kinf=1.402 Enrch=3.35 Dschg=2009	NINE MILE P
Nassy=24 burnup=7.59	kinf=1.400 Enrch=3.38 Dschg=2009	OYSTER CRK
Nassy=44 burnup=7.59	kinf=1.400 Enrch=3.38 Dschg=2009	OYSTER CRK
Nassy=12 burnup=7.59	kinf=1.400 Enrch=3.38 Dschg=2009	OYSTER CRK
Nassy=17 burnup=8.57	kinf=1.410 Enrch=3.56 Dschg=2012	PILGRIM
Nassy=132 burnup=8.57	kinf=1.410 Enrch=3.56 Dschg=2012	PILGRIM
Nassy=40 burnup=8.57	kinf=1.410 Enrch=3.56 Dschg=2012	PILGRIM
Nassy=3 burnup=8.57	kinf=1.410 Enrch=3.56 Dschg=2012	PILGRIM
Nassy=32 burnup=6.41	kinf=1.443 Enrch=3.55 Dschg=2012	QUAD CITIES
Nassy=88 burnup=6.41	kinf=1.443 Enrch=3.55 Dschg=2012	QUAD CITIES
Nassy=13 burnup=6.41	kinf=1.443 Enrch=3.55 Dschg=2012	QUAD CITIES
Nassy=20 burnup=6.41	kinf=1.443 Enrch=3.55 Dschg=2012	QUAD CITIES
No bin for p 887.186035 1.020675		
No bin for p 887.186096 1.020675		
Nassy=13 burnup=6.61	kinf=1.438 Enrch=3.54 Dschg=2014	BRUNSWICK
Nassy=44 burnup=6.61	kinf=1.438 Enrch=3.54 Dschg=2014	BRUNSWICK
Nassy=28 burnup=6.61	kinf=1.438 Enrch=3.54 Dschg=2014	BRUNSWICK
Nassy=7 burnup=6.61	kinf=1.438 Enrch=3.54 Dschg=2014	BRUNSWICK
No bin for p 888.449402 1.020434		
No bin for p 888.449463 1.020434		
Nassy=30 burnup=3.22	kinf=1.457 Enrch=3.30 Dschg=2022	LASALLE
Nassy=88 burnup=3.22	kinf=1.457 Enrch=3.30 Dschg=2022	LASALLE
Nassy=4 burnup=3.22	kinf=1.457 Enrch=3.30 Dschg=2022	LASALLE

INPUT FILE LISTING:

#bins	Input_file	Output_file	Case_title	Last_delivery	
8	case5.wsm	finalw5.out	FINAL-W5	2045	
Type	Cap	Hmin	Hmax	Kmin	Kmax
p	21	0	850	0.00	1.00
p	21	0	850	1.00	1.13
p	21	0	850	1.13	1.45
p	12	850	1500	0.00	1.02
s	12	0	1500	0.00	1.13
b	44	0	400	0.00	1.00
b	44	0	400	1.00	1.37
b	24	0	520	0.00	1.54

OUTPUT FILE LISTING:

FINAL-W5
8 Bins

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	106	5.05	47.65
2011	179	8.52	78.05
2012	494	23.52	219.76
2013	883	42.05	381.26
2014	1683	80.14	731.01
2015	1528	72.76	660.99
2016	1566	74.57	683.89
2017	1739	82.81	755.05
2018	1933	92.05	830.95
2019	1798	85.62	786.01
2020	1829	87.10	797.70
2021	1664	79.24	724.38
2022	1792	85.33	781.79
2023	1742	82.95	753.03
2024	1589	75.67	690.87
2025	1674	79.71	718.87
2026	341	16.24	140.83
2027	1153	54.90	488.04
2028	1346	64.10	570.83
2029	1667	79.38	684.12
2030	1491	71.00	624.82
2031	2057	97.95	874.72
2032	1952	92.95	822.96
2033	1390	66.19	599.87

Bin Total 33596 1599.81 14447.44

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	312	14.86	138.96
2011	583	27.76	251.90
2012	896	42.67	396.07
2013	1871	89.10	815.23
2014	2791	132.90	1201.13
2015	2760	131.43	1191.97
2016	2801	133.38	1207.43
2017	2683	127.76	1159.88
2018	2298	109.43	994.06
2019	2485	118.33	1075.38
2020	2536	120.76	1096.59
2021	2459	117.10	1063.79
2022	2511	119.57	1087.51

2023	2556	121.71	1103.37
2024	2337	111.29	1012.08
2025	2163	103.00	931.59
2026	3009	143.29	1260.20
2027	2862	136.29	1207.19
2028	2851	135.76	1222.43
2029	2751	131.00	1208.95
2030	2942	140.10	1257.65
2031	2817	134.14	1201.04
2032	2709	129.00	1154.02
2033	1669	79.48	722.89

Bin Total 55652 2650.10 23961.30

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.13 Kmax=1.45

Year	Num_Assy	Num_Pkgs	MTU
2010	2	0.10	0.92
2011	99	4.71	45.85
2012	0	0.00	0.00
2013	178	8.48	73.31
2014	83	3.95	31.31
2015	15	0.71	6.81
2016	49	2.33	18.35
2017	19	0.90	6.91
2018	67	3.19	26.86
2019	81	3.86	33.85
2020	92	4.38	38.36
2021	63	3.00	27.83
2022	83	3.95	34.91
2023	211	10.05	93.61
2024	244	11.62	103.15
2025	112	5.33	46.75
2026	569	27.10	186.71
2027	143	6.81	52.58
2028	66	3.14	27.93
2029	97	4.62	36.96
2030	61	2.90	23.64
2031	19	0.90	8.38
2032	148	7.05	46.44
2033	105	5.00	43.44

Bin Total 2606 124.10 1014.87

Type=p Cap=12 Hmin=850.0 Hmax=1500.0 Kmin=0.00 Kmax=1.02

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	29	2.42	13.59
2013	69	5.75	32.11
2014	57	4.75	26.43
2015	89	7.42	46.88
2016	27	2.25	12.64
2017	89	7.42	47.09
2018	76	6.33	35.78
2019	85	7.08	44.28
2020	154	12.83	65.77
2021	86	7.17	38.75
2022	45	3.75	20.99
2023	93	7.75	41.76
2024	147	12.25	66.76
2025	150	12.50	67.27
2026	0	0.00	0.00
2027	0	0.00	0.00
2028	0	0.00	0.00

2029	0	0.00	0.00
2030	0	0.00	0.00
2031	0	0.00	0.00
2032	0	0.00	0.00
2033	0	0.00	0.00
Bin Total	1196	99.67	560.10

Type=s Cap=12 Hmin=0.0 Hmax=1500.0 Kmin=0.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	125	10.42	67.55
2013	149	12.42	80.62
2014	0	0.00	0.00
2015	126	10.50	68.14
2016	126	10.50	67.86
2017	210	17.50	113.04
2018	147	12.25	79.14
2019	105	8.75	56.52
2020	105	8.75	56.52
2021	126	10.50	67.83
2022	105	8.75	56.52
2023	126	10.50	67.83
2024	96	8.00	51.68
2025	132	11.00	71.06
2026	0	0.00	0.00
2027	0	0.00	0.00
2028	0	0.00	0.00
2029	0	0.00	0.00
2030	0	0.00	0.00
2031	0	0.00	0.00
2032	79	6.58	42.87
2033	0	0.00	0.00
Bin Total	1757	146.42	947.18

Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	4	0.09	0.71
2011	199	4.52	34.65
2012	347	7.89	60.34
2013	1033	23.48	182.51
2014	1321	30.02	233.41
2015	1873	42.57	328.63
2016	1869	42.48	324.92
2017	1451	32.98	252.00
2018	2412	54.82	416.97
2019	1745	39.66	301.95
2020	1619	36.80	278.67
2021	1890	42.95	328.74
2022	2156	49.00	371.84
2023	2057	46.75	354.86
2024	2548	57.91	445.42
2025	2481	56.39	427.18
2026	208	4.73	38.40
2027	425	9.66	81.77
2028	199	4.52	36.95
2029	227	5.16	41.34
2030	270	6.14	48.47
2031	272	6.18	47.32
2032	1452	33.00	257.98
2033	435	9.89	75.79

Bin Total 28493 647.57 4970.84

Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=1.00 Kmax=1.37

Year	Num_Assy	Num_Pkgs	MTU
2010	612	13.91	107.40
2011	1033	23.48	187.38
2012	2425	55.11	433.53
2013	2487	56.52	448.21
2014	4375	99.43	771.68
2015	3974	90.32	686.28
2016	3919	89.07	695.21
2017	3741	85.02	672.33
2018	3479	79.07	607.98
2019	3951	89.80	700.64
2020	3685	83.75	666.40
2021	4080	92.73	734.22
2022	3275	74.43	580.56
2023	3350	76.14	603.19
2024	3224	73.27	568.06
2025	4062	92.32	716.63
2026	7534	171.23	1365.75
2027	6593	149.84	1174.16
2028	6200	140.91	1137.93
2029	5733	130.30	1037.50
2030	5928	134.73	1057.09
2031	4721	107.30	848.51
2032	3671	83.43	649.43
2033	2587	58.80	460.15

Bin Total 94639 2150.89 16910.22

Type=b Cap=24 Hmin=0.0 Hmax=520.0 Kmin=0.00 Kmax=1.54

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	0	0.00	0.00
2013	0	0.00	0.00
2014	1	0.04	0.18
2015	0	0.00	0.00
2016	0	0.00	0.00
2017	0	0.00	0.00
2018	0	0.00	0.00
2019	0	0.00	0.00
2020	0	0.00	0.00
2021	102	4.25	16.83
2022	341	14.21	58.44
2023	5	0.21	0.85
2024	256	10.67	43.61
2025	196	8.17	32.98
2026	23	0.96	2.76
2027	18	0.75	2.27
2028	2	0.08	0.26
2029	1	0.04	0.12
2030	48	2.00	5.21
2031	0	0.00	0.00
2032	0	0.00	0.00
2033	0	0.00	0.00

Bin Total 993 41.38 163.50

Summary Table

Type	Cap	Num_Assy	PctType	Num_Pkg	MTU
p	21	33596	35.42	1599.81	14447.44

p	21	55652	58.67	2650.10	23961.30
p	21	2606	2.75	124.10	1014.87
p	12	1196	1.26	99.67	560.10
s	12	1757	1.85	146.42	947.18
b	44	28493	22.96	647.57	4970.84
b	44	94639	76.24	2150.89	16910.22
b	24	993	0.80	41.38	163.50
b	1	0	0.00	0.00	0.00
p	1	8	0.01	8.00	1.40
s	1	43	0.05	43.00	23.23

Totals	218983	7459.91	63000.08
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JUNK FILE LISTING:

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Nassy=1	burnup=6.38	kinf=1.455	Enrch=3.63	Dschg=1969	WEST VALLEY
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Nassy=1	burnup=0.18	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
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Nassy=1	burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=3	burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=3	burnup=1.77	kinf=1.260	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=2 burnup=4.86	kinf=1.239 Enrch=2.08 Dschg=1972	MILLSTONE
Nassy=4 burnup=6.45	kinf=1.454 Enrch=3.63 Dschg=1973	WEST VALLEY
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Nassy=1 burnup=1.05	kinf=1.365 Enrch=2.50 Dschg=1973	VT YANKEE
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Nassy=5 burnup=4.32	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=0.99	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=7 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=7 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=7 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE

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Nassy=4	burnup=1.16	kinf=1.364	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=6	burnup=4.66	kinf=1.311	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1	burnup=0.99	kinf=1.366	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1	burnup=4.69	kinf=1.310	Enrch=2.50	Dschg=1973	VT YANKEE
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Nassy=1	burnup=8.95	kinf=1.415	Enrch=3.63	Dschg=1974	WEST VALLEY
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Nassy=3	burnup=4.95	kinf=1.306	Enrch=2.50	Dschg=1974	VT YANKEE
No bin for p 6.821762 1.454020					
No bin for p 6.828259 1.454020					
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Nassy=1	burnup=3.78	kinf=1.280	Enrch=2.23	Dschg=1975	DRESDEN
Nassy=1	burnup=2.90	kinf=1.273	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=1	burnup=3.30	kinf=1.267	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=2	burnup=2.43	kinf=1.105	Enrch=1.11	Dschg=1976	BRUNSWICK
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Nassy=2	burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=3.08	kinf=1.291	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=4.00	kinf=1.277	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=21	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=5	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=1	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=22	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
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Nassy=16	burnup=1.89	kinf=1.041	Enrch=0.72	Dschg=1980	HATCH
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Nassy=5	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=20	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
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Nassy=3	burnup=4.31	kinf=1.009	Enrch=0.72	Dschg=1980	HATCH
Nassy=5	burnup=4.31	kinf=1.009	Enrch=0.72	Dschg=1980	HATCH
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Nassy=8	burnup=3.15	kinf=1.024	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8	burnup=4.11	kinf=1.012	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=16	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
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Nassy=3	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8	burnup=2.96	kinf=1.027	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=4	burnup=3.14	kinf=1.024	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8	burnup=4.86	kinf=1.003	Enrch=0.72	Dschg=1985	LASALLE
Nassy=6	burnup=2.92	kinf=1.027	Enrch=0.72	Dschg=1985	LASALLE
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Nassy=8	burnup=3.41	kinf=1.021	Enrch=0.72	Dschg=1985	LASALLE
Nassy=18	burnup=4.08	kinf=1.012	Enrch=0.72	Dschg=1985	LASALLE
Nassy=30	burnup=3.91	kinf=1.015	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8	burnup=2.64	kinf=1.031	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8	burnup=2.22	kinf=1.038	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=14	burnup=2.86	kinf=1.030	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=8	burnup=3.07	kinf=1.027	Enrch=0.73	Dschg=1986	WASH NUCLEA

Nassy=1 burnup=2.65 kinf=1.033 Enrch=0.73 Dschg=1986 WASH NUCLEA
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 Nassy=16 burnup=1.77 kinf=1.044 Enrch=0.73 Dschg=1986 WASH NUCLEA
 Nassy=1 burnup=3.28 kinf=1.024 Enrch=0.73 Dschg=1986 WASH NUCLEA
 Nassy=3 burnup=3.28 kinf=1.024 Enrch=0.73 Dschg=1986 WASH NUCLEA
 Nassy=26 burnup=4.17 kinf=1.013 Enrch=0.73 Dschg=1986 SUSQUEHANNA
 Nassy=8 burnup=3.09 kinf=1.026 Enrch=0.73 Dschg=1986 SUSQUEHANNA
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 Nassy=7 burnup=3.98 kinf=1.015 Enrch=0.73 Dschg=1986 SUSQUEHANNA
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 Nassy=1 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1987 LASALLE
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 Nassy=6 burnup=5.00 kinf=1.487 Enrch=3.70 Dschg=1987 LACROSSE
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 Nassy=1 burnup=5.00 kinf=1.488 Enrch=3.71 Dschg=1987 LACROSSE
 Nassy=18 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1987 RVR BEND
 Nassy=16 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1987 RVR BEND
 Nassy=28 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1987 RVR BEND
 Nassy=14 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1987 RVR BEND
 Nassy=31 burnup=3.00 kinf=1.028 Enrch=0.73 Dschg=1988 HOPE CREEK
 Nassy=1 burnup=3.00 kinf=1.028 Enrch=0.73 Dschg=1988 HOPE CREEK
 Nassy=44 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1989 CLINTON
 Nassy=32 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1989 CLINTON
 Nassy=8 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1989 ENRICO FERM
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 No bin for s 126.326767 1.163861
 No bin for s 97.802551 1.251277
 No bin for s 129.793442 1.213784
 Nassy=17 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1990 NINE MILE P
 Nassy=11 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1990 NINE MILE P
 Nassy=33 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1990 NINE MILE P
 Nassy=11 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1990 NINE MILE P
 Nassy=20 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1990 NINE MILE P
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 No bin for s 128.959671 1.154404
 No bin for s 128.959671 1.154404
 No bin for s 128.959671 1.154404
 No bin for s 128.959671 1.154404
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 No bin for s 128.959671 1.154404
 No bin for s 157.628998 1.205290
 No bin for s 154.495773 1.206209
 Nassy=4 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1991 SUSQUEHANNA
 Nassy=36 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1991 LIMERICK
 Nassy=44 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1991 LIMERICK
 Nassy=12 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1991 LIMERICK
 Nassy=1 burnup=1.97 kinf=1.483 Enrch=3.34 Dschg=1994 RVR BEND
 age=9 , mass= 7.396000
 age=9 , mass= 0.172000
 Nassy=29 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
 Nassy=8 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
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Nassy=24 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
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Nassy=176 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
Nassy=13 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
Nassy=3 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM

INPUT FILE LISTING:

#bins	Input_file	Output_file	Case_title	Last_delivery
8	case6.wsm	finalw6.out	FINAL-W6	2045
Type	Cap	Hmin	Hmax	Kmin
p	21	0	850	0.00
p	21	0	850	1.00
p	21	0	850	1.13
p	12	850	1500	1.45
s	12	0	1500	0.00
b	44	0	400	1.02
b	44	0	400	0.00
b	24	0	520	1.13
				Kmax
				1.00
				1.13
				1.45
				1.02
				1.13
				1.00
				1.37
				1.54

OUTPUT FILE LISTING:

FINAL-W6
8 Bins

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	123	5.86	55.63
2011	156	7.43	68.37
2012	483	23.00	208.57
2013	851	40.52	367.52
2014	1633	77.76	698.44
2015	1624	77.33	703.07
2016	1595	75.95	689.80
2017	1737	82.71	750.28
2018	1972	93.90	854.79
2019	1988	94.67	865.62
2020	1780	84.76	778.95
2021	1797	85.57	787.95
2022	1851	88.14	810.17
2023	1859	88.52	811.09
2024	1176	56.00	508.07
2025	1608	76.57	699.66
2026	353	16.81	145.69
2027	1131	53.86	479.84
2028	1469	69.95	621.99
2029	1484	70.67	616.22
2030	1581	75.29	654.79
2031	2074	98.76	880.30
2032	1871	89.10	799.53
2033	1355	64.52	577.30

Bin Total 33551 1597.67 14433.65

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	421	20.05	188.59
2011	588	28.00	256.84
2012	1024	48.76	450.61
2013	1764	84.00	765.54
2014	2898	138.00	1247.94
2015	2909	138.52	1251.29
2016	2768	131.81	1195.80
2017	2582	122.95	1118.96
2018	2201	104.81	957.99
2019	2551	121.48	1096.30
2020	2490	118.57	1077.53
2021	2327	110.81	998.35
2022	2470	117.62	1066.23

2023	2548	121.33	1100.85
2024	2461	117.19	1065.89
2025	1813	86.33	792.30
2026	2850	135.71	1194.21
2027	2895	137.86	1222.88
2028	2905	138.33	1242.77
2029	2724	129.71	1204.50
2030	2904	138.29	1227.28
2031	2708	128.95	1154.45
2032	2774	132.10	1182.20
2033	1801	85.76	781.27

Bin Total 55376 2636.95 23840.57

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.13 Kmax=1.45

Year	Num_Assy	Num_Pkgs	MTU
2010	2	0.10	0.88
2011	96	4.57	44.46
2012	0	0.00	0.00
2013	175	8.33	71.97
2014	17	0.81	7.67
2015	46	2.19	21.34
2016	4	0.19	1.79
2017	49	2.33	19.90
2018	5	0.24	1.98
2019	19	0.90	7.76
2020	194	9.24	76.92
2021	8	0.38	2.89
2022	93	4.43	41.12
2023	351	16.71	149.12
2024	432	20.57	173.33
2025	202	9.62	83.78
2026	569	27.10	186.71
2027	153	7.29	56.88
2028	78	3.71	32.87
2029	76	3.62	28.60
2030	93	4.43	36.92
2031	48	2.29	20.61
2032	101	4.81	27.49
2033	99	4.71	40.93

Bin Total 2910 138.57 1135.93

Type=p Cap=12 Hmin=850.0 Hmax=1500.0 Kmin=0.00 Kmax=1.02

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	29	2.42	13.59
2013	69	5.75	32.11
2014	57	4.75	26.43
2015	20	1.67	9.37
2016	1	0.08	0.46
2017	66	5.50	30.68
2018	43	3.58	20.08
2019	53	4.42	23.37
2020	135	11.25	62.80
2021	65	5.42	28.58
2022	44	3.67	20.52
2023	88	7.33	39.40
2024	140	11.67	64.27
2025	161	13.42	72.88
2026	0	0.00	0.00
2027	0	0.00	0.00
2028	0	0.00	0.00

2029	0	0.00	0.00
2030	0	0.00	0.00
2031	0	0.00	0.00
2032	0	0.00	0.00
2033	0	0.00	0.00
Bin Total	971	80.92	444.54

Type=s Cap=12 Hmin=0.0 Hmax=1500.0 Kmin=0.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	125	10.42	67.55
2013	149	12.42	80.62
2014	0	0.00	0.00
2015	126	10.50	68.14
2016	126	10.50	67.86
2017	210	17.50	113.04
2018	147	12.25	79.14
2019	105	8.75	56.52
2020	105	8.75	56.52
2021	126	10.50	67.83
2022	105	8.75	56.52
2023	126	10.50	67.83
2024	96	8.00	51.68
2025	132	11.00	71.06
2026	0	0.00	0.00
2027	0	0.00	0.00
2028	0	0.00	0.00
2029	0	0.00	0.00
2030	0	0.00	0.00
2031	0	0.00	0.00
2032	79	6.58	42.87
2033	0	0.00	0.00
Bin Total	1757	146.42	947.18

Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	4	0.09	0.71
2011	183	4.16	31.91
2012	515	11.70	90.00
2013	877	19.93	154.65
2014	1371	31.16	242.35
2015	1837	41.75	321.53
2016	1995	45.34	346.71
2017	1607	36.52	279.11
2018	2380	54.09	410.83
2019	1671	37.98	288.63
2020	2118	48.14	366.33
2021	2546	57.86	440.34
2022	2287	51.98	395.85
2023	1978	44.95	343.56
2024	2645	60.11	463.89
2025	2531	57.52	434.96
2026	217	4.93	40.08
2027	474	10.77	90.54
2028	202	4.59	37.50
2029	189	4.30	34.55
2030	257	5.84	46.21
2031	294	6.68	51.61
2032	1570	35.68	279.48
2033	337	7.66	58.02

