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Informal Report

**TMI-2 Decay Power:
LASL Fission-Product and Actinide Decay
Power Calculations for the President's
Commission on the Accident at Three Mile Island**

University of California

LOS ALAMOS SCIENTIFIC LABORATORY

Post Office Box 1663 Los Alamos, New Mexico 87545

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T. R. England
W. B. Wilson

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TMI-2 DECAY POWER:
LASL FISSION-PRODUCT AND ACTINIDE DECAY POWER
CALCULATIONS FOR THE PRESIDENT'S COMMISSION
ON THE ACCIDENT AT THREE MILE ISLAND

by

T. R. England and W. B. Wilson

ABSTRACT

Fission-product and actinide decay heating, gas content, curies, and detailed contributions of the most important nuclide contributors were supplied in a series of letters following requests from the Presidential Commission on the Accident at Three Mile Island. In addition, similar data assuming different irradiation (power) histories were requested for purposes of comparison. This report consolidates the tabular and graphical data supplied and explains its basis.

I. INTRODUCTION

Requests for estimated data on decay heating and radioactivity at the Three Mile Island, Unit 2, (TMI-2) reactor following the incident on March 28, 1979 were received from the Presidential Commission on the TMI Accident. Such data can now be very accurately calculated once the detailed power history and other parameters specific to the reactor are known. The requested data were supplied in a series of letters, including comparison data for other power histories and reactor types.

This report consolidates the tabular and graphical data supplied to the Commission and describes the methods, codes, and libraries used.

II. CONTENT OF REPORT

The general content includes results for specific requests on aggregate decay heating and curies of the following nuclide groups.

- All fission products.
- All actinides.
- All fission products plus actinides.
- All noble gases (all isotopes of Kr and Xe).
- All halogens (all isotopes of Br and I).
- A specific set of nuclides consisting of all isotopes of the Br, I, Te, Ru, Cs, Ba, and Sr elements.

In addition to these aggregate groups, the heating, content, curies, etc., of the more important individual nuclides are listed in this report.

In all cases the beta, alpha and gamma components of the decay heating are also given.

All data are supplied at 23 or more cooling times between 1 s and 50 000 h (~ 5.7 y). Some survey data extend to 10^{13} s ($\sim 3.2 \times 10^5$ y), and the data for individual nuclides at the instant of reactor shutdown are also given.

For comparison purposes, similar data are listed for: a) an equilibrium fuel exposure at the full rated core power [2772 MW(t)]; b) detailed nuclide data subsequent to a long (26 000 h), constant power period, c) aggregate data for a series of irradiation times and cooling intervals between 1 and 10^{13} s, and d) comparisons of three generic light water reactors.

All of the results specific to TMI-2 are based on a detailed power history described in Sec. VI.

The main body of this report describes the TMI-2 power history, codes, methods, and the data base used in generating all final results and includes tabular and graphical values for the various aggregate results. Appendices include the detailed nuclide values of the largest contributors, noble gases, halogens, survey calculations for three generic reactor types, and other related data. In particular:

Appendix A contains information on the new (1978) ANS 5.1 Decay Power Standard. The standard was used where pertinent, as explained in a later section. Appendix A is therefore included for completeness and for the convenience of the reader.

Appendix B contains listings of individual contributors at each cooling time to the beta, gamma, beta + gamma (i.e., total fission-product) heating and curies for all fission products that contribute $>0.5\%$ to the total of any one of these four quantities. Densities are also listed. Values for TMI-2, and also for the same reactor assuming it had operated at a constant power for 26 000 hours prior to shutdown, are listed at the instant of shutdown and at 23 cooling intervals.

Appendix C contains listings of each significant noble gas and halogen for the same cases and cooling times in Appendix B. Except for general data preceeding and following each time step table, values are listed as fractions of all fission-product values (not fractional gas values). The individual radioactive gases are listed that contribute >0.01% of the beta, gamma, or beta + gamma contribution to the total gas values, but all values listed for aggregate gas summations include all gases. Here, the isotopes of Br and I are halogens and Kr and Xe are noble gases (>90 isotopes). Summary tables and graphs are included.

Appendix D contains aggregate actinide and fission-product decay heating for 11 constant irradiation (power) times and for cooling times between 1 s and 10^{13} s ($\sim 3.2 \times 10^5$ y). These data apply to a TMI-2 type of reactor operated for the assumed irradiation periods. Heating values are given as fractions of total core power prior to shutdown. Detailed considerations of the temporal parameters of actinide and fission-product decay power are also discussed.

Appendix E includes graphical comparisons from a recent study of three generic types of light water reactors (LWR's), including both actinide and fission-product data for different irradiation periods for the most common reactor type which is similar to TMI-2.

III. DECAY SPECTRA

With the assistance of R. J. LaBauve of LASL, twelve-group beta and gamma spectra from total, volatile and non-volatile fission products for use in NRC calculations of water radiolysis were calculated. These results were supplied to NRC, EPRI, and later to the Presidential Commission.

All calculations were based on an assumed 88 day constant power operation prior to shutdown, a simple history used before a more detailed knowledge of the actual time dependence was known, but one that is sufficient for use in calculations of spectra. (An accurate power history is described in a later section of this report.) These results are available¹ but were not specifically requested by the Commission and are not included in this report.

IV. COMMENT ON UNCERTAINTIES AND HEAT SOURCES

The aggregate (total) fission-product heating listed in the main body of this report has a 1 σ uncertainty of only 2 to 5%, depending on the cooling time. For cooling times ≤ 20 hours this uncertainty is well supported by recent benchmark experiments and summation calculations. In fact, this uncertainty is probably conservative for the cooling range of $1-10^5$ s, important to a loss-of-coolant accident (LOCA). For longer cooling times

the small uncertainty still applies, but the heating rate is affected by neutron absorption in the fission products prior to shutdown; however, we believe we have accurately accounted for this effect specific to TMI-2.

There is no estimated uncertainty for actinide heating. This is believed to be very small at short cooling times, and is extremely unlikely to significantly affect the uncertainty in total (fission-product + actinide) heating for the cooling intervals specific to TMI-2 listed in this report. The TMI-2 power level prior to the incident would alter the initial total fission-product heating in direct proportion to the ratio of the actual fraction of rated power to the value (0.9739) used in this report for the final 20 days of operation. We have not included a power level uncertainty; as noted in a later section there is no reason to suspect the power level is significantly different from the value used in this report. (In this respect, the reader should note that the equilibrium case included for comparison was based on the full rated TMI-2 power; the fission-product heating from TMI-2 would be increased by ~2.7% had the reactor been operating at full power for a few hours prior to the incident.)

Uncertainties in individual nuclides depend on the quality of their specific data. This can be large for very short-lived nuclides but should be small for long-lived nuclides.

The heating data in this report assumes all nuclides are retained in the fuel and listed values of decay energy rates in MW apply to the total core. Where there is a breach in cladding the escape of volatile products will greatly decrease the heating rates. For example, between 1 s and 20 hours the noble gases and halogens together account for 22 to 28% of the total fission-product heating. Most of these products presumably escape in the absence of cladding. In addition other volatile products and the subsequent progeny of all gases and volatile nuclides escape.

All data in this report apply to products yielded in fission or to actinides initially present in the fuel or generated by neutron absorption in the fuel. There are other sources of heat. For example, during the first few cooling seconds, delayed neutrons will continue to cause fission and this will increase the initial heat rate. After ~20 seconds the fission products should dominate the heating, but we have not actually estimated the specific heating from delayed neutron fission for TMI-2. The $\text{Zr-H}_2\text{O}$ reaction is exothermic, and coolant pumping also supplies heat. There are

minor heat sources from structural material and impurities. Except for the $\text{Zr-H}_2\text{O}$ reaction, which can occur in specific regions of the core, and the initial heating due to delayed neutrons, the heating rates in this report are the major heat sources during the first few hours of cooling and are the only significant heat sources once the coolant pumps are shutdown.

It is probable that decay heating can now be calculated as accurately as any reactor parameter, and more accurately than most parameters. This report benefits from intensive and extensive efforts begun in 1973 to improve and expand nuclide data in the Evaluated Nuclear Data Files ENDF/B-IV, supported by the U. S. Department of Energy (DOE), and from benchmark decay heat experiments at LASL, ORNL, IRT and UC(B), funded by the Nuclear Regulatory Commission (NRC) and the Electric Power Research Institute (EPRI). A concomitant effort to combine all data into a new ANS decay power standard was also initiated in 1975 and the result is also used in this report. Many people, including the authors, participated in these efforts. The specific use of these data are defined in more detail in the next section.

V. CALCULATIONAL BASES

A. CINDER and Auxiliary Codes and Libraries

The CINDER-10 (an improved version of CINDER-7²) and EPRI-CINDER³ fission-product and actinide buildup and depletion codes were used to generate most of the decay heating values and all related individual nuclide decay data in this report. These two codes are similar in basic types of output but differ in their range of applicability, in part, due to their nuclide data libraries. For completeness the essential differences are noted here, but the remainder of the text will simply refer to the CINDER Code except where a distinction is necessary.

CINDER-10: This is the latest version of CINDER and it utilizes a complete library of fission products-825 nuclides. This version is used for all calculations of individual fission-product contributions, noble gases, halogens, etc., and the results are applicable at all cooling times, including values at the instant of reactor shutdown. It could have been used for all fission product calculations in this report but its massive library is unnecessary at long cooling times. In addition, the extensive library of actinide data has not been put into a format suitable for CINDER-10.

EPRI-CINDER: This version contains a 47-nuclide actinide library and fission products suitable for long cooling times and absorption calculations. Those fission products having half-lives >4 hours and

those shorter lived nuclides in transient equilibrium with long lived parents are included. The library is suitable for fission-product decay heat calculations for cooling times > 20 hours. In addition, exposure-dependent, self-shielded cross sections are used in this version - important for long-lived reactors. CINDER-10 and EPRI-CINDER fission-product decay heating agree within ~1% for decay times > 20 hours. This version was used for all actinide calculations, and for some of the aggregate fission-product decay heating for cooling times > 20 hours. The information on β and γ heating at shorter times, all data on individual fission products at all times and other aggregate groupings were calculated using CINDER-10.

Libraries for both codes are derived from processed ENDF/B-IV⁴⁻⁶ data for the fission products,^{*} and from preliminary ENDF/B-V for the actinides except, as noted below, for actinide data derived from EPRI-CELL.⁷

Actinide data for ~3 nuclides (not included in ENDF/B-V) were obtained from other sources. The cross sections used are in four neutron energy groups.

TOAFEW CODE⁸: 154 multigroup cross sections, obtained using the NJOY⁹ processing code, are included in the TOAFEW library. This code collapses the multigroup cross sections to the four group values used in CINDER using a typical LWR spectrum. All fission-product cross sections and cross sections of those actinides not obtained from EPRI-CELL were obtained using TOAFEW.

EPRI-CELL Code⁷: This proprietary code was used to obtain time-dependent self-shielded cross sections for ²³⁴U, ²³⁵U, ²³⁶U, ²³⁸U, ²³⁹Pu, ²⁴¹Pu, and ²⁴¹Am. It was also used to obtain ratios of the first three energy group fluxes to the thermal flux. The values were based on existing EPRI-CELL calculations for a PWR fuel that is neutronically very similar to that of TMI-2.

The validity of summation code calculations using ENDF/B-IV data is extensively discussed in Refs. 10 and 11; both reports contain extensive references to recent research on decay heat.

Additional required input to CINDER is the TMI-2 power history and initial fuel content. The power history is discussed in Sec. VI. The initial content of fuel is based on the specifications in the TMI-2 FSAR (Final Safety

* Only the branching ratio of ¹³³I to ^{133m}Xe deviates from the summary data in Ref. 5 - from ENDF/B-IV. A more recent evaluation of this important parameter indicates it should be ~3% and this change has been reported to provide good agreement with measured ¹³³Xe content in the TMI-2 coolant water.

Analysis Report).

B. ANS 5.1 Decay Power Standard¹²

An extensive effort to produce a new decay heat standard for light water reactors was initiated in 1975 and essentially completed in its technical content 1978. At this time (August 1979) the standard has not yet been widely distributed; for completeness the primary data is included in Appendix A.

The new standard is based on a joint LASL and HEDL analysis that combines several recent benchmark experiments and calculations, as described in Refs. 10 and 11. Reference 13 also describes the new standard and its past history. In general for times $<10^5$ s the standard is a combination of calculations using the ENDF/B data in Ref. 4 and experiments for ^{235}U and ^{239}Pu . The results of all of the experiments are of high quality, obtained since 1975 at LASL, ORNL, IRT, UC(B) and in France (F-A-R). For longer times, and at all times for ^{238}U , the standard results entirely from CINDER-10 code calculations using ENDF/B-IV data. The analysis combines all data into an equivalent pulse function which was chosen to be a linear sum of exponentials,

$$f(t) = \sum_{i=1}^{23} \alpha_i e^{-\lambda_i t} \quad \text{MeV/Fiss-s} \quad . \quad (1)$$

This can be folded into any power history that can be, e.g., represented as a series of histograms. For example, for a single fuel at a constant fission rate for a time T seconds, the energy release rate at cooling time t seconds, normalized to the fission rate is

$$F(t,T) = \sum_{i=1}^{23} \frac{\alpha_i}{\lambda_i} e^{-\lambda_i t} (1 - e^{-\lambda_i T}) \quad \text{MeV/Fiss} \quad . \quad (2)$$

Similar expressions can be used for determining the uncertainties.

In an operating reactor there is a mixture of fuels that vary with time and generally a variable power history. For this, Eq. 1 is, essentially,

multiplied by the fission rate for each fuel and integrated to produce the heating in the units of MeV/s; the latter units are readily converted to, e.g., MW. The α , λ coefficients for each fuel are listed in Appendix A.

Pulse functions do not account for neutron absorption. This is a function of each specific reactor design and its power history. For cooling times $<10^4$ s the absorption effect is small - typically, the heating increase is ~1%, and is at most upwards of ~6% (for long irradiation times at $<10^4$ s of cooling). For longer cooling times the effect can be very large. The new standard incorporates an empirical expression for absorption based on burnup for times $t < 10^4$ s and an upper bound value based on CINDER-10 calculations for longer times (the upper bound can also be used as an option at all times). The upper bound value is derived from two CINDER-10 calculations with and without absorption for an unrealistically long irradiation time and high flux level.

It is important to note that calculations for TMI-2 and other comparison cases in this report do not use the upper bound absorption correction, except where indicated in the tables, and then only for times <20 hours. The absorption effect is implicit in the CINDER-10 output at all cooling times; some calculations using the standard do use the upper bound correction in some cases, as specifically noted in the tables, and only for cooling times <20 hours where the correction is small.

For aggregate fission-product heating at times $t < 20$ hours, the new standard should be superior to calculations using CINDER or any other summation code. We have therefore used the standard for the aggregate heating during this interval where possible. For this, a code, DKPOWR,¹⁴ incorporating the pulse functions is used. Fission rates vs time from each fuel, as calculated by CINDER, are necessary input for the DKPOWR code.

For accuracy at longer cooling times, and for all cooling times requiring individual nuclide contributions, α , β , and γ heating components and special sets of nuclides such as noble gases or actinides, it is necessary to use the results of CINDER calculations. Most of the results in this report are therefore calculated using CINDER and the data libraries described previously, but the new standard is used where possible and where it would improve the accuracy of gross fission-product heating.

C. TMI-2 Reference Parameters

The following miscellaneous parameters were obtained or derived from the FSAR of TMI-2. These are included for completeness; only the derived initial fuel atoms from these data and rated thermal power are important to this report.

RATED POWER (MWt) = 2772.

AVERAGE ENRICHMENT (Wt % of ^{235}U) = 2.57.

FUEL WEIGHT OF UO_2 (lbs) = 204,820.

TOTAL MASS OF U (Kg) = 82057.2.

FULL POWER DENSITY (KW/Kg) = 33.8.

SPECIFIC RATED POWER (W/cm^3) = 280.75.

GROSS POWER RATING (MWe) = 961.

NET DESIGN RATING (MWe) = 906.

The neutron spectrum used in collapsing the 154 multigroup cross sections to four groups for the fission products is described in Refs. 3 and 8, which also lists the cross sections. Cross sections of the actinides are not listed. The dominate actinides have exposure-dependent cross sections as described previously; the remainder were derived using the same spectrum as for the fission products.

Another parameter required by CINDER is the average recoverable energy per fission. This value varies with fissioning nuclides from 202.64 MeV (^{235}U) to 213.44 MeV (^{241}Pu) for thermal reactor spectra. Values for several fissionable nuclides at thermal, fast and 14 MeV fission energies are listed in Table D-XII of Appendix D. For TMI-2, the average value used in CINDER was 3.261181×10^{-11} joules, or 203.56 MeV. This parameter, along with actinide densities, specified TMI-2 power levels and the flux ratios derived from EPRI-CELL calculations determine the four-group neutron flux levels and hence the fuel depletion and fission rates in the core. (For reference the average ratio of the resonance region group flux to the thermal values is ~1.48. This applies over the range of 0.625 - 5530 eV. The higher energy fluxes are not as significant as the thermal and resonance region values.)

VI. TMI-2 POWER HISTORY

The monthly Metropolitan Edison reports to the Nuclear Regulatory Commission (NRC) were used to obtain an accurate approximation to the detailed TMI-2 power history. For use in calculating decay heating an important

aspect of this history is the nearly constant power during the final 20 days prior to the incident on March 28, 1979; the gross electrical output shows a daily variation of no more than ~1.3% during this period. The thermal energy produced is ~20.4% of the total. In addition, most (~52.5%) of the total thermal energy [~6400231 MWh(t)] was produced between February 1 and March 28 with only a brief shutdown period on March 6. The earlier power history is highly variable. Precise levels cannot be determined from the limited detail of the monthly reports, but precision in the earlier time variation of the history is not needed for accurate calculations; rather, it is important to reproduce the total thermal energy, particularly for actinide buildup calculations. While only the net electrical power is reported daily, the needed thermal energy is reported by month. For this report we have used the daily electrical power to proportion and preserve the accumulated monthly value.

The resulting power history is described in Table I and Fig. 1. It is unlikely that any two people would infer precisely the same history from the monthly reports. For calculations in this report, and probably for any other study, this history is certainly adequate. Based on the rated thermal power of 2772 MW, the effective full power days of operation for this history is 96.2. (Some earlier LASL studies used 88 days, and the authors have seen some correspondence using ~52 and ~94 days.)

The fission rates by fuel type calculated with the CINDER code for this power history are listed in Table II; these are required for aggregate fission-product heating calculations with the DKPOWER Code, using the ANS 5.1 pulse functions, as previously described.

The reader should note that during the final 20 days of operation, ²³⁹Pu accounts for ~10% of the core power (fission rate) and ~6.6% over the short life of TMI-2. For longer lifetimes the ²³⁹Pu fractional contribution to core power continues to increase, as does that from ²⁴¹Pu. The importance of this observation is apparent from Fig. A-3 in Appendix A: the heating from ²³⁹Pu fission products is significantly smaller than that from ²³⁵U at short cooling times important to LOCA. Therefore, other factors aside, the early decay heat rates would decrease for longer lived reactors. This will be apparent in the survey calculations for different irradiation times noted in Sec. VII and Appendix D of this report.

TABLE I

CINDER HISTOGRAM CORE POWER HISTORY
THREE MILE ISLAND, UNIT 2

<u>Period</u>	<u>Start Time/date</u>	<u>End Time/date</u>	<u>Δt (h)</u>	<u>Elapsed Time (h)</u>	<u>Ave. Power Mw(th)</u>
1	0300/4-21-78	1700/4-23-78	62.0	62.0	611.6
2	1700/4-23-78	2030/9-17-78	3531.5	3593.5	0.0
3	2030/9-17-78	2400/9-30-78	315.5	3909.0	524.52
4	0000/10-1-78	1400/10-5-78	110.0	4019.0	1109.0
5	1400/10-5-78	2400/10-12-78	178.0	4197.0	0.0
6	0000/10-13-78	0500/10-28-78	365.0	4562.0	1488.94
7	0500/10-28-78	1400/11-1-78	105.0	4667.0	0.0
8	1400/11-1-78	2400/11-3-78	58.0	4725.0	2397.8
9	0000/11-4-78	0230/11-5-78	26.5	4751.5	0.0
10	0230/11-5-78	0530/11-7-78	51.0	4802.5	2034.1
11	0530/11-7-78	1800/12-3-78	636.5	5439.0	0.0
12	1800/12-3-78	0200/12-16-78	296.0	5735.0	2104.09
13	0200/12-16-78	0700/12-22-78	149.0	5884.0	0.0
14	0700/12-22-78	2400/12-31-78	233.0	6117.0	2467.3
15	0000/1-1-79	0800/1-14-79	320.0	6437.0	2281.8
16	0800/1-14-79	1440/1-31-79	414.67	6851.67	0.0
17	1440/1-31-79	2400/1-31-79	9.33	6861.0	33.4
18	0000/2-1-79	2400/2-28-79	672.0	7533.0	2462.14
19	0000/3-1-79	1545/3-6-79	135.75	7668.75	2743.5
20	1545/3-6-79	0815/3-7-79	16.5	7685.25	0.0
21	0815/3-7-79	2400/3-7-79	15.75	7701.0	1697.6
22	0000/3-8-79	0400/3-28-79	484.0	8185.0	2699.704

Fig. 1. CINDER Histogram core power history,
Three Mile Island, Unit 2.

TABLE II
TMI-2 FISSION RATES
(AVERAGE VALUES PER TIME INTERVAL)^a

TIME STEP	TIME INTERVAL HOURS	FISSION/s				TOTAL
		²³⁵ U	²³⁸ U	²³⁹ Pu	²⁴¹ U	
1	62.0	1.77+19 ^b	1.14+18	2.77+15	7.81+8	1.884+19
2	3531.5	0	0	0	0	0
3	315.5	1.51+19	9.65+17	4.14+6	4.16+11	1.608+19
4	110.0	3.18+19	1.98+18	1.77+17	4.59+12	3.400+19
5	178.0	0	0	0	0	0
6	365.0	4.24+19	2.66+18	6.02+17	1.06+14	4.56+19
7	105.0	0	0	0	0	0
8	58.0	6.76+19	4.27+18	1.55+18	4.15+14	7.347+19
9	26.5	0	0	0	0	0
10	51.0	5.72+19	3.67+18	1.45+18	5.04+14	6.236+19
11	636.5	0	0	0	0	C
12	296.0	5.86+19	3.78+18	2.06+18	1.44+15	6.44+19
13	149.0	0	0	0	0	0
14	233.0	6.77+19	4.43+18	3.38+18	4.48+15	7.556+19
15	320.0	6.19+19	4.10+18	3.97+18	9.38+15	7.003+19
16	414.67	0	0	0	0	0
17	9.33	8.94+17	5.97+16	7.04+16	1.88+14	1.024+18
18	672.0	6.47+19	4.52+18	6.15+18	3.03+16	7.540+19
19	135.75	7.07+19	5.05+18	8.29+18	5.86+16	8.412+19
20	165.0	0	0	0	0	0
21	15.75	4.35+19	3.12+18	5.36+18	4.04+16	5.206+19
22	484.0	6.83+19	4.96+18	9.43+18	9.28+16	8.274+19

^aValues apply to the total core.

^bRead 1.77+19 as 1.77×10^{19} .

NOTE: Accumulated fissions are

$$^{235}\text{U} = 6.1714 + 26$$

$$^{238}\text{U} = 4.1879 + 25$$

$$^{239}\text{Pu} = 4.6787 + 25$$

$$^{241}\text{Pu} = 2.8248 + 23$$

$$\text{SUM} = 7.06087 + 26$$

VII. TMI-2 DECAY POWER AND COMPARISONS

In this section the tabular and graphical decay power data on aggregate results supplied to the Commission are listed, including comparison data for the equilibrium core and graphical comparisons of a series of requested calculations for 11 irradiation times.

The results for each important nuclide, noble gas and halogen, other information as previously described, and component tabular data for the 11 irradiation times are included in appendices.

All data for curies and decay heating in MW are average total core values. All TMI-2 results are based on the power history in Table I and Fig. 1.

A. TMI-2 Heating and Curies

TABLE III lists the decay power in MW from fission products and actinides, including the beta, gamma and alpha components (there is no significant alpha component from the fission products).

Figure 2 Total core decay power from actinides plus fission products is plotted.

Figure 3 Total decay power from the actinides and fission products are compared. (Appendix E shows similar comparisons for three long lived generic reactors and Addendix D lists tabular values for TMI-2 if operated for eleven irradiation times - a graphical and tabular comparison of total values is included further on in this section.

TABLE IV This is similar to Table III for decay power except noble gases, halogens and a special set of nuclides are also listed. The special group of nuclides, specifically requested by the Commission Staff, consists of all isotopes of Br, I, Te, Ru, Cs, Ba, and Sr. (Gaseous data are plotted in Appendix C.)

TABLE V lists the total curies in all fission products, noble gases, halogens and the special set of nuclides noted above along with actinide curies and curies in the total core.

B. Comparisons With Equilibrium Core

The equilibrium core calculation traces the actinide and fission-product decay power in each of three species of reactor fuel following shutdown at the end of an equilbirum core period. The equilibrium core is assumed to

TABLE III

CORE DECAY POWER -- THREE MILE ISLAND, UNIT 2

Cooling Time	Fission-Product ^b Decay Power, MW ^h			Actinide Decay Power, MW ^c				Total Decay Power, MW			
	Beta	Gamma	Total	Alpha	Beta	Gamma	Total	Alpha	Beta	Gamma	Total
1.00+0 s ^a	8.21+1	7.88+1	1.61+2	3.54-4	5.07+0	1.78+0	6.83+0	3.54-4	8.71+1	8.06+1	1.68+2
4.00+0 s	7.05+1	7.05+1	1.41+2	3.54-4	5.04+0	1.78+0	6.82+0	3.54-4	7.56+1	7.23+1	1.48+2
1.00+1 s	6.05+1	6.29+1	1.23+2	3.54-4	5.04+0	1.78+0	6.81+0	3.54-4	6.55+1	6.47+1	1.30+2
4.00+1 s	4.52+1	5.10+1	9.62+1	3.54-4	4.99+0	1.77+0	6.76+0	3.54-4	5.02+1	5.27+1	1.03+2
1.00+2 s	3.65+1	4.28+1	7.93+1	3.54-4	4.90+0	1.76+0	6.66+0	3.54-4	4.14+1	4.46+1	8.60+1
4.00+2 s	2.65+1	3.24+1	5.90+1	3.54-4	4.48+0	1.70+0	6.19+0	3.54-4	3.10+1	3.41+1	6.52+1
1.00+3 s	2.09+1	2.65+1	4.74+1	3.54-4	3.82+0	1.61+0	5.43+0	3.54-4	2.47+1	2.81+1	5.28+1
1.00+0 h	1.40+1	1.78+1	3.17+1	3.55-4	2.41+0	1.42+0	3.83+0	3.55-4	1.64+1	1.92+1	3.56+1
2.00+0 h	1.10+1	1.40+1	2.51+1	3.55-4	1.94+0	1.35+0	3.29+0	3.55-4	1.30+1	1.54+1	2.84+1
5.00+0 h	8.26+0	1.01+1	1.84+1	3.55-4	1.78+0	1.29+0	3.07+0	3.55-4	1.00+1	1.14+1	2.14+1
1.00+1 h	6.37+0	8.11+0	1.45+1	3.56-4	1.68+0	1.21+0	2.89+0	3.56-4	8.05+0	9.32+0	1.74+1
2.00+1 h	4.87+0	6.45+0	1.13+1	3.58-4	1.48+0	1.07+0	2.56+0	3.58-4	6.35+0	7.52+0	1.39+1
5.00+1 h	2.73+0	4.43+0	7.15+0	3.61-4	1.03+0	7.43-1	1.77+0	3.61-4	3.76+0	5.17+0	8.93+0
1.00+2 h	2.13+0	3.50+0	5.63+0	3.64-4	5.60-1	4.04-1	9.65-1	3.64-4	2.69+0	3.90+0	6.59+0
2.00+2 h	1.65+0	2.61+0	4.26+0	3.66-4	1.67-1	1.21-1	2.88-1	3.66-4	1.82+0	2.73+0	4.55+0
5.00+2 h	1.08+0	1.50+0	2.58+0	3.66-4	5.46-3	4.11-3	9.94-3	3.66-4	1.09+0	1.50+0	2.59+0
1.00+3 h	7.07-1	8.54-1	1.56+0	3.64-4	1.75-4	1.45-4	6.84-4	3.64-4	7.08-1	8.54-1	1.56+0
2.00+3 h	4.28-1	4.55-1	8.83-1	3.61-4	6.92-6	2.01-6	3.69-4	3.61-4	4.28-1	4.55-1	8.83-1
5.00+3 h	1.89-1	1.34-1	3.22-1	3.55-4	4.60-6	1.03-7	3.60-4	3.55-4	1.89-1	1.34-1	3.23-1
1.00+0 y	1.06-1	3.33-2	1.40-1	3.52-4	4.52-6	1.17-7	3.57-4	3.52-4	1.06-1	3.33-2	1.40-1
1.00+4 h	9.22-2	2.27-2	1.15-1	3.52-4	4.49-6	1.21-7	3.57-4	3.52-4	9.22-2	2.27-2	1.15-1
2.00+4 h	3.73-2	5.85-3	4.32-2	3.56-4	4.29-6	1.60-7	3.60-4	3.56-4	3.73-2	5.85-3	4.35-2
5.00+4 h	7.66-3	3.23-3	1.09-2	3.75-4	3.76-6	2.66-7	3.80-4	3.75-4	7.66-3	3.23-3	1.13-2

^aRead as 1.00x10⁰ seconds.

^bFission-product total decay power values were calculated with the DKPOWER code for cooling times $t \leq 20$ h, using the fission pulse functions and upper-bound absorption correction Gmax of the recent ANS Standard 5.1, "Decay Heat Power in Light Water Reactors." The beta and gamma components of fission-product decay power were obtained using beta and gamma decay power fractions calculated with CINDER-10 (for $t \leq 20$ h) and EPRI-CINDER (for $t > 20$ h). All fission-product decay power quantities for $t > 20$ h were calculated with EPRI-CINDER.

^cActinide alpha, beta, gamma, and total decay power values are from tandem EPRI-CELL/EPRI-CINDER calculations.

Fig. 2. Total core decay power from actinides and fission products, Three Mile Island, Unit 2.

Fig. 3. Actinide and fission-product decay power components, Three Mile Island, Unit 2.

TABLE IV
DECAY HEAT SOURCES IN TMI-2
TOTAL CORE VALUES IN MW VS COOLING TIME^a
LASL - 7/79

COOLING TIME	NOBLE GAS (Kr + Xe)	HALOGENS (I + Br)	NOBLE GAS + HALOGENS	SPECIAL ^b SET	ALL FISSION PRODUCTS	ACTINIDES	ACTINIDES + FISSION PRODUCTS
1.00 + 0 s	1.39 + 1 ^c	1.88 + 1	3.27 + 1	5.53 + 1	1.61 + 2	6.83 + 0	1.68 + 2
4.00 + 0 s	1.25 + 1	1.70 + 1	2.95 + 1	5.03 + 1	1.41 + 2	6.82 + 0	1.48 + 2
1.00 + 1 s	1.12 + 1	1.52 + 1	2.64 + 1	4.55 + 1	1.23 + 2	6.81 + 0	1.30 + 2
4.00 + 1 s	8.49 + 0	1.20 + 1	2.05 + 1	3.63 + 1	9.62 + 1	6.76 + 0	1.03 + 2
1.00 + 2 s	6.59 + 0	9.82 + 0	1.64 + 1	2.99 + 1	7.93 + 1	6.66 + 0	8.60 + 1
4.00 + 2 s	4.11 + 0	8.02 + 0	1.21 + 1	2.32 + 1	5.90 + 1	6.19 + 0	6.52 + 1
1.00 + 3 s	2.78 + 0	7.69 + 0	1.05 + 1	1.97 + 1	4.74 + 1	5.48 + 0	5.28 + 1
1.00 + 0 h	1.71 + 0	6.65 + 0	8.37 + 0	1.36 + 1	3.17 + 1	3.83 + 0	3.56 + 1
2.00 + 0 h	1.30 + 0	5.42 + 0	6.72 + 0	1.01 + 1	2.51 + 1	3.29 + 0	2.84 + 1
5.00 + 0 h	7.85 - 1	3.70 + 0	4.58 + 0	6.68 + 0	1.84 + 1	3.07 + 0	2.14 + 1
1.00 + 1 h	5.01 - 1	2.94 + 0	3.44 + 0	5.23 + 0	1.45 + 1	2.89 + 0	1.74 + 1
2.00 + 1 h	3.32 - 1	2.25 + 0	2.59 + 0	4.03 + 0	1.13 + 1	2.56 + 0	1.39 + 1
5.00 + 1 h	1.75 - 1	1.43 + 0	1.60 + 0	2.71 + 0	7.15 + 0	1.77 + 0	8.93 + 0
1.00 + 2 h	1.18 - 1	8.66 - 1	9.85 - 1	1.88 + 0	5.63 + 0	9.65 - 1	6.59 + 0
2.00 + 2 h	6.85 - 2	3.89 - 1	4.57 - 1	1.19 + 0	4.26 + 0	2.88 - 1	4.55 + 0
5.00 + 2 h	1.35 - 2	5.66 - 2	7.01 - 2	6.01 - 1	2.58 + 0	9.94 - 3	2.59 + 0
1.00 + 3 h	1.08 - 3	6.40 - 3	7.48 - 3	3.48 - 1	1.56 + 0	6.84 - 4	1.56 + 0
2.00 + 3 h	1.55 - 4	1.70 - 4	3.25 - 4	1.66 - 1	8.83 - 1	3.69 - 4	8.83 - 1
5.00 + 3 h	1.40 - 4	3.83 - 9	1.40 - 4	3.66 - 2	3.22 - 1	3.60 - 4	3.23 - 1
1.00 + 0 y	1.36 - 4	1.38 - 10	1.36 - 4	1.48 - 2	1.40 - 1	3.57 - 4	1.40 - 1
1.00 + 4 h	1.35 - 4	~ 0	1.35 - 4	1.29 - 2	1.15 - 1	3.57 - 4	1.15 - 1
2.00 + 4 h	1.25 - 4	~ 0	1.25 - 4	7.63 - 3	4.32 - 2	3.60 - 4	4.35 - 2
5.00 + 4 h	1.00 - 4	~ 0	1.00 - 4	4.74 - 3	1.09 - 2	3.80 - 4	1.13 - 2

^aThe last three columns were included in Table III provides the α , β , and γ components for these three columns.