Bin Total 30085 683.75 5249.35

Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=1.00 Kmax=1.37

Year	Num_Assy	Num_Pkgs	MTU
2010	348	7.91	61.71
2011	1049	23.84	188.79
2012	2081	47.30	372.09
2013	2995	68.07	535.60
2014	4370	99.32	770.46
2015	3552	80.73	626.07
2016	3837	87.20	671.81
2017	3945	89.66	695.85
2018	3852	87.55	676.21
2019	3718	84.50	652.41
2020	3105	70.57	548.40
2021	3667	83.34	657.07
2022	3078	69.95	542.09
2023	2769	62.93	499.00
2024	3368	76.55	600.05
2025	4764	108.27	849.73
2026	7877	179.02	1428.31
2027	6397	145.39	1137.39
2028	5866	133.32	1075.26
2029	6124	139.18	1109.87
2030	5765	131.02	1026.27
2031	5007	113.80	901.77
2032	3641	82.75	642.75
2033	2574	58.50	456.90

Bin Total 93749 2130.66 16725.86

Type=b Cap=24 Hmin=0.0 Hmax=520.0 Kmin=0.00 Kmax=1.54

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	0	0.00	0.00
2013	0	0.00	0.00
2014	0	0.00	0.00
2015	0	0.00	0.00
2016	0	0.00	0.00
2017	0	0.00	0.00
2018	8	0.33	1.10
2019	0	0.00	0.00
2020	233	9.71	39.71
2021	123	5.13	20.40
2022	341	14.21	58.44
2023	5	0.21	0.85
2024	367	15.29	63.61
2025	87	3.63	13.50
2026	23	0.96	2.76
2027	12	0.50	1.44
2028	2	0.08	0.24
2029	0	0.00	0.00
2030	48	2.00	5.21
2031	0	0.00	0.00
2032	0	0.00	0.00
2033	1	0.04	0.18

Bin Total 1250 52.08 207.43

Summary Table

Type	Cap	Num_Assy	PctType	Num_Pkg	MTU
p	21	33551	35.46	1597.67	14433.65

p	21	55376	58.53	2636.95	23840.57
p	21	2910	3.08	138.57	1135.93
p	12	971	1.03	80.92	444.54
s	12	1757	1.86	146.42	947.18
b	44	30085	24.05	683.75	5249.35
b	44	93749	74.95	2130.66	16725.86
b	24	1250	1.00	52.08	207.43
b	1	0	0.00	0.00	0.00
p	1	8	0.01	8.00	1.40
s	1	43	0.05	43.00	23.23

Totals	219700	7467.02	63009.14
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JUNK FILE LISTING:

Nassy=1 burnup=1.87	kinf=1.529	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.45	kinf=1.536	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.53	kinf=1.535	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=1 burnup=6.38	kinf=1.455	Enrch=3.63	Dschg=1969	WEST VALLEY
Nassy=2 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=3 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=8 burnup=0.34	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.18	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.36	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.23	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=10 burnup=0.34	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=7 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.77	kinf=1.260	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.86	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.79	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=16 burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.34	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.46	kinf=1.270	Enrch=1.97	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.57	kinf=1.267	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=8 burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.76	kinf=1.261	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.23	kinf=1.279	Enrch=2.00	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.46	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.09	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.27	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.27	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.28	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=1 burnup=1.11	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.42	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=11 burnup=1.34	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.15	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.44	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=1 burnup=1.64	kinf=1.264	Enrch=1.95	Dschg=1971	GE MORRIS (

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Nassy=1 burnup=4.49	kinf=1.250 Enrch=2.11 Dschg=1971	OYSTER CRK
Nassy=1 burnup=3.27	kinf=1.212 Enrch=1.78 Dschg=1972	GE MORRIS (
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Nassy=14 burnup=4.64	kinf=1.172 Enrch=1.66 Dschg=1972	GE MORRIS (
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Nassy=2 burnup=4.86	kinf=1.239 Enrch=2.08 Dschg=1972	MILLSTONE
Nassy=4 burnup=6.45	kinf=1.454 Enrch=3.63 Dschg=1973	WEST VALLEY
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Nassy=4 burnup=9.10	kinf=1.413 Enrch=3.63 Dschg=1973	LACROSSE
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Nassy=1 burnup=8.95	kinf=1.415 Enrch=3.63 Dschg=1974	WEST VALLEY
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No bin for p 6.828259 1.454020

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Nassy=1	burnup=3.71	kinf=1.263	Enrch=2.12	Dschg=1975	DUANE ARNOL
Nassy=1	burnup=3.78	kinf=1.280	Enrch=2.23	Dschg=1975	DRESDEN
Nassy=1	burnup=4.80	kinf=1.467	Enrch=3.54	Dschg=1976	BIG ROCK
Nassy=1	burnup=2.90	kinf=1.273	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=1	burnup=3.30	kinf=1.267	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=2	burnup=2.43	kinf=1.105	Enrch=1.11	Dschg=1976	BRUNSWICK
Nassy=2	burnup=3.05	kinf=1.320	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=3.30	kinf=1.315	Enrch=2.40	Dschg=1976	HUMBOLDT BA
Nassy=4	burnup=2.43	kinf=1.329	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=2.69	kinf=1.325	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=3.89	kinf=1.308	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=4.34	kinf=1.301	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1	burnup=1.31	kinf=1.346	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1	burnup=12.04	kinf=1.407	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1	burnup=12.30	kinf=1.403	Enrch=3.93	Dschg=1977	LACROSSE
Nassy=1	burnup=7.61	kinf=1.476	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1	burnup=12.42	kinf=1.401	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=5	burnup=3.65	kinf=1.282	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=3.08	kinf=1.291	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=4.00	kinf=1.277	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=7	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=14	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=5	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=1	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=22	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=8	burnup=3.15	kinf=1.024	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=1	burnup=4.11	kinf=1.012	Enrch=0.72	Dschg=1985	SUSQUEHANNA
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Nassy=8	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
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Nassy=1	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
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Nassy=1	burnup=2.96	kinf=1.027	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=7	burnup=2.96	kinf=1.027	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=4	burnup=3.14	kinf=1.024	Enrch=0.72	Dschg=1985	LASALLE
Nassy=4	burnup=4.86	kinf=1.003	Enrch=0.72	Dschg=1985	LASALLE
Nassy=4	burnup=4.86	kinf=1.003	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8	burnup=2.92	kinf=1.027	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8	burnup=3.41	kinf=1.021	Enrch=0.72	Dschg=1985	LASALLE
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Nassy=3	burnup=4.08	kinf=1.012	Enrch=0.72	Dschg=1985	LASALLE
Nassy=18	burnup=3.91	kinf=1.015	Enrch=0.72	Dschg=1985	LASALLE
Nassy=6	burnup=3.91	kinf=1.015	Enrch=0.72	Dschg=1985	LASALLE
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Nassy=5	burnup=3.91	kinf=1.015	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8	burnup=2.64	kinf=1.031	Enrch=0.72	Dschg=1985	LASALLE
Nassy=3	burnup=2.22	kinf=1.038	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=5	burnup=2.22	kinf=1.038	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=14	burnup=2.86	kinf=1.030	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=8	burnup=3.07	kinf=1.027	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=12	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=10	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
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Nassy=6	burnup=1.77	kinf=1.044	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=4	burnup=3.28	kinf=1.024	Enrch=0.73	Dschg=1986	WASH NUCLEA
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Nassy=8	burnup=4.17	kinf=1.013	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=16	burnup=4.17	kinf=1.013	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=6	burnup=3.09	kinf=1.026	Enrch=0.73	Dschg=1986	SUSQUEHANNA
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Nassy=8	burnup=2.76	kinf=1.030	Enrch=0.72	Dschg=1986	SUSQUEHANNA
Nassy=12	burnup=3.50	kinf=1.020	Enrch=0.72	Dschg=1986	SUSQUEHANNA

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 Nassy=18 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1989 ENRICO FERM
 No bin for s 126.326767 1.163861
 No bin for s 97.802551 1.251277
 No bin for s 129.793442 1.213784
 Nassy=7 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1990 NINE MILE P
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 No bin for s 157.628998 1.205290
 No bin for s 154.495773 1.206209
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 Nassy=24 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1991 LIMERICK
 Nassy=44 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1991 LIMERICK
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 Nassy=8 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1991 LIMERICK
 Nassy=1 burnup=1.97 kinf=1.483 Enrch=3.34 Dschg=1994 RVR BEND
 Nassy=18 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
 Nassy=132 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
 Nassy=3 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
 Nassy=23 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
 Nassy=25 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
 Nassy=40 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
 Nassy=4 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
 Nassy=11 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
 Nassy=21 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
 Nassy=132 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
 Nassy=36 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
 Nassy=3 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM

INPUT FILE LISTING:

#bins	Input_file	Output_file	Case_title	Last_delivery	
8	case7.wsm	finalw7.out	FINAL-W7	2045	
Type	Cap	Hmin	Hmax	Kmin	Kmax
p	21	0	850	0.00	1.00
p	21	0	850	1.00	1.13
p	21	0	850	1.13	1.45
p	12	850	1500	0.00	1.02
s	12	0	1500	0.00	1.13
b	44	0	400	0.00	1.00
b	44	0	400	1.00	1.37
b	24	0	520	0.00	1.54

OUTPUT FILE LISTING:

FINAL-W7
8 Bins

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	211	10.05	79.14
2012	509	24.24	204.45
2013	1299	61.86	526.99
2014	1283	61.10	524.10
2015	1714	81.62	722.72
2016	1339	63.76	558.59
2017	1736	82.67	737.93
2018	1740	82.86	751.82
2019	2058	98.00	883.81
2020	1947	92.71	841.18
2021	1735	82.62	750.27
2022	2091	99.57	890.12
2023	2385	113.57	1034.20
2024	2059	98.05	898.75
2025	1688	80.38	733.78
2026	1903	90.62	833.06
2027	2315	110.24	997.95
2028	1800	85.71	804.54
2029	2045	97.38	885.72
2030	1580	75.24	695.02
2031	2062	98.19	904.95
2032	1701	81.00	747.22
2033	1090	51.90	476.51

Bin Total 38290 1823.33 16482.83

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	117	5.57	46.34
2011	357	17.00	149.90
2012	1048	49.90	432.60
2013	1502	71.52	631.89
2014	2716	129.33	1174.85
2015	2682	127.71	1144.48
2016	3047	145.10	1297.95
2017	2781	132.43	1186.71
2018	2617	124.62	1112.96
2019	2534	120.67	1094.53
2020	2447	116.52	1059.45
2021	2508	119.43	1078.31
2022	2296	109.33	992.86

2023	1977	94.14	865.32
2024	2382	113.43	1028.18
2025	2359	112.33	1027.66
2026	2118	100.86	911.49
2027	2254	107.33	976.16
2028	2231	106.24	978.79
2029	2305	109.76	1001.84
2030	2252	107.24	973.35
2031	2514	119.71	1089.10
2032	2308	109.90	988.02
2033	1265	60.24	543.23

Bin Total	50617	2410.33	21785.97
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Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.13 Kmax=1.45

Year	Num_Assy	Num_Pkgs	MTU
2010	156	7.43	58.19
2011	230	10.95	58.73
2012	81	3.86	24.34
2013	50	2.38	16.16
2014	12	0.57	4.83
2015	38	1.81	15.15
2016	28	1.33	11.82
2017	36	1.71	15.62
2018	121	5.76	55.64
2019	48	2.29	20.80
2020	147	7.00	48.42
2021	293	13.95	117.98
2022	34	1.62	14.63
2023	211	10.05	93.61
2024	178	8.48	70.56
2025	208	9.90	84.72
2026	28	1.33	11.22
2027	207	9.86	83.14
2028	179	8.52	79.39
2029	297	14.14	121.28
2030	139	6.62	59.55
2031	96	4.57	38.76
2032	140	6.67	62.20
2033	86	4.10	37.70

Bin Total	3043	144.90	1204.44
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Type=p Cap=12 Hmin=850.0 Hmax=1500.0 Kmin=0.00 Kmax=1.02

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	0	0.00	0.00
2013	26	2.17	11.96
2014	0	0.00	0.00
2015	54	4.50	25.30
2016	53	4.42	24.83
2017	25	2.08	11.50
2018	49	4.08	22.96
2019	43	3.58	19.98
2020	52	4.33	24.37
2021	45	3.75	21.09
2022	34	2.83	15.93
2023	5	0.42	2.10
2024	22	1.83	10.16
2025	29	2.42	13.59
2026	85	7.08	39.80
2027	87	7.25	36.86
2028	11	0.92	4.88

2029	60	5.00	25.39
2030	76	6.33	35.11
2031	77	6.42	33.73
2032	66	5.50	27.55
2033	43	3.58	18.29
Bin Total	942	78.50	425.36

Type=s Cap=12 Hmin=0.0 Hmax=1500.0 Kmin=0.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	0	0.00	0.00
2013	0	0.00	0.00
2014	0	0.00	0.00
2015	0	0.00	0.00
2016	0	0.00	0.00
2017	0	0.00	0.00
2018	0	0.00	0.00
2019	163	13.58	88.31
2020	83	6.92	44.78
2021	125	10.42	67.65
2022	84	7.00	45.47
2023	126	10.50	67.94
2024	126	10.50	67.84
2025	147	12.25	79.13
2026	147	12.25	79.13
2027	105	8.75	56.52
2028	105	8.75	56.52
2029	63	5.25	33.91
2030	231	19.25	124.35
2031	105	8.75	56.52
2032	105	8.75	56.52
2033	78	6.50	41.99
Bin Total	1793	149.42	966.61

Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	2	0.05	0.21
2011	6	0.14	0.61
2012	40	0.91	7.68
2013	355	8.07	67.09
2014	963	21.89	174.20
2015	881	20.02	158.99
2016	1297	29.48	226.82
2017	813	18.48	140.03
2018	1007	22.89	176.47
2019	1499	34.07	262.57
2020	1681	38.20	288.30
2021	1683	38.25	294.56
2022	2077	47.20	358.65
2023	2084	47.36	360.34
2024	1951	44.34	338.32
2025	2475	56.25	430.38
2026	2629	59.75	455.99
2027	2116	48.09	366.73
2028	2174	49.41	377.34
2029	1908	43.36	330.21
2030	1741	39.57	304.08
2031	1921	43.66	335.44
2032	1465	33.30	255.02
2033	1200	27.27	207.09

Bin Total 33968 772.00 5917.11

Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=1.00 Kmax=1.37

Year	Num_Assy	Num_Pkgs	MTU
2010	1098	24.95	190.78
2011	1846	41.95	311.75
2012	2955	67.16	518.65
2013	4237	96.30	751.90
2014	6260	142.27	1114.54
2015	5231	118.89	937.11
2016	5016	114.00	882.50
2017	5100	115.91	899.87
2018	5019	114.07	889.84
2019	3450	78.41	610.47
2020	3972	90.27	707.06
2021	3706	84.23	657.65
2022	3812	86.64	672.53
2023	3253	73.93	579.60
2024	3109	70.66	549.31
2025	3490	79.32	615.88
2026	3531	80.25	623.08
2027	2850	64.77	504.08
2028	3812	86.64	669.47
2029	3138	71.32	561.81
2030	4313	98.02	783.11
2031	3007	68.34	547.26
2032	4565	103.75	824.86
2033	2972	67.55	550.21

Bin Total 89742 2039.59 15953.31

Type=b Cap=24 Hmin=0.0 Hmax=520.0 Kmin=0.00 Kmax=1.54

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	40	1.67	5.41
2012	18	0.75	2.16
2013	5	0.21	0.60
2014	12	0.50	1.44
2015	2	0.08	0.24
2016	0	0.00	0.00
2017	48	2.00	5.21
2018	0	0.00	0.00
2019	0	0.00	0.00
2020	0	0.00	0.00
2021	0	0.00	0.00
2022	72	3.00	12.38
2023	8	0.33	1.38
2024	153	6.38	25.95
2025	84	3.50	14.28
2026	317	13.21	53.80
2027	6	0.25	1.03
2028	130	5.42	23.02
2029	146	6.08	25.97
2030	106	4.42	18.13
2031	0	0.00	0.00
2032	130	5.42	22.23
2033	333	13.88	57.31

Bin Total 1610 67.08 270.52

Summary Table

Type	Cap	Num_Assy	PctType	Num_Pkg	MTU
p	21	38290	40.44	1823.33	16482.83

p	21	50617	53.45	2410.33	21785.97
p	21	3043	3.21	144.90	1204.44
p	12	942	0.99	78.50	425.36
s	12	1793	1.89	149.42	966.61
b	44	33968	27.11	772.00	5917.11
b	44	89742	71.61	2039.59	15953.31
b	24	1610	1.28	67.08	270.52
b	1	0	0.00	0.00	0.00
p	1	0	0.00	0.00	0.00
s	1	7	0.01	7.00	3.79

Totals	220012		7485.16	63009.96
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JUNK FILE LISTING:

Nassy=1 burnup=1.87	kinf=1.529	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.45	kinf=1.536	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.53	kinf=1.535	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=1 burnup=6.38	kinf=1.455	Enrch=3.63	Dschg=1969	WEST VALLEY
Nassy=2 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=3 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=8 burnup=0.34	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.18	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.36	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.23	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=10 burnup=0.34	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=7 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.77	kinf=1.260	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.86	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.79	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.79	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=19 burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.34	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.46	kinf=1.270	Enrch=1.97	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.57	kinf=1.267	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=8 burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.76	kinf=1.261	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.23	kinf=1.279	Enrch=2.00	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.23	kinf=1.279	Enrch=2.00	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.46	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.09	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.27	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.28	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.32	kinf=1.275	Enrch=1.99	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.11	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.42	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=5 burnup=1.34	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.15	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8 burnup=1.44	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=5 burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=0.86	kinf=1.291	Enrch=2.04	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.62	kinf=1.265	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.64	kinf=1.264	Enrch=1.95	Dschg=1971	GE MORRIS (
Nassy=25 burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (

Nassy=2 burnup=1.13	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=16 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.78	kinf=1.260	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=2 burnup=9.28	kinf=1.410	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1 burnup=4.99	kinf=1.478	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1 burnup=8.24	kinf=1.426	Enrch=3.63	Dschg=1971	WEST VALLEY
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Nassy=1 burnup=1.53	kinf=1.318	Enrch=2.26	Dschg=1971	DRESDEN
Nassy=1 burnup=4.49	kinf=1.250	Enrch=2.11	Dschg=1971	OYSTER CRK
Nassy=1 burnup=3.27	kinf=1.212	Enrch=1.78	Dschg=1972	GE MORRIS (
Nassy=33 burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=27 burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
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Nassy=19 burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=12 burnup=2.81	kinf=1.227	Enrch=1.83	Dschg=1972	GE MORRIS (
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Nassy=3 burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
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Nassy=17 burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=27 burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
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Nassy=14 burnup=4.62	kinf=1.173	Enrch=1.67	Dschg=1972	GE MORRIS (
Nassy=13 burnup=3.39	kinf=1.209	Enrch=1.77	Dschg=1972	GE MORRIS (
Nassy=1 burnup=3.34	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=4 burnup=3.34	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=5 burnup=4.77	kinf=1.249	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=1 burnup=3.84	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=4 burnup=3.84	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=1 burnup=3.28	kinf=1.271	Enrch=2.13	Dschg=1972	GE MORRIS (
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Nassy=23 burnup=4.69	kinf=1.250	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=15 burnup=4.31	kinf=1.182	Enrch=1.69	Dschg=1972	GE MORRIS (
Nassy=7 burnup=4.31	kinf=1.182	Enrch=1.69	Dschg=1972	GE MORRIS (
Nassy=1 burnup=4.31	kinf=1.182	Enrch=1.69	Dschg=1972	GE MORRIS (
Nassy=10 burnup=3.12	kinf=1.273	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=13 burnup=3.60	kinf=1.203	Enrch=1.76	Dschg=1972	GE MORRIS (
Nassy=4 burnup=2.84	kinf=1.277	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=9 burnup=4.38	kinf=1.254	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=24 burnup=4.38	kinf=1.254	Enrch=2.13	Dschg=1972	GE MORRIS (
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Nassy=2 burnup=4.38	kinf=1.254	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=3 burnup=3.91	kinf=1.261	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=21 burnup=3.79	kinf=1.263	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=15 burnup=3.77	kinf=1.264	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=3 burnup=3.77	kinf=1.264	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=41 burnup=3.77	kinf=1.264	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=3 burnup=4.39	kinf=1.179	Enrch=1.68	Dschg=1972	GE MORRIS (
Nassy=14 burnup=4.39	kinf=1.179	Enrch=1.68	Dschg=1972	GE MORRIS (
Nassy=7 burnup=4.39	kinf=1.179	Enrch=1.68	Dschg=1972	GE MORRIS (
Nassy=14 burnup=4.64	kinf=1.172	Enrch=1.66	Dschg=1972	GE MORRIS (
Nassy=1 burnup=8.59	kinf=1.421	Enrch=3.63	Dschg=1972	WEST VALLEY
Nassy=1 burnup=9.12	kinf=1.413	Enrch=3.63	Dschg=1972	WEST VALLEY
Nassy=1 burnup=8.73	kinf=1.419	Enrch=3.63	Dschg=1972	WEST VALLEY
Nassy=2 burnup=4.86	kinf=1.239	Enrch=2.08	Dschg=1972	MILLSTONE
Nassy=4 burnup=6.45	kinf=1.454	Enrch=3.63	Dschg=1973	WEST VALLEY
Nassy=1 burnup=8.75	kinf=1.418	Enrch=3.63	Dschg=1973	WEST VALLEY
Nassy=1 burnup=7.35	kinf=1.440	Enrch=3.63	Dschg=1973	WEST VALLEY
Nassy=1 burnup=3.88	kinf=1.262	Enrch=2.13	Dschg=1973	DRESDEN
Nassy=2 burnup=4.96	kinf=1.246	Enrch=2.13	Dschg=1973	DRESDEN
Nassy=1 burnup=1.05	kinf=1.365	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=3 burnup=0.97	kinf=1.366	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=5 burnup=4.32	kinf=1.315	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1 burnup=0.99	kinf=1.366	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=11 burnup=4.39	kinf=1.315	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=10 burnup=4.39	kinf=1.315	Enrch=2.50	Dschg=1973	VT YANKEE
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Nassy=3 burnup=4.66	kinf=1.311 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=3 burnup=4.66	kinf=1.311 Enrch=2.50 Dschg=1973	VT YANKEE
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Nassy=1 burnup=4.69	kinf=1.310 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=9.23	kinf=1.411 Enrch=3.63 Dschg=1973	LACROSSE
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Nassy=1 burnup=3.71	kinf=1.263 Enrch=2.12 Dschg=1975	DUANE ARNOL
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Nassy=1 burnup=4.80	kinf=1.467 Enrch=3.54 Dschg=1976	BIG ROCK
Nassy=1 burnup=2.90	kinf=1.273 Enrch=2.11 Dschg=1976	BRUNSWICK
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Nassy=2 burnup=4.34	kinf=1.301 Enrch=2.41 Dschg=1976	HUMBOLDT BA
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Nassy=1 burnup=12.04	kinf=1.407 Enrch=3.92 Dschg=1977	LACROSSE
Nassy=1 burnup=12.30	kinf=1.403 Enrch=3.93 Dschg=1977	LACROSSE
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Nassy=5 burnup=3.65	kinf=1.282 Enrch=2.23 Dschg=1978	DRESDEN
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Nassy=8 burnup=3.15	kinf=1.024 Enrch=0.72 Dschg=1985	SUSQUEHANNA
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Nassy=1 burnup=3.14	kinf=1.024 Enrch=0.72 Dschg=1985	LASALLE
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Nassy=14 burnup=2.86	kinf=1.030 Enrch=0.73 Dschg=1986	WASH NUCLEA
Nassy=8 burnup=3.07	kinf=1.027 Enrch=0.73 Dschg=1986	WASH NUCLEA