^bSpecial set includes all halogens (Br and I) plus requested Te, Ru, Cs, Ba, and Sr nuclides.

^cRead 1.39 + 1 as $1.39 \times 10^{+1}$, etc.

NOTE ON METHOD OF DATA GENERATION:

1. Actinide heating computed with EPRI-CINDER code.
 2. Fission product heating uses pulse functions from new ANS 5.1 decay heat standard up to 20 hours, including corrections for absorption using CINDER-10. EPRI-CINDER used for longer times to get accurate effect of absorption on heating (CINDER-10 and EPRI-CINDER agree within ~1%).
 3. Noble gas, halogens and special set columns generated by CINDER-10.
- NOTE: See Appendix C for graphical plots of gas fractions and detailed contributions of each noble gas and halogen.

TABLE V
CURIES IN TMI-2
TOTAL CORE VALUES VS COOLING TIME^a
[CINDER CALCULATIONS (LASL)]
7/79

COOLING SEC	TIME HOURS	ALL FISSION PRODUCTS	NOBLE GAS (Kr + Xe)	SPECIAL SET ^b	HALOGENS (Br + I)	ACTINIDES	TOTAL ACTINIDES + FP
1	2.78 - 4 ^c	1.19 + 10	1.14 + 9	4.42 + 9	1.11 + 9	2.61 + 9	1.45 + 10
4	1.11 - 3	1.11 + 10	1.06 + 9	4.18 + 9	1.05 + 9	2.61 + 9	1.36 + 10
1.0 + 1	2.78 - 3	1.03 + 10	9.87 + 8	3.94 + 9	1.00 + 9	2.60 + 9	1.29 + 10
4.0 + 1	1.11 - 2	8.80 + 9	8.23 + 8	3.44 + 9	8.49 + 8	2.58 + 9	1.14 + 10
1.0 + 2	2.78 - 2	7.78 + 9	7.03 + 8	3.08 + 9	7.54 + 8	2.55 + 9	1.03 + 10
4.0 + 2	1.11 - 1	6.40 + 9	5.34 + 8	2.61 + 9	6.63 + 8	2.38 + 9	8.78 + 9
1.0 + 3	2.78 - 1	5.52 + 9	4.33 + 8	2.28 + 9	6.39 + 8	2.11 + 9	7.63 + 9
3.6 + 3	1.0	4.25 + 9	3.44 + 8	1.75 + 9	5.77 + 8	1.52 + 9	5.77 + 9
7.2 + 3	2.0	3.69 + 9	3.11 + 8	1.46 + 9	5.03 + 8	1.32 + 9	5.01 + 9
1.8 + 4	5.0	3.06 + 9	2.68 + 8	1.15 + 9	3.87 + 8	1.24 + 9	4.30 + 9
3.6 + 4	10.0	2.59 + 9	2.36 + 8	9.83 + 8	3.16 + 8	1.17 + 9	3.76 + 9
7.2 + 4	20.0	2.13 + 9	2.00 + 8	8.25 + 8	2.42 + 8	1.03 + 9	3.16 + 9
1.8 + 5	50.0	1.60 + 9	1.44 + 8	6.28 + 8	1.49 + 8	7.18 + 8	2.32 + 9
3.6 + 5	100.0	1.26 + 9	1.08 + 8	4.94 + 8	9.27 + 8	3.91 + 8	1.65 + 9
7.2 + 5	200.0	9.57 + 8	6.28 + 7	3.75 + 8	4.93 + 7	1.18 + 8	1.08 + 9
1.8 + 6	500.0	6.07 + 8	1.24 + 7	2.39 + 8	1.21 + 7	4.37 + 6	6.11 + 8
3.6 + 6	1000.0	3.95 + 8	9.66 + 5	1.50 + 8	1.83 + 6	3.22 + 5	3.95 + 8
7.2 + 6	2000.0	2.30 + 8	1.07 + 5	7.86 + 7	4.99 + 4	1.54 + 5	2.30 + 8
1.8 + 7	5000.0	7.94 + 7	9.32 + 4	2.59 + 7	1.24 + 0	1.49 + 5	7.95 + 7
3.1536 + 7	8760.0 (1 yr)	3.55 + 7	9.06 + 4	1.45 + 7	1.92 - 1	1.47 + 5	3.56 + 7
3.6 + 7	10000.0	2.98 + 7	8.98 + 4	1.29 + 7	1.92 - 1	1.46 + 5	2.99 + 7
7.2 + 7	20000.0	1.26 + 7	8.34 + 4	6.18 + 6	1.92 - 1	1.39 + 5	1.27 + 7
1.8 + 8	50000.0	4.10 + 6	6.69 + 4	2.41 + 6	1.92 - 1	1.20 + 5	4.22 + 7

^aCINDER-10 calculations for fission products, EPRI-CINDER for actinides.

^bSpecial set includes all halogens (Br and I) plus requested Te, Ru, Cs, Ba, and Sr nuclides.

^cRead 2.78 - 4 as 2.78×10^{-4} , etc.

NOTE: See Appendix C for graphical plots of gas fractions and detailed contributions of each noble gas and halogen.

consist of equal fuel volumes of 2.96 Wt% ^{235}U reload fuel irradiated for one, two, and three years. Specifically, the three regions consist of

- 1/3 of the core irradiated for the last 330 days prior to shutdown,
- 1/3 irradiated for 330 days, shutdown for 35 days, and then irradiation for the final 330 days,
- 1/3 of the core having two 330 day irradiation and 35 day shutdown periods prior to the final 330 day irradiation.

The core was assumed to operate at the full thermal power of 2772 MW for the equilibrium calculations. The specific core power density was maintained at 33.8 KW/Kg (based on original loading) during the powered intervals. The equilibrium-core discharge fuel thus has an exposure of 33.462 GWD/t.

TABLE VI shows the actinide, fission product and total heating for each fuel cycle and the total core values.

TABLE VII shows the comparisons to TMI-II with the total equilibrium core.

Figure 4 shows the graphical comparison of the total core data in Table VII.

The reader may prefer to normalize the TMI-2 and equilibrium core values to their respective power levels of 2699.7 and 2722 MW. In this case the decay fraction of the power prior to shutdown for the equilibrium core is smaller than that of TMI-2 for the first 100 s of cooling; the absolute value without normalization is the smaller for the first 40 s. The primary reason for this behavior is smaller heating from ^{239}Pu products than from ^{235}U , discussed in an earlier section and in Appendix A.

C. Decay Power Fractions vs Irradiation Time

Appendix D contains detailed tabular data for fission-product and actinide heating for 11 constant irradiation (power) periods and cooling times between 1 and 10^{13} s ($\sim 3.2 \times 10^5$ y). All results are based on a full TMI-2 core power of 2772 MW, and details are noted in the Appendix.

Table VIII and Fig. 5 show a graphical comparison of all total core heating cases normalized to the total core power prior to shutdown. It is interesting that the one-month irradiation shows an initial net value exceeding all other cases. (It also exceeds the initial TMI-2 fractional value.)

D. Comparisons of Generic Light Water Reactors

Appendix E shows graphical comparisons for three types of light water reactors. One is similar to TMI-2 and is included with more than one

TABLE VI
THREE MILE ISLAND UNIT 2 EQUILIBRIUM CORE
ACTINIDE AND FISSION-PRODUCT DECAY POWER

Cooling Time	ONE-CYCLE FUEL			TWO-CYCLE FUEL			THREE-CYCLE FUEL			TOTAL CORE FUEL		
	Act. (MW)	F.P. (MW)	Total (MW)	Act. (MW)	F.P. (MW)	Total (MW)	Act. (MW)	F.P. (MW)	Total (MW)	Act. (MW)	F.P. (MW)	Total (MW)
1.00+0 s ^a	2.41+0 ^b	5.34+1 ^c	5.58+1	2.67+0 ^b	5.13+1 ^c	5.40+1	3.03+0 ^b	5.01+1 ^c	5.31+1	8.11+0	1.55+2	1.63+2
4.00+0 s	2.41+0	4.70+1	4.94+1	2.67+0	4.52+1	4.79+1	3.03+0	4.42+1	4.72+1	8.11+0	1.36+2	1.45+2
1.00+1 s	2.41+0	4.13+1	4.37+1	2.66+0	3.98+1	4.25+1	3.02+0	3.90+1	4.20+1	8.09+0	1.20+2	1.28+2
4.00+1 s	2.39+0	3.25+1	3.49+1	2.64+0	3.15+1	3.41+1	3.00+0	3.09+1	3.39+1	8.03+0	9.49+1	1.03+2
1.00+2 s	2.35+0	2.70+1	2.94+1	2.60+0	2.62+1	2.88+1	2.96+0	2.58+1	2.88+1	7.91+0	7.90+1	8.70+1
4.00+2 s	2.19+0	2.03+1	2.25+1	2.42+0	1.98+1	2.22+1	2.76+0	1.95+1	2.21+1	7.37+0	5.96+1	6.70+1
1.00+3 s	1.92+0	1.64+1	1.83+1	2.14+0	1.60+1	1.81+1	2.44+0	1.58+1	1.21+1	6.50+0	4.82+1	5.46+1
1.00+0 h	1.36+0	1.11+1	1.25+1	1.53+0	1.08+1	1.23+1	1.76+0	1.07+1	1.25+1	4.65+0	3.26+1	3.73+1
2.00+0 h	1.17+0	8.91+0	1.01+1	1.32+0	8.73+0	1.01+1	1.53+0	8.61+0	1.01+1	4.02+0	2.63+1	3.03+1
5.00+0 h	1.10+0	6.74+0	7.84+0	1.23+0	6.65+0	7.88+0	1.43+0	6.60+0	8.03+0	3.76+0	2.00+1	2.38+1
1.00+1 h	1.03+0	5.48+0	6.51+0	1.16+0	5.47+0	6.63+0	1.34+0	5.45+0	6.79+0	3.53+0	1.64+1	1.99+1
2.00+1 h	9.13-1	4.45+0	5.36+0	1.03+0	4.48+0	5.51+0	1.19+0	4.48+0	5.67+0	3.13+0	1.34+1	1.65+1
5.00+1 h	6.36-1	3.01+0	3.64+0	7.22-1	3.10+0	3.82+0	8.47-1	3.19+0	4.04+0	2.21+0	9.30+0	1.15+1
1.00+2 h	3.49-1	2.46+0	2.81+0	4.05-1	2.56+0	2.96+0	4.90-1	2.64+0	3.13+0	1.24+0	7.66+0	8.90+0
2.00+2 h	1.08-1	1.96+0	2.07+0	1.38-1	2.05+0	2.19+0	1.89-1	2.13+0	2.31+0	4.35-1	6.14+0	6.57+0
5.00+2 h	6.53-3	1.32+0	1.33+0	2.32-2	1.41+0	1.44+0	5.67-2	1.48+0	1.54+0	8.64-2	4.22+0	4.31+0
1.00+3 h	1.98-3	8.96-1	8.98-1	1.60-2	9.94-1	1.01+0	4.57-2	1.06+0	1.11+0	6.37-2	2.95+0	3.02+0
2.00+3 h	1.53-3	5.69-1	5.70-1	1.34-2	6.68-1	6.82-1	3.87-2	7.38-1	7.77-1	5.36-2	1.98+0	2.03+0
5.00+3 h	9.60-4	2.46-1	2.47-1	8.64-3	3.36-1	3.45-1	2.50-2	4.05-1	4.30-1	3.46-2	9.87-1	1.02+0
1.00+0 y	8.48-4	1.28-1	1.29-1	5.40-3	2.00-1	2.06-1	1.55-2	2.58-1	2.74-1	2.17-2	5.86-1	6.09-1
1.00+4 h	7.94-4	1.10-1	1.10-1	4.73-3	1.77-1	1.81-1	1.36-2	2.31-1	2.45-1	1.91-2	5.17-1	5.36-1
2.00+4 h	6.34-4	4.63-2	4.69-2	2.53-3	8.25-2	8.51-2	6.97-3	1.15-1	1.22-1	1.01-2	2.44-1	2.54-1
5.00+4 h	7.06-4	1.25-2	1.32-2	2.36-3	2.50-2	2.73-2	5.82-3	3.73-2	4.31-2	8.89-3	7.48-2	8.36-2

^aRead as 1.00x10⁰ seconds.

^bActinide decay power values are from tandem EPRI-CELL/EPRI-CINDER calculations.

^cFission-product total decay power values were calculated with the DKPOWER code for cooling times $t \leq 20$ h, using the fission pulse functions and upper-bound absorption correction Gmax of the recent ANS Standard 5.1, "Decay Heat Power in Light Water Reactors." The beta and gamma components of fission-product decay power were obtained using beta and gamma decay power fractions calculated with CINDER-10 (for $t \leq 20$ h) and EPRI-CINDER (for $t > 20$ h). All fission-product decay power quantities for $t > 20$ h were calculated with EPRI-CINDER.

TABLE VII
COMPARISON OF CALCULATED DECAY POWER OF
TMI-2 WITH END-OF-CYCLE EQUILIBRIUM CORE

<u>Cooling Time</u>	<u>Total Core Decay Power, MW</u>	
	<u>TMI-2</u>	<u>Eq. Core</u>
1.00+0 s ^a	1.68+2	1.63+2
4.00+0 s	1.48+2	1.45+2
1.00+1 s	1.30+2	1.28+2
4.00+1 s	1.03+2	1.03+2
1.00+2 s	8.60+1	8.70+1
4.00+2 s	6.52+1	6.70+1
1.00+3 s	5.28+1	5.46+1
1.00+0 h	3.56+1	3.73+1
2.00+0 h	2.84+1	3.03+1
5.00+0 h	2.14+1	2.38+1
1.00+1 h	1.74+1	1.99+1
2.00+1 h	1.39+1	1.65+1
5.00+1 h	8.93+0	1.15+1
1.00+2 h	6.59+0	8.90+0
2.00+2 h	4.55+0	6.57+0
5.00+2 h	2.59+0	4.31+0
1.00+3 h	1.56+0	3.02+0
2.00+3 h	8.83-1	2.03+0
5.00+3 h	3.23-1	1.02+0
1.00+0 y	1.40-1	6.09-1
1.00+4 h	1.15-1	5.36-1
2.00+4 h	4.35-2	2.54-1
5.00+4 h	1.13-2	8.36-2

^aRead as 1.00x10⁰ seconds.

Fig. 4. Comparison of calculated decay power of TMI-2 with end-of-cycle equilibrium core.

Fig. 6 Total (fission-product plus actinide) decay power fraction of operational core power vs cooling time.

irradiation period. This appendix, based on earlier data prepared for Ref. 15 is included for general interest and for the detailed plots of actinide content. However, the fission-product heating uses the upper bound correction for absorption in fission products given in the ANS 5.1 Standard. As noted in a prior section, this correction is likely much too large at some cooling times. Therefore, results in this Appendix should only be intercompared except for the actinide heating.

VIII. SUMMARY

The previous section provides best estimates of the total core decay power and curies for TMI-2, and comparison decay powers for the equilibrium core and a survey of values for a wide range of irradiation and cooling times. The decay data used have been widely tested and the four group cross sections and fluxes should closely match the values in TMI-2. The very recent ANS 5.1 decay power standard has been used where possible and where it is believed to be more accurate than calculations using the EPRI-CINDER summation code. This is only possible for total fission-product heating, and for this it is less accurate than the summation calculations for times >20 hours of cooling.

The α , β , and γ components of heating, actinide heating, and all other values for specific nuclide groups necessarily resort to the summation code calculations.

All values apply to the total core assuming all nuclides are retained in the fuel; some of the heating for nuclide groups, particularly for the noble gases and halogens, indicate that there can be a very significant decrease in heating rates once the fuel cladding is breached, as apparently happened in part of the TMI-2 fuel.

As is clear from comparisons with the equilibrium core case and the graphical data in Fig. 5, the decay heating rates are larger during the first few cooling seconds following relatively short irradiation times of fresh fuel than for long irradiation periods, a result of the relatively small ²³⁹Pu content in fresh fuel.

Appendices B and C contain detailed nuclide results for the larger contributors to fission product heating components and curies and also the detailed content of noble gases and halogens. Comparison results for a

TABLE VIII
SUMMARY OF TMI-2 FUEL DECAY POWER SURVEY CALCULATIONS
FISSION-PRODUCT AND ACTINIDE DECAY POWER
FOLLOWING CONTINUOUS IRRADIATIONS AT 33.8 kw/kg.

Cooling Time(s)	Total Decay Power Fraction of Operational Power										
	Irradiation Period Length										
	1-s	10-s	100-s	1000-s	1-hour	1-day	1-week	1-mo.	1-year	2-year	3-year
1.00+00	3.18-03	1.49-02	3.08-02	4.31-02	4.94-02	5.78-02	6.03-02	6.26-02	6.02-02	5.85-02	5.71-02
4.00+00	1.57-03	9.25-03	2.35-02	3.56-02	4.19-02	5.03-02	5.28-02	5.50-02	5.34-02	5.20-02	5.08-02
1.00+01	7.20-04	5.19-03	1.71-02	2.89-02	3.52-02	4.36-02	4.61-02	4.83-02	4.72-02	4.62-02	4.53-02
4.00+01	1.76-04	1.58-03	8.45-03	1.89-02	2.51-02	3.34-02	3.59-02	3.73-02	3.77-02	3.71-02	3.66-02
1.00+02	6.48-05	6.15-04	4.19-03	1.28-02	1.88-02	2.71-02	2.96-02	3.15-02	3.17-02	3.14-02	3.10-02
4.00+02	1.23-05	1.21-04	1.09-03	6.29-03	1.14-02	1.93-02	2.19-02	2.37-02	2.43-02	2.42-02	2.40-02
1.00+03	5.10-06	5.08-05	4.87-04	3.55-03	7.40-03	1.48-02	1.73-02	1.91-02	1.98-02	1.98-02	1.97-02
4.00+03	1.07-06	1.06-05	1.05-04	9.10-04	2.41-03	8.01-03	1.05-02	1.22-02	1.31-02	1.31-02	1.31-02
1.00+04	2.99-07	2.97-06	2.95-05	2.78-04	8.66-04	4.84-03	7.25-03	8.49-03	9.96-03	1.00-02	1.01-02
4.00+04	5.10-08	4.93-07	4.91-06	4.84-05	1.68-04	1.96-03	3.60-03	5.63-03	6.38-03	7.09-03	7.21-03
1.00+05	1.66-08	1.49-07	1.47-06	1.36-05	5.20-05	8.68-04	2.43-03	3.56-03	4.80-03	5.07-03	5.32-03
4.00+05	4.83-09	3.14-08	2.47-07	2.95-06	1.06-05	2.27-04	9.74-04	1.83-03	2.94-03	3.14-03	3.31-03
1.00+06	2.79-09	1.10-08	9.35-08	9.18-07	3.29-06	7.48-05	3.99-04	9.77-04	1.94-03	2.09-03	2.22-03
4.00+06	2.03-09	3.42-09	1.73-08	1.56-07	5.58-07	1.32-05	8.48-05	2.82-04	9.30-04	1.07-03	1.19-03
1.00+07	1.92-09	2.36-09	6.68-09	5.00-08	1.75-07	4.13-06	2.80-05	1.08-04	4.95-04	6.28-04	7.43-04
4.00+07	1.88-09	1.93-09	2.39-09	7.04-09	2.05-08	4.47-07	3.09-06	1.28-05	1.15-04	1.95-04	2.58-04
1.00+08	1.88-09	1.89-09	1.99-09	3.05-09	6.12-09	1.04-07	7.12-07	3.03-06	3.43-05	6.64-05	1.00-04
4.00+08	1.88-09	1.88-09	1.91-09	2.21-09	3.09-09	3.10-08	2.05-07	8.72-07	1.07-05	2.18-05	3.45-05
1.00+09	1.88-09	1.88-09	1.90-09	1.84-09	2.65-09	2.05-08	1.32-07	5.59-07	7.31-06	1.52-05	2.35-05
4.00+09	1.87-09	1.87-09	1.88-09	1.91-09	2.00-09	4.81-09	2.24-08	9.12-08	2.07-06	5.01-06	7.64-06
1.00+10	1.87-09	1.87-09	1.88-09	1.89-09	1.92-09	3.03-09	9.91-09	3.76-08	1.15-06	2.82-06	4.09-06
4.00+10	1.87-09	1.87-09	1.87-09	1.88-09	1.92-09	2.98-09	9.54-09	3.51-08	5.23-07	1.05-06	1.40-06
1.00+11	1.86-09	1.86-09	1.86-09	1.87-09	1.91-09	2.91-09	9.12-09	3.29-08	3.30-07	5.44-07	6.80-07
4.00+11	1.82-09	1.82-09	1.82-09	1.83-09	1.85-09	2.62-09	7.31-09	2.47-08	1.99-07	2.93-07	3.44-07
1.00+12	1.74-09	1.74-09	1.74-09	1.75-09	1.76-09	2.20-09	4.91-09	1.47-08	9.63-08	1.27-07	1.38-07
4.00+12	1.40-09	1.40-09	1.40-09	1.40-09	1.40-09	1.43-09	1.60-09	2.23-09	7.25-09	9.41-09	1.08-08
1.00+13	9.40-10	9.40-10	9.40-10	9.40-10	9.40-10	9.40-10	9.41-10	9.45-10	1.09-09	1.61-09	2.47-09

constant power of 2772.0 MW for 26 000 hours are included. These data are necessarily based entirely on summation code results.

All data in this report, with the exception of the supporting information on the ANS 5.1 Standard in Appendix A and the generic reactor comparisons in Appendix E were specifically requested by the Presidential Commission. All non-redundant data supplied to the Commission to date (August 16, 1979) that are based on an accurate power history, except for the decay spectra, are included.

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REFERENCES

1. T. R. England, Los Alamos Scientific Laboratory, personal communication to R. Schamberger (April 1979).
2. T. R. England, R. Wilczynski, and N. L. Whittemore, "CINDER-7: An Interim Report for Users," Los Alamos Scientific Laboratory report LA-5885-MS (1979).

3. T. R. England, W. B. Wilson, and M. G. Stamatelatos, "Fission-Product Data for Thermal Reactors, Part 1, A Data Set for EPRI-CINDER Using ENDF/B-IV," Los Alamos Scientific Laboratory report LA-6745-MS (Dec. 1976) and "Fission Product Data for Thermal Reactors, Part 2, Users Manual for EPRI-CINDER Code and Data," Los Alamos Scientific Laboratory report LA-6746-MS (Dec. 1976). [Also published by Electric Power Research Institute as EPRI NP-356 (Dec. 1976)].
4. Fission Product Decay Library of the Evaluated Nuclear Data File, Version IV (ENDF/B-IV). These data were compiled by a task force chaired by R. E. Schenter and are available from and maintained by the National Nuclear Data Center at the Brookhaven National Laboratory.
5. T. R. England and R. E. Schenter, "ENDF/B-IV Fission-Product Files: Summary of Major Nuclide Data," Los Alamos Scientific Laboratory report LA-6116-MS [ENDF-223] (October 1975).
6. P. F. Rose and T. W. Burrows, "ENDF/B Fission-Product Decay Data," Brookhaven National Laboratory report BNL-NCS-50545 [ENDF-243], Vols. 1 and 2 (August 1976, issued May 1977). Also see C. W. Riech, R. G. Helmer, and M. H. Putnam, "Radioactive-Nuclide Decay Data for ENDF/B," Aerojet Nuclear Company report ANCR-1157 [ENDF-120] (August 1974).
7. "ARMP: Advanced Recycle Methodology Program," Chap. 5, Part II, "EPRI-CELL Code Description," Proprietary Electric Power Research Institute report CCM-3 (Sept. 1977).
8. W. B. Wilson and T. R. England, "Multigroup and Few-Group Cross Sections for ENDF/B-IV Fission Products: The TOAFEW Collapsing Code and Data File of 154-Group Fission-Product Cross Sections," Los Alamos Scientific Laboratory report LA-7174-MS (March 1978).
9. R. E. MacFarlane, R. J. Barrett, D. W. Muir, and R. M. Boicourt, "The NJOY Nuclear Data Processing System: User's Manual," Los Alamos Scientific Laboratory report LA-7584-MS (December 1978).
10. T. R. England, R. E. Schenter, and F. Schmittroth, "Integral Decay-Heat Measurements and Comparisons to ENDF/B-IV and V," Los Alamos Scientific Laboratory report NUREG/CN-0305 LA-7422-MS (August 1978). (See also Electric Power Research Institute report EPRI-NP-1098, Sec. 10-1 for a copy of the primary data in this report.)
11. R. E. Schenter, F. Schmittroth, and T. R. England, "Integral Determination of Fission Product Inventory and Decay Power," Proc. Second Advisory Group Meeting on Fission Product Nuclear Data, ECN, Petten, IAEA-213, Vol. II, RP15 (Sept. 1977).
12. American Nuclear Society Proposed ANS 5.1 Standard, "Decay Heat Power in Light Water Reactors," (June 1978 [Rev. Sept. 1978]).
13. Virgil E. Schrock, "Evaluation of Decay Heating in Shutdown Reactors," Progress in Nuclear Energy, 3, 125-156 (1979).

14. W. B. Wilson, T. R. England, and R. J. LaBauve, Los Alamos Scientific Laboratory, personal communication regarding DKPOWR Code.
15. W. B. Wilson, T. R. England, O. Ozer, and D. E. Wessol, "Actinide Decay Power," Trans. Am. Nucl. Soc. 32, 737 (June 1979).

APPENDIX A

THE 1978 ANS 5.1 DECAY POWER STANDARD FOR LIGHT WATER REACTORS: SUMMARY OF DATA USED IN THIS REPORT

The new standard is represented by pulse functions as discussed in the main text of this report [Eqs. (1) and (2)]. The actual standard lists the parameters for the functions and uses these to generate tabular heating rates vs cooling at six points per time decade between 1 and 10^{13} s for the pulse and 1 and 10^9 s for the "infinite irradiation" for ^{235}U , ^{239}Pu and ^{238}U . The user has the option of using the functions, as in this report, or the tabular data as explained in the standard.

The infinite irradiation case is actually generated from Eq. (2) where each fuel is assumed to produce power at a constant fission rate without depletion. This is an artifice that permits, in principle, the same informational content in the tabular data as is contained in the pulse functions.

Neither the pulse functions nor the tabular data account for the effect of neutron absorption by fission-products. This is dependent on the specific reactor and its power history. As noted in the text, the net effect of neutron absorption for cooling times $<10^4$ s is small even following a long irradiation time. The standard accounts for this with an empirical equation up to 10^4 s and an "upper bound" based on two CINDER-10 summation calculations for a very long irradiation period (4 years) at large flux levels. The user has the option of using the upper bound at any cooling time and also of using documented summation calculations at any time. The upper bound correction, tabulated in Table A-I and plotted in Fig. A-1, is inappropriate for the short life of TMI-2. It was used only for the first 4×10^4 s, and only where so indicated in the tabular data. For longer times the direct CINDER results were used because these already include the absorption effect.

The pulse function parameters are listed in Table A-II. These are used in the DKPOWR code with fission rates from CINDER to produce aggregate heating rates up to 4×10^4 s, except in the detailed CINDER-10 data in Appendices B and C. Fissioning nuclides other than ^{235}U , ^{239}Pu and ^{238}U are assigned the ^{235}U values when the standard is used.

Variable mixtures of fission rates, including uncertainties, can be treated as discussed in the standard. The DKPOWR Code describes this in more detail, including some clarification of aspects that may be of interest to users of the standard.

One problem that confronts the user is the treatment of uncertainties when using the pulse functions. The DKPOWR Code incorporates an extremely accurate fit to the absolute 1σ uncertainties, Δf , in f of Eq. (1). These give Δf as a function identical in form to Eq. (1) but with different parameters,

$$\Delta f = \sum_{i=1}^{23} \beta_i e^{-\gamma_i t} \quad \text{MeV/fiss-s} \quad (\text{A-1})$$

The parameters (β, γ) are listed in Table A-III but are not included in the standard. The standard provides tabular data and users must interpolate to get appropriate values of Δf .

The decay heating or power in the units of MeV/fiss represent the decay energy release rate in MeV/s at specified or listed cooling times normalized to the fission rate during power

$$\text{MeV/fiss} \equiv \frac{\text{MeV/s}}{\text{Fiss/s}} \quad (\text{A-2})$$

Such units are meaningful only for the case of a constant fission rate during the powered interval. The release rate in MeV/s can be obtained using a sum of the integrals of the product of each pulse function and the corresponding fission rate of each fuel. In this report we have represented the variable power history of TMI-2 as a series of histograms, using the rates in Table II. The fission product decay power at any specific cooling time has been accumulated from the separate contributions of each histogram. The units of MeV/s can be readily converted to MW using the relationship $1 \text{ MeV/s} = 1.60207 \times 10^{-19} \text{ MW}$.

Figure A-2 shows the absolute comparison of heating rates for a single fission pulse for each of the three fuels. The differences are emphasized in Fig.

A-3 which show the deviations of ^{239}Pu and ^{238}U from ^{235}U for the infinite irradiation case. Figure A-4 shows the new standard for ^{235}U and its small uncertainty compared to the older standard and its uncertainty.

TABLE A-I
RATIO OF DECAY HEAT WITH ABSORPTION TO
VALUES WITHOUT ABSORPTION^a

Time After Shutdown (sec)	$G_{\max}(t)$	Time After Shutdown (sec)	$G_{\max}(t)$
1.0	1.020	1.5E+5	1.130
1.5	1.020	2.0E+5	1.131
2.0	1.020	4.0E+5	1.126
4.0	1.021	6.0E+5	1.124
6.0	1.022	8.0E+5	1.123
8.0	1.022	1.0E+6	1.124
1.0E+1	1.022	1.5E+6	1.125
1.5E+1	1.022	2.0E+6	1.127
2.0E+1	1.022	4.0E+6	1.134
4.0E+1	1.022	6.0E+6	1.146
6.0E+1	1.022	8.0E+6	1.162
8.0E+1	1.022	1.0E+7	1.181
1.0E+2	1.023	1.5E+7	1.233
1.5E+2	1.024	2.0E+7	1.284
2.0E+2	1.025	4.0E+7	1.444
4.0E+2	1.028	6.0E+7	1.535
6.0E+2	1.030	8.0E+7	1.586
8.0E+2	1.032	1.0E+8	1.598
1.0E+3	1.033	1.5E+8	1.498
1.5E+3	1.037	2.0E+8	1.343
2.0E+3	1.039	4.0E+8	1.065
4.0E+3	1.048	6.0E+8	1.021
6.0E+3	1.054	8.0E+8	1.012
8.0E+3	1.060	1.0E+9	1.007
1.0E+4	1.064		
1.5E+4	1.074		
2.0E+4	1.081		
4.0E+4	1.098		
6.0E+4	1.111		
8.0E+4	1.119		
1.0E+5	1.124		

^aRatio Based on: ^{235}U thermal fission for 4 years, no depletion,
typical LWR spectrum.

Fig. A-1.
ANS 5.1 Standard upper-bound
absorption correction $G_{\max}$.