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 Nassy=4 burnup=3.28 kinf=1.024 Enrch=0.73 Dschg=1986 WASH NUCLEA
 Nassy=2 burnup=4.17 kinf=1.013 Enrch=0.73 Dschg=1986 SUSQUEHANNA
 Nassy=4 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1987 LASALLE
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 Nassy=30 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1989 CLINTON
 Nassy=18 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1989 CLINTON
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 No bin for s 154.361465 1.138013
 No bin for s 123.031021 1.221207
 No bin for s 161.838730 1.184421
 Nassy=9 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1990 NINE MILE P
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 No bin for s 133.073761 1.219003
 Nassy=27 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1991 LIMERICK
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 Nassy=13 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1991 LIMERICK
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 Nassy=28 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
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 Nassy=6 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
 Nassy=88 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
 Nassy=36 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
 Nassy=23 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
 Nassy=30 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
 Nassy=44 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
 Nassy=5 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
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INPUT FILE LISTING:

#bins	Input_file	Output_file	Case_title	Last_delivery
8	case8.wsm	finalw8.out	FINAL-W8	2045
Type	Cap	Hmin	Hmax	Kmin
			Kmax	
p	21	0	850	0.00
p	21	0	850	1.00
p	21	0	850	1.13
p	12	850	1500	0.00
s	12	0	1500	0.00
b	44	0	400	0.00
b	44	0	400	1.00
b	24	0	520	0.00

OUTPUT FILE LISTING:

FINAL-W8
8 Bins

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	158	7.52	57.84
2012	539	25.67	215.45
2013	1316	62.67	533.25
2014	1268	60.38	518.24
2015	1717	81.76	725.63
2016	1371	65.29	570.86
2017	1699	80.90	722.70
2018	1752	83.43	756.87
2019	2029	96.62	873.09
2020	1970	93.81	847.75
2021	1747	83.19	756.59
2022	2079	99.00	885.56
2023	2373	113.00	1028.46
2024	2048	97.52	894.29
2025	1713	81.57	744.32
2026	1932	92.00	845.06
2027	2292	109.14	988.65
2028	1809	86.14	808.78
2029	2045	97.38	885.72
2030	1574	74.95	692.30
2031	2040	97.14	895.14
2032	1727	82.24	757.53
2033	1107	52.71	485.26

Bin Total 38305 1824.05 16489.37

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	117	5.57	46.65
2011	409	19.48	170.41
2012	998	47.52	413.27
2013	1482	70.57	623.87
2014	2739	130.43	1182.43
2015	2667	127.00	1142.03
2016	3051	145.29	1297.12
2017	2767	131.76	1180.53
2018	2617	124.62	1113.36
2019	2542	121.05	1098.57
2020	2447	116.52	1059.46
2021	2514	119.71	1080.63
2022	2285	108.81	988.55

2023	1952	92.95	854.67
2024	2425	115.48	1049.16
2025	2349	111.86	1021.47
2026	2099	99.95	901.87
2027	2246	106.95	972.97
2028	2282	108.67	1001.19
2029	2310	110.00	1004.17
2030	2251	107.19	975.84
2031	2574	122.57	1111.89
2032	2258	107.52	965.06
2033	1197	57.00	514.04

Bin Total	50578	2408.48	21769.20
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Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.13 Kmax=1.45

Year	Num_Assy	Num_Pkgs	MTU
2010	156	7.43	56.88
2011	147	7.00	44.40
2012	164	7.81	39.99
2013	44	2.10	14.75
2014	25	1.19	7.88
2015	41	1.95	16.56
2016	25	1.19	10.43
2017	36	1.71	15.62
2018	121	5.76	55.64
2019	48	2.29	20.80
2020	145	6.90	47.52
2021	308	14.67	125.19
2022	36	1.71	15.35
2023	227	10.81	99.39
2024	167	7.95	66.74
2025	214	10.19	87.85
2026	25	1.19	10.02
2027	208	9.90	83.46
2028	161	7.67	70.29
2029	271	12.90	111.61
2030	167	7.95	70.35
2031	109	5.19	43.54
2032	119	5.67	54.13
2033	86	4.10	37.70

Bin Total	3050	145.24	1206.09
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Type=p Cap=12 Hmin=850.0 Hmax=1500.0 Kmin=0.00 Kmax=1.02

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	0	0.00	0.00
2013	26	2.17	11.96
2014	0	0.00	0.00
2015	54	4.50	25.30
2016	53	4.42	24.83
2017	25	2.08	11.50
2018	49	4.08	22.96
2019	43	3.58	19.98
2020	52	4.33	24.37
2021	45	3.75	21.09
2022	34	2.83	15.93
2023	5	0.42	2.10
2024	22	1.83	10.16
2025	29	2.42	13.59
2026	78	6.50	36.55
2027	87	7.25	36.86
2028	11	0.92	4.88

2029	60	5.00	25.40
2030	76	6.33	35.11
2031	77	6.42	33.73
2032	66	5.50	27.55
2033	43	3.58	18.29
Bin Total	935	77.92	422.11

Type=s Cap=12 Hmin=0.0 Hmax=1500.0 Kmin=0.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	0	0.00	0.00
2013	0	0.00	0.00
2014	0	0.00	0.00
2015	0	0.00	0.00
2016	0	0.00	0.00
2017	0	0.00	0.00
2018	0	0.00	0.00
2019	163	13.58	88.31
2020	83	6.92	44.78
2021	125	10.42	67.65
2022	84	7.00	45.47
2023	126	10.50	67.94
2024	126	10.50	67.84
2025	147	12.25	79.13
2026	147	12.25	79.13
2027	105	8.75	56.52
2028	105	8.75	56.52
2029	63	5.25	33.91
2030	231	19.25	124.35
2031	105	8.75	56.52
2032	105	8.75	56.52
2033	78	6.50	41.99
Bin Total	1793	149.42	966.61

Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	2	0.05	0.21
2011	6	0.14	0.61
2012	40	0.91	7.68
2013	355	8.07	67.09
2014	963	21.89	174.20
2015	881	20.02	158.99
2016	1297	29.48	226.82
2017	817	18.57	140.71
2018	1023	23.25	179.40
2019	1499	34.07	262.61
2020	1665	37.84	285.33
2021	1679	38.16	293.88
2022	2086	47.41	360.19
2023	2075	47.16	358.81
2024	1951	44.34	338.32
2025	2475	56.25	430.37
2026	2629	59.75	455.99
2027	2116	48.09	366.73
2028	2125	48.30	368.63
2029	1957	44.48	338.90
2030	1741	39.57	304.08
2031	1921	43.66	335.44
2032	1465	33.30	255.02
2033	1200	27.27	207.09

Bin Total 33968 772.00 5917.11

Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=1.00 Kmax=1.37

Year	Num_Assy	Num_Pkgs	MTU
2010	1098	24.95	187.32
2011	1875	42.61	322.48
2012	3014	68.50	527.45
2013	4237	96.30	745.95
2014	6216	141.27	1112.10
2015	5187	117.89	929.48
2016	4972	113.00	874.96
2017	5228	118.82	921.40
2018	4959	112.70	880.12
2019	3582	81.41	634.84
2020	3812	86.64	677.61
2021	3666	83.32	650.82
2022	3859	87.70	680.63
2023	3382	76.86	602.73
2024	2990	67.95	527.13
2025	3473	78.93	613.80
2026	3535	80.34	623.55
2027	2850	64.77	504.17
2028	3817	86.75	670.59
2029	3177	72.20	569.12
2030	4225	96.02	766.32
2031	3007	68.34	547.19
2032	4609	104.75	833.33
2033	2995	68.07	554.11

Bin Total 89765 2040.11 15957.21

Type=b Cap=24 Hmin=0.0 Hmax=520.0 Kmin=0.00 Kmax=1.54

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	55	2.29	7.20
2012	3	0.13	0.36
2013	5	0.21	0.60
2014	12	0.50	1.44
2015	2	0.08	0.24
2016	0	0.00	0.00
2017	48	2.00	5.21
2018	0	0.00	0.00
2019	0	0.00	0.00
2020	0	0.00	0.00
2021	0	0.00	0.00
2022	60	2.50	10.32
2023	20	0.83	3.44
2024	157	6.54	26.63
2025	80	3.33	13.60
2026	317	13.21	53.80
2027	6	0.25	1.03
2028	130	5.42	23.02
2029	146	6.08	25.97
2030	106	4.42	18.13
2031	0	0.00	0.00
2032	130	5.42	22.23
2033	333	13.88	57.30

Bin Total 1610 67.08 270.53

Summary Table

Type	Cap	Num_Assy	PctType	Num_Pkg	MTU
p	21	38305	40.46	1824.05	16489.37

p	21	50578	53.43	2408.48	21769.20
p	21	3050	3.22	145.24	1206.09
p	12	935	0.99	77.92	422.11
s	12	1793	1.89	149.42	966.61
b	44	33968	27.10	772.00	5917.11
b	44	89765	71.62	2040.11	15957.21
b	24	1610	1.28	67.08	270.53
b	1	0	0.00	0.00	0.00
p	1	0	0.00	0.00	0.00
s	1	7	0.01	7.00	3.79

Totals	220011		7484.29	63002.02	
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JUNK FILE LISTING:

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Nassy=2	burnup=1.53	kinf=1.535	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=1	burnup=6.38	kinf=1.455	Enrch=3.63	Dschg=1969	WEST VALLEY
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Nassy=1	burnup=0.18	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
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Nassy=2	burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.77	kinf=1.260	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=3	burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6	burnup=1.86	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=24	burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (

Nassy=1 burnup=1.83	kinf=1.292 Enrch=2.13 Dschg=1971	GE MORRIS (
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Nassy=1 burnup=8.59	kinf=1.421 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=1 burnup=9.12	kinf=1.413 Enrch=3.63 Dschg=1972	WEST VALLEY
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Nassy=2 burnup=4.86	kinf=1.239 Enrch=2.08 Dschg=1972	MILLSTONE
Nassy=4 burnup=6.45	kinf=1.454 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=8.75	kinf=1.418 Enrch=3.63 Dschg=1973	WEST VALLEY
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Nassy=1 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=9 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=2 burnup=4.00	kinf=1.320 Enrch=2.50 Dschg=1973	VT YANKEE

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Nassy=3	burnup=4.66	kinf=1.311	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=3	burnup=4.66	kinf=1.311	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1	burnup=0.99	kinf=1.366	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1	burnup=4.69	kinf=1.310	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1	burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1973	LACROSSE
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Nassy=1	burnup=3.97	kinf=1.271	Enrch=2.19	Dschg=1973	PILGRIM
Nassy=1	burnup=2.63	kinf=1.290	Enrch=2.19	Dschg=1973	PILGRIM
Nassy=1	burnup=8.95	kinf=1.415	Enrch=3.63	Dschg=1974	WEST VALLEY
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Nassy=6	burnup=4.95	kinf=1.306	Enrch=2.50	Dschg=1974	VT YANKEE
Nassy=1	burnup=7.57	kinf=1.476	Enrch=3.92	Dschg=1975	LACROSSE
Nassy=1	burnup=3.71	kinf=1.263	Enrch=2.12	Dschg=1975	DUANE ARNOL
Nassy=1	burnup=3.78	kinf=1.280	Enrch=2.23	Dschg=1975	DRESDEN
Nassy=1	burnup=4.80	kinf=1.467	Enrch=3.54	Dschg=1976	BIG ROCK
Nassy=1	burnup=2.90	kinf=1.273	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=1	burnup=3.30	kinf=1.267	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=2	burnup=2.43	kinf=1.105	Enrch=1.11	Dschg=1976	BRUNSWICK
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Nassy=2	burnup=3.30	kinf=1.315	Enrch=2.40	Dschg=1976	HUMBOLDT BA
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Nassy=2	burnup=2.69	kinf=1.325	Enrch=2.41	Dschg=1976	HUMBOLDT BA
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Nassy=1	burnup=7.61	kinf=1.476	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1	burnup=12.42	kinf=1.401	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=5	burnup=3.65	kinf=1.282	Enrch=2.23	Dschg=1978	DRESDEN
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Nassy=3	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=1	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=22	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
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Nassy=15	burnup=1.89	kinf=1.041	Enrch=0.72	Dschg=1980	HATCH
Nassy=1	burnup=1.89	kinf=1.041	Enrch=0.72	Dschg=1980	HATCH
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Nassy=1	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=3	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=15	burnup=2.83	kinf=1.028	Enrch=0.72	Dschg=1980	HATCH
Nassy=1	burnup=2.83	kinf=1.028	Enrch=0.72	Dschg=1980	HATCH
Nassy=8	burnup=4.31	kinf=1.009	Enrch=0.72	Dschg=1980	HATCH
Nassy=4	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1980	HATCH
Nassy=8	burnup=3.15	kinf=1.024	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8	burnup=4.11	kinf=1.012	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=21	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=15	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=12	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=7	burnup=2.96	kinf=1.027	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=1	burnup=2.96	kinf=1.027	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=4	burnup=3.14	kinf=1.024	Enrch=0.72	Dschg=1985	LASALLE
Nassy=6	burnup=4.86	kinf=1.003	Enrch=0.72	Dschg=1985	LASALLE
Nassy=2	burnup=4.86	kinf=1.003	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8	burnup=2.92	kinf=1.027	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8	burnup=3.41	kinf=1.021	Enrch=0.72	Dschg=1985	LASALLE
Nassy=18	burnup=4.08	kinf=1.012	Enrch=0.72	Dschg=1985	LASALLE
Nassy=30	burnup=3.91	kinf=1.015	Enrch=0.72	Dschg=1985	LASALLE

Nassy=1 burnup=2.64	kinf=1.031	Enrch=0.72	Dschg=1985	LASALLE
Nassy=7 burnup=2.64	kinf=1.031	Enrch=0.72	Dschg=1985	LASALLE
Nassy=1 burnup=2.22	kinf=1.038	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=7 burnup=2.22	kinf=1.038	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=14 burnup=2.86	kinf=1.030	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=8 burnup=3.07	kinf=1.027	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=15 burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=7 burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=2 burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=6 burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=6 burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=6 burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=16 burnup=1.77	kinf=1.044	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=4 burnup=3.28	kinf=1.024	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=2 burnup=4.17	kinf=1.013	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=37 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE
Nassy=26 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE
Nassy=28 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE
Nassy=1 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE
Nassy=18 burnup=5.00	kinf=1.487	Enrch=3.70	Dschg=1987	LACROSSE
Nassy=5 burnup=5.00	kinf=1.487	Enrch=3.70	Dschg=1987	LACROSSE
Nassy=1 burnup=5.00	kinf=1.488	Enrch=3.71	Dschg=1987	LACROSSE
Nassy=15 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=33 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=3 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=1 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=8 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=16 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=30 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=35 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=2 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=1 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=12 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=12 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
No bin for s 154.361465 1.138013				
No bin for s 123.031021 1.221207				
No bin for s 161.838730 1.184421				
Nassy=33 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=5 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=14 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=29 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=1 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=10 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
No bin for s 135.289886 1.216874				
No bin for s 133.073761 1.219003				
Nassy=36 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=44 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=4 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=8 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=17 burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=132 burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=8 burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=19 burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=22 burnup=7.59	kinf=1.400	Enrch=3.38	Dschg=2009	OYSTER CRK
Nassy=38 burnup=7.59	kinf=1.400	Enrch=3.38	Dschg=2009	OYSTER CRK
Nassy=20 burnup=7.59	kinf=1.400	Enrch=3.38	Dschg=2009	OYSTER CRK
Nassy=10 burnup=6.41	kinf=1.443	Enrch=3.55	Dschg=2012	QUAD CITIES
Nassy=88 burnup=6.41	kinf=1.443	Enrch=3.55	Dschg=2012	QUAD CITIES
Nassy=32 burnup=6.41	kinf=1.443	Enrch=3.55	Dschg=2012	QUAD CITIES
Nassy=23 burnup=6.41	kinf=1.443	Enrch=3.55	Dschg=2012	QUAD CITIES
Nassy=43 burnup=6.61	kinf=1.438	Enrch=3.54	Dschg=2014	BRUNSWICK
Nassy=36 burnup=6.61	kinf=1.438	Enrch=3.54	Dschg=2014	BRUNSWICK
Nassy=8 burnup=6.61	kinf=1.438	Enrch=3.54	Dschg=2014	BRUNSWICK
Nassy=5 burnup=6.61	kinf=1.438	Enrch=3.54	Dschg=2014	BRUNSWICK

INPUT FILE LISTING:

#bins	Input_file	Output_file	Case_title	Last_delivery
8	case9.wsm	finalw9.out	FINAL-W9	2045
Type	Cap	Hmin	Hmax	Kmin
p	21	0	850	0.00
p	21	0	850	1.00
p	21	0	850	1.13
p	12	850	1500	0.00
s	12	0	1500	0.00
b	44	0	400	0.00
b	44	0	400	1.00
b	24	0	520	0.00

OUTPUT FILE LISTING:

FINAL-W9
8 Bins

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	60	2.86	26.98
2011	81	3.86	36.11
2012	386	18.38	171.11
2013	607	28.90	265.51
2014	940	44.76	392.02
2015	1031	49.10	448.21
2016	1194	56.86	514.70
2017	899	42.81	389.64
2018	1088	51.81	468.24
2019	1022	48.67	442.90
2020	1053	50.14	458.81
2021	1290	61.43	557.52
2022	1277	60.81	551.40
2023	1234	58.76	533.01
2024	1310	62.38	575.96
2025	1233	58.71	522.97
2026	1284	61.14	558.85
2027	1598	76.10	685.46
2028	968	46.10	427.95
2029	1573	74.90	675.93
2030	469	22.33	204.57
2031	482	22.95	205.04
2032	134	6.38	55.86
2033	452	21.52	173.26
2034	1503	71.57	602.95
2035	1712	81.52	727.83
2036	1675	79.76	722.24
2037	1564	74.48	666.94
2038	1549	73.76	659.99
2039	2044	97.33	883.10
2040	2100	100.00	896.94
2041	1114	53.05	473.35

Bin Total 34926 1663.14 14975.36

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	339	16.14	151.09
2011	551	26.24	237.07
2012	1169	55.67	507.56
2013	1956	93.14	848.18
2014	3136	149.33	1368.67

2015	3246	154.57	1398.22
2016	2737	130.33	1189.58
2017	3176	151.24	1380.04
2018	2773	132.05	1199.63
2019	2918	138.95	1264.78
2020	2884	137.33	1240.88
2021	2674	127.33	1159.38
2022	2736	130.29	1189.99
2023	2780	132.38	1198.37
2024	2478	118.00	1069.48
2025	2385	113.57	1033.36
2026	2685	127.86	1172.61
2027	1861	88.62	803.05
2028	2487	118.43	1089.35
2029	2647	126.05	1156.65
2030	3281	156.24	1421.85
2031	2421	115.29	1054.35
2032	1962	93.43	835.73
2033	1314	62.57	547.84
2034	2246	106.95	935.48
2035	1881	89.57	802.23
2036	2774	132.10	1172.46
2037	2908	138.48	1261.44
2038	2773	132.05	1170.48
2039	2739	130.43	1176.54
2040	2695	128.33	1156.75
2041	1127	53.67	476.43

Bin Total 75739 3606.62 32669.53

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.13 Kmax=1.45

Year	Num_Assy	Num_Pkgs	MTU
2010	2	0.10	0.90
2011	96	4.57	44.46
2012	0	0.00	0.00
2013	188	8.95	77.85
2014	133	6.33	50.92
2015	6	0.29	2.54
2016	43	2.05	16.03
2017	60	2.86	24.00
2018	79	3.76	32.05
2019	135	6.43	54.08
2020	100	4.76	41.56
2021	48	2.29	21.04
2022	57	2.71	26.25
2023	240	11.43	106.23
2024	299	14.24	127.67
2025	83	3.95	35.36
2026	180	8.57	80.88
2027	489	23.29	212.61
2028	448	21.33	182.10
2029	183	8.71	80.33
2030	111	5.29	51.31
2031	466	22.19	205.33
2032	491	23.38	212.14
2033	568	27.05	194.07
2034	175	8.33	72.41
2035	240	11.43	93.37
2036	45	2.14	13.33
2037	35	1.67	15.44
2038	92	4.38	30.99
2039	68	3.24	24.86
2040	161	7.67	56.82
2041	103	4.90	47.52

Bin Total 5424 258.29 2234.44

Type=p Cap=12 Hmin=850.0 Hmax=1500.0 Kmin=0.00 Kmax=1.02

Year	Num_Assy	Num_Pkgs	MTU
2010	19	1.58	8.82
2011	19	1.58	8.06
2012	106	8.83	48.08
2013	269	22.42	122.34
2014	360	30.00	168.94
2015	256	21.33	115.23
2016	373	31.08	169.77
2017	374	31.17	174.29
2018	372	31.00	169.65
2019	409	34.08	190.34
2020	430	35.83	189.26
2021	344	28.67	155.12
2022	448	37.33	202.89
2023	292	24.33	129.96
2024	302	25.17	133.77
2025	374	31.17	166.01
2026	288	24.00	128.32
2027	315	26.25	138.87
2028	384	32.00	170.91
2029	561	46.75	251.74
2030	705	58.75	318.02
2031	848	70.67	371.16
2032	1121	93.42	481.06
2033	1100	91.67	482.56
2034	40	3.33	16.99
2035	66	5.50	30.09
2036	0	0.00	0.00
2037	38	3.17	17.44
2038	155	12.92	66.48
2039	0	0.00	0.00
2040	0	0.00	0.00
2041	4	0.33	1.82

Bin Total 10372 864.33 4628.00

Type=s Cap=12 Hmin=0.0 Hmax=1500.0 Kmin=0.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	81	6.75	43.60
2013	171	14.25	92.05
2014	0	0.00	0.00
2015	144	12.00	77.52
2016	87	7.25	46.83
2017	177	14.75	95.28
2018	144	12.00	77.52
2019	153	12.75	82.37
2020	90	7.50	48.47
2021	96	8.00	51.70
2022	123	10.25	66.37
2023	108	9.00	58.20
2024	114	9.50	61.37
2025	102	8.50	54.99
2026	246	20.50	132.80
2027	57	4.75	30.69
2028	74	6.17	40.00
2029	196	16.33	105.63
2030	171	14.25	92.24
2031	159	13.25	85.67
2032	180	15.00	96.90
2033	451	37.58	242.77
2034	9	0.75	4.85

2035	0	0.00	0.00
2036	0	0.00	0.00
2037	0	0.00	0.00
2038	0	0.00	0.00
2039	0	0.00	0.00
2040	168	14.00	90.44
2041	28	2.33	15.07
Bin Total	3329	277.42	1793.31

Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	96	2.18	17.12
2011	544	12.36	93.47
2012	845	19.20	144.20
2013	940	21.36	162.38
2014	1617	36.75	280.45
2015	1470	33.41	257.19
2016	1780	40.45	306.81
2017	1436	32.64	250.92
2018	2143	48.70	370.47
2019	1366	31.05	237.69
2020	1505	34.20	263.57
2021	1438	32.68	254.37
2022	1660	37.73	290.43
2023	1653	37.57	293.91
2024	1887	42.89	332.40
2025	2393	54.39	414.21
2026	2198	49.95	380.51
2027	1916	43.55	333.23
2028	2206	50.14	386.26
2029	1226	27.86	214.19
2030	1585	36.02	275.59
2031	2309	52.48	404.05
2032	1592	36.18	274.62
2033	266	6.05	46.10
2034	537	12.20	94.62
2035	1329	30.20	239.27
2036	827	18.80	144.08
2037	716	16.27	126.02
2038	1307	29.70	225.34
2039	1198	27.23	208.04
2040	1334	30.32	230.99
2041	504	11.45	85.86
Bin Total	43823	995.98	7638.36

Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=1.00 Kmax=1.37

Year	Num_Assy	Num_Pkgs	MTU
2010	476	10.82	85.02
2011	1040	23.64	184.62
2012	1663	37.80	297.20
2013	2316	52.64	410.88
2014	4220	95.91	737.58
2015	3875	88.07	693.88
2016	4181	95.02	750.71
2017	3887	88.34	702.99
2018	3747	85.16	676.67
2019	4001	90.93	734.34
2020	4171	94.80	773.93
2021	4176	94.91	771.01
2022	3452	78.45	618.07
2023	3712	84.36	674.86
2024	3657	83.11	653.46

2025	4151	94.34	732.99
2026	2929	66.57	517.77
2027	4058	92.23	719.86
2028	3818	86.77	681.62
2029	2998	68.14	535.50
2030	3431	77.98	618.83
2031	3047	69.25	535.01
2032	3650	82.95	639.57
2033	5167	117.43	900.37
2034	6660	151.36	1105.26
2035	5883	133.70	1053.68
2036	5326	121.05	960.36
2037	4817	109.48	875.79
2038	4860	110.45	860.22
2039	3901	88.66	697.49
2040	3261	74.11	574.10
2041	2621	59.57	466.50

Bin Total	119152	2708.00	21240.14
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Type=b Cap=24 Hmin=0.0 Hmax=520.0 Kmin=0.00 Kmax=1.54

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	0	0.00	0.00
2013	0	0.00	0.00
2014	0	0.00	0.00
2015	0	0.00	0.00
2016	0	0.00	0.00
2017	0	0.00	0.00
2018	0	0.00	0.00
2019	0	0.00	0.00
2020	0	0.00	0.00
2021	106	4.42	17.50
2022	344	14.33	58.93
2023	3	0.13	0.51
2024	176	7.33	29.86
2025	232	9.67	40.67
2026	153	6.38	26.16
2027	362	15.08	61.93
2028	92	3.83	16.38
2029	0	0.00	0.00
2030	0	0.00	0.00
2031	628	26.17	109.47
2032	1122	46.75	193.72
2033	1003	41.79	169.97
2034	492	20.50	80.73
2035	21	0.88	3.52
2036	12	0.50	1.56
2037	11	0.46	1.33
2038	15	0.63	1.80
2039	5	0.21	0.60
2040	0	0.00	0.00
2041	0	0.00	0.00

Bin Total	4777	199.04	814.65
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Summary Table

Type	Cap	Num_Assy	PctType	Num_Pkg	MTU
p	21	34926	26.56	1663.14	14975.36
p	21	75739	57.59	3606.62	32669.53
p	21	5424	4.12	258.29	2234.44
p	12	10372	7.89	864.33	4628.00
s	12	3329	2.53	277.42	1793.31
b	44	43823	26.12	995.98	7638.36
b	44	119152	71.03	2708.00	21240.14

b	24	4777	2.85	199.04	814.65
b	1	0	0.00	0.00	0.00
p	1	1566	1.19	1566.00	686.49
s	1	167	0.13	167.00	90.04

Totals		299275		10572.82	86770.32
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JUNK FILE LISTING:

Nassy=1 burnup=1.87	kinf=1.529	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.45	kinf=1.536	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.53	kinf=1.535	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=1 burnup=6.38	kinf=1.455	Enrch=3.63	Dschg=1969	WEST VALLEY
Nassy=2 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=3 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=8 burnup=0.34	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.18	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.36	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.23	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=10 burnup=0.34	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=7 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.77	kinf=1.260	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.86	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.79	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8 burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=11 burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.34	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.46	kinf=1.270	Enrch=1.97	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.57	kinf=1.267	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.76	kinf=1.261	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.23	kinf=1.279	Enrch=2.00	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.46	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.09	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.27	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.28	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.32	kinf=1.275	Enrch=1.99	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.11	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.42	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.23	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=11 burnup=1.34	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.15	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8 burnup=1.44	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=20 burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=0.86	kinf=1.291	Enrch=2.04	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.62	kinf=1.265	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.64	kinf=1.264	Enrch=1.95	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=22 burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.13	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=18 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.78	kinf=1.260	Enrch=1.94	Dschg=1971	GE MORRIS (

Nassy=2 burnup=9.28	kinf=1.410 Enrch=3.63 Dschg=1971	WEST VALLEY
Nassy=1 burnup=4.99	kinf=1.478 Enrch=3.63 Dschg=1971	WEST VALLEY
Nassy=1 burnup=8.24	kinf=1.426 Enrch=3.63 Dschg=1971	WEST VALLEY
Nassy=1 burnup=9.23	kinf=1.411 Enrch=3.63 Dschg=1971	WEST VALLEY
Nassy=1 burnup=1.53	kinf=1.318 Enrch=2.26 Dschg=1971	DRESDEN
Nassy=1 burnup=4.49	kinf=1.250 Enrch=2.11 Dschg=1971	OYSTER CRK
Nassy=1 burnup=3.27	kinf=1.212 Enrch=1.78 Dschg=1972	GE MORRIS (
Nassy=22 burnup=4.52	kinf=1.253 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=2 burnup=4.52	kinf=1.253 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=36 burnup=4.52	kinf=1.253 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=8 burnup=3.43	kinf=1.269 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=15 burnup=3.43	kinf=1.269 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=13 burnup=3.43	kinf=1.269 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=12 burnup=2.81	kinf=1.227 Enrch=1.83 Dschg=1972	GE MORRIS (
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Nassy=6 burnup=3.13	kinf=1.217 Enrch=1.80 Dschg=1972	GE MORRIS (
Nassy=26 burnup=3.87	kinf=1.195 Enrch=1.73 Dschg=1972	GE MORRIS (
Nassy=4 burnup=3.87	kinf=1.195 Enrch=1.73 Dschg=1972	GE MORRIS (
Nassy=8 burnup=4.14	kinf=1.258 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=44 burnup=4.14	kinf=1.258 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=5 burnup=4.14	kinf=1.258 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=10 burnup=4.14	kinf=1.258 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=14 burnup=4.62	kinf=1.173 Enrch=1.67 Dschg=1972	GE MORRIS (
Nassy=13 burnup=3.39	kinf=1.209 Enrch=1.77 Dschg=1972	GE MORRIS (
Nassy=2 burnup=3.34	kinf=1.269 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=3 burnup=3.34	kinf=1.269 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=5 burnup=4.77	kinf=1.249 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=5 burnup=3.84	kinf=1.195 Enrch=1.73 Dschg=1972	GE MORRIS (
Nassy=1 burnup=3.28	kinf=1.271 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=1 burnup=2.73	kinf=1.279 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=7 burnup=4.69	kinf=1.250 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=14 burnup=4.69	kinf=1.250 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=2 burnup=4.69	kinf=1.250 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=23 burnup=4.31	kinf=1.182 Enrch=1.69 Dschg=1972	GE MORRIS (
Nassy=10 burnup=3.12	kinf=1.273 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=9 burnup=3.60	kinf=1.203 Enrch=1.76 Dschg=1972	GE MORRIS (
Nassy=3 burnup=3.60	kinf=1.203 Enrch=1.76 Dschg=1972	GE MORRIS (
Nassy=1 burnup=3.60	kinf=1.203 Enrch=1.76 Dschg=1972	GE MORRIS (
Nassy=4 burnup=2.84	kinf=1.277 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=40 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=15 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=1 burnup=3.91	kinf=1.261 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=2 burnup=3.91	kinf=1.261 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=21 burnup=3.79	kinf=1.263 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=5 burnup=3.77	kinf=1.264 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=33 burnup=3.77	kinf=1.264 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=11 burnup=3.77	kinf=1.264 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=10 burnup=3.77	kinf=1.264 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=24 burnup=4.39	kinf=1.179 Enrch=1.68 Dschg=1972	GE MORRIS (
Nassy=10 burnup=4.64	kinf=1.172 Enrch=1.66 Dschg=1972	GE MORRIS (
Nassy=4 burnup=4.64	kinf=1.172 Enrch=1.66 Dschg=1972	GE MORRIS (
Nassy=1 burnup=8.59	kinf=1.421 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=1 burnup=9.12	kinf=1.413 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=1 burnup=8.73	kinf=1.419 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=2 burnup=4.86	kinf=1.239 Enrch=2.08 Dschg=1972	MILLSTONE
Nassy=4 burnup=6.45	kinf=1.454 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=8.75	kinf=1.418 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=7.35	kinf=1.440 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=3.88	kinf=1.262 Enrch=2.13 Dschg=1973	DRESDEN
Nassy=2 burnup=4.96	kinf=1.246 Enrch=2.13 Dschg=1973	DRESDEN
Nassy=1 burnup=1.05	kinf=1.365 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=3 burnup=0.97	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=5 burnup=4.32	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=0.99	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=12 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=2 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=7 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=2 burnup=4.00	kinf=1.320 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=5 burnup=4.05	kinf=1.320 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=4 burnup=1.16	kinf=1.364 Enrch=2.50 Dschg=1973	VT YANKEE

Nassy=6 burnup=4.66	kinf=1.311	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1 burnup=0.99	kinf=1.366	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1 burnup=4.69	kinf=1.310	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=4 burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1 burnup=8.77	kinf=1.418	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1 burnup=9.10	kinf=1.413	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=3 burnup=9.10	kinf=1.413	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1 burnup=3.97	kinf=1.271	Enrch=2.19	Dschg=1973	PILGRIM
Nassy=1 burnup=2.63	kinf=1.290	Enrch=2.19	Dschg=1973	PILGRIM
Nassy=1 burnup=8.95	kinf=1.415	Enrch=3.63	Dschg=1974	WEST VALLEY
Nassy=1 burnup=8.15	kinf=1.428	Enrch=3.63	Dschg=1974	WEST VALLEY
Nassy=5 burnup=4.95	kinf=1.306	Enrch=2.50	Dschg=1974	VT YANKEE
Nassy=3 burnup=4.95	kinf=1.306	Enrch=2.50	Dschg=1974	VT YANKEE
No bin for p 5.884874 1.454020				
No bin for p 5.891600 1.454020				
Nassy=1 burnup=7.57	kinf=1.476	Enrch=3.92	Dschg=1975	LACROSSE
Nassy=1 burnup=3.71	kinf=1.263	Enrch=2.12	Dschg=1975	DUANE ARNOL
Nassy=1 burnup=3.78	kinf=1.280	Enrch=2.23	Dschg=1975	DRESDEN
Nassy=1 burnup=2.90	kinf=1.273	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=1 burnup=3.30	kinf=1.267	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=2 burnup=2.43	kinf=1.105	Enrch=1.11	Dschg=1976	BRUNSWICK
Nassy=2 burnup=3.05	kinf=1.320	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=3.30	kinf=1.315	Enrch=2.40	Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=2.43	kinf=1.329	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=2.43	kinf=1.329	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=2.69	kinf=1.325	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=3.89	kinf=1.308	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=4.34	kinf=1.301	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=1.31	kinf=1.346	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=12.04	kinf=1.407	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1 burnup=12.30	kinf=1.403	Enrch=3.93	Dschg=1977	LACROSSE
Nassy=1 burnup=7.61	kinf=1.476	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1 burnup=12.42	kinf=1.401	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=5 burnup=3.65	kinf=1.282	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2 burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4 burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2 burnup=3.08	kinf=1.291	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4 burnup=4.00	kinf=1.277	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=21 burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=5 burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=1 burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=22 burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4 burnup=3.58	kinf=1.019	Enrch=0.72	Dschg=1980	HATCH
Nassy=10 burnup=1.89	kinf=1.041	Enrch=0.72	Dschg=1980	HATCH
Nassy=6 burnup=1.89	kinf=1.041	Enrch=0.72	Dschg=1980	HATCH
Nassy=8 burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=20 burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=10 burnup=2.83	kinf=1.028	Enrch=0.72	Dschg=1980	HATCH
Nassy=6 burnup=2.83	kinf=1.028	Enrch=0.72	Dschg=1980	HATCH
Nassy=8 burnup=4.31	kinf=1.009	Enrch=0.72	Dschg=1980	HATCH
Nassy=4 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1980	HATCH
Nassy=5 burnup=3.15	kinf=1.024	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=3 burnup=3.15	kinf=1.024	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8 burnup=4.11	kinf=1.012	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=33 burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=12 burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=3 burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8 burnup=2.96	kinf=1.027	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=4 burnup=3.14	kinf=1.024	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8 burnup=4.86	kinf=1.003	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8 burnup=2.92	kinf=1.027	Enrch=0.72	Dschg=1985	LASALLE
Nassy=6 burnup=3.41	kinf=1.021	Enrch=0.72	Dschg=1985	LASALLE
Nassy=2 burnup=3.41	kinf=1.021	Enrch=0.72	Dschg=1985	LASALLE
Nassy=18 burnup=4.08	kinf=1.012	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8 burnup=3.91	kinf=1.015	Enrch=0.72	Dschg=1985	LASALLE
Nassy=22 burnup=3.91	kinf=1.015	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8 burnup=2.64	kinf=1.031	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8 burnup=2.22	kinf=1.038	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=14 burnup=2.86	kinf=1.030	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=3 burnup=3.07	kinf=1.027	Enrch=0.73	Dschg=1986	WASH NUCLEA

Nassy=5 burnup=3.07 kinf=1.027 Enrch=0.73 Dschg=1986 WASH NUCLEA
 Nassy=31 burnup=2.65 kinf=1.033 Enrch=0.73 Dschg=1986 WASH NUCLEA
 Nassy=11 burnup=2.65 kinf=1.033 Enrch=0.73 Dschg=1986 WASH NUCLEA
 Nassy=16 burnup=1.77 kinf=1.044 Enrch=0.73 Dschg=1986 WASH NUCLEA
 Nassy=4 burnup=3.28 kinf=1.024 Enrch=0.73 Dschg=1986 WASH NUCLEA
 Nassy=22 burnup=4.17 kinf=1.013 Enrch=0.73 Dschg=1986 SUSQUEHANNA
 Nassy=4 burnup=4.17 kinf=1.013 Enrch=0.73 Dschg=1986 SUSQUEHANNA
 Nassy=8 burnup=3.09 kinf=1.026 Enrch=0.73 Dschg=1986 SUSQUEHANNA
 Nassy=8 burnup=2.76 kinf=1.030 Enrch=0.72 Dschg=1986 SUSQUEHANNA
 Nassy=12 burnup=3.50 kinf=1.020 Enrch=0.72 Dschg=1986 SUSQUEHANNA
 Nassy=7 burnup=3.98 kinf=1.015 Enrch=0.73 Dschg=1986 SUSQUEHANNA
 Nassy=15 burnup=3.98 kinf=1.015 Enrch=0.73 Dschg=1986 SUSQUEHANNA
 Nassy=8 burnup=4.72 kinf=1.006 Enrch=0.73 Dschg=1986 SUSQUEHANNA
 Nassy=10 burnup=3.35 kinf=1.022 Enrch=0.72 Dschg=1986 GRAND GULF
 Nassy=1 burnup=3.35 kinf=1.022 Enrch=0.72 Dschg=1986 GRAND GULF
 Nassy=43 burnup=3.35 kinf=1.022 Enrch=0.72 Dschg=1986 GRAND GULF
 Nassy=18 burnup=3.35 kinf=1.022 Enrch=0.72 Dschg=1986 GRAND GULF
 Nassy=20 burnup=3.35 kinf=1.022 Enrch=0.72 Dschg=1986 GRAND GULF
 Nassy=2 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1987 LASALLE
 Nassy=40 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1987 LASALLE
 Nassy=21 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1987 LASALLE
 Nassy=23 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1987 LASALLE
 Nassy=5 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1987 LASALLE
 Nassy=1 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1987 LASALLE
 Nassy=15 burnup=5.00 kinf=1.487 Enrch=3.70 Dschg=1987 LACROSSE
 Nassy=8 burnup=5.00 kinf=1.487 Enrch=3.70 Dschg=1987 LACROSSE
 Nassy=1 burnup=5.00 kinf=1.488 Enrch=3.71 Dschg=1987 LACROSSE
 Nassy=16 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1987 RVR BEND
 Nassy=24 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1987 RVR BEND
 Nassy=20 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1987 RVR BEND
 Nassy=14 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1987 RVR BEND
 Nassy=2 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1987 RVR BEND
 Nassy=33 burnup=3.00 kinf=1.028 Enrch=0.73 Dschg=1988 HOPE CREEK
 Nassy=27 burnup=3.00 kinf=1.028 Enrch=0.73 Dschg=1988 HOPE CREEK
 Nassy=17 burnup=3.00 kinf=1.028 Enrch=0.73 Dschg=1988 HOPE CREEK
 Nassy=15 burnup=3.00 kinf=1.028 Enrch=0.73 Dschg=1988 HOPE CREEK
 Nassy=37 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1989 CLINTON
 Nassy=7 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1989 CLINTON
 Nassy=32 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1989 CLINTON
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 Nassy=2 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1989 ENRICO FERM
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 No bin for s 101.173691 1.251277
 No bin for s 134.107834 1.213784
 Nassy=28 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1990 NINE MILE P
 Nassy=2 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1990 NINE MILE P
 Nassy=42 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1990 NINE MILE P
 Nassy=2 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1990 NINE MILE P
 Nassy=18 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1990 NINE MILE P
 No bin for s 132.779495 1.154404
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 No bin for s 130.847900 1.154404
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 No bin for s 127.141541 1.154404
 No bin for s 207.901642 1.134369
 No bin for s 207.863388 1.134369
 No bin for s 207.837891 1.134369
 No bin for s 115.289902 1.241480
 Nassy=4 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1991 SUSQUEHANNA
 Nassy=41 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1991 LIMERICK
 Nassy=38 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1991 LIMERICK
 Nassy=6 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1991 LIMERICK
 Nassy=7 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1991 LIMERICK
 Nassy=1 burnup=1.97 kinf=1.483 Enrch=3.34 Dschg=1994 RVR BEND