TABLE A-11

PARAMETERS

FOR

PULSE AND FINITE IRRADIATION DECAY-HEAT
FUNCTIONS $\phi(t)$ and $F(t, T)$
(5/78)

U-235		U-238		Pu-239	
Thermal		Fast		Thermal	
α	λ	α	λ	α	λ
6.5057E-01	2.2138E+01	1.2311E+00	3.2881E+00	2.0630E-01	1.0020E+01
5.1264E-01	5.1587E-01	1.1486E+00	9.3805E-01	3.8539E-01	6.4330E-01
2.4384E-01	1.9594E-01	7.0701E-01	3.7073E-01	2.2130E-01	2.1860E-01
1.3850E-01	1.0314E-01	2.5209E-01	1.1118E-01	9.4600E-02	1.0040E-01
5.5440E-02	3.3656E-02	7.1870E-02	3.6143E-02	3.5310E-02	3.7280E-02
2.2225E-02	1.1681E-02	2.8291E-02	1.3272E-02	2.2920E-02	1.4350E-02
3.3088E-03	3.5870E-03	6.8392E-03	5.0133E-03	3.9460E-03	4.5490E-03
9.3015E-04	1.3930E-03	1.2322E-03	1.3655E-03	1.5170E-03	1.5280E-03
8.0943E-04	6.2630E-04	6.8409E-04	5.5158E-04	7.0520E-04	5.3560E-04
1.9567E-04	1.8906E-04	1.6975E-04	1.7873E-04	1.4320E-04	1.7300E-04
3.2535E-05	5.4988E-05	2.4182E-05	4.9032E-05	1.7650E-05	4.8810E-05
7.5595E-06	2.0958E-05	6.6356E-06	1.7058E-05	7.3470E-06	2.0060E-05
2.5232E-06	1.0010E-05	1.0075E-06	7.0465E-06	1.7470E-06	8.3190E-06
4.9948E-07	2.5438E-06	4.9894E-07	2.3190E-06	5.4810E-07	2.3580E-06
1.8531E-07	6.6361E-07	1.6352E-07	6.4480E-07	1.6710E-07	6.4500E-07
2.6608E-08	1.2290E-07	2.3355E-08	1.2649E-07	2.1120E-08	1.2780E-07
2.2398E-09	2.7215E-08	2.8094E-09	2.5548E-08	2.9960E-09	2.4660E-08
8.1641E-12	4.3714E-09	3.6236E-11	8.4782E-09	5.1070E-11	9.3780E-09
8.7797E-11	7.5780E-10	6.4577E-11	7.5130E-10	5.7300E-11	7.4500E-10
2.5131E-14	2.4786E-10	4.4963E-14	2.4180E-10	4.1320E-14	2.4260E-10
3.2176E-16	2.2334E-13	3.6654E-16	2.2739E-13	1.0880E-15	2.2100E-13
4.5038E-17	2.4600E-14	5.6293E-17	9.0536E-14	2.4540E-17	2.6400E-14
7.4791E-17	1.5699E-14	7.1602E-17	5.6098E-15	7.5570E-17	1.3800E-14

TABLE A-III

PARAMETERS
FOR
 Δf
THE PULSE FUNCTION UNCERTAINTY*

^{235}U		^{238}U		^{239}Pu	
β	γ	β	γ	β	γ
1.1306+0	2.3079+0	2.6985-1	5.6768-1	1.9530+0	2.1278+0
1.4680+0	2.5578+0	4.6317-1	2.1447+0	1.2000-4	2.0370+2
3.4480-1	2.4554+0	3.3342-2	2.6939-1	3.0310-1	2.1127+0
8.5155-3	2.4783+0	5.2368-2	1.2343-1	2.0617-2	2.1132+0
3.2872-2	3.7832-1	1.6377-2	3.7050-2	2.0761-2	2.5175-1
8.2958-3	1.7756-1	3.3312-3	1.3551-2	4.8726-3	6.8314-2
1.5202-3	3.5541-2	3.4399-4	3.8277-3	1.4982-4	3.3741-3
2.8260-4	1.0309-2	2.9573-5	1.1444-3	1.1519-3	1.4929-2
9.5539-5	6.3926-3	4.5202-5	6.9141-4	4.9044-5	7.0130-4
4.1938-5	1.3593-3	1.2485-5	1.9674-4	2.8594-6	1.1230-4
8.2175-6	2.8126-4	1.4719-6	5.9641-5	4.2090-6	1.7173-4
7.9662-7	5.7595-5	4.3067-7	1.7524-5	4.8789-7	2.4989-5
6.0345-8	8.5336-6	2.8213-8	3.7664-6	1.4067-7	1.0014-5
6.9231-9	2.2085-6	6.0028-9	1.9651-6	2.9496-8	2.4173-6
3.7062-9	6.6361-7	6.3270-9	6.8983-7	8.3735-9	6.4468-7
5.3216-10	1.2290-7	8.9103-10	1.3242-7	1.0591-9	1.2806-7
4.4796-11	2.7213-8	1.1371-10	2.3771-8	1.5014-10	2.4668-8
1.6328-13	4.3714-9	1.4076-12	9.1546-9	2.5438-12	9.4104-9
1.7559-12	7.5780-10	3.2341-12	7.5130-10	2.8675-12	7.4481-10
5.0262-16	2.4786-10	2.2547-15	2.4188-10	2.0731-15	2.4337-10
6.4352-18	2.2384-13	1.8325-17	2.2768-13	5.4574-17	2.2119-13
9.0076-19	2.4600-14	2.8240-18	9.0019-14	1.2296-18	2.6741-14
1.4958-18	1.5699-14	3.5792-18	5.4671-15	3.7807-18	1.3870-14

*These accurately reproduce the 1σ values in Δf of the ANS 5.1 Standard when used in Eq. (A-1), but these parameters are not listed in the standard.

Fig. A-2.
ANS 5.1 Standard fission-product
decay power pulse functions.

Fig. A-3. Ratio of ^{239}Pu and ^{238}U nominal decay heating to ^{235}U nominal - infinite irradiation.

Fig. A-4. Comparison of Standard $F(t, \infty)$
for ^{235}U (1978) with 1973 Standard.

APPENDIX B

TMI-2 CURIES, ATOMS, AND DECAY POWERS OF MAJOR FISSION-PRODUCT CONTRIBUTORS AND COMPARISON RESULTS FOLLOWING AN EXTENDED POWER PERIOD

For the TMI-2 power history and a 26 000 hour irradiation at constant, full power of TMI-2, the CINDER-10 results for collective and individual nuclide contributions at each of 24 cooling times are summarized in this Appendix. At each cooling time (the same times as in the main text plus the instant of shutdown) any nuclide contributing more than 0.5% to the values of the total summations over all fission products of curies, beta, gamma, or beta + gamma energies is listed.

All data are calculated using the ENDF/B-IV data base in CINDER-10 and actinide cross sections from EPRI-CELL as described in the main text. Therefore, the total decay heating from fission products will differ by a small amount from the aggregate values in the main text because of the use there of the ANS 5.1 Standard for times ≤ 20 hours. For cooling times up to a few minutes, the standard is believed to be more accurate than calculations, but as the cooling time increases it is increasingly probable that these summation calculations are more accurate because of the accurate accounting for neutron absorption specific to TMI-2. The absorption effect is discussed in the text, and in Appendices A, D, and E.

Each table of time step data is headed by information for the aggregate sums over all fission products and other data as labeled. The first quantity listed is the time step number, time step 22 representing values at the end of the last time at power before the March 28 incident. The second quantity is the cooling time in seconds; this is 0. at time step 22. The total elapsed time over all time steps follows the cooling time.

All other quantities heading each table are values applicable to the total core. The accumulated fission and total fission products in sum are reduced by the factor 10^{-24} , a common practice in reactor design. The beta, gamma and total (beta + gamma) decay power is specified in MW and in MeV/fiss, the latter unit being

$$\text{MeV/fiss} \equiv \frac{\text{MeV/s}}{\text{fiss/s}} \quad ,$$

where MeV/s is the decay power rate in MeV per second at the specified cooling time and fiss/s is the fission rate during the last time step at power; in this case the rate is 8.27×10^{19} for TMI-2 (for the second set of tables the rate is 8.59×10^{19} fiss/s).

The tabular data for each nuclide consists of the following quantities.

COL	QUANTITY
1	Numerical ID where the first two digits = the atomic number Z, the next three digits = mass number A, the sixth digit specifies the isomeric state (0 = ground, 1 = first isomeric, etc), and the final digit is 0 in all cases.
2	Chemical symbol corresponding to the atomic number.
3-6	Lists percentages for beta, gamma and beta + gamma decay energy of the total, and the percent of curies of the total, where total refers to all fission products.
7-9	Lists the decay power in MeV/fission, as discussed above.
10	Lists curies (total core).
11	Lists the "density" where, in this case, density refers to the total atoms of the nuclide in the core multiplied by the factor 10^{-24} .
12-14	Lists the decay power in MW for beta, gamma and beta + gamma.

As the cooling time increases the number of nuclides meeting the $\geq 0.5\%$ -of-total criteria for inclusion in these tables decreases, particularly for TMI-2. That is, a few nuclides dominate the total decay at long times.

The second set of tables is identical in form to the first set but is based on a constant power of 2772 MW for 26 000 hours (~ 2.97 years). This case is comparable to 1/3 of the equilibrium core fuel following three cycles. It differs in the following respects:

- All fuel is assumed to produce power constantly for 26 000 hours.
- Each fissionable nuclide is assumed to produce the same energy per fission.
- Fuel cross sections are based on EPRI-CELL at mid-life; that is, these cross sections are self-shielded at the mid-life value but are not time dependent.

The differences are not important for the intended use of these tables, namely, to provide a general comparison of nuclide data for highly irradiated fuel. The number of time steps at power was maintained at 22 and the decay (cooling) times are the same as used for TMI-2 so that time step numbers correspond to the same cooling times as in the first set of tables.

The reader should note that the calculations for the second set of tables uses a power level of 2772 MW. Had TMI-2 been at full power during its last powered interval the fission product decay energy would be increased by ~2.7% for each nuclide during the first day or more following the March 28 incident.

It is interesting to note that the number of nuclides making considerable ($\geq 0.5\%$) contributions to total fission-product decay power far exceed the corresponding number important to total actinide decay power, as shown in Fig. B-1.

Fig. B-1.
Number of nuclides contributing $\geq 0.5\%$ of
total actinide or fission-product decay power.

SPECIAL (LIMITED) POINT
ALL FISSION PRODUCTS HAVING BETA, GAMMA, BETA+GAMMA OR CURIES
EXCEEDING .500 PERCENT OF VALUE FOR ALL DOMINANTS
(CINDER-10 CALCULATION, ENDF/B4 DATA)

TABLE B-1

TMT, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

22-STEP STEP

0. -TOTAL TIME SINCE LAST TIME AT POWER(S)

2.93378E+07-TOTAL ELAPSED TIME(S)

8.26331E+19-FISSIONS/AT LAST TS AT POWER,1 22

2.69707E+09-POWER (WATTS) AT LAST TS AT POWER (2.69970E+03 MW)

6.95228E+02-ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)

1.39000E+03-TOTAL FP IN SIM PER BARN-CM

4.61186E+20-TOTAL ACTIVITY (DIS/S)

1.24645E+10-TOTAL CURIES

8.28859E+01-TOTAL BETA DECAY POWER (MW)

7.90085E+01-TOTAL GAMMA DECAY POWER (MW)

1.61894E+02-TOTAL DECAY POWER (MW)

6.25950E+00-TOTAL BETA MEV/F

5.96669E+00-TOTAL GAMMA MEV/F

1.22262E+01-TOTAL DECAY MEV/F

ID	SYM	PERCENT OF ALL FP			MEV/FISS			CURIES			DENSITY	DECAY POWER IN MW		
		BETA	GAMMA	TOTAL	BETA	GAMMA	TOTAL	BETA	GAMMA	TOTAL		BETA	GAMMA	TOTAL
350A700	BR	.678	.575	.629	.356	4.245E-02	3.432E-02	7.677E-02	4.441E+07	1.323E-04	5.621E-01	4.544E-01	1.017E+00	
350A800	BR	1.112	.715	.919	.407	4.960E-02	4.269E-02	1.123E-01	5.069E+07	4.302E-05	9.216E-01	5.652E-01	1.487E+00	
350A900	BR	.129	1.206	.655	.593	4.089E-03	7.197E-02	8.006E-02	7.269E+07	3.911E-02	1.071E-01	9.530E-01	1.060E+00	
350B700	BR	1.093	.371	.741	.599	6.844E-02	2.215E-02	9.058E-02	7.341E+07	4.161E-03	9.062E-01	2.932E-01	1.199E+00	
350B800	BR	.780	.575	.681	.311	4.883E-02	3.439E-02	8.327E-02	3.875E+07	9.309E-06	6.467E-01	4.553E-01	1.102E+00	
350B900	BR	.932	1.451	1.134	.752	5.209E-02	8.698E-02	1.387E-01	9.375E+07	9.488E-04	6.898E-01	1.146E+00	1.836E+00	
350C700	BR	.849	1.474	1.149	.783	4.060E-02	9.999E-02	1.406E-01	9.758E+07	4.750E-03	5.375E-01	1.324E+00	1.862E+00	
350C800	BR	.261	0.700	.134	.504	1.636E-02	0.	1.636E-02	6.279E+07	1.506E+01	2.166E-01	0.	2.166E-01	
350C900	BR	.635	.452	.549	.712	3.973E-02	2.760E-02	6.712E-02	2.643E+07	2.257E-06	5.261E-01	3.628E-01	8.888E-01	
350D700	BR	.906	1.244	1.071	.742	5.047E-02	7.436E-02	1.249E-01	9.697E+07	1.637E-04	6.683E-01	9.847E-01	1.653E+00	
350D800	BR	1.129	1.809	1.574	.763	7.061E-02	1.132E-01	1.839E-01	9.509E+07	8.223E-04	9.349E-01	1.500E+00	2.435E+00	
350D900	BR	.192	.459	.412	.195	1.201E-02	3.925E-02	5.126E-02	2.425E+07	3.324E-04	1.590E-01	5.198E-01	6.788E-01	
350E700	BR	1.314	1.87	.962	.572	9.226E-02	2.309E-02	1.053E-01	7.128E+07	3.310E-05	1.089E+00	3.057E-01	1.395E+00	
350E800	BR	1.115	2.104	1.740	.737	6.978E-02	1.429E-01	2.127E-01	1.168E+08	3.630E-04	9.239E-01	1.893E+00	2.817E+00	
350E900	BR	.563	.630	.574	.049	3.527E-02	3.760E-02	7.284E-02	1.208E+08	2.201E-01	4.671E-01	4.979E-01	9.630E-01	
350F700	BR	.317	.001	.153	.584	1.982E-02	8.698E-03	1.090E-02	7.305E+07	1.974E+01	2.624E-01	1.152E-03	2.636E-01	
350F800	BR	.000	.000	.151	.559	0.	1.729E-02	1.729E-02	6.959E+07	1.108E-02	0.	2.290E-01	2.290E-01	
350F900	BR	.567	.194	.381	.265	3.549E-02	1.110E-02	4.658E-02	3.298E+07	3.239E-06	4.698E-01	1.470E-01	6.168E-01	
350G700	BR	2.440	.123	1.343	.791	1.527E-01	1.144E-02	1.643E-01	9.862E+07	2.389E-05	2.022E+00	1.588E-01	2.175E+00	
350G800	BR	1.344	.688	.888	.994	1.057E-02	7.360E-02	8.418E-02	1.228E+08	6.396E-02	1.400E-01	9.746E-01	1.115E+00	
350G900	BR	1.289	.222	.772	.997	8.067E-02	1.357E-02	9.434E-02	1.231E+08	8.349E-02	1.068E+00	1.811E-01	1.249E+00	
350H700	BR	1.095	.794	.943	.900	6.791E-02	4.739E-02	1.153E-01	7.483E+07	2.317E-05	8.943E-01	6.275E-01	1.527E+00	
350H800	BR	1.092	1.374	1.230	1.055	4.833E-02	8.210E-02	1.304E-01	1.315E+08	3.158E-03	9.048E-01	1.087E+00	1.992E+00	
350H900	BR	1.134	.000	.625	1.074	7.099E-02	5.368E-03	7.636E-02	1.339E+08	2.624E-01	9.400E-01	7.108E-02	1.011E+00	

3709400	RR	.797	.545	.677	.274	4.936E-02	3.249E-02	8.186E-02	3.664E+07	5.261E-06	6.537E-01	4.302E-01	1.084E+00
3809400	SR	.731	1.186	.994	1.071	4.954E-02	7.078E-02	1.203E-01	1.273E+08	5.135E-04	6.560E-01	9.372E-01	1.563E+00
3909400	Y	1.667	1.704	1.343	1.089	1.043E-01	5.991E-02	1.642E-01	1.357E+08	8.259E-03	1.382E+00	7.933E-01	2.175E+00
3809500	SR	1.606	1.183	1.470	.927	1.006E-01	7.059E-02	1.711E-01	1.158E+08	1.608E-04	1.332E+00	9.347E-01	2.266E+00
3909500	Y	1.722	.805	1.179	1.107	1.078E-01	3.016E-02	1.340E-01	1.380E+08	4.640E-03	1.428E+00	3.994E-01	1.827E+00
4009500	ZR	.065	.636	.746	.633	4.107E-03	2.600E-02	3.101E-02	7.889E+07	2.383E-01	5.438E-02	3.442E-01	3.986E-01
3809600	SR	.778	.676	.778	.645	4.870E-02	4.032E-02	8.901E-02	8.044E+07	1.718E-05	6.449E-01	5.338E-01	1.179E+00
3909600	Y	2.238	1.424	1.840	1.042	1.401E-01	8.494E-02	2.250E-01	1.249E+08	9.570E-04	1.855E+00	1.125E+00	2.979E+00
3809700	SR	.699	.634	.634	.334	4.377E-02	3.474E-02	7.801E-02	4.162E+07	4.443E-07	5.796E-01	4.534E-01	1.033E+00
3909700	Y	1.698	.777	1.745	.891	1.063E-01	4.595E-02	1.527E-01	1.098E+08	6.505E-04	1.407E+00	6.085E-01	2.015E+00
4009700	ZR	.653	.172	.477	1.092	4.149E-02	1.046E-02	5.215E-02	1.311E+08	4.231E-01	5.494E-01	1.412E-01	6.906E-01
4109700	NR	.640	.652	.652	1.055	2.757E-02	3.499E-02	6.744E-02	1.316E+08	3.103E-02	3.651E-01	5.282E-01	8.933E-01
4109710	NR	0.000	.630	.378	.027	0.	3.760E-02	3.763E-02	1.131E+08	3.260E-04	0.	4.979E-01	4.979E-01
3909800	Y	1.605	1.157	1.883	.633	1.005E-01	6.840E-02	1.691E-01	7.888E+07	1.263E-06	1.330E+00	9.084E-01	2.239E+00
4009800	ZR	.818	.001	.419	1.017	5.120E-02	5.677E-05	5.126E-02	1.268E+08	2.098E-04	6.780E-01	7.517E-04	6.788E-01
4109800	NR	1.710	.733	.941	1.079	1.070E-01	8.048E-03	1.151E-01	1.282E+08	1.916E-05	1.417E+00	1.066E-01	1.524E+00
3909900	Y	.693	.844	.675	.365	4.274E-02	3.364E-02	7.638E-02	4.564E+07	1.949E-06	5.659E-01	4.455E-01	1.011E+00
4009900	ZR	1.501	.771	1.145	1.039	2.399E-02	4.603E-02	1.430E-01	1.296E+08	1.660E-05	1.245E+00	6.095E-01	1.854E+00
4109900	NR	1.450	.700	.847	1.059	2.074E-02	1.190E-02	1.026E-01	1.331E+08	9.949E-05	1.202E+00	1.576E-01	1.359E+00
4209900	NR	.377	.191	.295	1.099	2.357E-02	1.140E-02	3.499E-02	1.369E+08	1.737E+00	3.122E-01	1.510E-01	4.631E-01
4309910	TC	0.000	.126	.062	.949	0.	7.547E-03	7.547E-03	1.181E+08	1.366E-01	0.	9.993E-02	9.993E-02
3910000	Y	.500	.375	.637	.155	3.133E-02	2.238E-02	5.371E-02	2.060E+07	8.315E-07	4.149E-01	2.964E-01	7.112E-01
4010000	ZR	.624	.562	.673	.950	3.905E-02	3.350E-02	7.255E-02	1.184E+08	4.486E-05	5.171E-01	4.436E-01	9.607E-01
4110000	NR	1.042	1.019	1.037	.567	6.519E-02	6.079E-02	1.260E-01	7.071E+07	9.059E-05	8.633E-01	8.050E-01	1.668E+00
4110010	NR	1.071	.774	.927	.557	6.706E-02	4.323E-02	1.103E-01	7.071E+07	9.097E-06	6.880E-01	5.724E-01	1.460E+00
4010100	ZR	1.330	.705	.791	.677	9.327E-02	1.224E-02	9.551E-02	7.750E+07	1.365E-05	1.103E+00	1.621E-01	1.265E+00
4110100	NR	1.541	.781	.776	.977	9.545E-02	1.675E-02	1.132E-01	1.134E+08	4.236E-05	1.277E+00	2.217E-01	1.499E+00
4210100	NR	.428	1.217	.849	.939	3.116E-02	7.261E-02	1.039E-01	1.170E+08	5.471E-03	4.127E-01	9.614E-01	1.374E+00
4310100	TC	.402	.205	.350	.232	2.514E-02	1.751E-02	4.275E-02	1.170E+08	5.322E-03	3.327E-01	2.332E-01	5.652E-01
4110200	NR	1.603	1.162	1.178	.773	1.003E-01	6.812E-02	1.645E-01	9.012E+07	1.443E-05	1.329E+00	9.020E-01	2.231E+00
4210200	NR	.227	0.000	.115	.917	1.419E-02	0.	1.419E-02	1.019E+08	3.621E-03	1.978E-01	0.	1.878E-01
4310200	TC	1.100	.385	.736	.819	6.883E-02	2.116E-02	8.979E-02	1.019E+08	2.883E-05	9.115E-01	2.802E-01	1.192E+00
4110300	NR	.704	.588	.649	.655	4.409E-02	3.510E-02	7.919E-02	5.672E+07	4.744E-05	5.838E-01	4.648E-01	1.049E+00
4210300	NR	.781	.612	.717	.677	4.887E-02	3.694E-02	8.591E-02	8.396E+07	2.676E-04	6.471E-01	4.891E-01	1.136E+00
4310300	TC	.434	.322	.377	.677	2.714E-02	1.919E-02	4.632E-02	8.433E+07	2.251E-04	3.593E-01	2.541E-01	6.134E-01
4310400	TC	.490	.611	.564	.451	3.003E-02	3.645E-02	6.648E-02	5.623E+07	3.242E-03	3.976E-01	4.827E-01	8.803E-01
5110100	SR	.210	.617	.436	.215	1.312E-02	3.649E-02	4.761E-02	2.581E+07	3.179E-03	1.734E-01	4.832E-01	6.570E-01
5110100	SR	.296	.747	.514	.464	1.855E-02	4.425E-02	6.280E-02	5.807E+07	4.277E-03	2.456E-01	5.860E-01	8.316E-01
5110100	I	.085	.197	.115	.513	5.309E-03	1.114E-02	1.645E-02	6.394E+07	2.371E+00	7.031E-02	1.475E-01	2.178E-01
5110200	SR	.474	.580	.576	.302	2.988E-02	3.459E-02	6.427E-02	3.851E+07	2.590E-04	3.931E-01	4.583E-01	8.511E-01
5210200	TE	.042	.197	.117	.793	2.622E-03	1.173E-02	1.435E-02	9.756E+07	1.462E+00	3.473E-02	1.553E-01	1.991E-01
5310200	I	.369	1.649	.923	.798	2.307E-02	4.839E-02	1.215E-01	9.822E+07	4.313E-02	3.055E-01	1.303E+00	1.608E+00
5110300	SR	.125	.792	.565	.477	1.221E-02	5.682E-02	6.901E-02	5.077E+07	3.903E-04	1.615E-01	7.524E-01	9.140E-01
5210300	TE	.512	.665	.577	.701	3.208E-02	3.446E-02	7.054E-02	8.739E+07	3.498E-03	4.247E-01	5.093E-01	9.340E-01
5210310	TE	.251	.899	.562	.577	1.568E-02	5.301E-02	6.869E-02	6.345E+07	1.126E-02	2.076E-01	7.019E-01	9.096E-01
5310300	I	.452	.897	.553	1.214	2.827E-02	4.058E-02	6.886E-02	1.514E+08	6.051E-01	3.743E-01	5.374E-01	9.118E-01
5410300	XF	.109	.021	.177	1.271	4.828E-03	5.458E-03	1.229E-02	1.497E+08	3.653E+00	9.042E-02	7.228E-02	1.627E-01
5210400	TE	.157	.924	.516	1.159	0.828E-03	5.331E-02	6.314E-02	1.444E+08	1.942E-02	1.301E-01	7.059E-01	8.361E-01
5310400	I	.833	3.290	2.017	1.383	5.216E-02	1.957E-01	2.479E-01	1.688E+08	2.841E-02	6.907E-01	2.592E+00	3.282E+00
5210500	TE	.841	1.193	1.779	.591	5.267E-02	7.057E-02	1.232E-01	7.241E+07	6.957E-03	6.975E-01	9.345E-01	1.632E+00
5310500	I	.399	1.567	.960	1.117	2.408E-02	9.240E-02	1.174E-01	1.418E+08	1.794E-01	3.308E-01	1.223E+00	1.556E+00
5210600	TE	.350	.566	.464	.364	2.193E-02	3.255E-02	5.449E-02	4.284E+07	4.802E-05	2.904E-01	4.311E-01	7.215E-01
5310600	I	.891	1.162	1.714	.552	5.577E-02	6.816E-02	1.279E-01	6.879E+07	3.048E-04	7.385E-01	9.026E-01	1.641E+00
5310610	I	.593	.629	.575	.337	3.651E-02	3.625E-02	7.277E-02	4.206E+07	1.078E-04	4.835E-01	4.801E-01	9.636E-01
5410700	I	.792	1.113	.769	.587	4.954E-02	6.640E-02	1.160E-01	7.312E+07	9.602E-05	6.565E-01	8.793E-01	1.536E+00
5310700	XF	1.763	.196	.929	1.074	1.104E-01	1.171E-02	1.221E-01	1.339E+08	1.647E-03	1.461E+00	1.550E-01	1.616E+00
5310800	I	.591	.776	.676	.307	3.635E-02	4.628E-02	8.263E-02	3.827E+07	1.328E-05	4.813E-01	6.128E-01	1.094E+00
5410800	XF	.642	1.224	.976	1.095	4.014E-02	7.302E-02	1.132E-01	1.365E+08	6.207E-03	5.321E-01	9.669E-01	1.499E+00
5510800	CS	1.224	.705	1.945	1.193	3.102E-02	1.495E-01	2.305E-01	1.434E+08	1.479E-02	1.073E+00	1.979E+00	3.092E+00
5410900	XF	1.423	.775	1.177	.894	8.910E-02	4.625E-02	1.353E-01	1.114E+08	2.402E-04	1.180E+00	6.124E-01	1.792E+00

5513000	CS	1.766	.324	1.044	1.123	1.105E-01	1.048E-02	1.300E-01	1.400E+08	4.171E-03	1.444E+00	2.580E-01	1.722E+00
5613000	3A	.413	.054	.405	1.141	5.715E-02	3.330E-03	6.047E-02	1.422E+04	3.795E-02	7.566E-01	4.609E-02	8.007E-01
5414000	KE	.593	.050	.643	.629	1.085E-02	4.772E-02	7.457E-02	1.825E+07	5.881E-05	4.085E-01	6.314E-01	1.040E+00
5514000	CS	1.754	.200	1.893	1.717	1.099E-01	1.211E-01	2.309E-01	1.270E+08	4.325E-04	1.454E+00	1.604E+00	3.058E+00
5614000	BA	.255	.207	.231	1.017	1.593E-02	1.233E-02	2.874E-02	1.270E+08	9.743E-01	2.110E-01	1.633E-01	3.743E-01
5714000	LA	.466	.175	1.370	1.011	2.917E-02	1.234E-01	1.589E-01	1.260E+04	9.743E-01	3.862E-01	1.716E+00	2.104E+00
5514100	CS	.950	1.321	1.131	.774	5.948E-02	7.843E-02	1.384E-01	9.650E+07	1.288E-04	7.877E-01	1.044E+00	1.432E+00
5614100	BA	.842	.887	.840	1.033	5.271E-02	5.112E-02	1.038E-01	1.286E+08	7.538E-03	6.970E-01	6.769E-01	1.175E+00
5714100	LA	.714	.732	.483	1.034	5.720E-02	1.194E-03	5.909E-02	1.291E+08	9.599E-02	7.574E-01	2.510E-02	7.825E-01
5814200	CF	.111	.052	.085	.779	4.938E-03	3.118E-03	1.005E-02	9.715E+07	1.454E-01	9.183E-02	1.129E-02	1.131E-01
5514200	CS	.206	1.183	1.041	.497	5.672E-02	7.058E-02	1.273E-01	6.127E+07	5.623E-06	7.511E-01	9.344E-01	1.686E+00
5614200	BA	.188	.944	.640	1.018	2.432E-02	5.750E-02	9.191E-02	1.268E+08	4.346E-03	3.220E-01	7.614E-01	1.083E+00
5714200	LA	.475	2.324	1.593	1.016	5.476E-02	1.388E-01	1.935E-01	1.292E+08	3.823E-02	7.251E-01	1.838E+00	2.563E+00
5514300	CS	.377	.544	.440	.270	2.359E-02	3.271E-02	5.630E-02	3.369E+07	3.057E-06	3.124E-01	4.331E-01	7.654E-01
5614300	BA	.489	1.745	1.112	.914	5.565E-02	8.025E-02	1.359E-01	1.142E+08	8.289E-05	7.363E-01	1.063E+00	1.789E+00
5714300	LA	.757	1.000	.319	1.021	5.737E-02	6.501E-02	1.124E-01	1.273E+09	5.709E-03	6.273E-01	8.609E-01	1.438E+00
5814300	CF	.383	.284	.335	1.024	2.400E-02	1.694E-02	4.044E-02	1.279E+08	8.112E-01	3.178E-01	2.243E-01	5.421E-01
5914300	PO	.269	0.000	.138	.937	1.689E-02	0.	1.645E-02	1.162E+08	7.278E+00	2.231E-01	0.	2.231E-01
5614400	9A	.424	.719	.567	.734	2.652E-02	4.283E-02	6.935E-02	9.145E+07	5.369E-05	3.517E-01	5.671E-01	9.183E-01
5714400	LA	1.247	1.677	1.456	.924	7.803E-02	1.000E-01	1.781E-01	1.154E+08	2.464E-04	1.033E+00	1.325E+00	2.358E+00
5614500	3A	.409	.642	.523	.357	2.563E-02	3.828E-02	6.301E-02	4.450E+07	1.473E-05	3.394E-01	5.069E-01	8.453E-01
5714500	LA	.610	.919	.740	.444	3.816E-02	5.479E-02	9.295E-02	8.055E+07	1.247E-04	9.052E-01	7.255E-01	1.231E+00
5814500	CE	.386	.442	.433	.698	2.417E-02	2.873E-02	5.290E-02	8.570E+07	9.851E-02	3.200E-01	3.804E-01	7.004E-01
5914500	PR	.432	.009	.225	.699	2.704E-02	5.289E-04	2.757E-02	9.572E+07	9.851E-02	3.580E-01	7.002E-03	3.650E-01
5714600	LA	.650	.710	.777	.413	4.071E-02	5.429E-02	9.499E-02	5.144E+07	2.279E-05	5.380E-01	7.189E-01	1.258E+00
5814600	CE	1.115	.154	.135	.533	7.203E-03	9.328E-03	1.633E-02	6.630E+07	3.015E-03	9.538E-02	1.235E-01	2.189E-01
5914600	PR	.641	.814	.624	.936	2.762E-02	4.867E-02	7.630E-02	6.650E+07	5.154E-03	3.658E-01	6.445E-01	1.010E+00
5914900	PR	.562	.087	.330	.300	3.519E-02	5.167E-03	4.036E-02	3.847E+07	2.464E-04	4.660E-01	6.042E-02	5.345E-01

TABLE B-II

TIME UNIT 2: 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

23=TIME STEP

1.0000E+00=TOTAL TIME SINCE LAST TIME AT POWER(S)
 2.93378E+07=TOTAL ELAPSED TIME(S)
 8.26531E+10=FISSIONS/S AT LAST TS AT POWER(S) 221
 2.69370E+09=POWER (WATTS) AT LAST TS AT POWER (2.69370E+03 MW)
 6.92228E+02=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.39000E+03=TOTAL CP IN SUN PER REBN-CM

4.39726E+20=TOTAL ACTIVITY (DIS/S)

1.18845E+10=TOTAL CURTES

7.53147E+01=TOTAL BETA DECAY POWER (MW)

7.32734E+01=TOTAL GAMMA DECAY POWER (MW)

1.48588E+02=TOTAL RECAP POWER (MW)

5.68773E+00=TOTAL BETA MEV/E

5.53358E+00=TOTAL GAMMA MEV/E

1.12213E+01=TOTAL DECAY MEV/E

5113100	SA	.328	.702	.540	.499	1.855E-02	4.424E-02	6.277E-02	5.805E+07	4.276E-03	2.456E-01	5.858E-01	8.314E-01
5113100	I	.293	.701	.117	.538	5.309E-03	1.114E-02	1.645E-02	6.324E+07	2.371E+00	7.031E-02	1.475E-01	2.178E-01
5113200	SA	.520	.623	.721	.373	2.958E-02	3.447E-02	6.406E-02	3.838E+07	2.581E-04	3.917E-01	4.565E-01	8.482E-01
5213200	TF	.046	.211	.124	.921	2.627E-02	1.173E-02	1.435E-02	9.756E+07	1.462E+00	3.473E-01	1.553E-01	1.901E-01
5313200	I	.406	1.779	1.092	.926	2.307E-02	9.439E-02	1.215E-01	9.822E+07	4.313E-02	3.055E-01	1.303E+00	1.608E+00
5113300	SA	.714	1.222	.612	.425	1.215E-02	5.657E-02	6.972E-02	5.055E+07	3.885E-04	1.609E-01	7.490E-01	9.100E-01
5213300	TF	.664	.626	.629	.735	3.207E-02	3.845E-02	7.052E-02	8.736E+07	3.497E-03	4.246E-01	5.091E-01	9.338E-01
5213310	TF	.276	.259	.612	.534	1.584E-02	5.300E-02	6.867E-02	6.344E+07	1.126E-02	2.076E-01	7.018E-01	9.094E-01
5313300	I	.497	.733	.614	1.774	2.927E-02	4.058E-02	6.886E-02	1.514E+08	6.051E-01	3.743E-01	5.374E-01	9.118E-01
5413300	XF	.120	.022	.129	1.260	6.828E-03	5.458E-03	1.229E-02	1.497E+08	3.653E+00	9.042E-02	7.228E-02	1.627E-01
5213400	TF	.173	.263	.563	1.214	9.826E-03	5.330E-02	6.312E-02	1.443E+08	1.941E-02	1.301E-01	7.054E-01	8.359E-01
5313400	I	.917	2.832	2.220	1.410	5.216E-02	1.957E-01	2.479E-01	1.686E+08	2.841E-02	6.907E-01	2.592E+00	3.282E+00
5213500	TF	.893	1.220	1.052	.598	5.080E-02	6.806E-02	1.199E-01	6.983E+07	6.709E-03	6.726E-01	9.012E-01	1.574E+00
5313500	I	.639	1.670	1.066	1.123	2.498E-02	9.240E-02	1.174E-01	1.418E+08	1.794E-01	3.308E-01	1.223E+00	1.554E+00
5213600	TF	.373	.562	.470	.362	2.122E-02	3.151E-02	5.273E-02	4.146E+07	4.647E-03	2.810E-01	4.172E-01	6.982E-01
5313600	I	.777	1.228	1.121	.577	5.553E-02	6.794E-02	1.235E-01	6.857E+07	3.038E-04	7.361E-01	8.997E-01	1.636E+00
5313610	I	.633	.466	.639	.342	3.594E-02	3.574E-02	7.173E-02	4.146E+07	1.062E-04	4.765E-01	4.732E-01	9.498E-01
5313700	I	.851	1.172	1.022	.621	4.840E-02	6.483E-02	1.132E-01	7.132E+07	9.374E-03	6.409E-01	8.584E-01	1.499E+00
5413700	XF	1.237	.211	1.086	1.125	1.102E-01	1.169E-02	1.212E-01	1.337E+08	1.645E-03	1.459E+00	1.548E-01	1.614E+00
5313800	I	.520	.259	.657	.222	3.227E-02	4.192E-02	7.484E-02	3.467E+07	1.203E-03	4.360E-01	5.551E-01	9.910E-01
5413800	XF	.706	1.312	1.008	1.149	4.016E-02	7.297E-02	1.131E-01	1.364E+08	6.204E-03	5.318E-01	9.663E-01	1.498E+00
5513900	CS	1.425	2.701	2.054	1.206	8.102E-02	1.495E-01	2.305E-01	1.434E+08	1.479E-02	1.073E+00	1.979E+00	3.052E+00
5413900	XF	1.544	.924	1.199	.224	9.780E-02	4.557E-02	1.314E-01	1.098E+08	2.367E-04	.000	6.035E-01	1.766E+00
5513900	CS	1.243	.252	1.159	1.178	1.105E-01	1.948E-02	1.300E-01	1.400E+08	4.170E-03	.000	2.579E-01	1.722E+00
5613900	BA	1.005	.260	.519	1.197	9.714E-02	3.330E-03	6.047E-02	1.422E+08	3.795E-02	7.560E-01	4.409E-02	8.007E-01
5414000	XF	.516	.821	.667	.627	2.937E-02	4.544E-02	7.481E-02	7.450E+07	5.408E-03	3.999E-01	6.017E-01	9.906E-01
5514000	CS	1.222	2.180	2.049	1.264	1.093E-01	1.206E-01	2.299E-01	1.264E+08	4.306E-04	1.447E+00	1.597E+00	3.045E+00
5614000	BA	.280	.223	.292	1.060	1.593E-02	1.233E-02	2.926E-02	1.270E+08	7.492E+00	2.110E-01	1.633E-01	3.743E-01
5714000	LA	.513	2.365	1.416	1.260	2.917E-02	1.208E-01	1.589E-01	1.260E+08	9.743E-01	3.862E-01	1.718E+00	2.104E+00
5514100	CS	1.224	1.325	1.227	.705	5.824E-02	7.710E-02	1.354E-01	9.449E+07	1.261E-04	7.713E-01	1.022E+00	1.793E+00
5614100	BA	.227	.924	.925	1.092	5.270E-02	5.111E-02	1.038E-01	1.286E+08	7.537E-03	6.979E-01	6.768E-01	1.375E+00
5714100	LA	1.006	.024	.527	1.286	5.720E-02	1.896E-03	5.909E-02	1.291E+08	9.599E-02	7.574E-01	2.510E-02	7.825E-01
5814100	CF	.122	.054	.020	.817	6.936E-03	3.118E-03	1.009E-02	9.715E+07	1.458E+01	9.185E-02	4.129E-02	1.331E-01
5514200	CS	.704	.920	.821	.389	4.003E-02	4.981E-02	8.983E-02	4.373E+07	3.968E-06	5.300E-01	6.595E-01	1.190E+00
5614200	BA	.427	1.228	.729	1.267	2.430E-02	5.746E-02	8.176E-02	1.268E+08	4.344E-03	3.218E-01	7.609E-01	1.083E+00
5714200	LA	.963	2.508	1.225	1.092	4.476E-02	1.388E-01	1.935E-01	1.292E+08	3.823E-02	7.251E-01	1.838E+00	2.563E+00
5614300	BA	.242	1.325	1.165	.924	5.355E-02	7.722E-02	1.308E-01	1.099E+08	7.976E-03	7.091E-01	1.023E+00	1.732E+00
5714300	LA	.933	1.125	1.021	1.021	4.737E-02	6.501E-02	1.124E-01	1.273E+08	5.708E-03	6.273E-01	8.608E-01	1.488E+00
5814300	CE	.422	.206	.265	1.274	2.400E-02	1.694E-02	4.094E-02	1.279E+08	8.112E-01	3.178E-01	2.243E-01	5.421E-01
5914300	PR	.296	0.000	.150	.229	1.685E-02	0.	1.685E-02	1.162E+08	7.278E+00	2.231E-01	0.	2.231E-01
5614400	BA	.440	.730	.583	.725	2.501E-02	4.038E-02	6.537E-02	8.622E+07	5.063E-05	3.311E-01	5.347E-01	8.658E-01
5714400	LA	1.366	1.801	1.591	.267	7.772E-02	9.964E-02	1.774E-01	1.149E+08	2.454E-04	1.029E+00	1.319E+00	2.349E+00
5614500	BA	.404	.621	.511	.336	2.299E-02	3.434E-02	5.733E-02	3.992E+07	1.321E-03	3.044E-01	4.547E-01	7.591E-01
5714500	LA	.663	.929	.819	.620	3.773E-02	5.418E-02	9.190E-02	7.964E+07	1.233E-04	4.996E-01	7.174E-01	1.217E+00
5814500	CF	.425	.519	.471	.721	2.416E-02	2.872E-02	5.288E-02	8.568E+07	9.055E-04	3.199E-01	3.803E-01	7.003E-01
5914500	PR	.475	.010	.266	.721	2.704E-02	5.288E-04	2.757E-02	8.572E+07	9.851E-02	3.580E-01	7.002E-03	3.650E-01
5714600	LA	.674	.924	.727	.408	3.834E-02	5.113E-02	8.947E-02	4.845E+07	2.147E-03	5.077E-01	6.770E-01	1.185E+00
5814600	CF	.127	.162	.147	.558	7.201E-03	9.326E-03	1.653E-02	6.629E+07	3.015E-03	9.536E-02	1.235E-01	2.189E-01
5914600	PR	.486	.880	.680	.560	2.762E-02	4.867E-02	7.630E-02	6.650E+07	5.154E-03	3.658E-01	6.445E-01	1.010E+00
5814700	CE	.331	.807	.418	.415	1.880E-02	2.808E-02	4.689E-02	4.934E+07	1.844E-04	2.490E-01	3.719E-01	6.209E-01
5914800	PR	.618	.093	.359	.324	3.517E-02	5.164E-03	4.034E-02	3.845E+07	2.463E-04	4.658E-01	6.838E-02	5.341E-01

TABLE 8-III

TWT, UNIT : 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

24-TIME STEP

4.00000E+00-TOTAL TIME SINCE LAST TIME AT POWER(S)

2.9379E+07-TOTAL TIME ELAPSED (S)

8.26531E+19-FISSIIONS/AT LAST TS AT POWER.(22)

2.69970E+09-POWER (WATTS) AT LAST TS AT POWER (2.59970E+03 MW)

6.5222E+03-ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)

1.39000E+03-TOTAL FD IN CM PER BARN-CM

4.09932E+20-TOTAL ACTIVITY (DIS/S)

1.10734E+10-TOTAL CURIES

6.59891E+01-TOTAL BETA DECAY POWER (MW)

6.54534E+01-TOTAL GAMMA DECAY POWER (MW)

1.32443E+07-TOTAL DECAY POWER (MW)

4.98347E+00-TOTAL BETA MEV/F

5.01851E+00-TOTAL GAMMA MEV/F

1.00020E+01-TOTAL DECAY MEV/F

ID	SYM	PERCENT OF ALL FISSI			MEV/FISS			TOTAL			CURIES			DENSITY			---DECAY POWER IN MW---			TOTAL
ZZAAS		BETA	GAMMA	TOTAL	BETA	GAMMA	TOTAL	BETA	GAMMA	TOTAL	BETA	GAMMA	TOTAL	BETA	GAMMA	TOTAL	BETA	GAMMA	TOTAL	
3504600	BR	.278	.554	.427	.159	1.487E-02	2.779E-02	4.266E-02	1.871E+07	5.494E-05	1.969E-01	3.680E-01	5.649E-01							
3504700	AR	.276	.543	.742	.330	4.119E-02	3.326E-02	7.445E-02	4.304E+07	1.282E-04	5.489E-01	4.409E-01	9.894E-01							
3504700	KR	.614	.367	.434	.443	3.082E-02	1.919E-02	4.881E-02	5.126E+07	1.244E-04	4.035E-01	2.408E-01	6.463E-01							
3504800	QR	.189	.721	.055	.393	4.919E-02	3.630E-02	9.549E-02	4.311E+07	3.659E-05	7.839E-01	4.807E-01	1.264E+00							
3604800	CR	.162	1.434	.850	.654	4.088E-02	7.197E-02	8.005E-02	7.268E+07	3.911E-02	1.071E-01	9.529E-01	1.060E+00							
3704800	RB	1.173	.441	.276	.551	6.844E-02	2.215E-02	9.058E-02	7.341E+07	4.161E-03	9.062E-01	2.932E-01	1.199E+00							
3504300	RR	.532	.373	.452	.170	2.611E-02	1.867E-02	4.318E-02	2.104E+07	5.054E-06	3.511E-01	2.472E-01	5.983E-01							
3604900	KR	1.035	1.708	1.371	.834	5.157E-02	8.571E-02	1.373E-01	9.281E+07	4.393E-04	6.828E-01	1.135E+00	1.818E+00							
3704900	RR	.414	1.007	1.424	.891	4.059E-02	9.497E-02	1.406E-01	9.757E+07	4.750E-03	5.375E-01	1.324E+00	1.861E+00							
3804900	SR	.328	0.007	1.164	.657	1.636E-02	0.	1.636E-02	6.279E+07	1.506E-01	2.166E-01	0.	2.166E-01							
3604000	KR	.740	1.374	1.150	.736	4.686E-02	6.905E-02	1.159E-01	8.819E+07	1.521E-04	6.205E-01	9.144E-01	1.535E+00							
3705010	RR	.240	.770	.810	.874	7.039E-02	1.129E-01	1.831E-01	9.481E+07	8.198E-04	9.321E-01	1.493E+00	2.427E+00							
3604100	CR	1.211	.337	.773	.472	1.194E-02	3.309E-02	5.104E-02	2.415E+07	3.310E-04	1.593E-01	5.176E-01	6.759E-01							
3704100	RB	1.359	.274	.209	1.031	6.823E-02	1.398E-01	2.090E-01	1.142E+08	3.549E-04	9.035E-01	2.243E-01	1.023E+00							
3804100	SR	.708	.740	.720	1.020	1.527E-02	3.760E-02	7.287E-02	1.208E+08	2.201E-01	4.671E-01	1.851E+00	2.755E+00							
3904100	Y	.198	.002	.170	.459	1.982E-02	8.698E-05	1.990E-02	7.303E+07	1.974E-01	2.624E-01	4.978E-01	9.650E-01							
3904110	Y	0.000	.345	.173	.459	0.	1.729E-02	1.729E-02	6.959E+07	1.108E-02	0.	2.290E-01	2.636E-01							
3704200	RR	1.487	1.162	1.011	.448	9.403E-02	7.104E-03	1.011E-01	6.072E+07	1.468E-05	1.245E+00	9.407E-02	1.339E+00							
3804200	SR	.212	1.467	.942	1.174	1.057E-02	7.360E-02	8.417E-02	1.228E+08	6.395E-02	1.400E-01	9.745E-01	1.115E+00							
3904200	Y	1.519	.277	.243	1.111	4.067E-02	1.367E-02	9.434E-02	1.231E+08	8.349E-02	1.088E+00	1.811E-01	1.249E+00							
3704300	RR	.607	.407	.741	.434	4.367E-02	3.047E-02	7.415E-02	4.812E+07	1.490E-05	5.783E-01	4.033E-01	1.084E+00							
3804300	SR	1.367	1.631	1.429	1.193	4.811E-02	8.183E-02	1.310E+08	3.148E-03	9.019E-01	1.084E+00	1.985E+00	1.985E+00							
3904300	Y	1.425	1.107	.743	1.209	7.099E-02	5.369E-03	7.635E-02	1.339E+08	2.624E-01	9.400E-01	7.108E-02	1.011E+00							
3804400	SR	.265	1.343	1.157	1.119	4.803E-02	6.889E-01	1.169E-01	1.235E+08	4.984E-04	6.366E-01	9.094E-01	1.546E+00							
3904500	Y	2.093	1.194	1.642	1.275	1.043E-01	5.990E-02	1.642E-01	1.357E+08	8.257E-03	1.381E+00	7.932E-01	2.174E+00							
3804500	SR	1.418	1.247	1.542	.943	9.060E-02	6.360E-02	1.542E-01	1.044E+08	4.636E-03	1.474E+00	3.990E-01	1.825E+00							
3904500	Y	2.162	.600	1.374	1.244	1.077E-01	3.013E-02	1.378E-01	1.378E+08	1.463E-03	1.474E+00	9.422E-01	2.042E+00							
4004500	ZR	.082	.518	.371	.712	4.107E-02	5.500E-02	3.010E-02	7.889E+07	2.383E-01	5.438E-02	3.442E-01	3.986E-01							
3904600	Y	2.780	1.474	.225	1.150	1.395E-01	8.401E-02	2.225E-01	1.285E+08	9.465E-04	1.834E-02	1.112E+00	2.947E+00							
4004700	ZR	.933	.212	.531	1.183	4.147E-02	1.066E-02	5.215E-02	1.311E+08	4.231E-01	5.494E-01	1.412E-01	6.906E-01							
4104700	QR	.553	.745	.474	1.119	2.757E-02	3.989E-02	6.746E-02	1.316E+08	3.103E-02	3.651E-01	5.282E-01	8.933E-01							

4109710	NA	0.000	.749	.376	1.021	0.	3.760E-02	3.760E-02	1.131E+08	3.260E-04	0.	4.979E-01	4.979E-01
4009800	ZR	.949	.001	.473	1.057	4.727E-02	5.241E-05	4.732E-01	1.171E+08	1.937E-04	6.259E-01	6.939E-04	6.266E-01
4109800	NB	2.076	.159	1.112	1.119	1.035E-01	7.779E-03	1.113E-01	1.239E+08	1.052E-05	1.370E+00	1.030E-01	1.473E+00
4009900	ZR	.699	.338	.516	.431	3.466E-02	1.697E-02	5.163E-02	4.777E+07	6.120E-06	4.589E-01	2.248E-01	6.287E-01
4109900	NB	1.698	.221	.957	1.170	8.460E-02	1.110E-02	9.570E-02	1.241E+08	9.276E-05	1.120E+00	1.470E-01	1.267E+00
4209900	MD	.473	.227	.350	1.235	2.357E-02	1.140E-02	3.498E-02	1.369E+08	1.737E+00	3.122E-01	1.510E-01	4.631E-01
4309910	TC	0.000	.149	.075	1.046	0.	7.547E-03	7.547E-03	1.181E+08	1.366E-01	0.	9.993E-02	9.993E-02
4010000	ZR	.541	.461	.531	.739	3.698E-02	2.315E-02	5.011E-02	8.178E+07	3.099E-05	3.573E-01	3.065E-01	6.638E-01
4110000	NB	1.710	.936	.773	.423	5.035E-02	4.695E-02	9.730E-02	5.461E+07	6.996E-06	6.667E-01	6.217E-01	1.288E+00
4110010	NB	1.050	.677	.860	.498	5.233E-02	3.373E-02	8.606E-02	5.518E+07	7.098E-06	6.929E-01	4.467E-01	1.140E+00
4010100	ZR	.745	.179	.475	.312	3.710E-02	5.456E-02	4.256E-02	3.453E+07	6.083E-06	4.913E-01	7.224E-02	5.635E-01
4110100	NB	1.593	.275	.931	.842	7.934E-02	1.378E-02	9.316E-02	9.330E+07	3.484E-05	1.051E+00	1.825E-01	1.234E+00
4210100	MD	.625	1.444	1.037	1.056	3.115E-02	7.258E-02	1.037E-01	1.170E+08	5.469E-03	4.125E-01	9.611E-01	1.374E+00
4310100	TC	.505	.351	.427	1.056	1.14E-02	1.761E-02	4.276E-02	1.170E+08	5.322E-03	3.329E-01	2.332E-01	5.662E-01
4110200	NA	1.336	.201	1.118	.540	4.658E-02	4.521E-02	1.118E-01	5.981E+07	9.577E-06	8.817E-01	5.986E-01	1.480E+00
4210200	MD	.284	.709	.142	.918	1.417E-02	0.	1.417E-02	1.017E+08	3.617E-03	1.876E-01	0.	1.876E-01
4310200	TC	1.381	.421	.879	.919	4.880E-02	2.115E-02	8.995E-02	1.019E+08	2.882E-05	9.110E-01	2.800E-01	1.191E+00
4110300	NB	.759	.600	.672	.432	3.784E-02	3.012E-02	6.794E-02	4.868E+07	4.071E-05	5.010E-01	3.988E-01	8.999E-01
4210300	MD	.764	.774	.844	.742	4.806E-02	3.632E-02	8.439E-02	8.217E+07	2.632E-04	6.364E-01	4.810E-01	1.17E+00
4310300	TC	.544	.382	.453	.760	2.711E-02	1.917E-02	4.629E-02	8.425E+07	2.249E-04	3.590E-01	2.338E-01	6.128E-01
4410300	RU	.035	.243	.144	.522	1.748E-03	1.269E-02	1.443E-02	5.781E+07	1.056E+01	2.314E-02	1.679E-01	1.911E-01
4510310	PH	0.000	.021	.010	.522	0.	1.029E-03	1.022E-03	5.778E+07	1.036E-02	0.	1.363E-02	1.363E-02
4310400	TC	.602	.726	.655	.507	3.002E-02	3.645E-02	6.647E-02	5.622E+07	3.241E-03	3.976E-01	4.826E-01	8.802E-01
5113010	SR	.263	.727	.476	.742	1.312E-02	3.649E-02	4.960E-02	2.681E+07	3.177E-03	1.737E-01	4.830E-01	6.567E-01
5113100	SB	.372	.881	.627	.523	1.851E-02	4.420E-02	6.273E-02	5.799E+07	4.272E-03	2.453E-01	5.853E-01	8.306E-01
5213100	TE	.355	.222	.937	.512	1.771E-02	1.115E-02	2.886E-02	5.890E+07	4.716E-03	2.345E-01	1.476E-01	3.821E-01
5313100	I	.107	.222	.154	.577	5.309E-03	1.114E-02	1.645E-02	6.394E+07	2.371E+00	7.031E-02	1.475E-01	2.178E-01
5113200	SR	.588	.680	.634	.343	2.928E-02	3.412E-02	6.340E-02	3.798E+07	2.555E-04	3.877E-01	4.518E-01	8.395E-01
5213200	TE	.053	.234	.143	.981	2.622E-03	1.173E-02	1.435E-02	9.756E+07	1.462E+00	3.473E-02	1.553E-01	1.900E-01
5313200	I	.463	1.961	1.214	.887	2.307E-02	9.839E-02	1.215E-01	9.822E+07	4.313E-02	3.055E-01	1.303E+00	1.608E+00
5113300	SB	.240	1.112	.678	.490	1.198E-02	5.578E-02	6.777E-02	4.994E+07	3.831E-04	1.587E-01	7.367E-01	8.974E-01
5213300	TE	.643	.769	.774	.788	3.204E-02	3.841E-02	7.045E-02	8.727E+07	3.494E-03	4.242E-01	5.087E-01	9.329E-01
5313300	I	.314	1.085	.686	.572	1.567E-02	5.296E-02	6.863E-02	6.340E+07	1.125E-02	2.075E-01	7.013E-01	9.088E-01
5413300	XF	.567	.807	.688	1.366	2.827E-02	4.058E-02	6.886E-02	1.514E+08	6.051E-01	3.743E-01	5.374E-01	9.118E-01
5113400	SB	.137	.107	.123	1.351	6.828E-03	5.458E-03	1.229E-02	1.497E+08	3.653E+00	9.042E-02	7.282E-01	1.627E-01
5213400	TE	.197	1.061	.631	1.302	9.818E-03	5.376E-02	6.308E-02	1.442E+08	1.940E-02	1.300E-01	7.052E-01	8.352E-01
5313400	I	1.047	3.999	2.478	1.522	5.216E-02	1.957E-01	2.477E-01	1.686E+08	2.841E-02	6.906E-01	2.592E+00	3.282E+00
5213500	TE	.911	1.212	1.042	.543	4.541E-02	6.094E-02	1.062E-01	6.242E+07	5.997E-05	6.013E-01	8.056E-01	1.407E+00
5313500	I	.501	1.861	1.173	1.279	2.498E-02	9.239E-02	1.174E-01	1.418E+08	1.794E-01	3.308E-01	1.223E+00	1.554E+00
5213600	TE	.386	.562	.477	.339	1.922E-02	2.854E-02	4.776E-02	3.755E+07	4.209E-05	2.545E-01	3.779E-01	6.324E-01
5313600	I	1.104	1.340	1.222	.612	5.500E-02	6.723E-02	1.222E-01	6.784E+07	3.006E-04	7.283E-01	8.902E-01	1.618E+00
5313610	I	.692	.692	.697	.358	3.446E-02	3.422E-02	6.868E-02	3.970E+07	1.017E-04	4.563E-01	4.532E-01	9.095E-01
5313700	I	.900	1.108	1.050	.597	4.487E-02	6.010E-02	1.050E-01	6.618E+07	8.691E-05	5.942E-01	7.959E-01	1.390E+00
5413700	XE	2.201	.232	1.213	1.222	1.097E-01	1.164E-02	1.213E-01	1.331E+08	1.637E-03	1.453E+00	1.541E-01	1.607E+00
5313800	I	.486	.614	.550	.730	2.421E-02	3.083E-02	5.504E-02	2.549E+07	8.846E-06	3.206E-01	4.082E-01	7.288E-01
5413800	XE	.804	1.451	1.129	1.229	4.009E-02	7.283E-02	1.129E-01	1.361E+08	6.192E-03	5.308E-01	9.645E-01	1.495E+00
5513800	CS	1.626	2.779	2.375	1.224	8.102E-02	1.495E-01	2.305E-01	1.434E+08	1.479E-02	1.073E+00	1.979E+00	3.052E+00
5413900	XE	1.680	.866	1.272	.945	8.374E-02	4.347E-02	1.272E-01	1.047E+08	2.258E-04	1.109E+00	9.756E-01	1.684E+00
5513900	CS	2.216	.888	1.219	1.263	1.104E-01	1.946E-02	1.299E-01	1.399E+08	4.166E-03	1.462E+00	2.577E-01	1.720E+00
5613900	BA	1.147	.066	.675	1.284	5.714E-02	3.330E-03	6.047E-02	1.422E+08	3.795E-02	7.566E-01	4.409E-02	8.007E-01
5414000	XE	.507	.778	.643	.578	2.525E-02	3.905E-02	6.430E-02	6.403E+07	4.648E-05	3.343E-01	5.171E-01	8.514E-01
5514000	CS	2.162	2.388	2.245	1.125	1.077E-01	1.189E-01	2.636E-01	1.246E+08	4.243E-04	1.426E+00	1.574E+00	3.000E+00
5614000	BA	.320	.266	.283	1.146	1.593E-02	1.233E-02	2.826E-02	1.270E+08	7.492E+00	2.110E-01	1.633E-01	3.743E-01
5714000	LA	.595	2.586	1.499	1.137	2.917E-02	1.298E-01	1.389E-01	1.260E+08	9.743E-01	3.862E-01	1.718E-01	2.104E+00
5514100	CS	1.086	1.429	1.259	.793	5.413E-02	7.173E-02	1.259E-01	8.781E+07	1.172E-04	7.167E-01	9.498E-01	1.667E+00
5614100	BA	1.057	1.018	1.037	1.160	5.267E-02	5.108E-02	1.038E-01	1.285E+08	7.532E-03	6.974E-01	6.764E-01	1.374E+00
5714100	LA	1.148	.038	.431	1.165	5.720E-02	1.896E-03	5.909E-02	1.291E+08	9.599E-02	7.574E-01	2.510E-02	7.825E-01
5814100	CE	.139	.062	.101	.877	6.936E-03	3.118E-03	1.005E-02	9.715E+07	1.458E+01	9.185E-02	4.131E-01	1.684E+00
5614200	BA	.486	1.142	.815	1.141	2.424E-02	5.731E-02	8.155E-02	1.264E+08	4.333E-03	3.210E-01	7.589E-01	1.080E+00
5714200	LA	1.099	2.765	1.935	1.166	5.476E-02	1.388E-01	1.935E-01	1.292E+08	3.823E-02	7.251E-01	1.838E+00	2.563E+00
5614300	BA	.960	1.366	1.144	.867	4.684E-02	6.754E-02	1.144E-01	9.610E+07	6.976E-03	6.202E-01	8.943E-01	1.915E+00
5714300	LA	.950	1.235	1.123	1.148	4.735E-02	6.498E-02	1.123E-01	1.272E+08	5.705E-03	6.270E-01	8.604E-01	1.487E+00

5814300	CF	.482	.339	.479	1.155	2.400E-02	1.694E-02	4.094E-02	1.279E+08	8.112E-01	3.178E-01	2.243E-01	5.421E-01
5914300	PR	.338	0.707	.158	1.049	1.685E-02	0.	1.685E-02	1.162E+08	7.278E+00	2.231E-01	0.	2.231E-01
5614400	BA	.417	.667	.543	.647	2.079E-02	3.357E-02	5.436E-02	7.168E+07	4.209E-05	2.753E-01	4.445E-01	7.198E-01
5714400	LA	1.535	1.754	1.745	1.021	7.648E-02	9.805E-02	1.745E-01	1.131E+08	2.415E-04	1.013E+00	1.298E+00	2.311E+00
5714500	LA	.727	1.037	.932	.670	3.623E-02	5.207E-02	8.825E-02	7.647E+07	1.184E-04	4.797E-01	6.889E-01	1.169E+00
5814500	CF	.484	.572	.528	.773	2.414E-02	2.870E-02	5.284E-02	8.560E+07	9.047E-04	3.176E-01	3.800E-01	6.996E-01
5914500	PR	.543	.011	.776	.774	2.704E-02	5.288E-04	2.757E-02	8.572E+07	9.851E-02	3.590E-01	7.002E-03	3.650E-01
5714600	LA	.626	.829	.727	.354	3.118E-02	4.158E-02	7.276E-02	3.940E+07	1.746E-05	4.129E-01	5.506E-01	9.635E-01
5814600	CE	.144	.196	.165	.598	7.195E-03	9.318E-03	1.651E-02	6.623E+07	3.012E-03	9.528E-02	1.234E-01	2.187E-01
5914600	PR	.554	.970	.753	.670	2.762E-02	4.867E-02	7.629E-02	6.650E+07	5.154E-03	3.658E-01	6.445E-01	1.010E+00
5814700	CE	.371	.559	.441	.438	1.849E-02	2.762E-02	4.611E-02	4.852E+07	1.813E-04	2.449E-01	3.657E-01	6.106E-01
5914800	PR	.704	.103	.402	.346	3.510E-02	5.153E-03	4.025E-02	3.837E+07	2.458E-04	4.648E-01	6.823E-02	5.330E-01

TABLE B-IV

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

25=TIME STEP
 1.00000E+01=TOTAL TIME SINCE LAST TIME AT POWER(S)
 2.93379E+07=TOTAL ELAPSED TIME(S)
 8.26531E+19=FISSIONS/S AT LAST TS AT POWER (22)
 2.69970E+09=POWER (WATTS) AT LAST TS AT POWER (2.69970E+03 MW)
 6.95228E+02=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.39000E+03=TOTAL FP IN SUM PER BARN-CM

3.80462E+20=TOTAL ACTIVITY (DITS/S)
 1.02827E+10=TOTAL CURIES
 5.75910E+01=TOTAL BETA DECAY POWER (MW)
 6.04074E+01=TOTAL GAMMA DECAY POWER (MW)
 1.17998E+02=TOTAL DECAY POWER (MW)
 4.34924E+00=TOTAL BETA MFV/F
 4.56194E+00=TOTAL GAMMA MFV/F
 8.91119E+00=TOTAL DECAY MFV/F