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 No bin for p 884.637085 1.021164
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 No bin for p 884.637024 1.021164
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 Nassy=11 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
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 Nassy=12 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
 Nassy=32 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
 Nassy=12 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
 Nassy=20 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
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 Nassy=132 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
 Nassy=25 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
 Nassy=3 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
 Nassy=2 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
 Nassy=20 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
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 Nassy=1 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
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 No bin for p 888.449341 1.020434
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 No bin for s 443.229401 1.237993
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No bin for p 925.597717 1.059850
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No bin for p 925.616516 1.059850
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No bin for p 924.749817 1.059850
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No bin for p 1638.481689 0.976983
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No bin for p 1655.454346 1.001561
age=5 , mass= 11.050000
No bin for p 1655.354492 1.001561
age=6 , mass= 3.223000
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age=6 , mass= 2.722000
age=5 , mass= 3.684000
No bin for p 1003.451538 1.036853
age=5 , mass= 29.476000
No bin for p 1003.587708 1.036853
age=5 , mass= 1.228000
No bin for p 1003.451538 1.036853
age=5 , mass= 1.638000
No bin for p 1003.860046 1.036853
age=5 , mass= 4.503000
age=5 , mass= 8.597000
age=5 , mass= 2.047000
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age=5 , mass= 8.597000
age=5 , mass= 6.141000
age=5 , mass= 2.456000
age=5 , mass= 4.094000
age=5 , mass= 4.503000
No bin for p 945.069214 1.061804
age=5 , mass= 19.650999
No bin for p 945.143494 1.061804
age=5 , mass= 1.228000
No bin for p 944.999329 1.061804
age=5 , mass= 2.047000
No bin for p 945.153137 1.061804
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No bin for p 945.153137 1.061804
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age=7 , mass= 0.433000
No bin for p 1603.773193 0.971835
age=5 , mass= 2.755000
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age=5 , mass= 0.459000

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age=7 , mass= 0.459000
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No bin for p 1042.272339 1.020855
age=7 , mass= 1.298000
No bin for p 1042.272339 1.020855
age=5 , mass= 3.275000
No bin for p 909.703247 1.035883
age=5 , mass= 19.650999
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No bin for p 909.857544 1.035883
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age=6 , mass= 1.638000
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No bin for p 1322.339722 1.028102
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age=5 , mass= 0.433000
No bin for p 1323.103638 1.028102
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No bin for p 1093.770142 1.064021
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No bin for p 1093.702393 1.064021
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No bin for p 1551.462769 1.007558
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No bin for p 1551.322510 1.007558
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No bin for p 1279.352661 1.027544
age=5 , mass= 16.611000
No bin for p 1279.583862 1.027544
age=5 , mass= 2.307000

No bin for p 1279.537598 1.027544

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age=5 , mass= 0.923000

INPUT FILE LISTING:

#bins	Input_file	Output_file	Case_title	Last_delivery	
8	case10.wsm	finalw10.out	FINAL-W10	2045	
Type	Cap	Hmin	Hmax	Kmin	Kmax
p	21	0	850	0.00	1.00
p	21	0	850	1.00	1.13
p	21	0	850	1.13	1.45
p	12	850	1500	0.00	1.02
s	12	0	1500	0.00	1.13
b	44	0	400	0.00	1.00
b	44	0	400	1.00	1.37
b	24	0	520	0.00	1.54

OUTPUT FILE LISTING:

FINAL-W10
8 Bins

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	16	0.76	5.63
2011	148	7.05	54.81
2012	336	16.00	138.70
2013	1152	54.86	470.50
2014	975	46.43	398.37
2015	1592	75.81	662.99
2016	1801	85.76	751.94
2017	1406	66.95	597.31
2018	1596	76.00	693.16
2019	1419	67.57	615.35
2020	1095	52.14	475.20
2021	1241	59.10	540.12
2022	1491	71.00	624.28
2023	1240	59.05	534.78
2024	1218	58.00	524.99
2025	1313	62.52	567.55
2026	1421	67.67	616.62
2027	1545	73.57	675.93
2028	1416	67.43	625.33
2029	1559	74.24	671.60
2030	1180	56.19	522.67
2031	1406	66.95	612.15
2032	1348	64.19	591.22
2033	1256	59.81	549.69
2034	1502	71.52	661.70
2035	1299	61.86	571.27
2036	1108	52.76	478.26
2037	1148	54.67	512.05
2038	1260	60.00	555.02
2039	1207	57.48	516.37
2040	1274	60.67	542.37
2041	776	36.95	327.05

Bin Total 38744 1844.95 16685.00

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	246	11.71	85.59
2011	408	19.43	162.62
2012	1107	52.71	465.83
2013	1673	79.67	696.90
2014	2695	128.33	1164.93

2015	2437	116.05	1031.83
2016	2638	125.62	1125.24
2017	2937	139.86	1264.36
2018	2452	116.76	1057.08
2019	2860	136.19	1226.38
2020	3165	150.71	1370.36
2021	2915	138.81	1243.11
2022	2471	117.67	1073.90
2023	2674	127.33	1164.53
2024	2578	122.76	1111.49
2025	2441	116.24	1064.05
2026	2276	108.38	977.32
2027	2694	128.29	1159.32
2028	2400	114.29	1045.28
2029	2468	117.52	1070.16
2030	2555	121.67	1097.93
2031	2571	122.43	1115.85
2032	2621	124.81	1122.41
2033	2399	114.24	1037.05
2034	2424	115.43	1066.80
2035	2815	134.05	1223.87
2036	2750	130.95	1176.42
2037	2675	127.38	1178.02
2038	3027	144.14	1325.78
2039	2571	122.43	1112.58
2040	2763	131.57	1192.43
2041	1375	65.48	578.09

Bin Total	76081	3622.90	32787.51
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Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.13 Kmax=1.45

Year	Num_Assy	Num_Pkgs	MTU
2010	95	4.52	29.47
2011	137	6.52	46.22
2012	216	10.29	60.23
2013	17	0.81	7.60
2014	143	6.81	63.93
2015	61	2.90	27.52
2016	25	1.19	9.43
2017	65	3.10	21.30
2018	174	8.29	64.42
2019	107	5.10	42.21
2020	222	10.57	81.56
2021	72	3.43	29.58
2022	78	3.71	35.19
2023	405	19.29	178.18
2024	466	22.19	206.18
2025	196	9.33	80.08
2026	119	5.67	50.83
2027	263	12.52	108.87
2028	169	8.05	72.29
2029	155	7.38	61.95
2030	200	9.52	83.17
2031	278	13.24	121.93
2032	154	7.33	66.36
2033	125	5.95	56.06
2034	130	6.19	54.12
2035	242	11.52	107.53
2036	385	18.33	163.42
2037	336	16.00	148.97
2038	43	2.05	19.05
2039	106	5.05	45.39
2040	44	2.10	18.03
2041	87	4.14	39.77

Bin Total	5315	253.10	2200.84
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Type=p Cap=12 Hmin=850.0 Hmax=1500.0 Kmin=0.00 Kmax=1.02

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	0	0.00	0.00
2013	26	2.17	11.96
2014	99	8.25	44.38
2015	308	25.67	141.23
2016	228	19.00	104.52
2017	155	12.92	67.34
2018	212	17.67	95.63
2019	264	22.00	117.15
2020	228	19.00	103.03
2021	218	18.17	97.08
2022	409	34.08	183.38
2023	347	28.92	154.46
2024	280	23.33	124.78
2025	371	30.92	165.92
2026	447	37.25	201.09
2027	373	31.08	163.28
2028	335	27.92	150.91
2029	417	34.75	183.98
2030	307	25.58	137.37
2031	359	29.92	159.59
2032	224	18.67	98.07
2033	264	22.00	114.69
2034	384	32.00	165.29
2035	150	12.50	66.45
2036	163	13.58	73.87
2037	110	9.17	48.45
2038	446	37.17	194.95
2039	106	8.83	48.80
2040	152	12.67	69.92
2041	278	23.17	128.04
Bin Total	7660	638.33	3415.62

Type=s Cap=12 Hmin=0.0 Hmax=1500.0 Kmin=0.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	0	0.00	0.00
2013	0	0.00	0.00
2014	0	0.00	0.00
2015	0	0.00	0.00
2016	0	0.00	0.00
2017	0	0.00	0.00
2018	0	0.00	0.00
2019	177	14.75	95.28
2020	66	5.50	35.53
2021	180	15.00	96.90
2022	54	4.50	29.07
2023	126	10.50	67.83
2024	123	10.25	66.21
2025	135	11.25	72.67
2026	153	12.75	82.36
2027	117	9.75	62.98
2028	117	9.75	62.98
2029	153	12.75	82.36
2030	108	9.00	58.14
2031	132	11.00	71.06
2032	99	8.25	53.29
2033	114	9.50	61.37
2034	120	10.00	64.60

2035	141	11.75	75.90
2036	78	6.50	41.99
2037	148	12.33	79.67
2038	196	16.33	105.51
2039	163	13.58	87.75
2040	231	19.25	124.62
2041	398	33.17	215.29

Bin Total	3329	277.42	1793.35
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Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	30	0.68	5.32
2011	180	4.09	30.50
2012	1039	23.61	176.74
2013	1732	39.36	296.54
2014	2468	56.09	434.16
2015	1864	42.36	329.80
2016	1208	27.45	214.01
2017	1195	27.16	206.46
2018	2055	46.70	354.78
2019	1842	41.86	319.64
2020	2085	47.39	359.10
2021	2422	55.05	417.38
2022	1962	44.59	339.33
2023	1832	41.64	318.25
2024	1260	28.64	218.93
2025	2347	53.34	408.54
2026	1741	39.57	301.97
2027	1688	38.36	292.45
2028	1462	33.23	254.93
2029	2092	47.55	364.78
2030	1606	36.50	285.51
2031	1790	40.68	311.23
2032	1089	24.75	190.94
2033	1557	35.39	270.87
2034	1170	26.59	209.29
2035	435	9.89	75.74
2036	748	17.00	130.43
2037	649	14.75	115.22
2038	915	20.80	161.46
2039	2449	55.66	424.94
2040	815	18.52	143.28
2041	487	11.07	85.34

Bin Total	46214	1050.32	8047.88
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Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=1.00 Kmax=1.37

Year	Num_Assy	Num_Pkgs	MTU
2010	1070	24.32	174.18
2011	1801	40.93	295.22
2012	2193	49.84	354.41
2013	3173	72.11	515.32
2014	5074	115.32	896.15
2015	4480	101.82	803.28
2016	4360	99.09	774.26
2017	4741	107.75	838.01
2018	4191	95.25	737.81
2019	3159	71.80	555.46
2020	3199	72.70	561.80
2021	3228	73.36	570.58
2022	3578	81.32	630.96
2023	2900	65.91	514.29
2024	4198	95.41	737.59

2025	3562	80.95	632.25
2026	4376	99.45	772.65
2027	2976	67.64	530.41
2028	4280	97.27	766.75
2029	3056	69.45	556.04
2030	4378	99.50	810.21
2031	3490	79.32	642.47
2032	4553	103.48	828.64
2033	4747	107.89	878.16
2034	4048	92.00	748.90
2035	4845	110.11	872.74
2036	4906	111.50	891.66
2037	4743	107.80	859.18
2038	3353	76.20	603.37
2039	4283	97.34	765.34
2040	5036	114.45	912.52
2041	1167	26.52	208.18

Bin Total 119144 2707.82 21238.79

Type=b Cap=24 Hmin=0.0 Hmax=520.0 Kmin=0.00 Kmax=1.54

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	87	3.63	10.51
2012	1	0.04	0.11
2013	0	0.00	0.00
2014	1	0.04	0.12
2015	13	0.54	1.56
2016	150	6.25	25.36
2017	25	1.04	3.40
2018	0	0.00	0.00
2019	80	3.33	13.76
2020	105	4.38	17.33
2021	3	0.13	0.50
2022	509	21.21	87.84
2023	349	14.54	59.48
2024	63	2.63	10.99
2025	8	0.33	1.36
2026	8	0.33	1.10
2027	0	0.00	0.00
2028	198	8.25	34.50
2029	0	0.00	0.00
2030	0	0.00	0.00
2031	0	0.00	0.00
2032	122	5.08	21.72
2033	252	10.50	44.35
2034	106	4.42	18.42
2035	0	0.00	0.00
2036	110	4.58	19.57
2037	196	8.17	33.12
2038	0	0.00	0.00
2039	0	0.00	0.00
2040	1	0.04	0.18
2041	0	0.00	0.00

Bin Total 2387 99.46 405.29

Summary Table

Type	Cap	Num_Assy	PctType	Num_Pkg	MTU
p	21	38744	29.46	1844.95	16685.00
p	21	76081	57.85	3622.90	32787.51
p	21	5315	4.04	253.10	2200.84
p	12	7660	5.82	638.33	3415.62
s	12	3329	2.53	277.42	1793.35
b	44	46214	27.55	1050.32	8047.88
b	44	119144	71.03	2707.82	21238.79

b	24	2387	1.42	99.46	405.29
b	1	0	0.00	0.00	0.00
p	1	223	0.17	223.00	103.03
s	1	167	0.13	167.00	90.04

Totals	299264	10494.30	86767.35
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JUNK FILE LISTING:

Nassy=1 burnup=1.87	kinf=1.529	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.45	kinf=1.536	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.53	kinf=1.535	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=1 burnup=6.38	kinf=1.455	Enrch=3.63	Dschg=1969	WEST VALLEY
Nassy=2 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=3 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=8 burnup=0.34	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.18	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.36	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.23	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=10 burnup=0.34	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=7 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.77	kinf=1.260	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.86	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.79	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=19 burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.34	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.46	kinf=1.270	Enrch=1.97	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.57	kinf=1.267	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.76	kinf=1.261	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.23	kinf=1.279	Enrch=2.00	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.46	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.09	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.27	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.28	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.32	kinf=1.275	Enrch=1.99	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.11	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.42	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.23	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.34	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=7 burnup=1.34	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.15	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8 burnup=1.44	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=20 burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=0.86	kinf=1.291	Enrch=2.04	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.62	kinf=1.265	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.64	kinf=1.264	Enrch=1.95	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=19 burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
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Nassy=2 burnup=1.13	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=21 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.78	kinf=1.260	Enrch=1.94	Dschg=1971	GE MORRIS (

Nassy=2 burnup=9.28	kinf=1.410 Enrch=3.63 Dschg=1971	WEST VALLEY
Nassy=1 burnup=4.99	kinf=1.478 Enrch=3.63 Dschg=1971	WEST VALLEY
Nassy=1 burnup=8.24	kinf=1.426 Enrch=3.63 Dschg=1971	WEST VALLEY
Nassy=1 burnup=9.23	kinf=1.411 Enrch=3.63 Dschg=1971	WEST VALLEY
Nassy=1 burnup=1.53	kinf=1.318 Enrch=2.26 Dschg=1971	DRESDEN
Nassy=1 burnup=4.49	kinf=1.250 Enrch=2.11 Dschg=1971	OYSTER CRK
Nassy=1 burnup=3.27	kinf=1.212 Enrch=1.78 Dschg=1972	GE MORRIS (
Nassy=22 burnup=4.52	kinf=1.253 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=13 burnup=4.52	kinf=1.253 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=25 burnup=4.52	kinf=1.253 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=19 burnup=3.43	kinf=1.269 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=4 burnup=3.43	kinf=1.269 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=13 burnup=3.43	kinf=1.269 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=12 burnup=2.81	kinf=1.227 Enrch=1.83 Dschg=1972	GE MORRIS (
Nassy=10 burnup=3.13	kinf=1.217 Enrch=1.80 Dschg=1972	GE MORRIS (
Nassy=5 burnup=3.87	kinf=1.195 Enrch=1.73 Dschg=1972	GE MORRIS (
Nassy=21 burnup=3.87	kinf=1.195 Enrch=1.73 Dschg=1972	GE MORRIS (
Nassy=4 burnup=3.87	kinf=1.195 Enrch=1.73 Dschg=1972	GE MORRIS (
Nassy=19 burnup=4.14	kinf=1.258 Enrch=2.13 Dschg=1972	GE MORRIS (
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Nassy=14 burnup=4.62	kinf=1.173 Enrch=1.67 Dschg=1972	GE MORRIS (
Nassy=13 burnup=3.39	kinf=1.209 Enrch=1.77 Dschg=1972	GE MORRIS (
Nassy=5 burnup=3.34	kinf=1.269 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=5 burnup=4.77	kinf=1.249 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=3 burnup=3.84	kinf=1.195 Enrch=1.73 Dschg=1972	GE MORRIS (
Nassy=2 burnup=3.84	kinf=1.195 Enrch=1.73 Dschg=1972	GE MORRIS (
Nassy=1 burnup=3.28	kinf=1.271 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=1 burnup=2.73	kinf=1.279 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=7 burnup=4.69	kinf=1.250 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=16 burnup=4.69	kinf=1.250 Enrch=2.13 Dschg=1972	GE MORRIS (
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Nassy=10 burnup=3.12	kinf=1.273 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=12 burnup=3.60	kinf=1.203 Enrch=1.76 Dschg=1972	GE MORRIS (
Nassy=1 burnup=3.60	kinf=1.203 Enrch=1.76 Dschg=1972	GE MORRIS (
Nassy=4 burnup=2.84	kinf=1.277 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=11 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
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Nassy=1 burnup=3.91	kinf=1.261 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=2 burnup=3.91	kinf=1.261 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=21 burnup=3.79	kinf=1.263 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=20 burnup=3.77	kinf=1.264 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=18 burnup=3.77	kinf=1.264 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=21 burnup=3.77	kinf=1.264 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=5 burnup=4.39	kinf=1.179 Enrch=1.68 Dschg=1972	GE MORRIS (
Nassy=19 burnup=4.39	kinf=1.179 Enrch=1.68 Dschg=1972	GE MORRIS (
Nassy=14 burnup=4.64	kinf=1.172 Enrch=1.66 Dschg=1972	GE MORRIS (
Nassy=1 burnup=8.59	kinf=1.421 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=1 burnup=9.12	kinf=1.413 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=1 burnup=8.73	kinf=1.419 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=2 burnup=4.86	kinf=1.239 Enrch=2.08 Dschg=1972	MILLSTONE
Nassy=4 burnup=6.45	kinf=1.454 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=8.75	kinf=1.418 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=7.35	kinf=1.440 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=3.88	kinf=1.262 Enrch=2.13 Dschg=1973	DRESDEN
Nassy=1 burnup=4.96	kinf=1.246 Enrch=2.13 Dschg=1973	DRESDEN
Nassy=1 burnup=4.96	kinf=1.246 Enrch=2.13 Dschg=1973	DRESDEN
Nassy=1 burnup=1.05	kinf=1.365 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=3 burnup=0.97	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=5 burnup=4.32	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=0.99	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=11 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=10 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=2 burnup=4.00	kinf=1.320 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=5 burnup=4.05	kinf=1.320 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=4 burnup=1.16	kinf=1.364 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=3 burnup=4.66	kinf=1.311 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=3 burnup=4.66	kinf=1.311 Enrch=2.50 Dschg=1973	VT YANKEE

Nassy=1	burnup=0.99	kinf=1.366	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1	burnup=4.69	kinf=1.310	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=4	burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1	burnup=8.77	kinf=1.418	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=3	burnup=9.10	kinf=1.413	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1	burnup=9.10	kinf=1.413	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1	burnup=3.97	kinf=1.271	Enrch=2.19	Dschg=1973	PILGRIM
Nassy=1	burnup=2.63	kinf=1.290	Enrch=2.19	Dschg=1973	PILGRIM
Nassy=1	burnup=8.95	kinf=1.415	Enrch=3.63	Dschg=1974	WEST VALLEY
Nassy=1	burnup=8.15	kinf=1.428	Enrch=3.63	Dschg=1974	WEST VALLEY
Nassy=2	burnup=4.95	kinf=1.306	Enrch=2.50	Dschg=1974	VT YANKEE
Nassy=6	burnup=4.95	kinf=1.306	Enrch=2.50	Dschg=1974	VT YANKEE
Nassy=1	burnup=7.57	kinf=1.476	Enrch=3.92	Dschg=1975	LACROSSE
Nassy=1	burnup=3.71	kinf=1.263	Enrch=2.12	Dschg=1975	DUANE ARNOL
Nassy=1	burnup=3.78	kinf=1.280	Enrch=2.23	Dschg=1975	DRESDEN
Nassy=1	burnup=4.80	kinf=1.467	Enrch=3.54	Dschg=1976	BIG ROCK
Nassy=1	burnup=2.90	kinf=1.273	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=1	burnup=3.30	kinf=1.267	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=2	burnup=2.43	kinf=1.105	Enrch=1.11	Dschg=1976	BRUNSWICK
Nassy=2	burnup=3.05	kinf=1.320	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=3.30	kinf=1.315	Enrch=2.40	Dschg=1976	HUMBOLDT BA
Nassy=4	burnup=2.43	kinf=1.329	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=2.69	kinf=1.325	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=3.89	kinf=1.308	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=4.34	kinf=1.301	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1	burnup=1.31	kinf=1.346	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1	burnup=12.04	kinf=1.407	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1	burnup=12.30	kinf=1.403	Enrch=3.93	Dschg=1977	LACROSSE
Nassy=1	burnup=7.61	kinf=1.476	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1	burnup=12.42	kinf=1.401	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=5	burnup=3.65	kinf=1.282	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=5	burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=1	burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=3.08	kinf=1.291	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=4.00	kinf=1.277	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=8	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=16	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=15	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=3.58	kinf=1.019	Enrch=0.72	Dschg=1980	HATCH
Nassy=16	burnup=1.89	kinf=1.041	Enrch=0.72	Dschg=1980	HATCH
Nassy=15	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=9	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=1	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=3	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=16	burnup=2.83	kinf=1.028	Enrch=0.72	Dschg=1980	HATCH
Nassy=8	burnup=4.31	kinf=1.009	Enrch=0.72	Dschg=1980	HATCH
Nassy=4	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1980	HATCH
Nassy=7	burnup=3.15	kinf=1.024	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=1	burnup=3.15	kinf=1.024	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8	burnup=4.11	kinf=1.012	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=35	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=1	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=12	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8	burnup=2.96	kinf=1.027	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=4	burnup=3.14	kinf=1.024	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8	burnup=4.86	kinf=1.003	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8	burnup=2.92	kinf=1.027	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8	burnup=3.41	kinf=1.021	Enrch=0.72	Dschg=1985	LASALLE
Nassy=13	burnup=4.08	kinf=1.012	Enrch=0.72	Dschg=1985	LASALLE
Nassy=5	burnup=4.08	kinf=1.012	Enrch=0.72	Dschg=1985	LASALLE
Nassy=23	burnup=3.91	kinf=1.015	Enrch=0.72	Dschg=1985	LASALLE
Nassy=7	burnup=3.91	kinf=1.015	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8	burnup=2.64	kinf=1.031	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8	burnup=2.22	kinf=1.038	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=14	burnup=2.86	kinf=1.030	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=8	burnup=3.07	kinf=1.027	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=4	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA

Nassy=18 burnup=2.65 kinf=1.033 Enrch=0.73 Dschg=1986 WASH NUCLEA
 Nassy=2 burnup=2.65 kinf=1.033 Enrch=0.73 Dschg=1986 WASH NUCLEA
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 Nassy=4 burnup=3.28 kinf=1.024 Enrch=0.73 Dschg=1986 WASH NUCLEA
 Nassy=2 burnup=4.17 kinf=1.013 Enrch=0.73 Dschg=1986 SUSQUEHANNA
 Nassy=24 burnup=4.17 kinf=1.013 Enrch=0.73 Dschg=1986 SUSQUEHANNA
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 Nassy=22 burnup=3.98 kinf=1.015 Enrch=0.73 Dschg=1986 SUSQUEHANNA
 Nassy=8 burnup=4.72 kinf=1.006 Enrch=0.73 Dschg=1986 SUSQUEHANNA
 Nassy=16 burnup=3.35 kinf=1.022 Enrch=0.72 Dschg=1986 GRAND GULF
 Nassy=44 burnup=3.35 kinf=1.022 Enrch=0.72 Dschg=1986 GRAND GULF
 Nassy=2 burnup=3.35 kinf=1.022 Enrch=0.72 Dschg=1986 GRAND GULF
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 Nassy=4 burnup=3.35 kinf=1.022 Enrch=0.72 Dschg=1986 GRAND GULF
 Nassy=1 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1987 LASALLE
 Nassy=44 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1987 LASALLE
 Nassy=36 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1987 LASALLE
 Nassy=8 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1987 LASALLE
 Nassy=2 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1987 LASALLE
 Nassy=1 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1987 LASALLE
 Nassy=18 burnup=5.00 kinf=1.487 Enrch=3.70 Dschg=1987 LACROSSE
 Nassy=5 burnup=5.00 kinf=1.487 Enrch=3.70 Dschg=1987 LACROSSE
 Nassy=1 burnup=5.00 kinf=1.488 Enrch=3.71 Dschg=1987 LACROSSE
 Nassy=14 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1987 RVR BEND
 Nassy=27 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1987 RVR BEND
 Nassy=17 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1987 RVR BEND
 Nassy=10 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1987 RVR BEND
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 Nassy=7 burnup=3.00 kinf=1.028 Enrch=0.73 Dschg=1988 HOPE CREEK
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 No bin for s 84.235031 1.251277
 No bin for s 112.499138 1.213784
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 No bin for s 113.771339 1.154404
 No bin for s 113.771339 1.154404
 No bin for s 113.771339 1.154404
 No bin for s 170.849915 1.142620
 No bin for s 170.902328 1.142620
 No bin for s 94.471634 1.248613
 Nassy=4 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1991 SUSQUEHANNA

Nassy=33 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1991 LIMERICK
 Nassy=44 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1991 LIMERICK
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 Nassy=40 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
 Nassy=3 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
 Nassy=32 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
 Nassy=88 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
 Nassy=13 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
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 No bin for p 887.186035 1.020675
 No bin for p 887.186096 1.020675
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 Nassy=44 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
 Nassy=28 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
 Nassy=7 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
 No bin for p 888.449402 1.020434
 No bin for p 888.449463 1.020434
 Nassy=30 burnup=3.22 kinf=1.457 Enrch=3.30 Dschg=2022 LASALLE
 Nassy=88 burnup=3.22 kinf=1.457 Enrch=3.30 Dschg=2022 LASALLE
 Nassy=4 burnup=3.22 kinf=1.457 Enrch=3.30 Dschg=2022 LASALLE
 Nassy=3 burnup=3.22 kinf=1.457 Enrch=3.30 Dschg=2022 LASALLE
 Nassy=26 burnup=3.22 kinf=1.457 Enrch=3.30 Dschg=2022 LASALLE
 Nassy=13 burnup=3.22 kinf=1.457 Enrch=3.30 Dschg=2022 LASALLE
 Nassy=16 burnup=10.67 kinf=1.402 Enrch=3.73 Dschg=2024 SUSQUEHANNA
 Nassy=14 burnup=10.67 kinf=1.402 Enrch=3.73 Dschg=2024 SUSQUEHANNA
 Nassy=22 burnup=10.67 kinf=1.402 Enrch=3.73 Dschg=2024 SUSQUEHANNA
 No bin for p 885.799805 1.020941
 No bin for p 885.799744 1.020941
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 Nassy=176 burnup=7.19 kinf=1.504 Enrch=4.07 Dschg=2026 NINE MILE P
 Nassy=12 burnup=7.19 kinf=1.504 Enrch=4.07 Dschg=2026 NINE MILE P
 Nassy=4 burnup=7.19 kinf=1.504 Enrch=4.07 Dschg=2026 NINE MILE P
 No bin for s 204.010727 1.263075
 No bin for s 204.010727 1.263075
 No bin for s 203.979156 1.263075
 No bin for s 413.208038 1.146340
 No bin for s 413.208038 1.146340
 No bin for s 413.208038 1.146340
 No bin for s 413.259186 1.146340
 No bin for s 288.506866 1.232183
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 No bin for s 278.227936 1.231475
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No bin for p 1551.462769 1.007558
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No bin for p 1551.546753 1.007558
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INPUT FILE LISTING:

#bins	Input_file	Output_file	Case_title	Last_delivery	
8	case11.wsm	finalw11.out	FINAL-W11	2045	
Type	Cap	Hmin	Hmax	Kmin	Kmax
p	21	0	850	0.00	1.00
p	21	0	850	1.00	1.13
p	21	0	850	1.13	1.45
p	12	850	1500	0.00	1.02
s	12	0	1500	0.00	1.13
b	44	0	400	0.00	1.00
b	44	0	400	1.00	1.37
b	24	0	520	0.00	1.54

OUTPUT FILE LISTING:

FINAL-W11
8 Bins

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	106	5.05	47.65
2011	179	8.52	78.05
2012	494	23.52	219.76
2013	883	42.05	381.26
2014	1683	80.14	731.01
2015	1528	72.76	660.99
2016	1566	74.57	683.89
2017	1739	82.81	755.05
2018	1933	92.05	830.95
2019	1798	85.62	786.01
2020	1829	87.10	797.70
2021	1664	79.24	724.38
2022	1792	85.33	781.79
2023	1742	82.95	753.03
2024	1589	75.67	690.87
2025	1711	81.48	734.27
2026	1523	72.52	665.80
2027	1879	89.48	809.51
2028	1328	63.24	584.86
2029	1408	67.05	606.59
2030	413	19.67	180.45
2031	487	23.19	206.77
2032	136	6.48	56.67
2033	49	2.33	20.90
2034	571	27.19	236.02
2035	918	43.71	388.20
2036	1449	69.00	612.55
2037	1427	67.95	590.22
2038	1271	60.52	536.35
2039	1893	90.14	802.70
2040	2018	96.10	858.58
2041	909	43.29	387.86

Bin Total 39915 1900.71 17200.67

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	312	14.86	138.96
2011	583	27.76	251.90
2012	896	42.67	396.07
2013	1871	89.10	815.23
2014	2791	132.90	1201.13

2015	2760	131.43	1191.97
2016	2801	133.38	1207.43
2017	2683	127.76	1159.88
2018	2298	109.43	994.06
2019	2485	118.33	1075.38
2020	2536	120.76	1096.59
2021	2459	117.10	1063.79
2022	2511	119.57	1087.51
2023	2556	121.71	1103.37
2024	2337	111.29	1012.08
2025	2208	105.14	951.61
2026	2598	123.71	1134.23
2027	1882	89.62	810.77
2028	2160	102.86	941.15
2029	2576	122.67	1122.31
2030	3175	151.19	1381.27
2031	2367	112.71	1033.17
2032	1935	92.14	823.59
2033	1529	72.81	643.01
2034	3015	143.57	1265.63
2035	2707	128.90	1155.80
2036	2913	138.71	1246.11
2037	3125	148.81	1363.51
2038	2899	138.05	1232.51
2039	3023	143.95	1288.68
2040	2890	137.62	1234.63
2041	1482	70.57	637.06

Bin Total 74363 3541.10 32060.38

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.13 Kmax=1.45

Year	Num_Assy	Num_Pkgs	MTU
2010	2	0.10	0.92
2011	99	4.71	45.85
2012	0	0.00	0.00
2013	178	8.48	73.31
2014	83	3.95	31.31
2015	15	0.71	6.81
2016	49	2.33	18.35
2017	19	0.90	6.91
2018	67	3.19	26.86
2019	81	3.86	33.85
2020	92	4.38	38.36
2021	63	3.00	27.83
2022	83	3.95	34.91
2023	211	10.05	93.61
2024	244	11.62	103.15
2025	88	4.19	36.86
2026	136	6.48	62.60
2027	517	24.62	223.48
2028	416	19.81	167.39
2029	135	6.43	61.30
2030	111	5.29	51.31
2031	469	22.33	206.61
2032	492	23.43	212.62
2033	690	32.86	243.52
2034	292	13.90	116.52
2035	187	8.90	75.27
2036	90	4.29	33.58
2037	81	3.86	35.04
2038	55	2.62	20.82
2039	19	0.90	8.38
2040	174	8.29	57.87
2041	159	7.57	68.92

Bin Total 5397 257.00 2224.14

Type=p Cap=12 Hmin=850.0 Hmax=1500.0 Kmin=0.00 Kmax=1.02

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	29	2.42	13.59
2013	69	5.75	32.11
2014	57	4.75	26.43
2015	89	7.42	46.88
2016	27	2.25	12.64
2017	89	7.42	47.09
2018	76	6.33	35.78
2019	85	7.08	44.28
2020	154	12.83	65.77
2021	86	7.17	38.75
2022	45	3.75	20.99
2023	93	7.75	41.76
2024	147	12.25	66.76
2025	151	12.58	67.69
2026	99	8.25	45.33
2027	300	25.00	132.68
2028	299	24.92	134.86
2029	705	58.75	316.35
2030	864	72.00	388.07
2031	867	72.25	379.96
2032	1118	93.17	479.84
2033	1102	91.83	483.43
2034	40	3.33	16.99
2035	59	4.92	26.87
2036	0	0.00	0.00
2037	38	3.17	17.44
2038	155	12.92	66.48
2039	0	0.00	0.00
2040	0	0.00	0.00
2041	4	0.33	1.82
Bin Total	6847	570.58	3050.67

Type=s Cap=12 Hmin=0.0 Hmax=1500.0 Kmin=0.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	125	10.42	67.55
2013	149	12.42	80.62
2014	0	0.00	0.00
2015	126	10.50	68.14
2016	126	10.50	67.86
2017	210	17.50	113.04
2018	147	12.25	79.14
2019	105	8.75	56.52
2020	105	8.75	56.52
2021	126	10.50	67.83
2022	105	8.75	56.52
2023	126	10.50	67.83
2024	96	8.00	51.68
2025	129	10.75	69.44
2026	150	12.50	80.75
2027	78	6.50	41.99
2028	111	9.25	59.75
2029	207	17.25	111.43
2030	195	16.25	104.97
2031	210	17.50	113.05
2032	180	15.00	96.90
2033	450	37.50	242.24
2034	4	0.33	2.15

2035	0	0.00	0.00
2036	0	0.00	0.00
2037	0	0.00	0.00
2038	0	0.00	0.00
2039	0	0.00	0.00
2040	79	6.58	42.87
2041	0	0.00	0.00

Bin Total	3339	278.25	1798.79
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Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	4	0.09	0.71
2011	199	4.52	34.65
2012	347	7.89	60.34
2013	1033	23.48	182.51
2014	1321	30.02	233.41
2015	1873	42.57	328.63
2016	1869	42.48	324.92
2017	1451	32.98	252.00
2018	2412	54.82	416.97
2019	1745	39.66	301.95
2020	1619	36.80	278.67
2021	1890	42.95	328.74
2022	2156	49.00	371.84
2023	2057	46.75	354.86
2024	2548	57.91	445.42
2025	2508	57.00	431.96
2026	2309	52.48	400.48
2027	2187	49.70	380.08
2028	2619	59.52	457.39
2029	1765	40.11	308.64
2030	2247	51.07	389.67
2031	2401	54.57	420.02
2032	1595	36.25	275.13
2033	222	5.05	38.28
2034	256	5.82	48.82
2035	351	7.98	67.37
2036	188	4.27	34.93
2037	229	5.20	41.66
2038	263	5.98	47.23
2039	410	9.32	72.93
2040	1314	29.86	232.37
2041	435	9.89	75.79

Bin Total	43823	995.98	7638.38
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Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=1.00 Kmax=1.37

Year	Num_Assy	Num_Pkgs	MTU
2010	612	13.91	107.40
2011	1033	23.48	187.38
2012	2425	55.11	433.53
2013	2487	56.52	448.21
2014	4375	99.43	771.68
2015	3974	90.32	686.28
2016	3919	89.07	695.21
2017	3741	85.02	672.33
2018	3479	79.07	607.98
2019	3951	89.80	700.64
2020	3685	83.75	666.40
2021	4080	92.73	734.22
2022	3275	74.43	580.56
2023	3350	76.14	603.19
2024	3224	73.27	568.06

2025	3892	88.45	686.65
2026	3346	76.05	587.94
2027	3171	72.07	560.34
2028	3493	79.39	621.58
2029	2679	60.89	475.71
2030	2857	64.93	509.84
2031	2823	64.16	497.09
2032	3691	83.89	646.42
2033	5081	115.48	913.25
2034	6570	149.32	1145.57
2035	6579	149.52	1214.52
2036	5974	135.77	1089.28
2037	5007	113.80	905.10
2038	6223	141.43	1109.51
2039	4518	102.68	815.45
2040	3193	72.57	564.02
2041	2445	55.57	434.86

Bin Total 119152 2708.00 21240.19

Type=b Cap=24 Hmin=0.0 Hmax=520.0 Kmin=0.00 Kmax=1.54

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	0	0.00	0.00
2013	0	0.00	0.00
2014	1	0.04	0.18
2015	0	0.00	0.00
2016	0	0.00	0.00
2017	0	0.00	0.00
2018	0	0.00	0.00
2019	0	0.00	0.00
2020	0	0.00	0.00
2021	102	4.25	16.83
2022	341	14.21	58.44
2023	5	0.21	0.85
2024	256	10.67	43.61
2025	156	6.50	27.58
2026	153	6.38	26.16
2027	362	15.08	61.93
2028	92	3.83	16.38
2029	0	0.00	0.00
2030	0	0.00	0.00
2031	628	26.17	109.47
2032	1142	47.58	197.13
2033	977	40.71	165.54
2034	493	20.54	82.71
2035	18	0.75	2.27
2036	3	0.13	0.38
2037	0	0.00	0.00
2038	48	2.00	5.21
2039	0	0.00	0.00
2040	0	0.00	0.00
2041	0	0.00	0.00

Bin Total 4777 199.04 814.65

Summary Table

Type	Cap	Num_Assy	PctType	Num_Pkg	MTU
p	21	39915	30.35	1900.71	17200.67
p	21	74363	56.54	3541.10	32060.38
p	21	5397	4.10	257.00	2224.14
p	12	6847	5.21	570.58	3050.67
s	12	3339	2.54	278.25	1798.79
b	44	43823	26.12	995.98	7638.38
b	44	119152	71.03	2708.00	21240.19

b	24	4777	2.85	199.04	814.65
b	1	0	0.00	0.00	0.00
p	1	1504	1.14	1504.00	657.55
s	1	157	0.12	157.00	84.60

Totals	299274	10450.66	86770.03
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JUNK FILE LISTING:

Nassy=1 burnup=1.87	kinf=1.529	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.45	kinf=1.536	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.53	kinf=1.535	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=1 burnup=6.38	kinf=1.455	Enrch=3.63	Dschg=1969	WEST VALLEY
Nassy=2 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=3 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=8 burnup=0.34	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.18	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.36	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.23	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=6 burnup=0.34	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=4 burnup=0.34	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=7 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.77	kinf=1.260	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.86	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.79	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8 burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=11 burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.34	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.46	kinf=1.270	Enrch=1.97	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.57	kinf=1.267	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=8 burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.76	kinf=1.261	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.23	kinf=1.279	Enrch=2.00	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.46	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.09	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.27	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.28	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.32	kinf=1.275	Enrch=1.99	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.11	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.42	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.23	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=11 burnup=1.34	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.15	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.15	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8 burnup=1.44	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=15 burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=0.86	kinf=1.291	Enrch=2.04	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.62	kinf=1.265	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.64	kinf=1.264	Enrch=1.95	Dschg=1971	GE MORRIS (
Nassy=10 burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=15 burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.13	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=24 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.78	kinf=1.260	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=2 burnup=9.28	kinf=1.410	Enrch=3.63	Dschg=1971	WEST VALLEY

Nassy=1 burnup=4.99	kinf=1.478 Enrch=3.63 Dschg=1971	WEST VALLEY
Nassy=1 burnup=8.24	kinf=1.426 Enrch=3.63 Dschg=1971	WEST VALLEY
Nassy=1 burnup=9.23	kinf=1.411 Enrch=3.63 Dschg=1971	WEST VALLEY
Nassy=1 burnup=1.53	kinf=1.318 Enrch=2.26 Dschg=1971	DRESDEN
Nassy=1 burnup=4.49	kinf=1.250 Enrch=2.11 Dschg=1971	OYSTER CRK
Nassy=1 burnup=3.27	kinf=1.212 Enrch=1.78 Dschg=1972	GE MORRIS (
Nassy=44 burnup=4.52	kinf=1.253 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=16 burnup=4.52	kinf=1.253 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=28 burnup=3.43	kinf=1.269 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=8 burnup=3.43	kinf=1.269 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=12 burnup=2.81	kinf=1.227 Enrch=1.83 Dschg=1972	GE MORRIS (
Nassy=10 burnup=3.13	kinf=1.217 Enrch=1.80 Dschg=1972	GE MORRIS (
Nassy=3 burnup=3.87	kinf=1.195 Enrch=1.73 Dschg=1972	GE MORRIS (
Nassy=11 burnup=3.87	kinf=1.195 Enrch=1.73 Dschg=1972	GE MORRIS (
Nassy=16 burnup=3.87	kinf=1.195 Enrch=1.73 Dschg=1972	GE MORRIS (
Nassy=28 burnup=4.14	kinf=1.258 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=6 burnup=4.14	kinf=1.258 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=33 burnup=4.14	kinf=1.258 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=5 burnup=4.62	kinf=1.173 Enrch=1.67 Dschg=1972	GE MORRIS (
Nassy=9 burnup=4.62	kinf=1.173 Enrch=1.67 Dschg=1972	GE MORRIS (
Nassy=13 burnup=3.39	kinf=1.209 Enrch=1.77 Dschg=1972	GE MORRIS (
Nassy=1 burnup=3.34	kinf=1.269 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=4 burnup=3.34	kinf=1.269 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=5 burnup=4.77	kinf=1.249 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=5 burnup=3.84	kinf=1.195 Enrch=1.73 Dschg=1972	GE MORRIS (
Nassy=1 burnup=3.28	kinf=1.271 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=1 burnup=2.73	kinf=1.279 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=5 burnup=4.69	kinf=1.250 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=18 burnup=4.69	kinf=1.250 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=22 burnup=4.31	kinf=1.182 Enrch=1.69 Dschg=1972	GE MORRIS (
Nassy=1 burnup=4.31	kinf=1.182 Enrch=1.69 Dschg=1972	GE MORRIS (
Nassy=3 burnup=3.12	kinf=1.273 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=7 burnup=3.12	kinf=1.273 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=13 burnup=3.60	kinf=1.203 Enrch=1.76 Dschg=1972	GE MORRIS (
Nassy=4 burnup=2.84	kinf=1.277 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=20 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=13 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=22 burnup=4.38	kinf=1.254 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=3 burnup=3.91	kinf=1.261 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=6 burnup=3.79	kinf=1.263 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=15 burnup=3.79	kinf=1.263 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=15 burnup=3.77	kinf=1.264 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=14 burnup=3.77	kinf=1.264 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=30 burnup=3.77	kinf=1.264 Enrch=2.13 Dschg=1972	GE MORRIS (
Nassy=14 burnup=4.39	kinf=1.179 Enrch=1.68 Dschg=1972	GE MORRIS (
Nassy=3 burnup=4.39	kinf=1.179 Enrch=1.68 Dschg=1972	GE MORRIS (
Nassy=7 burnup=4.39	kinf=1.179 Enrch=1.68 Dschg=1972	GE MORRIS (
Nassy=14 burnup=4.64	kinf=1.172 Enrch=1.66 Dschg=1972	GE MORRIS (
Nassy=1 burnup=8.59	kinf=1.421 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=1 burnup=9.12	kinf=1.413 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=1 burnup=8.73	kinf=1.419 Enrch=3.63 Dschg=1972	WEST VALLEY
Nassy=2 burnup=4.86	kinf=1.239 Enrch=2.08 Dschg=1972	MILLSTONE
Nassy=4 burnup=6.45	kinf=1.454 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=8.75	kinf=1.418 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=7.35	kinf=1.440 Enrch=3.63 Dschg=1973	WEST VALLEY
Nassy=1 burnup=3.88	kinf=1.262 Enrch=2.13 Dschg=1973	DRESDEN
Nassy=2 burnup=4.96	kinf=1.246 Enrch=2.13 Dschg=1973	DRESDEN
Nassy=1 burnup=1.05	kinf=1.365 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=3 burnup=0.97	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=5 burnup=4.32	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=0.99	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=7 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=7 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=7 burnup=4.39	kinf=1.315 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=2 burnup=4.00	kinf=1.320 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=5 burnup=4.05	kinf=1.320 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=4 burnup=1.16	kinf=1.364 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=6 burnup=4.66	kinf=1.311 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=0.99	kinf=1.366 Enrch=2.50 Dschg=1973	VT YANKEE
Nassy=1 burnup=4.69	kinf=1.310 Enrch=2.50 Dschg=1973	VT YANKEE