ID	SYM	-----PERCENT OF ALL FP-----			-----MEV/FISS-----			---DECAY POWER IN MW---					
ZZAAAS		BETA	GAMMA	TOTAL	CURIES	BETA	GAMMA	TOTAL	CURIES	DENSITY	BETA	GAMMA	TOTAL
3508600	RR	.330	.688	.452	.176	1.435E-02	2.683E-02	4.118E-02	1.806E+07	5.303E-05	1.901E-01	3.552E-01	5.453E-01
3508700	RR	.892	.688	.787	.395	3.881E-02	3.137E-02	7.017E-02	4.059E+07	1.209E-04	5.138E-01	4.154E-01	9.292E-01
3608700	KR	.704	.377	.549	.428	3.062E-02	1.818E-02	4.880E-02	5.125E+07	1.248E-02	4.054E-01	2.408E-01	6.462E-01
3508800	RR	1.050	.614	.827	.324	4.569E-02	2.002E-02	7.371E-02	3.327E+07	2.824E-05	6.050E-01	3.710E-01	9.760E-01
3609400	KR	.186	1.577	.878	.707	8.086E-03	7.175E-02	8.004E-02	7.267E+07	3.910E-02	1.071E-01	9.528E-01	1.060E+00
3708800	RR	1.573	.485	1.016	.714	6.843E-02	2.214E-02	9.058E-02	7.340E+07	4.161E-03	9.062E-01	2.932E-01	1.199E+00
3608900	KR	1.144	1.844	1.412	.884	9.061E-02	8.413E-02	1.347E-01	9.107E+07	9.219E-04	6.702E-01	1.114E+00	1.784E+00
3708900	RR	.933	2.191	1.577	.949	4.058E-02	9.995E-02	1.405E-01	9.754E+07	4.749E-03	5.373E-01	1.323E+00	1.861E+00
3808900	SR	.376	0.000	.194	.611	1.636E-02	0.	1.636E-02	6.279E+07	1.506E+01	2.166E-01	0.	2.166E-01
3609000	KR	.950	1.134	1.147	.755	4.131E-02	6.087E-02	1.022E-01	7.773E+07	1.340E-04	5.470E-01	8.060E-01	1.353E+00
3709000	RR	1.608	2.458	2.744	.914	6.994E-02	1.122E-01	1.821E-01	9.420E+07	8.146E-04	9.261E-01	1.485E+00	2.412E+00
3709010	RR	.273	.890	.549	.213	1.187E-02	3.880E-02	5.067E-02	2.397E+07	3.286E-04	1.572E-01	5.137E-01	6.709E-01
3609100	KR	.860	.730	.538	.315	1.742E-02	1.050E-02	4.792E-02	3.242E+07	1.506E-05	4.954E-01	1.391E-01	6.345E-01
3709100	RR	1.500	2.027	2.212	1.062	6.524E-02	1.336E-01	1.989E-01	1.092E+08	3.393E-04	8.638E-01	1.770E+00	2.633E+00
3809100	SR	.811	.924	.818	1.175	3.527E-02	3.760E-02	7.287E-02	1.208E+08	2.201E-01	4.670E-01	4.979E-01	9.650E-01
3909100	Y	.456	.002	.223	.710	1.982E-02	8.698E-05	1.990E-02	7.305E+07	1.974E+01	2.624E-01	1.152E-03	2.636E-01
3909110	Y	0.000	.379	.124	.677	0.	1.729E-02	1.729E-02	5.959E+07	1.108E-02	0.	2.290E-01	2.290E-01
3709200	RR	.916	.084	.481	.759	3.983E-02	3.010E-03	4.284E-02	2.572E+07	6.220E-06	5.275E-01	3.985E-02	5.673E-01

3803200	SR	1.511	0.84	1.104	1.057E-02	7.358E-02	8.414E-02	1.228E+08	6.393E-02	1.397E-01	9.743E-01	1.114E+00
3809200	Y	1.855	1.055	1.127	9.067E-02	1.367E-02	9.434E-01	1.231E+08	8.349E-01	1.068E+00	1.811E-01	1.249E+00
3809300	SR	1.555	1.782	1.471	6.765E-02	8.128E-01	1.449E-01	1.302E+08	3.126E-01	8.937E-01	1.074E-01	1.972E+00
3809300	Y	1.632	1.114	1.302	7.092E-02	5.368E-01	7.436E-02	1.339E+08	2.624E-01	9.400E-01	7.108E-02	1.011E+00
3809400	SR	1.479	1.479	1.140	4.504E-01	6.521E-02	1.109E-01	1.172E+08	4.732E-04	6.044E-01	8.635E-01	1.468E+00
3809400	Y	2.398	1.311	1.846	1.043E-01	5.947E-02	1.641E-01	1.356E+08	8.254E-03	1.381E+00	7.928E-01	2.174E+00
3809500	SR	1.148	1.475	1.475	7.721E-02	5.420E-02	1.314E-01	8.893E-07	1.234E-04	1.022E+00	7.177E-01	1.740E+00
3809500	Y	2.472	1.544	1.338	1.075E-01	3.007E-02	1.174E-01	1.378E+08	4.826E-03	1.424E+00	3.982E-01	1.872E+00
4004500	ZR	0.94	0.770	1.319	4.107E-03	2.600E-02	3.010E-02	7.889E+07	2.386E-01	5.434E-02	3.442E-01	1.986E+00
4004700	Y	1.109	1.707	1.473	1.342E-01	8.200E-02	2.172E-01	1.254E+08	9.239E-01	5.493E-01	1.086E+00	2.876E+00
4103700	NA	0.534	0.874	0.757	4.107E-02	1.066E-02	5.215E-01	1.311E+09	4.231E-01	5.493E-01	1.412E-01	6.905E-01
4103710	NA	0.700	0.874	0.722	7.757E-02	3.949E-02	6.766E-02	1.316E+08	3.103E-02	3.651E-01	5.282E-01	6.933E-01
4009800	ZR	0.01	0.644	0.094	4.115E-02	3.760E-02	3.760E-02	1.131E+08	3.260E-04	0	4.979E-01	4.979E-01
4109800	NA	2.140	1.153	1.173	4.115E-02	4.584E-05	4.115E-02	1.024E+08	1.694E-01	5.475E-01	6.070E-04	5.481E-01
4109800	NA	1.534	1.102	0.952	6.011E-02	6.998E-03	1.001E-01	1.115E+08	1.666E-01	5.233E+00	9.266E-02	1.325E+00
4209400	WJ	0.542	0.750	1.331	6.617E-02	8.752E-03	7.547E-02	9.788E+07	7.315E-05	8.34E-01	1.159E-01	9.93E-01
4309910	TC	0.000	1.145	1.147	7.357E-02	1.140E-02	3.494E-02	1.369E+08	1.737E+00	3.122E-01	1.510E-01	4.631E-01
4110000	NA	0.692	0.615	0.317	3.003E-02	2.806E-02	7.547E-03	1.181E+08	1.366E-01	0	9.993E-02	9.993E-02
4110010	NA	1.726	0.444	0.874	3.157E-02	2.035E-02	5.815E-02	3.264E+07	4.181E-06	3.985E-01	3.716E-01	7.700E-01
4110100	NA	1.170	0.104	0.892	5.088E-02	8.834E-03	5.971E-02	5.980E+07	2.235E-05	6.737E-01	1.170E-01	7.907E-01
4210100	WJ	0.715	1.488	1.145	3.110E-02	7.246E-02	1.035E-01	1.168E+08	5.460E-03	4.118E-01	9.595E-01	1.371E+00
4310100	TC	0.578	0.384	1.138	2.514E-02	1.761E-02	4.276E-02	1.170E+08	5.322E-03	3.379E-01	2.332E-01	5.662E-01
4110200	NA	1.055	0.683	0.401	4.588E-02	3.115E-02	7.793E-02	4.121E+07	6.600E-06	6.076E-01	4.125E-01	1.020E+00
4210200	WJ	0.325	0.000	0.984	1.417E-02	0	1.417E-02	1.014E+08	3.605E-03	1.870E-01	0	1.870E-01
4310200	TC	1.579	0.663	0.718	6.869E-02	2.111E-02	8.982E-02	1.017E+08	2.877E-05	9.095E-01	2.796E-01	1.189E+00
4110300	NA	0.672	0.517	0.599	2.922E-02	2.326E-02	5.247E-02	1.759E+07	3.144E-05	3.869E-01	3.080E-01	6.948E-01
4210300	WJ	1.070	0.711	0.774	4.702E-02	3.514E-02	8.618E-02	7.954E+07	2.547E-04	6.160E-01	4.656E-01	1.082E+00
4310300	TC	0.621	0.518	0.817	6.203E-02	1.911E-02	4.611E-02	8.398E+07	2.247E-04	3.579E-01	2.530E-01	6.109E-01
4410310	WJ	0.040	0.778	0.552	1.748E-03	1.268E-02	1.463E-02	5.781E+07	1.056E+01	2.314E-02	1.679E-01	1.911E-01
4310400	TC	0.690	0.709	0.567	3.001E-02	3.643E-02	6.645E-02	5.620E+07	3.240E-03	3.974E-01	4.824E-01	1.363E-02
4210500	WJ	0.509	0.705	0.541	2.715E-02	1.800E-02	4.015E-02	2.879E+07	8.299E-05	2.934E-01	2.383E-01	5.317E-01
5113010	SR	1.301	0.556	0.761	1.311E-02	3.646E-02	4.957E-02	2.679E+07	3.175E-01	1.736E-01	4.828E-01	6.504E-01
5113100	SR	4.424	0.947	0.723	1.849E-02	4.411E-02	6.281E-02	5.788E+07	4.264E-03	2.449E-01	5.841E-01	6.250E-01
5211100	TE	0.244	0.744	0.571	1.771E-02	1.115E-02	2.885E-02	5.889E+07	4.715E-03	2.349E-01	1.476E-01	8.821E-01
5113100	I	1.122	0.264	0.472	3.309E-02	1.114E-02	1.645E-02	6.339E+07	2.371E+00	7.031E-02	1.475E-01	2.178E-01
5113200	SR	0.659	0.732	0.678	2.866E-02	3.339E-02	6.205E-02	9.718E+07	2.500E-04	3.795E-01	4.422E-01	8.217E-01
5213200	TE	0.060	0.587	0.945	2.307E-02	9.839E-02	1.215E-01	9.822E+07	1.662E+00	3.473E-02	1.553E-01	1.900E-01
5113200	I	0.530	1.157	0.945	1.165E-02	5.420E-02	6.305E-02	8.843E+07	4.313E-02	3.055E-01	1.303E+00	1.608E+00
5113300	SR	0.268	1.188	0.719	1.977E-02	3.834E-02	7.031E-02	8.710E+07	3.723E-03	4.542E-01	7.177E-01	6.719E-01
5213300	TE	0.735	0.940	0.749	1.977E-02	3.834E-02	7.031E-02	8.710E+07	3.723E-03	4.542E-01	7.177E-01	6.719E-01
5113300	I	0.360	1.140	0.749	1.565E-02	5.290E-02	6.895E-02	6.332E+07	1.124E-02	2.077E-01	7.005E-01	9.077E-01
5213300	TE	0.749	0.771	1.472	2.827E-02	4.058E-02	6.985E-02	1.514E+08	6.051E-02	3.743E-01	5.374E-01	9.117E-01
5113300	KE	0.157	1.170	1.138	4.828E-03	5.458E-03	1.229E-02	1.497E+08	3.653E+00	9.042E-02	7.228E-02	1.637E-01
5213400	TE	0.225	0.420	1.470	9.802E-03	5.317E-02	6.297E-02	1.440E+08	1.937E-02	1.298E-01	7.041E-01	8.339E-01
5113400	I	1.198	0.430	0.948	3.609E-02	1.957E-02	2.478E-01	1.686E+08	2.841E-02	6.906E-01	2.591E+00	3.282E+00
5213500	TE	0.830	0.948	1.374	4.498E-02	9.238E-02	8.445E-02	4.961E+07	4.767E-05	4.779E-01	6.403E-01	1.118E+00
5113500	I	0.574	1.117	1.374	1.577E-02	2.341E-02	3.918E-02	3.080E+07	3.453E-05	2.088E-01	1.223E+00	1.554E+00
5213600	TE	1.234	1.438	1.340	3.666E-02	6.558E-02	1.192E-01	6.618E+07	2.932E-04	7.105E-01	8.684E-01	1.579E+00
5113610	I	0.727	0.688	0.717	3.160E-02	3.138E-02	6.298E-02	3.641E+07	9.329E-05	4.185E-01	6.185E-01	8.340E-01
5113700	I	0.879	1.122	1.073	3.222E-02	5.119E-02	8.940E-02	5.638E+07	7.401E-05	5.060E-01	6.477E-01	1.184E+00
5113800	KE	2.497	0.751	1.348	1.086E-01	1.152E-02	1.201E-01	1.318E+08	6.166E-03	1.439E+00	1.525E-01	1.590E+00
5113900	CS	1.861	0.594	1.318	4.982E-02	7.253E-02	1.124E-01	1.356E+08	6.166E-03	5.286E-01	9.604E-01	1.499E+00
5411900	KE	1.741	0.862	1.324	8.101E-02	1.495E-01	2.305E-01	1.433E+08	1.478E-02	1.073E+00	1.979E+00	3.032E+00
5113900	CS	0.534	0.474	1.357	1.102E-01	3.932E-02	1.151E-01	9.468E+07	2.642E-04	1.003E+00	5.206E-01	1.524E+00
5613900	BA	1.314	0.73	1.383	7.144E-02	3.330E-03	6.047E-02	1.396E+08	4.158E-03	1.459E+00	2.571E-01	1.716E+00
5414000	KE	0.428	0.631	1.483	1.860E-02	2.877E-02	4.737E-02	4.422E+08	3.795E-02	7.566E-01	4.409E-02	8.007E-01
5514000	CS	2.390	0.653	1.140	1.039E-01	1.147E-01	2.186E-01	1.202E+08	4.094E-04	1.374E+00	1.519E+00	2.895E+00
5614000	BA	0.166	0.270	1.215	1.593E-02	1.233E-02	2.826E-02	1.270E+08	7.497E+00	2.110E-01	1.633E-01	3.743E-01

TABLE B-V

TMT, 'INIT 2, 23-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

I7 ZZAAAS	SYM	PERCENT OF ALL FP			MEV/CISS			TOTAL			CURTES	DENSITY	DECAY POWER IN MW	
		BETA	GAMMA	TOTAL	CURTES	BETA	GAMMA	TOTAL	DENSITY	BETA	GAMMA	TOTAL		
5714000	LA	.671	7.844	1.783	1.724	2.017E-02	1.288E-01	1.539E-01	1.260E+08	9.743E-01	3.4962E-01	1.718E+00	2.104E+00	
5514100	CS	1.028	1.717	1.721	1.724	4.602E-02	6.099E-02	1.070E-01	7.466E+07	9.945E-05	6.094E-01	8.077E-01	1.417E+00	
5614100	RA	1.209	1.114	1.143	1.249	5.260E-02	5.101E-02	1.036E-01	1.283E+08	7.522E-03	6.965E-01	6.775E-01	1.372E+00	
5714100	LA	1.315	.042	.643	1.255	5.720E-02	1.896E-03	5.909E-02	1.291E+08	9.599E-02	7.574E-01	2.510E-02	7.825E-01	
5814100	CE	.119	.648	.113	.645	6.934E-03	3.118E-03	1.005E-02	9.715E+07	1.458E-01	9.185E-02	4.124E-02	1.331E-01	
5614200	RA	.534	1.240	.910	1.222	5.409E-02	5.696E-02	8.104E-02	1.296E+08	4.304E-03	3.190E-01	7.543E-01	1.073E+00	
5714200	LA	1.259	1.042	2.172	1.254	5.476E-02	1.388E-01	1.935E-01	1.292E+08	3.822E-02	7.251E-01	1.838E+00	2.563E+00	
5614300	RA	.400	1.100	.754	.694	3.480E-02	5.017E-02	4.497E-02	7.139E+07	5.183E-05	4.608E-01	6.644E-01	1.123E+00	
5714300	LA	1.037	1.422	1.759	1.235	4.727E-02	6.487E-02	1.121E-01	1.270E+08	6.695E-03	6.259E-01	8.569E-01	1.485E+00	
5814300	CE	.552	.371	.450	1.244	5.400E-02	1.694E-02	4.094E-02	1.279E+08	6.112E-01	3.178E-01	2.243E-01	5.421E-01	
5614300	PR	.387	0.000	.189	1.130	1.685E-02	0.	1.685E-02	4.915E+07	2.880E-05	1.988E-01	0.	2.231E-01	
5614400	BA	.328	.505	.418	.479	1.425E-02	2.302E-02	3.727E-02	4.915E+07	2.880E-05	1.988E-01	0.	2.231E-01	
5714500	LA	1.676	2.042	1.847	1.049	7.290E-02	9.346E-02	1.664E-01	1.078E+08	2.302E-04	9.654E-01	1.238E+00	2.203E+00	
5814500	CF	.553	.827	.871	.671	3.264E-02	4.695E-02	7.954E-02	6.902E+07	1.068E-04	4.129E-01	6.217E-01	1.053E+00	
5914500	PR	.632	.012	.309	.834	2.704E-02	2.941E-02	5.267E-02	8.533E+07	9.019E-04	3.186E-01	3.788E-01	6.979E-01	
5714600	LA	.448	.870	.811	.240	1.950E-02	2.600E-02	4.550E-02	2.464E+07	1.092E-05	2.582E-01	3.443E-01	6.025E-01	
5814600	CE	.165	.204	.145	.642	7.177E-03	9.295E-03	1.647E-02	6.606E+07	3.004E-03	9.504E-02	1.231E-01	2.181E-01	
5914600	PR	.635	1.067	.884	.647	2.762E-02	4.867E-02	7.629E-02	6.650E+07	5.154E-03	3.658E-01	6.445E-01	1.010E+00	
5814700	CE	.409	.483	.427	.444	1.778E-02	2.655E-02	4.432E-02	4.665E+07	1.743E-04	2.354E-01	3.515E-01	5.869E-01	
5914800	PR	.802	.112	.443	.371	3.488E-02	5.121E-03	4.001E-02	3.813E+07	2.443E-04	4.619E-01	6.781E-02	5.297E-01	
3.25417E+20	TOTAL ACTIVITY (MTS/S)													
8.79505E+09	TOTAL CURTES													
4.37310E+01	TOTAL BETA DECAY POWER (MW)													
4.91883E+01	TOTAL GAMMA DECAY POWER (MW)													
9.29193E+01	TOTAL DECAY POWER (MW)													
3.30255E+00	TOTAL BETA MEV/E													
3.71146E+00	TOTAL GAMMA MEV/E													
7.01722E+00	TOTAL DECAY MEV/E													
26=TIME STEP														
4.00000E+01	TOTAL TIME SINCE LAST TIME AT POWER(S)													
2.93379E+07	TOTAL FLASSED TIME(S)													
8.26531E+19	FISSTIONS AT LAST TS AT POWER(S)													
2.69970E+09	POWER (WATTS) AT LAST TS AT POWER (22)													
6.95228E+02	ACCUMULATED FISSTIONS PER BARN-CM													
1.39000E+03	TOTAL FP IN SUM PER BARN-CM													
3.25417E+20	TOTAL ACTIVITY (MTS/S)													
8.79505E+09	TOTAL CURTES													
4.37310E+01	TOTAL BETA DECAY POWER (MW)													
4.91883E+01	TOTAL GAMMA DECAY POWER (MW)													
9.29193E+01	TOTAL DECAY POWER (MW)													
3.30255E+00	TOTAL BETA MEV/E													
3.71146E+00	TOTAL GAMMA MEV/E													
7.01722E+00	TOTAL DECAY MEV/E													
3504600	BR	.334	.544	.450	.158	1.102E-02	2.059E-02	3.161E-02	1.387E+07	4.071E-05	1.4459E-01	2.727E-01	4.184E-01	
3504700	BR	.822	.491	.700	.323	2.716E-02	2.195E-02	4.911E-02	2.841E+07	8.462E-05	3.596E-01	2.907E-01	6.504E-01	
3604700	KR	.926	.589	.624	.582	3.057E-02	1.816E-02	4.873E-02	5.117E+07	1.248E-02	4.048E-01	2.404E-01	6.452E-01	
3608800	KR	.244	1.934	1.132	.825	4.947E-03	7.184E-02	7.692E-02	7.256E+07	3.904E-02	1.069E-01	9.513E-01	1.059E+00	
3704800	HR	2.012	.574	1.731	.934	4.947E-02	2.214E-02	9.056E-02	7.339E+07	4.160E-03	9.060E-01	2.932E-01	1.191E+00	
3604900	KR	1.376	2.934	1.724	.930	4.546E-02	7.555E-02	1.210E-01	8.181E+07	8.280E-04	6.019E-01	1.000E+00	1.602E+00	
3704900	HR	1.226	2.484	1.927	1.104	4.048E-02	9.968E-02	1.402E-01	9.729E+07	4.730E-03	5.360E-01	1.320E+00	1.850E+00	
3804900	SR	.495	0.000	.273	.714	1.836E-02	0.	1.836E-02	6.279E+07	1.506E+01	2.166E-01	0.	2.166E-01	
3809000	KR	.637	.841	.745	.444	2.170E-02	3.194E-02	5.364E-02	4.084E+07	7.042E-05	2.874E-01	4.235E-01	7.109E-01	
3704000	HR	1.995	2.445	2.445	1.009	4.590E-02	1.057E-01	1.715E-01	8.875E+07	7.675E-04	8.726E-01	1.400E+00	2.272E+00	

26=TIME STEP

3709010	RA	.342	.794	.497	.259	1.129E-02	3.691E-02	4.921E-02	2.280E+07	3.126E-04	1.495E-01	4.888E-01	6.383E-01
3709100	RB	1.445	2.421	2.073	.909	4.771E-02	9.773E-07	1.454E-01	7.988E+07	2.482E-04	6.317E-01	1.294E+00	1.926E+00
3809100	SP	1.068	1.017	1.039	1.373	3.527E-02	3.760E-02	7.286E-02	1.208E+08	2.200E-01	4.670E-01	4.978E-01	9.648E-01
3909100	Y	.600	.403	.794	.831	1.982E-02	8.638E-05	1.997E-02	7.305E+07	1.974E+01	2.624E-01	1.157E-03	2.636E-01
3909110	Y	0.000	.466	.746	.791	0.	1.729E-02	1.729E-02	6.959E+07	1.108E-02	0.	2.290E-01	2.290E-01
3809200	SR	.319	1.777	1.177	1.323	1.055E-02	7.343E-02	8.397E-02	1.225E+08	6.380E-02	1.396E-01	9.723E-01	1.112E+00
3909200	Y	2.443	.389	1.344	1.329	8.067E-02	1.367E-02	9.434E-02	1.231E+08	8.348E-02	1.069E+00	1.811E-01	1.249E+00
3809300	SR	1.960	2.794	2.031	1.416	6.674E-02	7.779E-07	1.425E-01	1.246E+08	2.992E-03	8.573E-01	1.030E+00	1.087E+00
3909300	Y	2.150	.145	1.099	1.522	7.099E-02	5.368E-03	7.366E-02	1.339E+08	2.624E-01	9.400E-01	7.108E-07	1.011E+00
3809400	SR	1.051	1.335	1.701	1.013	3.470E-02	4.957E-02	8.427E-02	8.913E+07	3.597E-04	4.595E-01	6.564E-01	1.116E+00
3909400	Y	3.143	1.803	2.729	1.535	1.038E-01	5.961E-02	1.634E-01	1.350E+08	8.217E-03	1.375E+00	7.893E-01	2.164E+00
3809500	SP	1.751	.456	.842	.454	3.470E-02	2.436E-02	5.904E-02	3.997E+07	5.547E-05	4.595E-01	3.225E-01	7.820E-01
3909500	Y	3.197	.703	1.925	1.535	1.056E-01	2.953E-02	1.351E-01	1.351E+08	4.543E-03	1.398E+00	3.910E-01	1.789E+00
4009500	ZR	.124	.700	.429	.897	4.107E-03	2.600E-02	3.010E-02	7.889E+07	2.381E+01	5.438E-02	3.442E-01	3.986E-01
4109500	NB	.030	.474	.745	.594	1.002E-03	1.761E-02	1.861E-02	5.137E+07	8.316E+00	1.326E-02	2.332E-01	2.465E-01
3909600	Y	3.533	1.905	2.671	1.731	1.167E-01	7.077E-02	1.875E-01	1.082E+08	7.973E-04	1.545E+00	9.371E-01	2.482E+00
4009700	ZR	1.256	.287	.743	1.420	4.147E-02	1.044E-02	5.213E-02	1.310E+08	4.230E-01	5.491E-01	1.631E-01	6.903E-01
4109700	NB	.835	1.074	.961	1.496	2.757E-02	3.989E-02	6.746E-02	1.316E+08	3.102E-02	3.651E-01	5.282E-01	8.933E-01
4109710	NB	0.000	1.012	.836	1.295	0.	3.758E-02	3.758E-02	1.130E+08	3.258E-04	0.	4.977E-01	4.977E-01
4009800	ZR	.640	.001	.312	.595	2.114E-02	2.344E-05	2.116E-02	5.236E+07	8.664E-05	2.799E-01	3.103E-04	2.802E-01
4109800	NB	1.455	.027	.736	.854	4.806E-02	3.613E-03	5.167E-02	5.755E+07	8.602E-06	6.363E-01	4.784E-02	6.842E-01
4209900	MD	.714	.707	.429	1.556	2.357E-02	1.140E-02	3.497E-02	1.369E+08	1.736E+00	3.121E-01	1.510E-01	4.631E-01
4309910	TC	0.000	.703	.109	1.343	0.	7.547E-03	7.547E-03	1.181E+08	1.366E-01	0.	9.993E-02	9.993E-02
4210100	MD	.924	1.913	1.447	1.327	3.059E-02	7.106E-02	1.014E-01	1.145E+08	5.355E-03	4.039E-01	9.409E-01	1.345E+00
4310100	TC	.761	.474	.422	1.320	2.514E-02	1.761E-02	4.775E-02	1.170E+08	5.321E-03	3.324E-01	2.332E-01	5.660E-01
4110200	NB	.602	.364	.474	.703	1.989E-02	1.351E-02	3.340E-02	1.787E+07	2.861E-06	2.634E-01	1.788E-01	4.423E-01
4210200	MD	.418	0.000	1.127	1.127	1.380E-02	0.	1.390E-02	9.911E+07	3.523E-03	1.828E-01	0.	1.828E-01
4310200	TC	2.040	.547	1.255	1.134	6.736E-02	2.071E-02	8.806E-02	9.973E+07	2.821E-05	8.919E-01	2.742E-01	1.166E+00
4210300	MD	1.100	.732	.022	.706	3.633E-02	2.746E-02	6.379E-02	6.212E+07	1.989E-04	4.811E-01	3.636E-01	8.447E-01
4310300	TC	.774	.486	.671	.703	2.555E-02	1.806E-02	4.361E-02	7.939E+07	2.119E-04	3.383E-01	2.392E-01	5.775E-01
4410300	RU	.053	.361	.736	.457	1.748E-03	1.268E-02	1.443E-02	5.781E+07	1.056E+01	2.314E-02	1.679E-01	1.911E-01
4510310	RM	0.000	.029	.015	.657	0.	1.029E-03	1.029E-03	5.778E+07	1.036E-02	0.	1.363E-02	1.363E-02
4310400	TC	.305	.977	.743	.617	2.990E-02	3.630E-02	6.670E-02	5.597E+07	3.228E-03	3.959E-01	4.806E-01	8.766E-01
4310500	TC	.535	.345	.445	.426	1.767E-02	1.354E-02	3.121E-02	3.747E+07	9.600E-04	2.340E-01	1.793E-01	4.133E-01
5113010	SB	.396	.929	.774	.304	1.307E-02	3.635E-02	4.942E-02	2.671E+07	3.165E-03	1.731E-01	4.814E-01	6.545E-01
5113100	SR	.554	1.175	.893	.451	1.830E-02	4.365E-02	6.195E-02	5.727E+07	4.219E-03	2.423E-01	5.780E-01	8.203E-01
5213100	TE	.536	.303	.411	.449	1.769E-02	1.114E-02	2.993E-02	5.884E+07	4.711E-03	2.343E-01	1.475E-01	3.817E-01
5313100	I	.161	.307	.714	.727	5.309E-03	1.114E-02	1.645E-02	6.394E+07	2.371E+00	7.031E-02	1.475E-01	2.178E-01
5113200	SB	.770	.799	.799	.375	2.544E-02	2.964E-02	5.508E-02	3.300E+07	2.219E-04	3.368E-01	3.925E-01	7.293E-01
5113210	SB	.482	.515	.429	.739	1.591E-02	1.913E-02	3.503E-02	2.046E+07	2.752E-04	2.106E-01	2.533E-01	4.639E-01
5213200	TE	.079	.315	.225	1.109	2.622E-03	1.173E-02	1.435E-02	2.755E+07	1.462E-02	1.553E-01	3.472E-02	1.900E-01
5313200	I	.699	2.642	1.731	1.117	2.307E-02	9.899E-02	1.215E-01	9.822E+07	4.313E-02	3.055E-01	1.303E-01	1.608E+00
5113300	SB	.305	1.263	.812	.477	1.008E-02	4.692E-02	5.692E-02	4.192E+07	3.222E-04	1.335E-01	6.212E-01	7.547E-01
5213300	TE	.458	1.021	.921	.980	3.162E-02	3.792E-02	6.954E-02	8.615E+07	3.449E-03	4.187E-01	5.021E-01	9.209E-01
5213310	TE	.471	1.415	.971	.716	1.559E-02	5.257E-02	6.813E-02	6.293E+07	1.117E-02	2.060E-01	6.962E-01	9.021E-01
5313300	I	.856	1.093	.991	1.721	2.827E-02	4.058E-02	6.895E-02	1.514E+08	6.051E-01	3.743E-01	5.374E-01	9.117E-01
5413300	XE	.207	.147	.175	1.722	6.828E-03	5.458E-03	1.223E-02	1.497E+08	3.653E+00	9.042E-02	7.228E-02	1.627E-01
5213400	TE	.294	1.423	.820	1.624	7.722E-03	5.274E-02	6.246E-02	1.428E+08	1.921E-02	1.287E-01	6.984E-01	8.271E-01
5313400	I	1.578	.474	1.430	1.916	5.212E-02	1.956E-01	2.477E-01	1.685E+08	2.839E-02	6.901E-01	2.590E+00	3.280E+00
5313500	I	.736	2.495	1.671	1.610	2.496E-02	9.232E-02	1.173E-01	1.416E+08	1.792E-01	3.305E-01	1.222E+00	1.553E+00
5313600	I	1.368	1.487	1.431	.634	4.519E-02	5.523E-02	1.004E-01	5.574E+07	2.470E-04	5.984E-01	7.314E-01	1.330E+00
5313610	I	.520	.549	.592	.748	2.049E-02	2.035E-02	4.084E-02	2.361E+07	6.049E-05	2.713E-01	2.694E-01	5.408E-01
5313700	I	.499	.595	.550	.277	1.649E-02	2.208E-02	3.857E-02	2.432E+07	3.193E-05	2.183E-01	2.924E-01	5.108E-01
5413700	XE	3.082	.291	1.474	1.404	1.018E-01	1.080E-02	1.126E-01	1.235E+08	1.519E-03	1.349E+00	1.430E-01	1.491E+00
5413800	XE	1.180	1.207	1.545	1.505	3.898E-02	7.083E-02	1.078E-01	1.324E+08	6.022E-03	5.162E-01	9.379E-01	1.454E+00
5513800	CS	2.451	4.021	3.292	1.429	8.095E-02	1.494E-01	2.303E-01	1.432E+08	1.477E-02	1.072E+00	1.978E+00	3.050E+00
5413900	XE	1.372	.633	.991	.644	4.530E-02	2.351E-02	6.881E-02	5.663E+07	1.221E-04	5.998E-01	9.113E-01	9.111E-01
5513900	CS	3.279	.514	1.815	1.550	1.083E-01	1.908E-07	1.274E-01	1.372E+08	4.086E-03	1.434E+00	2.527E-01	1.687E+00
5613900	RA	1.730	.090	.842	1.617	5.713E-02	3.379E-03	6.046E-02	1.422E+08	3.795E-02	7.565E-01	4.409E-02	8.006E-01
5514000	CS	2.441	2.394	2.416	1.060	9.060E-02	8.894E-02	1.695E-01	9.323E+07	3.175E-04	1.067E+00	1.178E+00	2.245E+00
5614000	RA	.482	.332	.423	1.444	1.593E-02	1.233E-02	2.825E-02	1.270E+08	7.492E+00	2.110E-01	1.633E-01	3.743E-01
5714000	LA	.883	3.493	2.749	1.433	2.917E-02	1.298E-01	1.549E-01	1.260E+08	9.743E-01	3.622E-01	1.718E+00	2.104E+00
5514100	CS	.607	.719	.654	.370	2.004E-02	2.656E-07	4.661E-02	3.232E+07	4.339E-05	2.654E-01	3.517E-01	6.171E-01

5614100	BA	1.575	1.359	1.440	1.443	4.700E-02	5.043E-02	1.024E-01	1.269E+08	7.437E-03	6.886E-01	6.678E-01	1.356E+00
5714100	LA	1.732	.051	.842	1.444	5.719E-02	1.896E-03	5.909E-02	1.291E+08	9.599E-02	7.573E-01	2.910E-02	7.824E-01
5814100	CE	.210	.084	.143	1.175	6.735E-03	3.118E-03	1.005E-02	9.715E+07	1.458E+01	9.185E-02	4.129E-02	1.331E-01
5614200	BA	.706	1.485	1.118	1.393	2.332E-02	5.515E-02	7.847E-02	1.216E+08	4.169E-03	3.089E-01	7.302E-01	1.039E+00
5714200	LA	1.658	2.735	2.747	1.449	5.475E-02	1.397E-01	1.935E-01	1.291E+08	3.822E-02	7.250E-01	1.837E+00	2.562E+00
5714300	LA	1.406	1.716	1.570	1.410	4.644E-02	6.374E-02	1.102E-01	1.248E+08	5.596E-03	6.150E-01	8.440E-01	1.459E+00
5814300	CE	.727	.454	.583	1.454	2.400E-02	1.694E-02	4.094E-02	1.279E+08	8.112E-01	3.178E-01	2.243E-01	5.421E-01
5914300	PR	.510	0.700	.240	1.371	1.685E-02	0.	1.685E-02	1.162E+08	7.278E+00	2.231E-01	0.	2.231E-01
5714400	LA	1.482	1.689	1.502	.823	4.894E-02	1.274E-02	1.117E-01	7.238E+07	1.545E-04	6.481E-01	8.308E-01	1.479E+00
5714500	LA	.509	.650	.554	.474	1.681E-02	2.415E-02	4.096E-02	3.550E+07	5.495E-05	2.227E-01	3.197E-01	5.424E-01
5814500	CE	.699	.730	.770	.931	2.309E-02	2.745E-02	5.054E-02	8.188E+07	8.654E-04	3.057E-01	3.635E-01	6.692E-01
5914500	PR	.819	.014	.373	.075	2.704E-02	5.288E-04	2.757E-02	8.572E+07	9.850E-02	3.580E-01	7.002E-03	3.650E-01
5814600	CE	.213	.245	.230	.735	7.028E-03	9.101E-03	1.613E-02	6.469E+07	2.942E-03	9.306E-02	1.205E-01	2.136E-01
5914600	PR	.836	1.310	1.097	.756	2.762E-02	4.866E-02	7.629E-02	6.649E+07	5.153E-03	3.657E-01	6.443E-01	1.010E+00
5814700	CE	.415	.557	.497	.479	1.372E-02	2.049E-02	3.421E-02	3.600E+07	1.345E-04	1.817E-01	2.713E-01	4.529E-01
5914700	PR	.512	.409	.575	.574	1.692E-02	1.855E-02	3.546E-02	5.052E+07	1.942E-03	2.240E-01	2.456E-01	4.696E-01
6014700	ND	.156	.045	.110	.543	5.167E-03	2.537E-03	7.704E-03	4.775E+07	2.420E+00	6.841E-02	3.360E-02	1.020E-01
5914800	PR	.992	.130	.516	.407	3.277E-02	4.812E-03	3.759E-02	3.983E+07	2.295E-04	4.340E-01	6.371E-02	4.977E-01

TABLE B-VI

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(1ASL) 7/75

27=TIME STEP

1.00000E+02=TOTAL TIME SINCE LAST TIME AT POWER(S)
 2.93379E+07=TOTAL ELAPSED TIME(S)
 8.26531E+19=FISSIONS/S AT LAST TS AT POWER (22)
 2.69970E+09=POWER (WATTS) AT LAST TS AT POWER (2.69970E+03 MW)
 6.95228E+02=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.39000E+03=TOTAL FP IN SIM PER BARN-CM

2.97982E+20=TOTAL ACTIVITY (DTS/S)
 7.78331E+09=TOTAL CURIES
 3.52229E+01=TOTAL BETA DECAY POWER (MW)
 4.11672E+01=TOTAL GAMMA DECAY POWER (MW)
 7.63901E+01=TOTAL DECAY POWER (MW)
 2.66002E+00=TOTAL BETA MEV/FE
 3.10892E+00=TOTAL GAMMA MEV/FE
 5.76894E+00=TOTAL DECAY MEV/FE

ID ZZAAAS	SYM	PERCENT OF ALL FP				MEV/FISS				CURIES	DENSITY	DECAY POWER IN MW		
		BETA	GAMMA	TOTAL	CURIES	BETA	GAMMA	TOTAL	BETA			GAMMA	TOTAL	
3508400	BR	.436	.521	.492	.265	1.160E-02	1.619E-02	2.780E-02	2.064E+07	2.102E-03	1.536E-01	2.144E-01	3.681E-01	
3608700	KR	1.143	.591	.840	.654	3.040E-02	1.806E-02	4.846E-02	5.089E+07	1.239E-02	4.026E-01	2.391E-01	6.417E-01	
3608800	KR	.302	2.302	1.390	.227	4.042E-03	7.156E-02	7.960E-02	7.227E+07	3.889E-02	1.065E-01	9.475E-01	1.054E+00	
3708800	RB	2.571	.717	1.559	.942	6.838E-02	2.213E-02	9.051E-02	7.335E+07	4.158E-03	9.055E-01	2.930E-01	1.199E+00	
3608900	KR	1.372	1.052	1.495	.844	3.650E-02	6.067E-02	9.719E-02	6.570E+07	6.649E-04	4.834E-01	8.034E-01	1.287E+00	
3708900	RB	1.505	3.171	2.473	1.234	4.003E-02	9.860E-02	1.396E-01	9.623E+07	4.684E-03	5.301E-01	1.306E+00	1.836E+00	
3808900	SP	.615	0.800	.294	.807	1.636E-02	0.	1.636E-02	6.279E+07	1.506E+01	2.166E-01	0.	2.166E-01	
3709000	RB	2.042	2.802	2.442	.940	5.431E-02	9.712E-02	1.414E-01	7.315E+07	6.326E-04	7.192E-01	1.154E+00	1.873E+00	
3709010	RB	.371	1.839	.730	.255	9.869E-03	3.226E-02	4.212E-02	1.993E+07	2.732E-04	1.307E-01	4.271E-01	5.578E-01	
3709100	RB	.493	1.549	1.742	.575	2.350E-02	4.814E-02	7.163E-02	3.934E+07	1.222E-04	3.111E-01	6.374E-01	9.485E-01	
3809100	SR	1.325	1.709	1.747	1.551	3.574E-02	3.757E-02	7.282E-02	1.207E+08	2.199E-01	4.667E-01	4.975E-01	9.642E-01	

3909100	Y	.745	.0073	.345	.939	1.982E-02	8.698E-05	1.990E-02	7.305E+07	1.974E+01	2.624E-01	1.152F-03	2.636E-01
3909110	Y	0.000	.554	.370	.874	0.	1.729E-02	1.729E-02	6.959E+07	1.108E-02	0.	2.290E-01	2.290E-01
3809200	SR	.705	2.352	1.449	1.547	1.050E-02	7.311E-02	8.342E-02	1.220E+08	6.353E-02	1.391E-01	9.682E-01	1.107E+00
3909200	Y	3.033	.444	1.635	1.551	9.047E-02	1.367E-02	9.434E-02	1.231E+08	8.348E-02	1.068E+00	1.811E-01	1.249E+00
3809300	SP	2.719	2.781	2.253	1.459	5.903E-02	7.092E-02	1.300E-01	1.136E+08	2.728E-03	7.816E-01	9.391E-01	1.721E+00
3909300	Y	2.668	.173	1.373	1.770	7.098E-02	5.367E-03	7.635E-02	1.339E+08	2.624E-01	9.349E-01	7.107E-02	1.011E+00
3809400	SR	.753	.979	.843	.661	2.002E-02	2.860E-02	4.862E-02	5.142E+07	2.075E-04	2.651E-01	3.787E-01	6.437E-01
3909400	Y	3.834	1.884	2.783	1.774	1.020E-01	5.856E-02	1.605E-01	1.326E+08	8.072E-03	1.350E+00	7.754E-01	2.126E+00
3909500	Y	3.752	.999	2.714	1.641	9.981E-02	2.792E-02	1.277E-01	1.277E+08	4.295E-03	1.322E+00	3.697E-01	1.691E+00
4009500	ZR	.154	.876	.572	1.014	4.107E-03	2.600E-02	3.010E-02	7.889E+07	2.383E+01	5.438E-02	3.442E-01	3.986E-01
4109500	NB	.038	.567	.373	.649	1.002E-03	1.761E-02	1.861E-02	5.137E+07	8.316E+00	1.326E-02	2.332E-01	2.465E-01
3909600	Y	3.245	1.684	2.474	1.729	8.633E-02	5.235E-02	1.387E-01	8.008E+07	5.899E-04	1.143E+00	6.933E-01	1.836E+00
4009700	ZR	1.558	.347	.973	1.682	4.144E-02	1.065E-02	5.209E-02	1.309E+08	4.227E-01	5.488E-01	1.410E-01	6.898E-01
4109700	NR	1.036	1.283	1.159	1.691	2.757E-02	3.989E-02	6.746E-02	1.316E+08	3.102E-02	3.651E-01	5.282E-01	8.932E-01
4109710	NR	0.070	1.208	.651	1.451	0.	3.756E-02	3.756E-02	1.130E+08	3.256E-04	0.	4.973E-01	4.973E-01
4209900	MD	.886	.674	1.758	1.758	2.357E-02	1.140E-02	3.477E-02	1.368E+08	1.736E+00	3.121E-01	1.509E-01	4.630E-01
4309910	TC	0.000	.243	.131	1.517	0.	7.547E-03	7.547E-03	1.181E+08	1.366E-01	0.	9.993E-02	9.993E-02
4210100	MD	1.094	2.180	1.679	1.433	2.909E-02	6.778E-02	9.687E-02	1.092E+08	5.108E-03	3.852E-01	8.975E-01	1.283E+00
4310100	TC	.943	.555	.739	1.570	2.508E-02	1.757E-02	4.266E-02	1.167E+08	5.309E-03	3.321E-01	2.327E-01	5.648E-01
4210200	MD	.490	0.000	.224	1.704	1.305E-02	0.	1.305E-02	9.368E+07	3.330E-03	1.728E-01	0.	1.728E-01
4310200	TC	2.397	.530	1.445	1.213	6.375E-02	1.960E-02	8.335E-02	9.439E+07	2.670E-05	8.442E-01	2.595E-01	1.104E+00
4210300	MD	.716	.443	.580	.417	1.905E-02	1.440E-02	3.345E-02	3.257E+07	1.043E-04	2.923E-01	1.907E-01	4.429E-01
4310300	TC	.719	.435	.566	.744	1.913E-02	1.353E-02	3.266E-02	5.946E+07	1.587E-04	2.534E-01	1.791E-01	4.325E-01
4410300	RU	.066	.409	.250	.743	1.748E-03	1.268E-02	1.443E-02	5.781E+07	1.056E+01	2.314E-02	1.679E-01	1.911E-01
4510310	RH	0.000	.033	.018	.747	0.	1.029E-03	1.029E-03	5.778E+07	1.036E-02	0.	1.363E-02	1.363E-02
4310400	TC	1.107	1.147	1.130	.708	2.943E-02	3.573E-02	6.516E-02	5.512E+07	3.178E-03	3.898E-01	4.731E-01	8.629E-01
4310500	TC	.629	.413	.512	.455	1.674E-02	1.282E-02	2.956E-02	3.548E+07	9.092E-04	2.216E-01	1.698E-01	3.914E-01
5113010	SR	.498	1.169	.850	.341	1.297E-02	3.608E-02	4.905E-02	2.651E+07	3.142E-03	1.718E-01	4.777E-01	6.495E-01
5113100	SR	.671	1.370	1.038	.718	1.786E-02	4.260E-02	6.045E-02	5.589E+07	4.117E-03	2.364E-01	5.640E-01	8.005E-01
5213100	TF	.664	.357	.479	.754	1.765E-02	1.111E-02	2.877E-02	5.871E+07	4.701E-03	2.338E-01	1.471E-01	3.809E-01
5313100	I	.700	.358	.785	.921	5.309E-03	1.114E-02	1.645E-02	6.394E+07	2.371E+00	7.031E-02	1.475E-01	2.178E-01
5113200	SR	.724	.722	.723	.371	1.926E-02	2.245E-02	4.171E-02	2.499E+07	1.681E-04	2.551E-01	2.972E-01	5.523E-01
5113210	SR	.505	.529	.513	.227	1.343E-02	1.615E-02	2.958E-02	1.770E+07	2.324E-04	1.774E-01	2.139E-01	3.917E-01
5213200	TE	.099	.377	.249	1.253	2.622E-03	1.173E-02	1.435E-02	9.754E+07	1.462E+00	3.472E-02	1.553E-01	1.900E-01
5313200	I	.867	3.168	2.175	1.262	2.307E-02	9.838E-02	1.215E-01	9.822E+07	4.313E-02	3.055E-01	1.303E+00	1.608E+00
5113300	SR	.284	1.131	.740	.403	7.551E-03	3.515E-02	4.270E-02	3.141E+07	2.414E-04	9.999E-02	4.654E-01	5.654E-01
5213300	TE	1.157	1.197	1.173	1.077	3.078E-02	3.691E-02	6.769E-02	8.386E+07	3.357E-03	4.076E-01	4.888E-01	8.964E-01
5213310	TF	.478	1.670	1.156	.797	1.536E-02	5.193E-02	6.729E-02	6.216E+07	1.103E-02	2.034E-01	6.876E-01	8.910E-01
5313300	I	1.063	1.305	1.173	1.245	2.827E-02	4.058E-02	6.885E-02	1.514E+08	6.050E-01	3.743E-01	5.374E-01	9.117E-01
5413300	XE	.257	.176	.213	1.924	5.828E-03	5.458E-03	1.229E-02	1.497E+08	3.653E+00	9.042E-02	7.228E-02	1.627E-01
5213400	TE	.360	1.669	1.055	1.875	9.563E-03	5.188E-02	6.144E-02	1.405E+08	1.890E-02	1.266E-01	8.869E-01	8.136E-01
5313400	I	1.757	6.281	4.287	2.162	5.204E-02	1.953E-01	2.473E-01	1.683E+08	2.835E-02	6.891E-01	2.586E+00	3.275E+00
5313500	I	.937	2.944	2.079	1.817	2.492E-02	9.216E-02	1.171E-01	1.414E+08	1.789E-01	3.299E-01	1.220E+00	1.550E+00
5313600	I	1.084	1.134	1.111	.657	2.884E-02	3.525E-02	6.410E-02	3.558E+07	1.576E-04	3.819E-01	4.668E-01	8.487E-01
5413700	XE	3.250	.795	1.457	1.348	8.645E-02	9.170E-03	9.562E-02	1.049E+08	1.290E-03	1.145E+00	1.214E-01	1.266E+00
5413800	XF	1.396	2.170	1.913	1.677	3.713E-02	6.746E-02	1.046E-01	1.261E+08	5.735E-03	4.916E-01	8.933E-01	1.385E+00
5513800	CS	3.037	4.794	3.784	1.837	8.078E-02	1.490E-01	2.298E-01	1.430E+08	1.474E-02	1.070E+00	1.974E+00	3.043E+00
5413900	XE	.608	.270	.426	.260	1.618E-02	8.399E-03	2.458E-02	2.023E+07	4.362E-05	2.142E-01	1.112E-01	3.255E-01
5513900	CS	3.854	.881	2.070	1.668	1.025E-01	1.806E-02	1.206E-01	1.299E+08	3.868E-03	1.358E+00	2.392E-01	1.597E-01
5613900	BA	2.147	.107	1.047	1.874	5.710E-02	3.328E-03	6.343E-02	1.422E+08	3.793E-02	7.561E-01	4.406E-02	8.002E-01
5514000	CS	1.622	1.531	1.373	.441	4.313E-02	4.760E-02	9.073E-02	4.989E+07	1.699E-04	5.712E-01	6.303E-01	1.201E+00
5614000	BA	.599	.397	.420	1.637	1.593E-02	1.233E-02	2.824E-02	1.270E+08	7.492E+00	2.110E-01	1.633E-01	3.743E-01
5714000	LA	1.077	4.174	2.755	1.619	2.917E-02	1.298E-01	1.589E-01	1.260E+08	9.743E-01	3.862E-01	1.718E+00	2.104E+00
5614100	BA	1.891	1.449	1.718	1.577	5.031E-02	4.879E-02	9.910E-02	1.227E+08	7.194E-03	6.661E-01	6.460E-01	1.312E+00
5714100	LA	2.150	.051	1.074	1.658	5.719E-02	1.896E-03	5.908E-02	1.291E+08	9.598E-02	7.573E-02	2.510E-02	7.824E-01
5814100	CE	.261	.100	.174	1.248	4.936E-03	3.118E-03	1.005E-02	9.715E+07	1.458E+01	9.185E-02	4.129E-02	1.331E-01
5614200	BA	.822	1.663	1.275	1.465	2.186E-02	5.169E-02	7.355E-02	1.140E+08	3.907E-03	2.895E-01	6.844E-01	9.739E-01
5714200	LA	2.057	4.460	3.392	1.488	5.471E-02	1.387E-01	1.934E-01	1.291E+08	3.819E-02	7.245E-01	1.836E+00	2.561E+00
5714300	LA	1.865	1.955	1.871	1.577	4.429E-02	6.077E-02	1.051E-01	1.190E+08	5.336E-03	5.864E-01	8.048E-01	1.391E+00
5814300	CE	.902	.545	.710	1.643	2.400E-02	1.694E-02	4.094E-02	1.279E+08	8.112E-01	3.178E-01	2.243E-01	5.421E-01

5914300	PR	.634	0.000	.232	1.473	1.685E-02	0.	1.685E-02	1.162E+08	7.278E+00	2.231E-01	0.	2.231E-01
5914400	LA	.674	.730	.741	1.793F-02	2.299E-02	4.092E-02	2.652E+07	5.663E+07	2.375E-01	3.044E-01	5.419E-01	
5914500	PR	.520	.011	.246	1.344E-02	3.399E-04	1.418E-02	2.469E+07	1.354E-03	1.833E-01	4.501E-03	1.878E-01	
5914600	CE	.741	.753	.747	1.970E-02	2.342E-02	4.312E-02	6.986E+07	7.384E-04	2.609E-01	3.101E-01	5.710E-01	
5914500	PR	1.016	.017	.479	1.703E-02	5.294E-04	2.756E-02	8.570E+07	9.848E-07	3.580E-01	7.000E-03	3.650E-01	
5914600	CE	.252	.259	.256	6.695E-03	8.670E-03	1.537E-02	6.162E+07	2.803E-03	8.865E-02	1.148E-01	2.035E-01	
5914600	PR	1.037	1.643	1.370	7.758E-02	4.859E-02	7.617E-02	6.639E+07	5.146E-03	3.652E-01	6.434E-01	1.009E+00	
5914700	PR	.619	.591	.639	1.658E-02	1.807E-02	3.454E-02	4.921E+07	1.891E-03	2.182E-01	2.392E-01	4.574E-01	
6014700	MD	.194	.092	.134	5.167E-03	2.537E-03	7.704E-03	2.775E+07	2.420E+00	6.841E-02	3.360E-02	1.020E-01	
5914800	PR	.988	.174	.427	2.627E-02	3.856E-03	3.013E-02	4.872E+07	1.839E-04	3.478E-01	5.106E-02	3.989E-01	

TABLE 8-VII

T.M.I. UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

2R=TIME STEP

4.0000E+02=TOTAL TIME SINCE LAST TIME AT POWER(S)

2.93342E+07=TOTAL ELAPSED TIME(S)

8.26531E+19=FISSIONS/S AT LAST TS AT POWER, I 221

2.69970E+09=POWER (WATTS) AT LAST TS AT POWER (2.69970E+03 MW)

6.95228E+02=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)

1.39000E+03=TOTAL FP IN SUM PER BARN-CM

2.36430E+20=TOTAL ACTIVITY (DIS/S)

6.40082E+09=TOTAL CURIES

2.49410E+01=TOTAL BETA DECAY POWER (MW)

3.10814E+01=TOTAL GAMMA DECAY POWER (MW)

5.60224E+01=TOTAL DECAY POWER (MW)

1.88353E+00=TOTAL BETA MV/F

2.34725E+00=TOTAL GAMMA MV/F

4.2379E+00=TOTAL DECAY MV/F

ID ZZAAA	SYM	PERCENT OF ALL FP				MEV/FISS				---DECAY POWER IN MW---			
		RETA	GAMMA	TOTAL	CURIES	BETA	GAMMA	TOTAL	CURIES	DENSITY	BETA	GAMMA	TOTAL
350H400	QR	.580	.549	.518	.703	1.092E-02	1.524E-02	2.616E-02	1.942E+07	1.978E-03	1.446E-01	2.018E-01	3.464E-01
360H700	KR	1.547	.737	1.078	.742	2.914E-02	1.731F-02	4.769E-02	4.878E+07	1.187E-02	3.859E-01	2.292E-01	6.150E-01
360H400	KR	.418	2.086	1.943	1.106	7.878E-03	7.010E-02	7.794E-02	7.080E+07	3.809E-02	1.043E-01	9.282E-01	1.033E+00
370H800	PR	3.614	.239	2.110	1.141	5.808E-02	2.203E-02	9.011E-02	7.302E+07	4.140E-03	9.015E-01	2.917E-01	1.193E+00
360H700	KR	.647	.843	.747	.363	1.219E-02	2.028E-02	3.745E-02	2.194E+07	2.221E-04	1.614E-01	2.683E-01	4.297E-01
370H900	PR	1.868	1.402	2.940	1.121	3.519E-02	8.666E-02	1.218E-01	8.458E+07	4.117E-03	4.859E-01	1.148E+00	1.613E+00
380H900	SR	.869	0.000	.397	.281	1.636E-02	0.	1.636E-02	6.279E+07	1.506E+01	2.166E-01	0.	2.166E-01
370H900	PR	.743	1.084	.777	.334	1.587E-02	2.545E-02	4.113E-02	2.137E+07	1.848E-04	2.101E-01	3.371E-01	5.472E-01
370H900	RA	.236	.519	.442	.160	4.647E-03	1.454E-02	1.838E-02	8.900E+06	1.231E-04	5.889E-02	1.925E-01	2.514E-01
380H900	SR	1.861	1.592	1.712	1.875	3.505E-02	3.737E-02	7.241E-02	1.200E+08	2.187E-01	4.841E-01	4.948E-01	9.589E-01
390H100	Y	0.057	.004	.670	1.141	1.982E-02	6.699E-05	1.990E-02	7.305E+07	1.974E+01	2.624E-01	1.152E-03	2.636E-01
390H110	Y	0.000	.737	.673	1.077	0.	1.729E-02	1.729E-02	6.957E+07	1.107E-02	0.	2.289E-01	2.289E-01
390H200	SR	.546	1.049	1.215	1.946	1.028E-02	7.157E-02	8.185E-02	1.104E+08	6.219E-02	1.361E-01	9.477E-01	1.084E+00
390H200	Y	4.241	.582	2.229	1.922	9.084E-02	1.367E-02	9.431E-02	1.230E+08	8.346E-02	1.068E+00	1.810E-01	1.249E+00
390H300	SR	1.074	1.008	1.075	1.118	3.719E-02	4.468E-02	8.187E-02	7.155E+07	7.179E-03	4.924E-01	5.916E-01	1.084E+00
390H300	Y	3.762	.279	1.871	2.089	7.095E-02	5.358E-02	7.621E-02	1.336E+08	2.619E-01	9.382E-01	7.095E-02	1.009E+00
390H400	Y	4.626	2.122	1.771	2.171	9.714E-02	5.003E-02	1.372E-01	1.133E+08	8.897E-03	1.154E+00	6.625E-01	1.816E+00
390H500	Y	3.820	.857	2.174	1.519	7.195E-02	2.013E-02	9.207E-02	9.207E+07	3.096E-03	9.277E-01	2.665E-01	1.219E+00
400H500	7R	.218	1.108	.712	1.213	4.107E-03	2.600E-02	3.010E-02	7.889E+07	2.383E+01	5.438E-02	3.442E-01	3.986E-01

4109500	NR	.053	.757	.440	.903	1.002E-03	1.761E-02	1.861E-02	5.137E+07	8.316E+00	1.327E-02	2.332E-01	2.465E-01
3909600	Y	1.016	.494	.776	.277	1.913E-02	1.160E-02	3.073E-02	1.775E+07	1.307E-04	2.533E-01	1.536E-01	4.070E-01
4009700	ZR	2.193	.452	1.227	2.039	4.130E-02	1.062E-02	5.192E-02	1.305E+08	4.212E-01	5.469E-01	1.406E-01	6.874E-01
4109700	HA	1.463	1.499	1.524	2.754	2.756E-02	3.988E-02	6.744E-02	1.316E+08	3.101E-02	3.690E-01	5.280E-01	8.930E-01
4109710	HB	0.000	1.994	.995	1.759	0.	3.743E-02	3.743E-02	1.126E+08	3.245E-04	0.	4.956E-01	4.956E-01
4209900	MO	1.250	.685	.826	2.136	2.355E-02	1.139E-02	3.494E-02	1.367E+08	1.735E+00	3.118E-01	1.508E-01	4.626E-01
4309910	TC	0.000	.722	.178	1.945	0.	7.547E-03	7.547E-03	1.181E+08	1.366E-01	0.	9.993E-02	9.993E-02
4210100	MD	1.218	2.277	1.806	1.346	2.295E-02	5.344E-02	7.640E-02	8.615E+07	4.028E-03	3.038E-01	7.079E-01	1.012E+00
4310100	TC	1.282	.721	.971	1.756	2.415E-02	1.692E-02	4.107E-02	1.124E+08	5.113E-03	3.198E-01	2.241E-01	5.439E-01
4210200	MD	.908	0.707	.726	1.073	0.567E-03	0.	9.567E-03	6.869E+07	2.442E-03	1.267E-01	0.	1.267E-01
4310200	TC	2.483	.612	1.445	1.082	4.677E-02	1.438E-02	6.114E-02	6.924E+07	1.959E-05	6.193E-01	1.904E-01	8.097E-01
4410300	RU	.093	.840	.341	.903	1.748E-03	1.268E-02	1.443E-02	5.791E+07	1.056E+01	2.314E-02	1.679E-01	1.910E-01
4510310	RH	0.000	.044	.024	.903	0.	1.029E-03	1.029E-03	5.778E+07	1.036E-02	0.	1.363E-02	1.363E-02
4310400	TC	1.341	1.306	1.321	.739	2.525E-02	3.045E-02	5.590E-02	4.728E+07	2.726E-03	3.344E-01	4.059E-01	7.403E-01
4310500	TC	.594	.385	.457	.371	1.119E-02	8.576E-03	1.977E-02	2.373E+07	6.080E-04	1.482E-01	1.136E-01	2.618E-01
4410500	RU	.176	.576	.497	.599	7.082E-03	1.352E-02	2.060E-02	3.834E+07	3.271E-02	9.378E-02	1.790E-01	2.728E-01
4510500	RH	.133	.055	.070	.573	2.501E-03	1.294E-03	3.794E-03	3.668E+07	2.503E-01	3.311E-02	1.713E-02	5.024E-02
5113010	SB	.649	1.448	1.022	.390	1.222E-02	3.399E-02	4.621E-02	2.497E+07	2.959E-03	1.618E-01	4.500E-01	6.119E-01
5113100	SB	.320	1.571	1.737	.754	1.545E-02	3.686E-02	5.232E-02	4.837E+07	3.563E-03	2.046E-01	4.881E-01	6.928E-01
5213100	TE	.919	.454	.557	.900	1.732E-02	1.090E-02	2.822E-02	5.759E+07	4.611E-03	2.293E-01	1.443E-01	3.716E-01
5313100	I	.287	.475	.199	.999	5.310E-03	1.114E-02	1.645E-02	6.394E+07	2.371E+00	7.031E-02	1.475E-01	2.178E-01
5213200	TE	.139	.499	.339	1.523	2.621E-03	1.172E-02	1.434E-02	9.749E+07	1.461E+00	3.470E-02	1.552E-01	1.899E-01
5313200	I	1.225	4.191	2.970	1.534	2.306E-02	9.837E-02	1.214E-01	9.820E+07	4.312E-02	3.054E-01	1.303E+00	1.608E+00
5213300	TE	1.350	1.799	1.321	1.082	2.542E-02	3.048E-02	5.590E-02	6.926E+07	2.773E-03	3.366E-01	4.036E-01	7.403E-01
5213310	TE	.766	2.079	1.495	.013	1.444E-02	4.880E-02	6.324E-02	5.841E+07	1.036E-02	1.912E-01	6.462E-01	8.373E-01
5313300	I	1.500	1.728	1.577	2.364	2.826E-02	4.057E-02	6.882E-02	1.513E+08	6.048E-01	3.742E-01	5.372E-01	9.113E-01
5413300	XE	.363	.233	.220	2.339	6.828E-03	5.458E-03	1.229E-02	1.497E+08	3.653E+00	9.042E-02	7.228E-02	1.627E-01
5213400	TE	.468	2.035	1.337	2.021	8.806E-03	4.777E-02	5.657E-02	1.293E+08	1.740E-02	1.166E-01	6.325E-01	7.491E-01
5313400	I	2.733	9.229	5.782	2.670	5.147E-02	1.931E-01	2.446E-01	1.664E+08	2.804E-02	6.816E-01	2.558E+00	3.239E+00
5313500	I	1.311	2.892	2.743	2.190	2.470E-02	9.136E-02	1.161E-01	1.402E+08	1.774E-01	3.271E-01	1.210E+00	1.537E+00
5413500	XE	.749	.169	.225	.529	4.694E-03	3.960E-03	8.655E-03	3.344E+07	5.933E-02	6.216E-02	5.244E-02	1.146E-01
5413700	XE	1.970	.169	.021	.669	3.523E-02	3.737E-03	3.896E-02	4.275E+07	5.298E-04	4.665E-01	4.948E-02	5.159E-01
5413800	XE	1.544	2.252	1.037	1.543	7.909E-02	5.285E-02	8.194E-02	9.879E+07	4.493E-03	3.851E-01	6.998E-01	1.085E+00
5513800	CS	4.193	4.208	5.311	2.183	7.898E-02	1.457E-01	2.247E-01	1.398E+08	1.441E-02	1.046E+00	1.930E+00	2.975E+00
5513900	CS	3.725	.537	1.097	1.414	7.148E-02	1.259E-02	8.407E-02	9.053E+07	2.697E-03	9.465E-01	1.668E-01	1.113E+00
5613900	BA	3.003	.160	1.415	2.700	5.656E-02	3.296E-03	5.986E-02	1.408E+08	3.757E-02	7.490E-01	4.365E-02	7.926E-01
5614000	BA	.846	.525	.648	1.084	1.593E-02	1.233E-02	2.826E-02	1.270E+08	7.490E+00	2.110E-01	1.632E-01	3.742E-01
5714000	LA	1.549	5.528	3.756	1.949	2.917E-02	1.298E-01	1.589E-01	1.260E+08	9.743E-01	3.862E-01	1.718E+00	2.104E+00
5614100	BA	2.213	1.722	1.940	1.589	4.168E-02	4.042E-02	8.209E-02	1.017E+08	5.960E-03	5.519E-01	5.352E-01	1.087E+00
5714100	LA	3.030	.081	1.374	2.012	5.708E-02	1.892E-03	5.897E-02	1.288E+08	9.579E-02	7.558E-01	2.505E-02	7.808E-01
5814100	CE	.368	.133	.238	1.518	6.937E-03	3.118E-03	1.009E-02	9.716E+07	1.458E+01	9.185E-02	4.129E-02	1.331E-01
5614200	BA	.839	1.993	1.247	1.299	1.581E-02	3.739E-02	5.320E-02	8.247E+07	2.826E-03	2.094E-01	4.951E-01	7.044E-01
5714200	LA	2.878	5.994	4.929	1.998	4.422E-02	1.374E-01	1.916E-01	1.279E+08	3.785E-02	7.179E-01	1.819E+00	2.537E+00
5714300	LA	1.836	2.022	1.939	1.452	7.458E-02	4.745E-02	8.203E-02	9.292E+07	4.166E-03	4.579E-01	6.283E-01	1.086E+00
5814300	CF	1.274	.721	.947	1.098	2.399E-02	1.693E-02	4.093E-02	1.279E+08	8.109E-01	3.177E-01	2.242E-01	5.419E-01
5914300	PR	.495	0.000	.398	1.816	1.685E-02	0.	1.685E-02	1.162E+08	7.279E+00	2.231E-01	0.	2.231E-01
5914400	PR	.731	.014	.334	.391	1.378E-02	3.383E-04	1.412E-02	2.437E+07	1.349E-03	1.824E-01	4.480E-03	1.869E-01
5914500	PR	1.429	.022	.648	1.333	2.691E-02	5.262E-04	2.743E-02	8.330E+07	9.802E-02	3.563E-01	6.967E-03	3.633E-01
5914600	CE	.278	.299	.285	.794	5.245E-03	6.793E-03	1.204E-02	4.828E+07	2.196E-03	6.945E-02	8.995E-02	1.159E-01
5914600	PR	1.429	2.021	1.797	1.012	2.692E-02	4.743E-02	7.435E-02	6.481E+07	5.023E-03	3.565E-01	6.281E-01	9.845E-01
5914700	PR	.482	.430	.517	.599	1.289E-02	1.409E-02	2.693E-02	3.837E+07	1.475E-03	1.701E-01	1.869E-01	3.567E-01
6014700	MD	.274	.108	.122	.746	5.167E-03	2.537E-03	7.704E-03	4.775E+07	2.420E+00	6.841E-02	3.360E-02	1.020E-01