Nassy=2	burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=2	burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1	burnup=8.77	kinf=1.418	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=4	burnup=9.10	kinf=1.413	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1	burnup=3.97	kinf=1.271	Enrch=2.19	Dschg=1973	PILGRIM
Nassy=1	burnup=2.63	kinf=1.290	Enrch=2.19	Dschg=1973	PILGRIM
Nassy=1	burnup=8.95	kinf=1.415	Enrch=3.63	Dschg=1974	WEST VALLEY
Nassy=1	burnup=8.15	kinf=1.428	Enrch=3.63	Dschg=1974	WEST VALLEY
Nassy=5	burnup=4.95	kinf=1.306	Enrch=2.50	Dschg=1974	VT YANKEE
Nassy=3	burnup=4.95	kinf=1.306	Enrch=2.50	Dschg=1974	VT YANKEE
No bin for p 5.884874 1.454020					
No bin for p 5.890479 1.454020					
Nassy=1	burnup=7.57	kinf=1.476	Enrch=3.92	Dschg=1975	LACROSSE
Nassy=1	burnup=3.71	kinf=1.263	Enrch=2.12	Dschg=1975	DUANE ARNOL
Nassy=1	burnup=3.78	kinf=1.280	Enrch=2.23	Dschg=1975	DRESDEN
Nassy=1	burnup=2.90	kinf=1.273	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=1	burnup=3.30	kinf=1.267	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=2	burnup=2.43	kinf=1.105	Enrch=1.11	Dschg=1976	BRUNSWICK
Nassy=2	burnup=3.05	kinf=1.320	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=3.30	kinf=1.315	Enrch=2.40	Dschg=1976	HUMBOLDT BA
Nassy=4	burnup=2.43	kinf=1.329	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=2.69	kinf=1.325	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=3.89	kinf=1.308	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2	burnup=4.34	kinf=1.301	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1	burnup=1.31	kinf=1.346	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1	burnup=12.04	kinf=1.407	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1	burnup=12.30	kinf=1.403	Enrch=3.93	Dschg=1977	LACROSSE
Nassy=1	burnup=7.61	kinf=1.476	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1	burnup=12.42	kinf=1.401	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=5	burnup=3.65	kinf=1.282	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=3.08	kinf=1.291	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=4.00	kinf=1.277	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=3	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=18	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=5	burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=1	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=20	burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4	burnup=3.58	kinf=1.019	Enrch=0.72	Dschg=1980	HATCH
Nassy=16	burnup=1.89	kinf=1.041	Enrch=0.72	Dschg=1980	HATCH
Nassy=3	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=5	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=20	burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=16	burnup=2.83	kinf=1.028	Enrch=0.72	Dschg=1980	HATCH
Nassy=3	burnup=4.31	kinf=1.009	Enrch=0.72	Dschg=1980	HATCH
Nassy=5	burnup=4.31	kinf=1.009	Enrch=0.72	Dschg=1980	HATCH
Nassy=4	burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1980	HATCH
Nassy=8	burnup=3.15	kinf=1.024	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8	burnup=4.11	kinf=1.012	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=16	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=29	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=3	burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8	burnup=2.96	kinf=1.027	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=4	burnup=3.14	kinf=1.024	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8	burnup=4.86	kinf=1.003	Enrch=0.72	Dschg=1985	LASALLE
Nassy=6	burnup=2.92	kinf=1.027	Enrch=0.72	Dschg=1985	LASALLE
Nassy=2	burnup=2.92	kinf=1.027	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8	burnup=3.41	kinf=1.021	Enrch=0.72	Dschg=1985	LASALLE
Nassy=18	burnup=4.08	kinf=1.012	Enrch=0.72	Dschg=1985	LASALLE
Nassy=30	burnup=3.91	kinf=1.015	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8	burnup=2.64	kinf=1.031	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8	burnup=2.22	kinf=1.038	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=14	burnup=2.86	kinf=1.030	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=8	burnup=3.07	kinf=1.027	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=1	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=30	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=11	burnup=2.65	kinf=1.033	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=16	burnup=1.77	kinf=1.044	Enrch=0.73	Dschg=1986	WASH NUCLEA

Nassy=1 burnup=3.28	kinf=1.024	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=3 burnup=3.28	kinf=1.024	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=26 burnup=4.17	kinf=1.013	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=8 burnup=3.09	kinf=1.026	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=2 burnup=2.76	kinf=1.030	Enrch=0.72	Dschg=1986	SUSQUEHANNA
Nassy=6 burnup=2.76	kinf=1.030	Enrch=0.72	Dschg=1986	SUSQUEHANNA
Nassy=12 burnup=3.50	kinf=1.020	Enrch=0.72	Dschg=1986	SUSQUEHANNA
Nassy=7 burnup=3.98	kinf=1.015	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=15 burnup=3.98	kinf=1.015	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=8 burnup=4.72	kinf=1.006	Enrch=0.73	Dschg=1986	SUSQUEHANNA
Nassy=11 burnup=3.35	kinf=1.022	Enrch=0.72	Dschg=1986	GRAND GULF
Nassy=21 burnup=3.35	kinf=1.022	Enrch=0.72	Dschg=1986	GRAND GULF
Nassy=40 burnup=3.35	kinf=1.022	Enrch=0.72	Dschg=1986	GRAND GULF
Nassy=4 burnup=3.35	kinf=1.022	Enrch=0.72	Dschg=1986	GRAND GULF
Nassy=16 burnup=3.35	kinf=1.022	Enrch=0.72	Dschg=1986	GRAND GULF
Nassy=2 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE
Nassy=4 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE
Nassy=44 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE
Nassy=13 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE
Nassy=28 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE
Nassy=1 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1987	LASALLE
Nassy=1 burnup=5.00	kinf=1.487	Enrch=3.70	Dschg=1987	LACROSSE
Nassy=6 burnup=5.00	kinf=1.487	Enrch=3.70	Dschg=1987	LACROSSE
Nassy=9 burnup=5.00	kinf=1.487	Enrch=3.70	Dschg=1987	LACROSSE
Nassy=7 burnup=5.00	kinf=1.487	Enrch=3.70	Dschg=1987	LACROSSE
Nassy=1 burnup=5.00	kinf=1.488	Enrch=3.71	Dschg=1987	LACROSSE
Nassy=18 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1987	RVR BEND
Nassy=16 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1987	RVR BEND
Nassy=28 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1987	RVR BEND
Nassy=14 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1987	RVR BEND
Nassy=41 burnup=3.00	kinf=1.028	Enrch=0.73	Dschg=1988	HOPE CREEK
Nassy=19 burnup=3.00	kinf=1.028	Enrch=0.73	Dschg=1988	HOPE CREEK
Nassy=31 burnup=3.00	kinf=1.028	Enrch=0.73	Dschg=1988	HOPE CREEK
Nassy=1 burnup=3.00	kinf=1.028	Enrch=0.73	Dschg=1988	HOPE CREEK
Nassy=44 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=32 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	CLINTON
Nassy=8 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=25 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=19 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=25 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
Nassy=15 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1989	ENRICO FERM
No bin for s 112.756371 1.163861				
No bin for s 85.644890 1.251277				
No bin for s 114.527359 1.213784				
Nassy=17 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=11 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=33 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=11 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
Nassy=20 burnup=4.00	kinf=1.013	Enrch=0.72	Dschg=1990	NINE MILE P
No bin for s 115.520226 1.154404				
No bin for s 115.520226 1.154404				
No bin for s 115.520226 1.154404				
No bin for s 115.520226 1.154404				
No bin for s 115.520226 1.154404				
No bin for s 115.520226 1.154404				
No bin for s 157.628998 1.205290				
No bin for s 154.495773 1.206209				
Nassy=4 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	SUSQUEHANNA
Nassy=36 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=44 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=12 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1991	LIMERICK
Nassy=1 burnup=1.97	kinf=1.483	Enrch=3.34	Dschg=1994	RVR BEND
age=9 , mass= 7.396000				
age=9 , mass= 0.172000				
Nassy=29 burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=8 burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=36 burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=8 burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P
Nassy=36 burnup=7.19	kinf=1.402	Enrch=3.35	Dschg=2009	NINE MILE P

Nassy=8 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
 Nassy=36 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
 Nassy=8 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
 Nassy=7 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
 Nassy=24 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
 Nassy=16 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
 Nassy=28 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
 Nassy=12 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
 Nassy=176 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
 Nassy=13 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
 Nassy=3 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
 Nassy=2 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
 Nassy=24 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
 Nassy=12 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
 Nassy=12 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
 Nassy=24 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
 Nassy=8 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
 Nassy=16 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
 Nassy=24 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
 Nassy=4 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
 Nassy=20 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
 Nassy=7 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
 Nassy=13 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
 Nassy=6 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
 Nassy=24 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
 Nassy=14 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
 Nassy=10 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
 Nassy=24 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
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 Nassy=12 burnup=3.22 kinf=1.457 Enrch=3.30 Dschg=2022 LASALLE
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 Nassy=32 burnup=3.22 kinf=1.457 Enrch=3.30 Dschg=2022 LASALLE
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 No bin for s 443.229401 1.237993
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 No bin for p 1180.744629 1.024400
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 No bin for p 1180.744629 1.024400
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 age=5 , mass= 24.563000
 No bin for p 925.616516 1.059850
 age=5 , mass= 2.456000
 No bin for p 925.503479 1.059850
 age=6 , mass= 4.503000
 age=6 , mass= 1.638000
 age=6 , mass= 0.390000
 No bin for p 1638.481689 0.976983
 age=5 , mass= 1.842000
 No bin for p 1655.654175 1.001561
 age=5 , mass= 16.576000
 No bin for p 1655.454346 1.001561
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 age=6 , mass= 2.302000
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 age=5 , mass= 0.680000
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 age=5 , mass= 69.401001
 age=5 , mass= 1.701000
 age=5 , mass= 2.722000
 age=5 , mass= 1.638000
 No bin for p 1003.860046 1.036853
 age=5 , mass= 29.476000
 No bin for p 1003.587708 1.036853
 age=5 , mass= 3.275000
 No bin for p 1003.553650 1.036853
 age=5 , mass= 1.638000
 No bin for p 1003.860046 1.036853
 age=5 , mass= 2.456000
 age=5 , mass= 8.597000
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 age=5 , mass= 2.456000
 age=5 , mass= 2.047000
 age=5 , mass= 8.597000
 age=5 , mass= 8.188000
 age=5 , mass= 0.409000
 age=5 , mass= 6.141000
 age=5 , mass= 2.456000
 No bin for p 944.999329 1.061804
 age=5 , mass= 19.650999
 No bin for p 945.143494 1.061804
 age=5 , mass= 3.275000
 No bin for p 945.095459 1.061804
 age=5 , mass= 4.094000
 No bin for p 945.153137 1.061804
 age=7 , mass= 2.047000
 age=7 , mass= 3.403000
 age=7 , mass= 0.433000
 No bin for p 1603.773193 0.971835
 age=5 , mass= 0.459000
 age=5 , mass= 16.527000
 age=5 , mass= 2.755000
 age=7 , mass= 0.918000
 age=7 , mass= 0.459000
 age=7 , mass= 1.298000
 No bin for p 1042.272339 1.020855
 age=7 , mass= 1.298000
 No bin for p 1042.272339 1.020855
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 No bin for p 909.703247 1.035883
 age=5 , mass= 19.650999
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 age=5 , mass= 3.685000
 No bin for p 909.857544 1.035883
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 age=6 , mass= 1.638000
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 age=5 , mass= 0.433000
 No bin for p 1323.103638 1.028102
 age=5 , mass= 0.433000
 No bin for p 1323.103638 1.028102
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age=5 , mass= 1.384000
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No bin for p 1093.807739 1.064021
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No bin for p 1093.770142 1.064021
age=5 , mass= 2.307000
No bin for p 1093.702393 1.064021
age=5 , mass= 11.073000
No bin for p 1551.462769 1.007558
age=5 , mass= 2.768000
No bin for p 1551.322510 1.007558
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No bin for p 1279.352661 1.027544
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No bin for p 1279.583862 1.027544
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INPUT FILE LISTING:

#bins	Input_file	Output_file	Case_title	Last_delivery	
8	case12.wsm	finalw12.out	FINAL-W12	2045	
Type	Cap	Hmin	Hmax	Kmin	Kmax
p	21	0	850	0.00	1.00
p	21	0	850	1.00	1.13
p	21	0	850	1.13	1.45
p	12	850	1500	0.00	1.02
s	12	0	1500	0.00	1.13
b	44	0	400	0.00	1.00
b	44	0	400	1.00	1.37
b	24	0	520	0.00	1.54

OUTPUT FILE LISTING:

FINAL-W12
8 Bins

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	158	7.52	57.84
2012	539	25.67	215.45
2013	1316	62.67	533.25
2014	1268	60.38	518.24
2015	1717	81.76	725.63
2016	1371	65.29	570.86
2017	1699	80.90	722.70
2018	1752	83.43	756.87
2019	2029	96.62	873.09
2020	1970	93.81	847.75
2021	1747	83.19	756.59
2022	2079	99.00	885.56
2023	2373	113.00	1028.46
2024	2048	97.52	894.29
2025	1713	81.57	744.32
2026	1932	92.00	845.06
2027	2292	109.14	988.65
2028	1809	86.14	808.78
2029	2045	97.38	885.72
2030	1574	74.95	692.30
2031	2040	97.14	895.14
2032	1727	82.24	757.53
2033	1908	90.86	835.84
2034	1895	90.24	836.12
2035	1679	79.95	744.83
2036	1653	78.71	723.86
2037	1229	58.52	549.87
2038	1229	58.52	545.14
2039	990	47.14	419.72
2040	1260	60.00	536.56
2041	723	34.43	303.90

Bin Total 49764 2369.71 21499.95

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	117	5.57	46.65
2011	409	19.48	170.41
2012	998	47.52	413.27
2013	1482	70.57	623.87
2014	2739	130.43	1182.43

2015	2667	127.00	1142.03
2016	3051	145.29	1297.12
2017	2767	131.76	1180.53
2018	2617	124.62	1113.36
2019	2542	121.05	1098.57
2020	2447	116.52	1059.46
2021	2514	119.71	1080.63
2022	2285	108.81	988.55
2023	1952	92.95	854.67
2024	2425	115.48	1049.16
2025	2349	111.86	1021.47
2026	2099	99.95	901.87
2027	2246	106.95	972.97
2028	2282	108.67	1001.19
2029	2310	110.00	1004.17
2030	2251	107.19	975.84
2031	2574	122.57	1111.89
2032	2258	107.52	965.06
2033	2010	95.71	866.98
2034	2242	106.76	982.19
2035	2429	115.67	1052.03
2036	2152	102.48	918.97
2037	2457	117.00	1071.46
2038	3004	143.05	1314.94
2039	2384	113.52	1031.95
2040	2561	121.95	1107.13
2041	1364	64.95	571.51

Bin Total 69984 3332.57 30172.30

Type=p Cap=21 Hmin=0.0 Hmax=850.0 Kmin=1.13 Kmax=1.45

Year	Num_Assy	Num_Pkgs	MTU
2010	156	7.43	56.88
2011	147	7.00	44.40
2012	164	7.81	39.99
2013	44	2.10	14.75
2014	25	1.19	7.88
2015	41	1.95	16.56
2016	25	1.19	10.43
2017	36	1.71	15.62
2018	121	5.76	55.64
2019	48	2.29	20.80
2020	145	6.90	47.52
2021	308	14.67	125.19
2022	36	1.71	15.35
2023	227	10.81	99.39
2024	167	7.95	66.74
2025	214	10.19	87.85
2026	25	1.19	10.02
2027	208	9.90	83.46
2028	161	7.67	70.29
2029	271	12.90	111.61
2030	167	7.95	70.35
2031	109	5.19	43.54
2032	119	5.67	54.13
2033	147	7.00	63.92
2034	206	9.81	88.35
2035	455	21.67	204.43
2036	472	22.48	196.91
2037	328	15.62	146.09
2038	237	11.29	105.78
2039	240	11.43	104.26
2040	83	3.95	34.52
2041	93	4.43	42.66

Bin Total 5225 248.81 2155.30

Type=p Cap=12 Hmin=850.0 Hmax=1500.0 Kmin=0.00 Kmax=1.02

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	0	0.00	0.00
2013	26	2.17	11.96
2014	0	0.00	0.00
2015	54	4.50	25.30
2016	53	4.42	24.83
2017	25	2.08	11.50
2018	49	4.08	22.96
2019	43	3.58	19.98
2020	52	4.33	24.37
2021	45	3.75	21.09
2022	34	2.83	15.93
2023	5	0.42	2.10
2024	22	1.83	10.16
2025	29	2.42	13.59
2026	78	6.50	36.55
2027	87	7.25	36.86
2028	11	0.92	4.88
2029	60	5.00	25.40
2030	76	6.33	35.11
2031	77	6.42	33.73
2032	66	5.50	27.55
2033	123	10.25	53.77
2034	187	15.58	77.90
2035	60	5.00	25.89
2036	178	14.83	79.97
2037	198	16.50	87.04
2038	303	25.25	134.75
2039	346	28.83	150.40
2040	269	22.42	123.36
2041	375	31.25	172.62
Bin Total	2931	244.25	1309.53

Type=s Cap=12 Hmin=0.0 Hmax=1500.0 Kmin=0.00 Kmax=1.13

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	0	0.00	0.00
2012	0	0.00	0.00
2013	0	0.00	0.00
2014	0	0.00	0.00
2015	0	0.00	0.00
2016	0	0.00	0.00
2017	0	0.00	0.00
2018	0	0.00	0.00
2019	163	13.58	88.31
2020	83	6.92	44.78
2021	125	10.42	67.65
2022	84	7.00	45.47
2023	126	10.50	67.94
2024	126	10.50	67.84
2025	147	12.25	79.13
2026	147	12.25	79.13
2027	105	8.75	56.52
2028	105	8.75	56.52
2029	63	5.25	33.91
2030	231	19.25	124.35
2031	105	8.75	56.52
2032	105	8.75	56.52
2033	126	10.50	67.83
2034	105	8.75	56.52

2035	105	8.75	56.52
2036	126	10.50	67.83
2037	168	14.00	90.44
2038	210	17.50	113.05
2039	252	21.00	135.66
2040	213	17.75	114.66
2041	355	29.58	191.10

Bin Total	3375	281.25	1818.22
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Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=0.00 Kmax=1.00

Year	Num_Assy	Num_Pkgs	MTU
2010	2	0.05	0.21
2011	6	0.14	0.61
2012	40	0.91	7.68
2013	355	8.07	67.09
2014	963	21.89	174.20
2015	881	20.02	158.99
2016	1297	29.48	226.82
2017	817	18.57	140.71
2018	1023	23.25	179.40
2019	1499	34.07	262.61
2020	1665	37.84	285.33
2021	1679	38.16	293.88
2022	2086	47.41	360.19
2023	2075	47.16	358.81
2024	1951	44.34	338.32
2025	2475	56.25	430.37
2026	2629	59.75	455.99
2027	2116	48.09	366.73
2028	2125	48.30	368.63
2029	1957	44.48	338.90
2030	1741	39.57	304.08
2031	1921	43.66	335.44
2032	1465	33.30	255.02
2033	1974	44.86	342.92
2034	1509	34.30	262.98
2035	1354	30.77	235.99
2036	1050	23.86	184.52
2037	1434	32.59	250.07
2038	1656	37.64	289.09
2039	2619	59.52	453.37
2040	1107	25.16	192.39
2041	797	18.11	135.97

Bin Total	46268	1051.55	8057.33
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Type=b Cap=44 Hmin=0.0 Hmax=400.0 Kmin=1.00 Kmax=1.37

Year	Num_Assy	Num_Pkgs	MTU
2010	1098	24.95	187.32
2011	1875	42.61	322.48
2012	3014	68.50	527.45
2013	4237	96.30	745.95
2014	6216	141.27	1112.10
2015	5187	117.89	929.48
2016	4972	113.00	874.96
2017	5228	118.82	921.40
2018	4959	112.70	880.12
2019	3582	81.41	634.84
2020	3812	86.64	677.61
2021	3666	83.32	650.82
2022	3859	87.70	680.63
2023	3382	76.86	602.73
2024	2990	67.95	527.13

2025	3473	78.93	613.80
2026	3535	80.34	623.55
2027	2850	64.77	504.17
2028	3817	86.75	670.59
2029	3177	72.20	569.12
2030	4225	96.02	766.32
2031	3007	68.34	547.19
2032	4609	104.75	833.33
2033	3662	83.23	674.99
2034	3852	87.55	695.06
2035	3742	85.05	678.07
2036	4514	102.59	820.65
2037	4178	94.95	757.81
2038	2788	63.36	496.67
2039	3905	88.75	692.83
2040	4964	112.82	885.10
2041	769	17.48	134.48