TABLE B-VIII

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

29=TIME STEP

1.00000E+03=TOTAL TIME SINCE LAST TIME AT POWER(S)
 2.43389E+07=TOTAL ELAPSED TIME(S)
 8.26531E+19=FISSIONS/S AT LAST TS AT POWER (22)
 2.69970E+09=POWER (WATTS) AT LAST TS AT POWER (2.69970E+03 MW)
 6.95229E+02=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.39000E+03=TOTAL FP IN SIM PER BARN-CM

2.04110E+20=TOTAL ACTIVITY (DPS/S)
 9.51649E+09=TOTAL CURIES
 1.94709E+01=TOTAL BETA DECAY POWER (MW)
 2.55977E+01=TOTAL GAMMA DECAY POWER (MW)
 4.50685E+01=TOTAL DECAY POWER (MW)
 1.47043E+00=TOTAL BETA MEV/F
 1.93313E+00=TOTAL GAMMA MEV/F
 3.40356E+00=TOTAL DECAY MEV/F

ID	SYM	PERCENT	ALL FP	MEV/FISS	---	---	---	---	---	---	---	---	---
ZZAAAS		BETA	GAMMA	TOTAL	CURIES	BETA	GAMMA	TOTAL	CURIES	DENSITY	BETA	GAMMA	TOTAL
3508400	BR	.612	.650	.634	.290	9.005E-03	1.257E-02	2.157E-02	1.602E+07	1.632E-03	1.192E-01	1.664E-01	2.857E-01
3609700	KR	1.809	.817	1.246	.807	2.660E-02	1.590E-02	4.240E-02	4.453E+07	1.084E-02	3.523E-01	2.092E-01	5.615E-01
3609800	KR	.514	3.480	2.178	1.232	7.560E-03	6.727E-02	7.482E-02	6.794E+07	3.655E-02	1.001E-01	8.907E-01	9.908E-01
370H400	RA	4.553	1.121	2.673	1.322	6.694E-02	2.166E-02	8.860E-02	7.180E+07	4.071E-03	8.864E-01	2.868E-01	1.173E+00
3708700	RB	1.602	3.001	2.376	1.024	2.355E-02	5.801E-02	8.156E-02	5.661E+07	2.756E-03	3.117E-01	7.681E-01	1.080E+00
3804900	SR	1.113	0.000	.431	1.138	1.636E-02	0.	1.636E-02	6.279E+07	1.506E+01	2.166E-01	0.	2.166E-01
3809100	SR	2.355	1.912	2.122	2.150	3.462E-02	3.691E-02	7.154E-02	1.186E+08	2.160E-01	4.585E-01	4.888E-01	9.473E-01
3909100	Y	1.348	.003	.995	1.324	1.982E-02	8.699E-05	1.991E-02	7.306E+07	1.974E+01	2.624E-01	1.152E-03	2.636E-01
3909110	Y	0.000	.993	.997	1.259	0.	1.726E-02	1.726E-02	6.944E+07	1.105E-02	0.	2.285E-01	2.285E-01
3909200	SR	.670	3.549	2.325	2.074	9.951E-03	6.859E-02	7.844E-02	1.144E+08	5.959E-02	1.304E-01	9.082E-01	1.039E+00
3909200	Y	5.475	.706	2.747	2.227	8.051E-02	1.365E-02	9.416E-02	1.228E+08	8.332E-02	1.066E+00	1.807E-01	1.247E+00
3809300	SR	1.004	.017	.995	.515	1.476E-02	1.773E-02	3.249E-02	2.839E+07	6.820E-04	1.954E-01	2.348E-01	4.322E-01
3909300	Y	4.783	.275	2.223	2.405	7.034E-02	5.319E-03	7.566E-02	1.327E+08	2.600E-01	9.314E-01	7.043E-02	1.002E+00
3904400	Y	4.123	1.801	2.924	1.429	4.063E-02	3.481E-02	9.544E-02	7.886E+07	4.799E-03	8.028E-01	4.610E-01	1.264E+01
3907500	Y	2.529	.938	1.328	.862	3.718E-02	1.040E-02	4.758E-02	4.758E+07	1.600E-03	4.923E-01	1.377E-01	6.301E-01
4009500	ZR	.279	1.345	.894	1.430	4.107E-03	2.600E-02	3.010E-02	7.889E+07	2.383E+01	5.438E-02	3.442E-01	3.986E-01
4109500	NR	.058	.911	.947	.931	1.002E-03	1.761E-02	1.862E-02	5.138E+07	8.317E+00	1.327E-02	2.332E-01	2.465E-01
4009700	ZR	2.789	.545	1.515	2.342	4.102E-02	1.054E-02	5.156E-02	1.296E+08	4.183E-01	5.431E-01	1.396E-01	6.827E-01
4109700	NR	1.772	.261	1.979	2.393	2.753E-02	3.994E-02	6.737E-02	1.314E+08	3.098E-02	3.646E-01	5.275E-01	8.921E-01
4109710	NR	0.000	1.923	1.922	2.027	0.	3.717E-02	3.717E-02	1.118E+08	3.223E-04	0.	4.922E-01	4.922E-01
4209900	TC	1.599	.589	1.025	2.474	2.351E-02	1.137E-02	3.488E-02	1.365E+08	1.737E+00	3.113E-01	1.505E-01	4.618E-01
4309910	TC	0.000	.320	.222	2.141	0.	7.546E-03	7.546E-03	1.181E+08	1.366E-01	0.	9.993E-02	9.993E-02
4210100	MD	.371	1.220	1.326	.971	1.427E-02	3.325E-02	4.752E-02	5.359E+07	2.506E-03	1.890E-01	4.403E-01	6.293E-01
4310100	TC	1.348	.740	1.220	1.722	2.041E-02	1.430E-02	3.470E-02	9.498E+07	4.320E-03	2.702E-01	1.893E-01	4.595E-01
4210200	MD	.348	0.000	.191	.667	5.124E-03	0.	5.124E-03	3.679E+07	1.308E-03	6.784E-02	0.	6.784E-02
4310200	TC	1.703	.328	.962	.672	2.505E-02	7.699E-03	3.275E-02	3.708E+07	1.049E-05	3.317E-01	1.019E-01	4.336E-01
4410300	RU	.119	.694	.624	1.049	1.747E-03	1.268E-02	1.443E-02	5.780E+07	1.056E+01	2.314E-02	1.679E-01	1.910E-01
4510310	RM	0.000	.093	.030	1.049	0.	1.029E-03	1.029E-03	5.779E+07	1.036E-02	0.	1.363E-02	1.363E-02
4310400	TC	1.176	1.089	1.124	.897	1.729E-02	2.098E-02	3.827E-02	3.237E+07	1.866E-03	2.299E-01	2.778E-01	5.067E-01
4410500	RU	.474	.680	.626	.695	4.975E-03	1.331E-02	2.029E-02	3.776E+07	3.222E-02	9.236E-02	1.763E-01	2.687E-01
4510500	RM	.170	.067	.111	.645	2.501E-03	1.294E-03	3.795E-03	3.669E+07	2.503E-01	3.312E-02	1.713E-02	5.025E-02
5113010	SR	.703	1.489	1.149	.383	1.034E-02	2.876E-02	3.910E-02	2.113E+07	2.504E-03	1.369E-01	3.808E-01	5.177E-01
5113100	SR	.778	1.411	1.137	.442	1.144E-02	2.728E-02	3.872E-02	3.579E+07	2.637E-03	1.514E-01	3.612E-01	5.127E-01

[illegible]

SYSTEM	PERCENT OF ALL CPUS	BETA	GAMMA	TOTAL	CPU'S	DENSITY	BETA	GAMMA	TOTAL
---DECAY POWER IN MW---									

5311500	I	2.531	7.498	5.779	3.114	2.025E-02	7.499E-02	9.513E-02	1.149E+08	1.454E-01	2.681E-01	9.916E-01	1.260E+00
5413500	KE	.436	.670	1.237	4.431E-03	5.426E-03	1.156E-02	4.636E+07	8.170E-07	8.916E-02	7.185E-02	1.570E-01	
5513800	CS	1.371	1.349	1.876	1.035E-02	1.947E-02	3.072E-02	1.867E+07	1.926E-03	1.397E-01	2.578E-01	3.975E-01	
5613900	RA	1.094	1.130	1.625	1.607	2.381E-02	1.397E-02	5.927E+07	1.581E-02	3.152E-01	1.837E-02	3.336E-01	
5614000	RA	2.062	1.220	3.427	1.586E-02	1.228E-02	2.814E-02	1.264E+08	7.459E+00	2.101E-01	1.625E-01	3.726E-01	
5714000	LA	3.792	1.001	4.988	2.917E-02	1.298E-01	1.590E-01	1.261E+08	9.745E-01	1.863E-01	1.719E+00	2.105E+00	
5714100	LA	5.639	1.164	2.515	4.39E-02	1.438E-03	4.883E-02	9.792E+07	7.282E-02	5.745E-01	1.904E-02	5.936E-01	
5814200	CE	.902	.312	.443	4.934E-03	3.119E-03	1.006E-02	9.718E+07	1.458E-01	3.327E-01	8.431E-01	1.332E-01	
5714300	CE	3.265	6.373	5.021	2.512E-02	6.367E-02	8.879E-02	9.926E+07	1.754E-02	9.189E-02	4.130E-02	1.176E+00	
5814300	QR	3.012	1.637	2.216	2.318E-02	1.636E-02	3.94E-02	1.235E+08	7.834E-01	3.089E-01	2.166E-01	5.235E-01	
5814400	CE	.115	.031	.058	1.886E-02	0.	1.886E-02	1.163E+08	7.281E+00	2.232E-01	0.	2.232E-01	
5914400	PR	1.753	.043	.791	8.857E-04	3.092E-04	1.194E-03	2.385E+07	3.128E+01	1.173E-02	4.081E-03	1.581E-02	
5914500	PR	2.817	.049	1.280	1.384E-02	3.311E-04	1.382E-02	2.385E+07	1.320E-01	1.786E-01	4.385E-03	1.829E-01	
6014700	ND	.649	.243	.414	1.677E-02	4.239E-04	2.210E-02	6.871E+07	7.896E-02	2.870E-01	5.613E-03	2.926E-01	
6114900	PM	.599	.017	.271	5.144E-03	2.526E-03	7.670E-03	4.755E+07	2.410E+00	6.812E-02	3.345E-02	1.016E-01	
					4.610E-03	1.742E-04	4.784E-03	2.734E+07	2.790E-01	6.104E-02	2.306E-03	6.334E-02	

TABLE A-XI

T4T. UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-101LASLI 7/79

32-TIME STEP

1.00000E+04=TOTAL TIME SINCE LAST TIME AT POWER(S)
 2.93558E+07=TOTAL ELAPSED TIME(S)
 8.26531E+19=FISSIONS/AT LAST TS AT POWER*(22)
 2.69970E+09=POWER (WATTS) AT LAST TS AT POWER (2.69970E+03 MW)
 6.95228E+02=ACCUMULATED FISSIONS PER BARN-CM
 1.39000E+03=TOTAL FP IN SIM PER BARN-CM

1.13087E+20=TOTAL ACTIVITY (DIS/S)

3.05641E+09=TOTAL CURIES

7.43671E+00=TOTAL BETA DECAY POWER (MW)

9.28546E+00=TOTAL GAMMA DECAY POWER (MW)

1.67222E+01=TOTAL DECAY POWER (MW)

5.61617E-01=TOTAL BETA MEV/F

7.01234E-01=TOTAL GAMMA MEV/F

1.26285E+00=TOTAL DECAY MEV/F

ID	SYM	PERCENT OF ALL FP	BETA	GAMMA	TOTAL	CURIES	MEV/FISS--	BETA	GAMMA	TOTAL	DENSITY	BETA	GAMMA	TOTAL
ZZAAS														
3608400	KR	.418	2.980	1.941	.521	2.349E-03	2.090E-02	2.325E-02	2.111E+07	1.136E-02	3.110E-02	2.767E-01	3.078E-01	
3708400	RR	3.216	1.015	2.375	.772	2.199E-02	7.117E-03	2.911E-02	2.359E+07	1.337E-03	2.912E-01	9.424E-02	3.855E-01	
3808400	SR	2.906	0.009	1.295	2.049	1.632E-02	0.	1.632E-02	6.264E+07	1.502E+01	2.161E-01	0.	2.161E-01	
3909100	YR	4.355	3.727	4.011	2.747	2.452E-02	2.614E-02	5.065E-02	8.396E+07	1.529E-01	3.246E-01	3.461E-01	6.707E-01	
3909100	Y	0.000	1.871	1.019	1.727	0.	1.984E-02	8.708E-05	1.933E-02	7.313E+07	1.976E+01	2.627E-01	1.153E-03	2.638E-01
3909200	YR	.574	7.023	1.845	1.119	2.944E-03	2.050E-02	2.344E-02	3.420E+07	1.781E-02	3.498E-02	2.715E-01	3.104E-01	
3909200	Y	9.944	1.340	5.172	2.788	9.595E-02	9.467E-03	6.512E-02	8.520E+07	5.780E-02	7.395E-01	1.254E-01	8.649E-01	
3909300	Y	9.110	.553	4.358	3.197	5.117E-02	3.869E-03	5.503E-02	9.650E+07	1.891E-01	6.775E-01	1.523E-02	2.888E-01	
4109500	NR	.730	3.701	2.370	2.576	4.099E-03	2.594E-02	3.004E-02	7.873E+07	2.378E+01	5.427E-02	3.435E-01	3.978E-01	
4003700	ZR	.179	2.517	1.477	1.484	1.004E-03	1.765E-02	4.243E-02	1.066E+08	3.344E-01	1.329E-02	2.337E-01	2.470E-01	
4109700	NR	6.011	1.237	3.340	3.449	3.176E-02	8.676E-03	4.243E-02	1.066E+08	3.344E-01	1.329E-02	2.337E-01	2.470E-01	
4109710	NR	4.272	4.940	3.748	2.399E-02	3.471E-02	5.871E-02	1.145E+08	2.700E-02	3.117E-01	4.597E-01	7.774E-01		
4209400	MD	0.000	4.362	2.622	3.010	0.	3.059E-02	3.059E-02	9.200E+07	2.652E-04	0.	4.050E-01	4.050E-01	
					4.750	2.237E-02	1.082E-02	3.19E-02	1.299E+08	1.648E+00	2.962E-01	1.433E-01	4.395E-01	

ID	SYM	-----PERCENT OF ALL FP-----	-----NEV/FISS-----	-----	CURIES	TOTAL	BETA	GAMMA	-----	DENSITY	CURIES	DENSITY	-----	BETA	GAMMA	-----	DECAY POWER IN MW----	TOTAL
ZZAAS		BETA	GAMMA	TOTAL														
3609R00	KR	.161	1.074	.697	.276	6.812E-04	6.061E-03	6.742E-03	6.121E+06	3.294E-03	9.020E-03	8.026E-02	8.928E-02					
3708R00	RA	1.510	.369	.850	.264	6.379E-03	2.064E-03	8.443E-03	6.842E+06	3.879E-04	8.447E-02	2.733E-02	1.118E-01					
3808R00	SR	3.853	0.000	1.458	2.408	1.627E-02	0.	1.627E-02	6.247E+07	1.498E+01	2.155E-01	0.	2.155E-01					
4109R10	TC	0.700	1.063	.570	1.917	7.454E-03	7.454E-03	1.167E+08	1.350E-01	0.	9.871E-02	9.871E-02	9.871E-02					
4410R00	RU	.310	1.902	1.119	1.885	1.741E-03	1.264E-02	1.438E-02	5.760E+07	1.052E+01	2.306E-02	1.673E-01	1.904E-01					
4510R10	RM	0.000	.146	.041	1.846	0.	1.027E-03	1.027E-03	5.766E+07	1.034E-02	0.	1.360E-02	1.360E-02					
4510R00	RU	.509	.916	.773	.506	3.365E-03	6.423E-03	9.787E-03	1.821E+07	1.554E-02	4.455E-02	8.505E-02	1.286E-01					
5112R00	SH	.415	1.80	.733	1.171	2.440E-03	1.262E-03	3.703E-03	3.540E+07	2.442E-01	3.231E-02	1.671E-02	4.903E-02					
5112R00	SH	.220	.632	.453	.252	1.233E-03	4.584E-03	5.772E-03	7.699E+06	6.421E-03	1.639E-02	5.938E-02	7.577E-02					
5213R10	TE	.113	.733	.451	.254	4.336E-04	5.185E-03	5.819E-03	7.768E+06	4.478E-02	8.389E-03	6.866E-02	7.705E-02					
5313R00	I	.934	1.877	1.099	2.087	1.101E-02	1.626E-02	6.318E+07	2.343E+00	6.947E-02	1.558E-01	2.193E-01						
5313R00	TE	.447	1.401	1.099	3.054	2.510E-03	1.122E-02	1.373E-02	9.355E+07	1.399E+00	3.323E-02	1.486E-01	1.819E-01					
5313R00	I	4.001	13.665	9.357	3.130	2.247E-02	9.583E-02	1.183E-01	9.566E+07	4.201E-02	2.974E-01	1.269E+00	1.564E+00					
5413R00	XE	1.215	.778	.072	4.903	2.454E-02	3.223E-02	5.977E-02	1.314E+08	5.252E-01	3.250E-01	4.665E-01	7.914E-01					
5313R00	I	.560	1.582	1.193	3.32	1.143E-03	1.179E-02	1.496E-02	1.496E+08	3.649E+00	9.032E-02	7.220E-02	1.625E-01					
5313R00	XE	1.406	.950	1.153	2.741	1.475E-02	5.61E-02	6.937E-02	8.378E+07	1.003E-01	1.955E-01	7.231E-01	9.186E-01					
5613R00	RA	.948	.044	.444	1.862	7.898E-03	6.062E-02	1.436E-02	5.692E+07	1.003E-01	1.046E-01	8.821E-02	1.928E-01					
5613R00	BA	2.806	1.739	.7213	4.109	1.576E-02	1.219E-02	2.795E-02	1.325E+07	3.536E-03	7.050E-02	4.108E-03	7.460E-02					
5714R00	LA	5.194	18.507	12.587	4.124	2.917E-02	1.298E-01	1.500E-01	1.260E+08	9.745E-01	3.863E-01	1.114E-02	3.473E-01					
5714R00	LA	4.520	.120	.077	1.874	5.938E-02	8.414E-04	2.622E-02	5.728E+07	4.260E-02	3.361E-01	1.719E+00	2.105E+00					
5814R00	CE	1.235	.445	.776	3.178	4.933E-03	3.118E-03	1.003E-02	9.713E+07	1.457E+01	9.183E-02	4.128E-02	3.473E-01					
5814R00	LA	1.159	2.353	1.492	5.03	5.512E-03	1.050E-02	2.301E-02	1.536E+07	4.566E-03	8.623E-02	2.185E-01	3.047E-01					
5814R00	CE	3.875	2.191	2.940	3.705	2.175E-02	1.536E-02	3.717E-02	1.160E+08	7.366E-01	2.882E-01	2.034E-01	4.916E-01					
5914R00	PR	1.002	0.000	1.335	3.904	1.680E-02	0.	1.680E-02	1.163E+08	7.282E+00	2.233E-01	0.	2.233E-01					
5914R00	PR	.158	.044	.075	.780	1.854E-04	3.01E-04	1.194E-03	2.384E+07	3.127E+01	1.172E-02	4.080E-03	1.580E-02					
5914R00	PR	2.400	.047	1.073	.780	1.344E-02	3.10E-04	1.381E-02	2.384E+07	1.320E-03	1.745E-01	4.383E-03	1.828E-01					
6014R00	NO	2.726	.043	1.236	1.598	1.531E-02	2.994E-04	1.561E-02	4.853E+07	5.977E-02	2.027E-01	3.964E-03	2.067E-01					
6014R00	NO	.909	.357	.633	1.543	5.104E-03	2.507E-03	7.610E-03	4.717E+07	2.391E+00	6.758E-02	3.319E-02	1.008E-01					
6114R00	PM	.797	.024	.358	.849	4.477E-03	1.692E-04	4.646E-03	2.656E+07	2.710E-01	5.928E-02	2.240E-03	6.152E-02					

TABLE 8-XII

TMT, UNIT 2. 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-20(LASL) 7779

33=TIME STEP
 3.6000E+04=TOTAL TIME SINCE LAST TIME AT POWER(S)
 2.2373E+07=TOTAL TIME SINCE LAST TS AT POWER(S)
 8.26531E+09=FISSIONS/S AT LAST TS AT POWER(S) 22
 2.69970E+09=POWER (WATTS) AT LAST TS AT POWER (2.69970E+03 MW)
 6.9222E+02=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.39600E+03=TOTAL FP IN SIN PER BARN-CM

9.59714E+19=TOTAL ACTIVITY (DIS/S)
 2.59182E+09=TOTAL CURIES
 5.5928E+00=TOTAL BETA DECAY POWER (MW)
 7.40486E+00=TOTAL GAMMA DECAY POWER (MW)
 1.29977E+01=TOTAL GAMMA DECAY POWER (MW)
 4.22372E-01=TOTAL BETA NEV/F
 5.59211E-01=TOTAL GAMMA NEV/F
 9.81583E-01=TOTAL DECAY NEV/F

TIME UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

TABLE B-XIII

3809100	SR	4.027	7.243	1.590	2.244	1.701E-02	1.813E-02	3.914E-02	5.825E+07	1.061E-01	2.252E-01	2.401E-01	4.653E-01
3904100	Y	4.497	7.070	2.810	1.984E-02	8.708E-05	1.993E-02	7.133E+07	1.976E+01	2.627E-01	1.139E-03	2.633E-03	4.653E-01
3904110	Y	0.000	1.431	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3904200	SR	1.194	1.070	0.445	0.437	0.194E-04	9.119E-03	6.170E-03	9.19E+06	4.957E-03	1.085E-02	7.555E-02	0.646E-02
3904300	Y	6.442	0.600	1.430	1.430	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3904400	Y	9.437	0.403	0.403	0.403	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4000700	SR	6.502	1.262	1.957	1.957	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4000800	SR	4.544	0.074	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4100700	SR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4200700	SR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4300700	SR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4400700	SR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4500700	SR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4600700	SR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4700700	SR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4800700	SR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4900700	SR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5000700	SR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5100700	SR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
 
9200700	SR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9300700	SR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9400700	SR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9500700	SR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9600700	SR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9700700	SR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9800700	SR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9900700	SR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

34*TIME STEP
7.20000E+07*TOTAL TIME SINCE LAST TIME AT POWER(S)
2.94098E+07*TOTAL FLASCON TIME(S)
0.26531E+19*FISSTIONS/AT LAST TS AT POWER(S) 22
6.95228E+02*ACCUMLATED FISSTIONS PER BARN-CM
1.39000E+03*TOTAL FP IN SIM PER BARN-CM
7.90343E+19*TOTAL ACTIVITY (DIS/S)
2.13606E+09*TOTAL CAPS
4.05154E+00*TOTAL BETA DECAY POWER (MW)
5.96590E+00*TOTAL GAMMA DECAY POWER (MW)
1.00174E+01*TOTAL DECAY POWER (MW)
3.05970E-01*TOTAL BETA MW/F
4.50542E-01*TOTAL GAMMA MW/F
7.56512E-01*TOTAL DECAY MW/F

ID ZXAAS	SYM	PERCENT OF ALL FP			MEV/FISS			CURIES	TOTAL	CURIES	DENSITY	DECAY POWER IN MW		
		BETA	GAMMA	TOTAL	BETA	GAMMA	TOTAL					BETA	GAMMA	TOTAL
380A900	SR	5.249	0.000	2.130	2.099	1.618E-02	0.	1.618E-02	6.212E+07	1.490E+01	2.149E-01	0.	2.149E-01	2.149E-01
380A100	SR	2.676	1.037	2.236	1.313	8.187E-03	8.728E-03	1.622E-02	2.804E+07	5.104E-02	1.084E-01	1.156E-01	2.240E-01	2.240E-01
390A100	Y	6.471	0.012	2.632	3.417	1.980E-02	4.390E-03	1.943E-02	7.298E+07	1.973E+01	2.622E-01	1.151E-03	2.633E-01	2.633E-01
390A110	Y	0.200	0.074	0.590	0.927	0.	4.390E-03	4.390E-03	1.766E+07	2.812E-03	0.	5.013E-02	5.013E-02	5.013E-02
390A200	Y	1.711	1.127	0.809	0.374	4.234E-03	8.873E-04	6.127E-03	7.986E+06	5.417E-03	6.931E-02	1.175E-02	8.106E-02	8.106E-02
390A300	Y	6.034	0.310	2.635	1.630	1.846E-02	1.306E-03	1.998E-02	3.482E+07	6.825E-02	2.445E-01	1.849E-02	2.630E-01	2.630E-01
400A500	ZR	4.007	5.720	3.064	1.652	4.072E-02	2.577E-02	2.984E-02	7.421E+07	2.363E+01	5.342E-02	3.413E-01	3.922E-01	3.922E-01
400A500	Y	0.130	1.033	2.442	2.424	1.010E-03	1.774E-02	1.877E-02	5.182E+07	8.384E+00	1.334E-02	2.352E-01	2.486E-01	2.486E-01
400A700	Y	5.941	1.033	3.021	2.680	1.818E-02	4.673E-03	2.289E-02	5.743E+07	1.854E-01	2.407E-01	6.187E-02	4.208E-01	4.208E-01
410A700	NB	4.454	4.171	2.071	2.903	1.299E-02	1.879E-02	3.178E-02	6.200E+07	1.424E-04	0.	2.181E-01	2.181E-01	2.181E-01
420A910	MA	0.000	3.454	2.178	2.320	0.	1.647E-02	1.647E-02	4.955E+07	1.424E-04	0.	2.181E-01	2.181E-01	2.181E-01
430A910	TC	6.246	2.051	3.748	5.195	1.911E-02	9.242E-03	2.835E-02	1.110E+08	1.408E+00	2.531E-01	1.224E-01	3.734E-01	3.734E-01
4410300	RU	0.563	1.474	1.890	4.877	0.	6.657E-03	6.657E-03	1.942E+08	1.205E-01	0.	8.015E-02	8.015E-02	8.015E-02
4510310	RM	0.000	0.225	1.134	2.657	1.722E-03	1.250E-02	1.422E-02	5.697E+07	1.041E+01	2.281E-02	1.655E-01	1.883E-01	1.883E-01
4510500	RM	0.632	0.222	0.388	1.320	1.935E-03	1.001E-03	1.016E-03	5.703E+07	1.023E-02	0.	1.345E-02	1.345E-02	1.345E-02
4510600	RM	0.611	0.057	0.241	1.135	1.869E-03	2.578E-04	2.127E-03	2.839E+07	1.937E-01	2.562E-02	1.325E-02	3.886E-02	3.886E-02
5213110	TE	1.145	0.914	0.544	0.257	4.480E-04	3.666E-03	4.114E-03	2.888E+06	4.609E-06	2.475E-02	3.414E-03	2.816E-02	2.816E-02
5313100	I	1.734	2.320	2.044	2.812	4.000E-03	1.049E-02	1.549E-02	6.021E+07	2.233E+00	6.620E-02	1.369E-01	2.051E-01	2.051E-01
5213200	TF	0.718	19.713	13.737	3.825	2.196E-03	9.824E-03	1.202E-02	8.170E+07	1.225E+00	2.908E-02	1.301E-01	1.592E-01	1.592E-01
5313300	I	4.968	4.746	1.825	1.734	1.849E-02	2.138E-02	3.628E-02	8.416E+07	3.686E-02	2.618E-01	1.116E+00	1.378E+00	1.378E+00
5413300	XE	2.178	1.895	1.895	6.940	4.664E-03	5.377E-03	1.199E-02	1.961E+08	3.585E+00	8.824E-02	7.054E-02	1.588E-01	1.588E-01
5313500	XE	1.955	2.422	1.821	0.920	3.044E-03	1.176E-02	1.430E-02	1.728E+07	2.186E-02	4.031E-02	1.491E-01	1.894E-01	1.894E-01
5414000	LA	4.978	2.614	3.471	5.684	1.523E-02	1.179E-02	2.702E-02	4.311E+07	7.594E-02	7.913E-02	6.808E-02	1.460E-01	1.460E-01
5414000	RA	9.489	29.657	20.911	5.873	2.903E-02	1.292E-01	1.594E-01	1.254E+08	9.698E-01	3.844E-01	1.710E+00	2.095E+00	2.095E+00
5414100	LA	0.565	0.013	0.216	1.143	1.729E-02	5.731E-05	1.744E-03	3.902E+06	2.902E-03	2.289E-02	7.588E-04	2.365E-02	2.365E-02
5814100	CE	2.543	0.685	1.314	4.490	6.962E-03	3.085E-03	9.946E-03	9.611E+07	1.442E+01	9.086E-02	4.085E-02	1.317E-01	1.317E-01
5814300	CE	5.190	2.488	1.591	3.963	1.588E-02	1.121E-02	2.709E-02	8.464E+07	5.368E-01	2.103E-01	1.484E-01	3.587E-01	3.587E-01
5814400	CE	0.299	0.068	0.158	5.410	1.678E-02	0.	1.678E-02	1.157E+08	7.289E+00	2.222E-01	0.	2.222E-01	2.222E-01
5814400	PI	4.398	0.073	1.823	1.114	8.841E-04	3.077E-04	1.192E-03	2.381E+07	3.122E+01	1.171E-02	4.074E-03	1.578E-02	1.578E-02
5814500	PR	0.074	0.012	0.353	1.114	1.346E-02	3.305E-04	1.379E-02	2.381E+07	1.318E-03	1.782E-01	4.376E-03	1.976E-01	1.976E-01
6014700	MD	1.504	0.538	0.967	2.123	4.906E-03	5.262E-05	2.743E-03	8.529E+06	9.802E-03	3.563E-02	6.967E-04	3.632E-02	3.632E-02
6114900	PM	1.208	0.031	0.507	1.027	3.697E-03	1.307E-04	3.837E-03	2.193E+07	2.290E+00	6.497E-02	3.191E-02	9.688E-02	9.688E-02

TABLE B-XIV

TIME UNIT 2. 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

35=TIME STEP
 1.80000E+05=TOTAL TIME SINCE LAST TIME AT POWER(S)
 2.95178E+07=TOTAL ELAPSED TIME(S)
 8.26531E+19=FISSIONS/C AT LAST TS AT POWER (22)
 2.69972E+09=POWER (WATTS) AT LAST TS AT POWER (2.69972E+03 MW)
 6.95228E+02=ACCUMULATED FISSIONS (FISSIONS PER GRAM-CM)
 1.39000E+03=TOTAL FP IN SJM PER GRAM-CM

5.90702E+13=TOTAL ACTIVITY (DIS/S)
 1.59649E+09=TOTAL CURIES
 2.72759E+00=TOTAL BETA DECAY POWER (MW)
 4.43434E+00=TOTAL GAMMA DECAY POWER (MW)
 7.16193E+00=TOTAL DECAY POWER (MW)
 2.05986E-01=TOTAL BETA MEV/F
 3.34879E-01=TOTAL GAMMA MEV/F
 5.40866E-01=TOTAL DECAY MEV/F