Bin Total 119144 2707.82 21238.75

Type=b Cap=24 Hmin=0.0 Hmax=520.0 Kmin=0.00 Kmax=1.54

Year	Num_Assy	Num_Pkgs	MTU
2010	0	0.00	0.00
2011	55	2.29	7.20
2012	3	0.13	0.36
2013	5	0.21	0.60
2014	12	0.50	1.44
2015	2	0.08	0.24
2016	0	0.00	0.00
2017	48	2.00	5.21
2018	0	0.00	0.00
2019	0	0.00	0.00
2020	0	0.00	0.00
2021	0	0.00	0.00
2022	60	2.50	10.32
2023	20	0.83	3.44
2024	157	6.54	26.63
2025	80	3.33	13.60
2026	317	13.21	53.80
2027	6	0.25	1.03
2028	130	5.42	23.02
2029	146	6.08	25.97
2030	106	4.42	18.13
2031	0	0.00	0.00
2032	130	5.42	22.23
2033	568	23.67	97.85
2034	7	0.29	1.20
2035	52	2.17	8.97
2036	68	2.83	12.10
2037	196	8.17	33.12
2038	0	0.00	0.00
2039	164	6.83	29.19
2040	1	0.04	0.18
2041	0	0.00	0.00

Bin Total 2333 97.21 395.83

Summary Table

Type	Cap	Num_Assy	PctType	Num_Pkg	MTU
p	21	49764	37.84	2369.71	21499.95
p	21	69984	53.21	3332.57	30172.30
p	21	5225	3.97	248.81	2155.30
s	12	2931	2.23	244.25	1309.53
s	12	3375	2.57	281.25	1818.22
b	44	46268	27.58	1051.55	8057.33
b	44	119144	71.03	2707.82	21238.75

b	24	2333	1.39	97.21	395.83
b	1	0	0.00	0.00	0.00
p	1	119	0.09	119.00	54.88
s	1	121	0.09	121.00	65.16

Totals	299264	10333.17	86767.27
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JUNK FILE LISTING:

Nassy=1 burnup=1.87	kinf=1.529	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.45	kinf=1.536	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=2 burnup=1.53	kinf=1.535	Enrch=3.63	Dschg=1968	WEST VALLEY
Nassy=1 burnup=6.38	kinf=1.455	Enrch=3.63	Dschg=1969	WEST VALLEY
Nassy=2 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=3 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=8 burnup=0.34	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.35	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.18	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.36	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.23	kinf=1.317	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=0.32	kinf=1.314	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=10 burnup=0.34	kinf=1.315	Enrch=2.13	Dschg=1970	GE MORRIS (
Nassy=1 burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.22	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.77	kinf=1.260	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.86	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.85	kinf=1.257	Enrch=1.93	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.79	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=19 burnup=1.74	kinf=1.293	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.34	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.46	kinf=1.270	Enrch=1.97	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.57	kinf=1.267	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=8 burnup=1.50	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.76	kinf=1.261	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.23	kinf=1.279	Enrch=2.00	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.31	kinf=1.299	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.46	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.48	kinf=1.297	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.00	kinf=1.305	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.09	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.27	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=0.86	kinf=1.307	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.28	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.32	kinf=1.275	Enrch=1.99	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.32	kinf=1.275	Enrch=1.99	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.11	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.42	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=6 burnup=1.23	kinf=1.301	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=11 burnup=1.34	kinf=1.300	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.88	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=4 burnup=1.15	kinf=1.302	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=8 burnup=1.44	kinf=1.298	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=3 burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=12 burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=5 burnup=1.85	kinf=1.291	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=0.86	kinf=1.291	Enrch=2.04	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.62	kinf=1.265	Enrch=1.96	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.64	kinf=1.264	Enrch=1.95	Dschg=1971	GE MORRIS (
Nassy=24 burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=1 burnup=1.83	kinf=1.292	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.13	kinf=1.303	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=24 burnup=1.63	kinf=1.295	Enrch=2.13	Dschg=1971	GE MORRIS (
Nassy=2 burnup=1.78	kinf=1.260	Enrch=1.94	Dschg=1971	GE MORRIS (
Nassy=2 burnup=9.28	kinf=1.410	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1 burnup=4.99	kinf=1.478	Enrch=3.63	Dschg=1971	WEST VALLEY

Nassy=1	burnup=8.24	kinf=1.426	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1971	WEST VALLEY
Nassy=1	burnup=1.53	kinf=1.318	Enrch=2.26	Dschg=1971	DRESDEN
Nassy=1	burnup=4.49	kinf=1.250	Enrch=2.11	Dschg=1971	OYSTER CRK
Nassy=1	burnup=3.27	kinf=1.212	Enrch=1.78	Dschg=1972	GE MORRIS (
Nassy=14	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=44	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=2	burnup=4.52	kinf=1.253	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=36	burnup=3.43	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=6	burnup=2.81	kinf=1.227	Enrch=1.83	Dschg=1972	GE MORRIS (
Nassy=6	burnup=2.81	kinf=1.227	Enrch=1.83	Dschg=1972	GE MORRIS (
Nassy=10	burnup=3.13	kinf=1.217	Enrch=1.80	Dschg=1972	GE MORRIS (
Nassy=3	burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=25	burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=2	burnup=3.87	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=34	burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=8	burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=25	burnup=4.14	kinf=1.258	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=14	burnup=4.62	kinf=1.173	Enrch=1.67	Dschg=1972	GE MORRIS (
Nassy=5	burnup=3.39	kinf=1.209	Enrch=1.77	Dschg=1972	GE MORRIS (
Nassy=8	burnup=3.39	kinf=1.209	Enrch=1.77	Dschg=1972	GE MORRIS (
Nassy=1	burnup=3.34	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=4	burnup=3.34	kinf=1.269	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=5	burnup=4.77	kinf=1.249	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=5	burnup=3.84	kinf=1.195	Enrch=1.73	Dschg=1972	GE MORRIS (
Nassy=1	burnup=3.28	kinf=1.271	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=1	burnup=2.73	kinf=1.279	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=19	burnup=4.69	kinf=1.250	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=4	burnup=4.69	kinf=1.250	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=22	burnup=4.31	kinf=1.182	Enrch=1.69	Dschg=1972	GE MORRIS (
Nassy=1	burnup=4.31	kinf=1.182	Enrch=1.69	Dschg=1972	GE MORRIS (
Nassy=10	burnup=3.12	kinf=1.273	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=7	burnup=3.60	kinf=1.203	Enrch=1.76	Dschg=1972	GE MORRIS (
Nassy=6	burnup=3.60	kinf=1.203	Enrch=1.76	Dschg=1972	GE MORRIS (
Nassy=4	burnup=2.84	kinf=1.277	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=33	burnup=4.38	kinf=1.254	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=1	burnup=4.38	kinf=1.254	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=21	burnup=4.38	kinf=1.254	Enrch=2.13	Dschg=1972	GE MORRIS (
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Nassy=20	burnup=3.79	kinf=1.263	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=1	burnup=3.79	kinf=1.263	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=15	burnup=3.77	kinf=1.264	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=28	burnup=3.77	kinf=1.264	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=16	burnup=3.77	kinf=1.264	Enrch=2.13	Dschg=1972	GE MORRIS (
Nassy=17	burnup=4.39	kinf=1.179	Enrch=1.68	Dschg=1972	GE MORRIS (
Nassy=7	burnup=4.39	kinf=1.179	Enrch=1.68	Dschg=1972	GE MORRIS (
Nassy=14	burnup=4.64	kinf=1.172	Enrch=1.66	Dschg=1972	GE MORRIS (
Nassy=1	burnup=8.59	kinf=1.421	Enrch=3.63	Dschg=1972	WEST VALLEY
Nassy=1	burnup=9.12	kinf=1.413	Enrch=3.63	Dschg=1972	WEST VALLEY
Nassy=1	burnup=8.73	kinf=1.419	Enrch=3.63	Dschg=1972	WEST VALLEY
Nassy=2	burnup=4.86	kinf=1.239	Enrch=2.08	Dschg=1972	MILLSTONE
Nassy=4	burnup=6.45	kinf=1.454	Enrch=3.63	Dschg=1973	WEST VALLEY
Nassy=1	burnup=8.75	kinf=1.418	Enrch=3.63	Dschg=1973	WEST VALLEY
Nassy=1	burnup=7.35	kinf=1.440	Enrch=3.63	Dschg=1973	WEST VALLEY
Nassy=1	burnup=3.88	kinf=1.262	Enrch=2.13	Dschg=1973	DRESDEN
Nassy=2	burnup=4.96	kinf=1.246	Enrch=2.13	Dschg=1973	DRESDEN
Nassy=1	burnup=1.05	kinf=1.365	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=3	burnup=0.97	kinf=1.366	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=5	burnup=4.32	kinf=1.315	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1	burnup=0.99	kinf=1.366	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=11	burnup=4.39	kinf=1.315	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1	burnup=4.39	kinf=1.315	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=9	burnup=4.39	kinf=1.315	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=2	burnup=4.00	kinf=1.320	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=5	burnup=4.05	kinf=1.320	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=4	burnup=1.16	kinf=1.364	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=3	burnup=4.66	kinf=1.311	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=3	burnup=4.66	kinf=1.311	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1	burnup=0.99	kinf=1.366	Enrch=2.50	Dschg=1973	VT YANKEE
Nassy=1	burnup=4.69	kinf=1.310	Enrch=2.50	Dschg=1973	VT YANKEE

Nassy=1 burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=3 burnup=9.23	kinf=1.411	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1 burnup=8.77	kinf=1.418	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=4 burnup=9.10	kinf=1.413	Enrch=3.63	Dschg=1973	LACROSSE
Nassy=1 burnup=3.97	kinf=1.271	Enrch=2.19	Dschg=1973	PILGRIM
Nassy=1 burnup=2.63	kinf=1.290	Enrch=2.19	Dschg=1973	PILGRIM
Nassy=1 burnup=8.95	kinf=1.415	Enrch=3.63	Dschg=1974	WEST VALLEY
Nassy=1 burnup=8.15	kinf=1.428	Enrch=3.63	Dschg=1974	WEST VALLEY
Nassy=2 burnup=4.95	kinf=1.306	Enrch=2.50	Dschg=1974	VT YANKEE
Nassy=6 burnup=4.95	kinf=1.306	Enrch=2.50	Dschg=1974	VT YANKEE
Nassy=1 burnup=7.57	kinf=1.476	Enrch=3.92	Dschg=1975	LACROSSE
Nassy=1 burnup=3.71	kinf=1.263	Enrch=2.12	Dschg=1975	DUANE ARNOL
Nassy=1 burnup=3.78	kinf=1.280	Enrch=2.23	Dschg=1975	DRESDEN
Nassy=1 burnup=4.80	kinf=1.467	Enrch=3.54	Dschg=1976	BIG ROCK
Nassy=1 burnup=2.90	kinf=1.273	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=1 burnup=3.30	kinf=1.267	Enrch=2.11	Dschg=1976	BRUNSWICK
Nassy=2 burnup=2.43	kinf=1.105	Enrch=1.11	Dschg=1976	BRUNSWICK
Nassy=2 burnup=3.05	kinf=1.320	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=3.30	kinf=1.315	Enrch=2.40	Dschg=1976	HUMBOLDT BA
Nassy=4 burnup=2.43	kinf=1.329	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=2.69	kinf=1.325	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=3.89	kinf=1.308	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=3.89	kinf=1.308	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=2 burnup=4.34	kinf=1.301	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=1.31	kinf=1.346	Enrch=2.41	Dschg=1976	HUMBOLDT BA
Nassy=1 burnup=12.04	kinf=1.407	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1 burnup=12.30	kinf=1.403	Enrch=3.93	Dschg=1977	LACROSSE
Nassy=1 burnup=7.61	kinf=1.476	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=1 burnup=12.42	kinf=1.401	Enrch=3.92	Dschg=1977	LACROSSE
Nassy=5 burnup=3.65	kinf=1.282	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2 burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4 burnup=3.35	kinf=1.287	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2 burnup=3.08	kinf=1.291	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=3 burnup=4.00	kinf=1.277	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=1 burnup=4.00	kinf=1.277	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=21 burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=2 burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=3 burnup=4.97	kinf=1.263	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=1 burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=22 burnup=4.53	kinf=1.269	Enrch=2.23	Dschg=1978	DRESDEN
Nassy=4 burnup=3.58	kinf=1.019	Enrch=0.72	Dschg=1980	HATCH
Nassy=15 burnup=1.89	kinf=1.041	Enrch=0.72	Dschg=1980	HATCH
Nassy=1 burnup=1.89	kinf=1.041	Enrch=0.72	Dschg=1980	HATCH
Nassy=24 burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=1 burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=3 burnup=2.53	kinf=1.032	Enrch=0.72	Dschg=1980	HATCH
Nassy=15 burnup=2.83	kinf=1.028	Enrch=0.72	Dschg=1980	HATCH
Nassy=1 burnup=2.83	kinf=1.028	Enrch=0.72	Dschg=1980	HATCH
Nassy=8 burnup=4.31	kinf=1.009	Enrch=0.72	Dschg=1980	HATCH
Nassy=4 burnup=3.00	kinf=1.026	Enrch=0.72	Dschg=1980	HATCH
Nassy=8 burnup=3.15	kinf=1.024	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=8 burnup=4.11	kinf=1.012	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=21 burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=15 burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=12 burnup=4.71	kinf=1.004	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=7 burnup=2.96	kinf=1.027	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=1 burnup=2.96	kinf=1.027	Enrch=0.72	Dschg=1985	SUSQUEHANNA
Nassy=4 burnup=3.14	kinf=1.024	Enrch=0.72	Dschg=1985	LASALLE
Nassy=6 burnup=4.86	kinf=1.003	Enrch=0.72	Dschg=1985	LASALLE
Nassy=2 burnup=4.86	kinf=1.003	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8 burnup=2.92	kinf=1.027	Enrch=0.72	Dschg=1985	LASALLE
Nassy=8 burnup=3.41	kinf=1.021	Enrch=0.72	Dschg=1985	LASALLE
Nassy=18 burnup=4.08	kinf=1.012	Enrch=0.72	Dschg=1985	LASALLE
Nassy=30 burnup=3.91	kinf=1.015	Enrch=0.72	Dschg=1985	LASALLE
Nassy=1 burnup=2.64	kinf=1.031	Enrch=0.72	Dschg=1985	LASALLE
Nassy=7 burnup=2.64	kinf=1.031	Enrch=0.72	Dschg=1985	LASALLE
Nassy=1 burnup=2.22	kinf=1.038	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=7 burnup=2.22	kinf=1.038	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=14 burnup=2.86	kinf=1.030	Enrch=0.73	Dschg=1986	WASH NUCLEA
Nassy=8 burnup=3.07	kinf=1.027	Enrch=0.73	Dschg=1986	WASH NUCLEA

Nassy=15 burnup=2.65 kinf=1.033 Enrch=0.73 Dschg=1986 WASH NUCLEA
 Nassy=7 burnup=2.65 kinf=1.033 Enrch=0.73 Dschg=1986 WASH NUCLEA
 Nassy=2 burnup=2.65 kinf=1.033 Enrch=0.73 Dschg=1986 WASH NUCLEA
 Nassy=6 burnup=2.65 kinf=1.033 Enrch=0.73 Dschg=1986 WASH NUCLEA
 Nassy=6 burnup=2.65 kinf=1.033 Enrch=0.73 Dschg=1986 WASH NUCLEA
 Nassy=6 burnup=2.65 kinf=1.033 Enrch=0.73 Dschg=1986 WASH NUCLEA
 Nassy=16 burnup=1.77 kinf=1.044 Enrch=0.73 Dschg=1986 WASH NUCLEA
 Nassy=4 burnup=3.28 kinf=1.024 Enrch=0.73 Dschg=1986 WASH NUCLEA
 Nassy=2 burnup=4.17 kinf=1.013 Enrch=0.73 Dschg=1986 SUSQUEHANNA
 Nassy=12 burnup=4.17 kinf=1.013 Enrch=0.73 Dschg=1986 SUSQUEHANNA
 Nassy=12 burnup=4.17 kinf=1.013 Enrch=0.73 Dschg=1986 SUSQUEHANNA
 Nassy=6 burnup=3.09 kinf=1.026 Enrch=0.73 Dschg=1986 SUSQUEHANNA
 Nassy=2 burnup=3.09 kinf=1.026 Enrch=0.73 Dschg=1986 SUSQUEHANNA
 Nassy=4 burnup=2.76 kinf=1.030 Enrch=0.72 Dschg=1986 SUSQUEHANNA
 Nassy=4 burnup=2.76 kinf=1.030 Enrch=0.72 Dschg=1986 SUSQUEHANNA
 Nassy=12 burnup=3.50 kinf=1.020 Enrch=0.72 Dschg=1986 SUSQUEHANNA
 Nassy=9 burnup=3.98 kinf=1.015 Enrch=0.73 Dschg=1986 SUSQUEHANNA
 Nassy=13 burnup=3.98 kinf=1.015 Enrch=0.73 Dschg=1986 SUSQUEHANNA
 Nassy=8 burnup=4.72 kinf=1.006 Enrch=0.73 Dschg=1986 SUSQUEHANNA
 Nassy=11 burnup=3.35 kinf=1.022 Enrch=0.72 Dschg=1986 GRAND GULF
 Nassy=44 burnup=3.35 kinf=1.022 Enrch=0.72 Dschg=1986 GRAND GULF
 Nassy=7 burnup=3.35 kinf=1.022 Enrch=0.72 Dschg=1986 GRAND GULF
 Nassy=26 burnup=3.35 kinf=1.022 Enrch=0.72 Dschg=1986 GRAND GULF
 Nassy=4 burnup=3.35 kinf=1.022 Enrch=0.72 Dschg=1986 GRAND GULF
 Nassy=37 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1987 LASALLE
 Nassy=26 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1987 LASALLE
 Nassy=28 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1987 LASALLE
 Nassy=1 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1987 LASALLE
 Nassy=18 burnup=5.00 kinf=1.487 Enrch=3.70 Dschg=1987 LACROSSE
 Nassy=5 burnup=5.00 kinf=1.487 Enrch=3.70 Dschg=1987 LACROSSE
 Nassy=1 burnup=5.00 kinf=1.488 Enrch=3.71 Dschg=1987 LACROSSE
 Nassy=37 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1987 RVR BEND
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 Nassy=7 burnup=3.00 kinf=1.028 Enrch=0.73 Dschg=1988 HOPE CREEK
 Nassy=19 burnup=3.00 kinf=1.028 Enrch=0.73 Dschg=1988 HOPE CREEK
 Nassy=16 burnup=3.00 kinf=1.028 Enrch=0.73 Dschg=1988 HOPE CREEK
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 Nassy=20 burnup=3.00 kinf=1.028 Enrch=0.73 Dschg=1988 HOPE CREEK
 Nassy=4 burnup=3.00 kinf=1.028 Enrch=0.73 Dschg=1988 HOPE CREEK
 Nassy=15 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1989 CLINTON
 Nassy=33 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1989 CLINTON
 Nassy=3 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1989 CLINTON
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 Nassy=30 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1989 ENRICO FERM
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 Nassy=1 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1989 ENRICO FERM
 Nassy=12 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1989 ENRICO FERM
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 No bin for s 154.361465 1.138013
 No bin for s 123.031021 1.221207
 No bin for s 161.838730 1.184421
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 Nassy=14 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1990 NINE MILE P
 Nassy=29 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1990 NINE MILE P
 Nassy=1 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1990 NINE MILE P
 Nassy=10 burnup=4.00 kinf=1.013 Enrch=0.72 Dschg=1990 NINE MILE P
 No bin for s 135.289886 1.216874
 No bin for s 133.073761 1.219003
 Nassy=4 burnup=3.00 kinf=1.026 Enrch=0.72 Dschg=1991 SUSQUEHANNA
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 Nassy=1 burnup=1.97 kinf=1.483 Enrch=3.34 Dschg=1994 RVR BEND

Nassy=17 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
 Nassy=132 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
 Nassy=8 burnup=7.19 kinf=1.402 Enrch=3.35 Dschg=2009 NINE MILE P
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 Nassy=22 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
 Nassy=38 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
 Nassy=20 burnup=7.59 kinf=1.400 Enrch=3.38 Dschg=2009 OYSTER CRK
 Nassy=15 burnup=8.57 kinf=1.410 Enrch=3.56 Dschg=2012 PILGRIM
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 Nassy=88 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
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 Nassy=15 burnup=6.41 kinf=1.443 Enrch=3.55 Dschg=2012 QUAD CITIES
 Nassy=43 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
 Nassy=36 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
 Nassy=8 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
 Nassy=5 burnup=6.61 kinf=1.438 Enrch=3.54 Dschg=2014 BRUNSWICK
 Nassy=40 burnup=3.22 kinf=1.457 Enrch=3.30 Dschg=2022 LASALLE
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 Nassy=24 burnup=3.22 kinf=1.457 Enrch=3.30 Dschg=2022 LASALLE
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 Nassy=2 burnup=10.67 kinf=1.402 Enrch=3.73 Dschg=2024 SUSQUEHANNA
 Nassy=27 burnup=10.67 kinf=1.402 Enrch=3.73 Dschg=2024 SUSQUEHANNA
 Nassy=5 burnup=7.19 kinf=1.504 Enrch=4.07 Dschg=2026 NINE MILE P
 Nassy=176 burnup=7.19 kinf=1.504 Enrch=4.07 Dschg=2026 NINE MILE P
 Nassy=12 burnup=7.19 kinf=1.504 Enrch=4.07 Dschg=2026 NINE MILE P
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 No bin for s 180.351898 1.262211
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 No bin for s 378.547150 1.142999
 No bin for s 378.504517 1.142999
 No bin for s 262.091492 1.230513
 No bin for s 262.091492 1.230513
 No bin for s 262.068268 1.230513
 No bin for s 261.929199 1.230513

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