ID	SYM	-----PERCENT OF				-----MEV/FISS-----				---DECAY POWER IN MW---			
ZZAAAS		BETA	GAMMA	TOTAL	CURIES	BETA	GAMMA	TOTAL	CURIES	DENSITY	BETA	GAMMA	TOTAL
3809900	SR	7.727	0.000	2.943	3.927	1.592E-02	0.	1.592E-02	6.109E+07	1.465E+01	2.108E-01	0.	2.108E-01
3909100	Y	9.494	.026	3.632	4.915	1.956E-02	8.584E-05	1.964E-02	7.209E+07	1.948E+01	2.590E-01	1.137E-03	2.601E-01
3909300	Y	1.167	.054	.479	.744	2.404E-03	1.818E-04	2.586E-03	4.533E+06	8.886E-03	3.183E-02	2.407E-03	3.424E-02
4009500	ZR	1.951	7.595	9.445	4.835	4.018E-03	2.543E-02	2.945E-02	7.719E+07	2.332E+01	5.321E-02	3.368E-01	3.900E-01
4109500	NR	.496	5.367	3.313	3.295	1.023E-03	1.798E-02	1.900E-02	5.245E+07	8.490E+00	1.354E-02	2.381E-01	2.516E-01
4009700	ZR	2.560	.405	1.225	1.043	5.273E-03	1.355E-03	6.628E-03	1.666E+07	5.377E-02	6.982E-02	1.794E-02	8.776E-02
4109700	NR	1.829	1.627	1.704	1.126	3.767E-03	5.450E-03	9.217E-03	1.798E+07	4.239E-03	4.988E-02	7.217E-02	1.220E-01
4109710	NR	0.000	1.427	.993	.900	0.	4.778E-03	4.778E-03	1.437E+07	4.142E-05	0.	6.327E-02	6.327E-02
4209900	MO	6.771	2.014	3.926	5.072	1.395E-02	6.745E-03	2.069E-02	8.099E+07	1.027E+00	1.847E-01	8.932E-02	2.740E-01
4309910	TC	0.000	1.467	.009	4.814	0.	4.911E-03	4.911E-03	7.686E+07	8.892E-02	0.	6.503E-02	6.503E-02
4410300	RU	.918	3.631	2.322	3.491	1.685E-03	1.223E-02	1.391E-02	5.574E+07	1.018E+01	2.231E-02	1.619E-01	1.842E-01
4510310	RH	0.000	.297	.194	3.495	0.	9.936E-04	9.936E-04	5.580E+07	1.001E-02	0.	1.316E-02	1.316E-02
4510500	RH	.527	.168	.325	.999	1.087E-03	5.620E-04	1.649E-03	1.594E+07	1.087E-01	1.439E-02	7.442E-03	2.183E-02
4510600	RH	.005	.077	.322	.180	1.864E-03	2.572E-04	2.122E-03	2.881E+06	4.598E-06	2.469E-02	3.406E-03	2.809E-02
5213110	TE	.109	.547	.390	.172	2.240E-04	1.833E-03	2.057E-03	2.746E+06	1.583E-02	2.966E-03	2.427E-02	2.724E-02
5313100	I	2.196	2.824	2.931	3.411	4.522E-03	9.41E-03	1.401E-02	5.446E+07	2.020E+00	5.984E-02	1.257E-01	1.856E-01
5213200	TE	.817	2.247	1.722	3.920	1.682E-03	7.525E-03	9.207E-03	6.258E+07	9.381E-01	2.228E-02	9.964E-02	1.219E-01
5313200	I	7.351	19.285	14.740	4.039	1.514E-02	6.458E-02	7.973E-02	6.447E+07	2.831E-02	2.005E-01	8.552E-01	1.056E+00
5313300	I	2.661	2.359	2.458	1.839	5.481E-03	7.868E-03	1.335E-02	2.935E+07	1.173E-01	7.258E-02	1.042E-01	1.768E-01
5413300	VE	2.424	1.438	2.024	9.273	6.023E-03	4.815E-03	1.084E-02	1.321E+08	3.222E+00	7.976E-02	6.376E-02	1.435E-01
5614000	BA	6.310	3.299	4.668	7.106	1.423E-02	1.101E-02	2.525E-02	1.135E+08	6.692E+00	1.885E-01	1.458E-01	3.343E-01
5714000	LA	13.714	37.526	29.457	7.645	2.825E-02	1.257E-01	1.539E-01	1.221E+09	9.436E-01	3.741E-01	1.664E+00	2.038E+00
5814100	CE	3.244	.897	1.791	9.883	6.683E-03	3.004E-03	9.687E-03	9.360E+07	1.404E+01	8.849E-02	3.978E-02	1.283E-01
5814300	CE	4.106	1.782	2.657	2.923	8.457E-03	5.969E-03	1.443E-02	4.507E+07	2.859E-01	1.120E-01	7.904E-02	1.910E-01
5914300	PR	7.917	0.000	3.015	7.044	1.631E-02	0.	1.631E-02	1.125E+08	7.043E+00	2.159E-01	0.	2.159E-01
5814400	CE	.428	.092	.220	1.487	9.814E-04	3.067E-04	1.188E-03	2.373E+07	3.113E+01	1.167E-02	4.061E-03	1.573E-02
5914400	PR	6.513	.098	2.541	1.487	1.342E-02	3.295E-04	1.375E-02	2.373E+07	1.314E-03	1.777E-01	4.363E-03	1.820E-01
6014700	ND	2.201	.665	1.250	2.625	4.534E-03	2.227E-03	6.761E-03	4.191E+07	2.124E+00	6.004E-02	2.949E-02	8.953E-02
6114900	PM	1.213	.028	.490	.929	2.499E-03	9.444E-05	2.594E-03	1.483E+07	1.513E-01	3.309E-02	1.251E-03	3.435E-02

TABLE B-XV

TIME UNIT 2. 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

36=TIME STEP
 3.60000E+05=TOTAL TIME SINCE LAST TIME AT POWER(S)
 2.96978E+07=TOTAL ELAPSED TIME(S)
 8.26531E+19=FISSIONS/S AT LAST TS AT POWER (22)
 2.69970E+09=POWER (WATTS) AT LAST TS AT POWER (2.69970E+03 MW)
 6.75228E+02=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.39000E+03=TOTAL FP IN SUM PER BARN-CM

4.66281E+19=TOTAL ACTIVITY (DIS/S)
 1.26022E+09=TOTAL CURIES
 2.11693E+00=TOTAL BETA DECAY POWER (MW)
 3.49121E+00=TOTAL GAMMA DECAY POWER (MW)
 5.60815E+00=TOTAL DECAY POWER (MW)
 1.59870E-01=TOTAL BETA MEV/E
 2.25365E-01=TOTAL GAMMA MEV/E
 4.23525E-01=TOTAL DECAY MEV/E

IN ZZAAS	SYM	PERCENT OF ALL FP			MEV/FISS			TOTAL	CURIES	DENSITY	DECAY POWER IN MW		
		BETA	GAMMA	TOTAL	BETA	GAMMA	TOTAL				BETA	GAMMA	TOTAL
380H900	SR	9.583	0.000	1.655	4.714	1.548E-02	0.	1.548E-02	5.942E+07	1.425E+01	2.050E-01	0.	2.050E-01
390J100	Y	11.338	0.000	4.876	5.883	1.900E-02	8.378E-05	1.917E-02	7.036E+07	1.901E+01	2.527E-01	1.109E-03	2.538E-01
400Y500	ZP	2.459	9.434	4.872	9.071	3.931E-03	2.448E-02	2.841E-02	7.550E+07	2.281E+01	5.206E-02	3.294E-01	3.815E-01
410Y500	NR	.551	6.945	4.539	4.218	1.041E-03	1.831E-02	1.935E-02	5.341E+07	8.646E+00	1.379E-02	2.425E-01	2.562E-01
420Y900	MD	5.161	1.511	2.870	3.802	9.251E-03	3.990E-03	1.224E-02	4.791E+07	6.078E-01	1.093E-01	5.284E-02	1.621E-01
430J110	TC	0.000	1.103	.846	3.410	0.	2.907E-03	2.907E-03	5.549E+07	5.263E-02	0.	3.849E-02	3.849E-02
4410300	RU	1.016	4.472	3.147	4.265	1.625E-03	1.179E-02	1.341E-02	5.375E+07	9.416E+00	2.131E-02	1.561E-01	1.776E-01
4510310	RH	0.000	.343	.226	4.269	0.	9.580E-04	9.580E-04	5.340E+07	9.649E-03	0.	1.269E-02	1.269E-02
451J600	RH	1.162	.037	.479	.228	1.857E-03	2.562E-04	2.113E-03	2.870E+06	4.580E-06	2.459E-02	3.391E-03	2.798E-02
531J100	I	2.378	1.025	.278	3.637	3.801E-03	7.976E-03	1.174E-02	4.577E+07	1.697E+00	5.031E-02	1.056E-01	1.560E-01
521J200	TE	.575	1.810	1.134	3.184	1.079E-03	4.825E-03	5.904E-03	4.013E+07	6.015E-01	1.423E-02	6.390E-02	7.818E-02
531J300	I	.648	.544	.640	3.281	9.710E-03	4.141E-02	5.112E-02	4.134E+07	1.015E-01	1.286E-01	5.484E-01	6.770E-01
531J300	XF	2.291	1.445	.2025	9.293	1.036E-03	1.487E-03	2.522E-03	5.546E+06	2.217E-02	1.371E-02	1.969E-02	3.340E-02
561J600	RA	7.253	3.732	5.374	9.041	4.766E-03	3.810E-03	8.576E-03	1.045E+08	5.974E+00	6.311E-02	5.045E-02	1.136E-01
571J600	LA	16.363	44.112	33.654	9.049	1.271E-02	9.838E-03	2.255E-02	1.013E+08	5.974E+00	1.684E-01	1.303E-01	2.986E-01
581J100	CE	3.999	2.194	7.105	6.392E-03	2.874E-03	9.266E-03	8.951E+07	1.330E+08	8.738E-01	3.464E-01	1.541E+00	1.887E+00
581J400	CE	.949	.114	.279	1.874	1.507E-02	0.	1.507E-02	1.577E+07	1.000E-01	8.405E-02	3.805E-02	1.227E-01
591J4300	PR	9.424	0.000	3.957	9.245	6.392E-03	2.088E-03	5.047E-03	1.577E+07	1.000E-01	3.914E-02	2.769E-02	6.683E-02
581J400	CE	.949	.114	.279	1.874	1.507E-02	0.	1.507E-02	1.577E+07	1.000E-01	8.405E-02	3.805E-02	1.227E-01
601J400	PR	8.349	.174	3.229	1.874	1.335E-02	3.278E-04	1.142E-02	2.361E+07	3.097E+01	1.161E-02	4.041E-03	1.565E-02
601J700	ND	2.487	.741	1.400	2.914	1.974E-03	1.953E-03	5.929E-03	3.675E+07	1.863E+00	5.285E-02	2.586E-02	7.851E-02
611J900	PM	.814	.019	.819	.013	1.301E-03	4.917E-05	1.350E-03	7.710E+06	7.877E-02	1.723E-02	6.911E-04	1.788E-02

TABLE 9-XVI

UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-101(LAS) 7/79

37=TIME STEP
 7.2000E+05=TOTAL TIME SINCE LAST TIME AT POWER(S)
 3.00578E+07=TOTAL FLASPED TIME(S)
 8.26531E+19=FISSIONS/AT LAST TS AT POWER(.1 22)
 2.69970E+09=POWER (WATTS) AT LAST TS AT POWER (2.69970E+03 MW)
 6.95228E+02=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.39000E+03=TOTAL FP IN SIM PER BARN-CM

3.54130E+19=TOTAL ACTIVITY (DIS/S)
 9.57109E+08=TOTAL CURIES
 1.64313E+00=TOTAL BETA DECAY POWER (MW)
 2.59033E+00=TOTAL GAMMA DECAY POWER (MW)
 4.23346E+00=TOTAL DECAY POWER (MW)

ID	SYM	PERCENT OF ALL FP				MEV/FISS				---DECAY POWER IN MW---			
		RETA	GAMMA	TOTAL	CURIES	BETA	GAMMA	TOTAL	CURIES	DENSITY	BETA	GAMMA	TOTAL
1.24088E-01	TOTAL BETA MEV/F												
1.95620E-01	TOTAL GAMMA MEV/F												
3.19709E-01	TOTAL DECAY MEV/F												
3808900	SR	11.902	0.000	4.581	5.873	1.464E-02	0.	1.464E-02	5.621E+07	1.349E+01	1.939E-01	0.	1.939E-01
3903100	Y	14.641	.041	5.709	6.997	1.817E-02	7.975E-05	1.825E-02	6.637E+07	1.810E+01	2.406E-01	1.036E-03	2.416E-01
4003500	ZR	3.031	12.170	8.673	7.449	3.761E-03	2.381E-02	2.757E-02	7.225E+07	2.183E+01	4.980E-02	3.152E-01	3.650E-01
4103900	NB	.465	9.651	6.236	5.747	1.073E-03	1.896E-02	1.994E-02	5.502E+07	8.907E+00	1.421E-02	2.498E-01	2.640E-01
4209900	MO	2.327	.714	1.340	1.752	2.888E-03	1.396E-03	4.284E-03	1.677E+07	2.127E-01	3.824E-02	1.849E-02	5.673E-02
4309910	TC	0.000	.529	.318	1.653	0.	1.017E-03	1.017E-03	1.592E+07	1.844E-02	0.	1.347E-02	1.347E-02
4410300	RU	1.217	5.603	3.971	5.220	1.510E-03	1.094E-02	1.247E-02	4.997E+07	9.127E+00	2.000E-02	1.451E-01	1.651E-01
4510310	RH	0.000	.455	.279	5.226	0.	8.706E-04	8.906E-04	5.001E+07	8.970E-03	0.	1.179E-02	1.179E-02
4510600	RI	1.445	.130	.656	1.297	1.843E-03	2.542E-04	2.097E-03	2.847E+06	4.545E-06	2.440E-02	3.366E-03	2.777E-02
5313100	I	2.145	2.856	2.590	1.340	2.662E-03	5.586E-03	8.248E-03	3.206E+07	1.180E+00	3.525E-02	7.397E-02	1.092E-01
5213200	TE	.357	1.014	.749	1.724	4.436E-04	1.984E-03	2.428E-03	1.650E+07	2.474E-01	5.874E-03	2.627E-02	3.219E-02
5313200	I	3.218	8.705	6.876	1.774	3.993E-03	1.703E-02	2.107E-02	1.700E+07	7.464E-03	3.725E-02	2.255E-01	2.784E-01
5413300	XE	2.267	1.170	1.493	6.445	2.813E-03	2.249E-03	5.067E-03	6.168E+07	1.503E+00	3.725E-02	2.978E-02	6.703E-02
5614000	BA	8.175	4.011	5.628	9.448	1.014E-02	7.850E-03	1.799E-02	8.086E+07	4.770E+00	1.343E-01	1.039E-01	2.383E-01
5714000	LA	17.236	49.534	35.450	9.655	2.139E-02	9.515E-02	1.165E-01	9.241E+07	7.144E-01	2.832E-01	1.260E+00	1.543E+00
5814100	CE	6.714	1.344	2.852	8.560	5.849E-03	2.630E-03	8.479E-03	8.193E+07	1.229E+01	7.745E-02	3.482E-02	1.123E-01
5914300	PR	9.950	0.000	3.855	9.004	1.236E-02	0.	1.236E-02	8.522E+07	5.337E+00	1.636E-01	0.	1.636E-01
5814400	CE	.700	.194	.346	2.442	8.680E-04	3.021E-04	1.170E-04	2.337E+07	3.064E+01	1.149E-02	4.000E-03	1.549E-02
5914400	PR	10.648	.166	4.234	2.442	1.321E-02	3.243E-04	1.321E-02	2.337E+07	1.294E+03	1.750E-01	4.297E-03	1.793E-01
6014700	NO	2.464	.768	1.426	2.952	3.057E-03	1.502E-03	4.559E-03	2.826E+07	1.432E+00	4.048E-02	1.988E-02	6.037E-02

TABLE B-XVII

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-101(LASL) 7/79

39=TIME STEP

1.80000E+06=TOTAL TIME SINCE LAST TIME AT POWER(S)
 3.11378E+07=TOTAL ELAPSED TIME(S)
 8.26531E+19=FISSIONS/AT LAST TS AT POWER.(22)
 2.69970E+09=POWER (WATTS) AT LAST TS AT POWER (2.69970E+03 MW)
 6.95228E+02=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.39000E+03=TOTAL FP TN SIM PER 949M-CM

2.24734E+19=TOTAL ACTIVITY (DITS/S)
 6.07389E+08=TOTAL CURIES
 1.07389E+00=TOTAL RETA DECAY POWER (MW)
 1.48182E+00=TOTAL GAMMA DECAY POWER (MW)
 2.55570E+00=TOTAL DECAY POWER (MW)
 8.10989E-02=TOTAL RETA MEV/F
 1.11906E-01=TOTAL GAMMA MEV/F
 1.73005E-01=TOTAL DECAY MEV/F

ID	SYN	PERCENT OF ALL FP	BETA	GAMMA	CURIES	TOTAL	BETA	GAMMA	CURIES	DENSITY	BETA	GAMMA	TOTAL
ZZAAAS													
3800900	SR	15.286	0.000	0.423	7.834	1.240E-02	0.	1.240E-02	4.758E+07	1.141E+01	1.642E-01	0.	1.642E-01
3909100	Y	19.324	0.061	9.155	9.511	1.567E-02	6.879E-05	1.574E-02	5.777E+07	1.561E+01	2.075E-01	9.109E-04	2.084E-01
4009500	ZR	4.063	19.439	12.914	10.421	3.295E-03	2.086E-02	2.415E-02	6.330E+07	1.912E+01	4.363E-01	2.762E-01	3.198E-01
4109500	NR	1.399	17.694	10.843	9.570	1.126E-03	1.980E-02	2.093E-02	5.776E+07	9.350E+00	1.491E-02	2.622E-01	2.771E-01
4410300	RU	1.496	7.952	5.132	6.610	1.214E-03	8.806E-03	1.002E-02	4.015E+07	7.332E+00	1.607E-02	1.166E-01	1.327E-01
4510310	PH	0.000	0.639	0.371	0.615	0.	7.156E-04	7.156E-04	4.019E+07	7.208E-03	0.	9.476E-03	9.476E-03
4510600	PH	2.219	0.222	1.051	4.59	1.870E-03	2.483E-04	2.048E-03	2.781E+06	4.439E-06	2.383E-02	3.288E-03	2.712E-02
5313100	I	1.118	1.700	1.454	1.799	9.067E-04	1.903E-03	2.809E-03	1.092E+07	4.049E-01	1.201E-02	2.519E-02	3.720E-02
5313200	I	0.342	1.059	0.747	1.09	2.776E-04	1.184E-03	1.462E-03	1.182E+06	9.190E-04	3.676E-03	1.568E-02	1.936E-02
5413300	XE	0.890	0.394	0.514	1.021	5.214E-04	4.408E-04	9.922E-04	1.209E+07	2.950E-01	7.301E-03	5.837E-03	1.316E-02
5614000	BA	6.354	3.863	4.716	6.762	5.153E-03	3.987E-03	9.140E-03	4.107E+07	2.423E+00	6.823E-02	5.280E-02	1.210E-01
5714000	LA	13.497	43.642	30.979	7.791	1.094E-02	4.866E-02	5.960E-02	4.726E+07	3.654E-01	1.448E-01	6.443E-01	7.892E-01
5814100	CE	5.576	1.800	3.356	10.335	4.482E-03	2.015E-03	6.496E-03	6.277E+07	9.417E+00	5.934E-02	2.668E-02	8.602E-02
5914300	PR	8.070	0.000	3.331	7.431	6.545E-03	0.	6.545E-03	4.514E+07	2.827E+00	8.667E-02	0.	8.667E-02
5914400	CF	1.038	0.942	0.998	3.733	8.420E-04	2.930E-04	1.135E-03	2.267E+07	2.974E+01	1.115E-02	3.860E-03	1.503E-02
5914500	PR	15.804	0.241	6.804	3.733	1.282E-02	3.147E-04	1.313E-02	2.267E+07	1.255E-03	1.697E-01	4.168E-03	1.739E-01
6014700	ND	1.714	0.610	1.074	2.115	1.390E-03	6.826E-04	2.072E-03	1.285E+07	6.511E-01	1.840E-02	9.038E-03	2.744E-02
6114700	PM	0.107	0.000	0.045	0.505	8.643E-05	1.372E-07	8.657E-05	3.065E+06	1.354E+01	1.144E-03	1.817E-06	1.146E-03

TABLE B-XVIII

TML UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7779

39-STEP STEP

3.60000E+06=TOTAL TIME SINCE LAST TIME AT POWER(S)	
3.29378E+07=TOTAL FLASSED TIME(S)	
8.26531E+19=FISSIONS(S) AT LAST TS AT POWER(22)	
2.69970E+09=POWER (WATTS) AT LAST TS AT POWER (2.69970E+03 MW)	
6.95228E+02=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)	
1.39000E+03=TOTAL FP IN SUM PER BARN-CM	

1.46128E+19=TOTAL ACTIVITY (DIS/S)	
3.94940E+08=TOTAL CURIES	
7.00679E-01=TOTAL BETA DECAY POWER (MW)	
8.42795E-01=TOTAL GAMMA DECAY POWER (MW)	
1.54367E+00=TOTAL DECAY POWER (MW)	
5.29149E-02=TOTAL BETA NEV/F	
6.36475E-02=TOTAL GAMMA NEV/F	
1.16562E-01=TOTAL DECAY MEV/F	

ID	SYN	PERCENT OF ALL FP	BETA	GAMMA	CURIES	TOTAL	BETA	GAMMA	CURIES	DENSITY	BETA	GAMMA	TOTAL
ZZAAAS													
3800900	SP	17.747	0.000	0.056	9.127	9.391E-03	0.	9.391E-03	3.604E+07	8.644E+00	1.243E-01	0.	1.243E-01
3909100	Y	0.832	0.000	0.297	0.203	3.346E-04	1.006E-07	3.347E-04	8.029E+05	9.887E-03	4.431E-03	1.333E-06	4.432E-03
4009500	ZR	23.147	0.044	10.554	11.432	1.225E-02	5.376E-05	1.230E-02	4.515E+07	1.220E+01	1.622E-01	7.119E-04	1.622E-01
4109500	NR	4.395	26.296	16.420	12.955	2.643E-03	1.673E-02	1.937E-02	5.077E+07	1.534E+01	3.500E-02	2.215E-01	2.565E-01
4410300	RU	2.112	30.866	17.812	14.509	1.117E-03	1.985E-02	2.076E-02	5.730E+07	9.276E+00	1.480E-02	2.601E-01	2.749E-01
4510310	PH	1.593	9.400	5.970	7.059	8.428E-04	6.115E-03	6.958E-03	2.788E+07	5.092E+00	1.116E-02	8.098E-02	9.214E-02
4510600	PH	0.000	0.781	0.476	7.066	0.	4.969E-04	4.969E-04	2.791E+07	5.005E-03	0.	6.580E-03	6.580E-03
4510600	RU	0.023	0.000	0.010	0.677	1.194E-05	0.	1.194E-05	2.675E+06	4.552E+00	1.581E-04	0.	1.581E-04
4510600	RM	3.271	0.375	1.630	0.677	1.731E-03	2.388E-04	1.970E-03	2.675E+06	4.269E-06	2.292E-02	3.162E-03	2.608E-02

5614000	BA	3.149	2.024	2.535	3.343	1.666E-03	1.289E-03	2.955E-03	1.328E+07	7.834E-01	2.206E-02	1.707E-02	3.913E-02
5714000	LA	6.694	24.777	14.474	3.970	3.537E-03	1.574E-02	1.927E-02	1.528E+07	1.182E-01	4.684E-02	2.084E-01	2.552E-01
5814100	CE	5.433	7.031	3.575	10.196	2.875E-03	1.292E-03	4.168E-03	4.027E+07	6.041E+00	3.807E-02	1.711E-02	5.518E-02
5914300	PR	4.271	0.000	1.939	3.946	2.260E-03	0.	2.260E-03	1.559E+07	9.761E-01	2.993E-02	0.	2.993E-02
5814400	CE	1.512	.479	.926	5.457	1.003E-04	2.785E-04	1.079E-03	2.155E+07	2.827E+01	1.060E-02	3.688E-03	1.429E-02
5914400	PR	23.072	.477	10.779	5.457	1.218E-02	2.997E-04	1.248E-02	2.155E+07	1.193E-03	1.613E-01	3.961E-03	1.653E-01
6014700	NO	.706	.298	.478	.874	3.735E-04	1.834E-04	5.569E-04	3.452E+06	1.750E-01	4.946E-03	2.429E-03	7.375E-03
6114700	PM	.167	.000	.076	.791	8.815E-05	1.399E-07	8.829E-05	3.126E+06	1.381E+01	1.167E-03	1.853E-06	1.169E-03

TABLE 9-XIX

TMT, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

40=TIME STEP

7.20000E+05=TOTAL TIME SINCE LAST TIME AT POWER(S)
 3.65378E+07=TOTAL ELAPSED TIME(S)
 8.26531E+19=FISSIONS/S AT LAST TS AT POWER, (22)
 2.69970E+09=POWER (WATTS) AT LAST TS AT POWER (2.69970E+03 MW)
 6.95228E+02=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.38999E+03=TOTAL FP IN SUM PER BARN-CM

8.49797E+18=TOTAL ACTIVITY (DIS/S)
 2.29675E+08=TOTAL CURIES
 4.24262E-01=TOTAL BETA DECAY POWER (MW)
 4.49080E-01=TOTAL GAMMA DECAY POWER (MW)
 8.73342E-01=TOTAL DECAY POWER (MW)
 3.20401E-02=TOTAL BETA MEV/F
 3.39143E-02=TOTAL GAMMA MEV/F
 6.59543E-02=TOTAL DECAY MEV/F

ID	SYM	PERCENT OF ALL FP	MEV/FISS	DECAY POWER IN MW	TOTAL								
ZZAAAS		BETA	GAMMA	TOTAL	CURTES	BETA	GAMMA	TOTAL	CURTES	DENSITY	BETA	GAMMA	TOTAL
3808900	SR	16.819	0.000	8.171	9.076	5.389E-03	0.	5.389E-03	2.068E+07	4.960E+00	7.136E-02	0.	7.136E-02
3909000	Y	1.041	.000	.506	.749	3.337E-04	1.004E-07	3.339E-04	8.007E+05	9.859E-03	4.419E-03	1.329E-06	4.420E-03
3909100	Y	23.353	.007	11.499	12.009	7.482E-03	3.284E-05	7.515E-03	2.758E+07	7.455E+00	9.908E-02	4.349E-04	9.931E-02
4009500	ZR	5.308	31.741	18.970	14.224	1.701E-03	1.076E-02	1.247E-02	3.267E+07	9.869E+00	2.252E-02	1.425E-01	1.651E-01
4109500	NR	2.192	49.040	26.174	20.697	9.267E-04	1.679E-02	1.722E-02	4.752E+07	7.693E+00	1.227E-02	2.157E-01	2.280E-01
4410300	RH	1.268	8.696	5.084	5.854	4.064E-04	2.949E-03	3.356E-03	1.344E+07	2.455E+00	5.382E-03	3.905E-02	4.443E-02
4510310	RU	0.000	.707	.343	5.859	0.	2.396E-04	2.396E-04	1.346E+07	2.414E-03	0.	3.173E-03	3.173E-03
4410600	RU	.034	0.000	.017	1.077	1.104E-05	0.	1.104E-05	2.473E+06	4.209E+00	1.462E-04	0.	1.462E-04
4510600	RH	4.995	.651	2.742	1.077	1.601E-03	2.208E-04	1.821E-03	2.473E+06	3.947E-06	2.119E-02	2.924E-03	2.412E-02
5613710	RA	0.000	.691	.335	.344	0.	2.343E-04	2.343E-04	7.904E+05	6.455E-06	0.	3.102E-03	3.102E-03
5614000	RA	.544	.397	.449	.605	1.742E-04	1.348E-04	3.090E-04	1.389E+06	8.191E-02	2.307E-03	1.785E-03	4.092E-03
5714000	LA	1.154	4.851	3.055	.694	3.698E-04	1.645E-03	2.015E-03	1.598E+06	1.235E-02	4.897E-03	2.179E-02	2.668E-02
5814100	CE	3.693	1.568	2.630	7.216	1.183E-03	3.319E-04	1.715E-03	1.657E+07	2.486E+00	1.567E-02	7.043E-03	2.271E-02
5914300	PR	.841	0.000	.479	.809	2.694E-04	0.	2.694E-04	1.858E+06	1.164E-01	3.568E-03	0.	3.568E-03
5814400	CE	2.257	.747	1.478	8.477	7.230E-04	2.516E-04	9.746E-04	1.947E+07	2.554E+01	9.574E-03	3.332E-03	1.291E-02
5914400	PR	34.350	.797	17.077	8.477	1.101E-02	2.703E-04	1.124E-02	1.947E+07	1.078E-03	1.457E-01	3.579E-03	1.493E-01
6114700	PM	.270	.000	.131	1.136	8.655E-05	1.374E-07	8.669E-05	3.069E+06	1.356E+01	1.146E-03	1.819E-06	1.148E-03

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3.152360E+07-TOTAL TIME SINCE LAST TIME AT POWER(5)
6.08738E+07-TOTAL ELAPSED TIME(5)
2.65315E+19-FISSIONS/AT LAST TS AT POWER.1 (22)
2.69970E+09-PWR (WATTS) AT LAST TS AT POWER (2.69970E+03 MW)
6.99222E+02=ACCMULATED FISSIONS PER BARN-CM
1.389928E+03-TOTAL FI IN SIM PER BARN-CM

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TM, UNIT 2, 27-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

TABLE A-XX

[illegible]

ID SYM -----PERCENT OF ALL FP-----
 ZZAAS BETA GAMMA TOTAL CURIES BETA GAMMA TOTAL
 38089000 SR 1.002 0.000 .716 6.336E-05 0. 6.937E-05 2.432E+05 7.826E+05 3.705E+01 9.186E-04 0. 8.390E-04 9.186E-04
 38089000 SR 1.002 0.000 .716 6.336E-05 0. 6.937E-05 2.432E+05 7.826E+05 3.705E+01 9.186E-04 0. 8.390E-04 9.186E-04

1.10263E+18=TOTAL ACTIVITY (DIS/S)
 2.98009E+07=TOTAL CURIES
 9.16121E-02=TOTAL BETA DECAY POWER (MW)
 2.23691E-02=TOTAL GAMMA DECAY POWER (MW)
 1.14001E-01=TOTAL DECAY POWER (MW)
 6.92002E-03=TOTAL BETA MFV/F
 1.68930E-03=TOTAL GAMMA MFV/F
 8.60932E-03=TOTAL DECAY MEV/F

43=TIME STEP
 3.60003E+07=TOTAL TIME SINCE LAST TIME AT POWER(S)
 8.53378E+07=TOTAL ELAPSED TIME(S)
 8.26531E+19=FISSIONS/AT LAST TS AT POWER(22)
 2.69920E+09=POWER (WATTS) AT LAST TS AT POWER (2.69920E+03 MW)
 6.95224E+02=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.38998E+03=TOTAL FP IN SIM PER BARN-CM

TIME UNIT 2: 22-STEP POWER HISTORY, FULL CORE CALC., (CINDER-10(LASL) 7/79

TABLE B-XXII

ID	SYM	-----PERCENT OF ALL FP-----	BETA	GAMMA	TOTAL	CURIES	DENSITY	BETA	GAMMA	TOTAL	-----DECAV POWER IN MW-----
38089000	SR	1.377	1.374	1.262E-04	0. 0.	1.242E-04	4.924E+05	1.161E-01	1.671E-03	0. 0.	1.671E-03
38090000	SR	1.584	0.000	1.377	1.374	6.961E-05	7.854E+05	3.718E+01	9.218E-04	0. 0.	9.218E-04
39090000	Y	4.110	0.004	3.139	2.211	3.274E-04	7.854E+05	3.718E+01	1.304E-06	4.333E-03	4.333E-03
39091000	Y	3.357	0.004	2.571	2.275	2.674E-04	9.857E+05	2.664E-01	3.541E-03	1.554E-03	3.541E-03
40905000	ZR	1.084	22.010	6.035	8.632E-04	1.174E-04	1.658E+06	5.009E-01	1.143E-03	7.235E-03	8.378E-03
41095000	NH	0.553	49.171	12.032	9.815	4.799E-05	3.487E+06	9.644E-01	1.583E-04	1.673E-02	1.673E-02
44103000	RU	0.037	0.000	0.212	2.273	2.936E-06	9.713E+04	1.774E-02	3.888E-05	2.282E-04	3.210E-04
44106000	RU	0.082	0.000	0.052	4.102	6.503E-06	1.457E+06	2.440E+00	8.611E-05	0. 0.	8.611E-05
45106000	NH	11.837	5.242	10.271	4.102	9.430E-04	1.073E-03	1.457E+06	2.326E-06	1.723E-02	1.442E-02
55134000	CS	0.087	2.724	0.713	0.269	6.906E-06	9.964E+04	3.319E-01	9.145E-05	8.956E-04	9.871E-04
55137000	CS	0.005	0.000	0.413	2.311	6.410E-05	8.208E+05	4.162E+01	8.487E-04	0. 0.	8.487E-04
56137000	RA	0.000	0.275	2.194	0. 0.	2.302E-04	7.765E+05	6.342E-06	3.048E-03	3.048E-03	3.048E-03
58144000	CF	4.568	5.104	4.675	27.999	3.639E-04	9.799E+06	1.285E+01	4.819E-03	1.677E-03	6.496E-03
59144000	PR	69.539	4.492	44.724	27.999	5.540E-03	9.800E+06	5.444E-04	7.335E-02	1.801E-03	7.916E-02
61147000	PM	0.887	0.005	0.477	7.053	7.066E-05	2.505E+06	1.107E+01	9.356E-04	1.489E-06	9.371E-04

3909000	Y	4.715	.006	3.791	2.627	3.263E-04	9.812E-08	3.264E-04	7.828E+05	9.640E-03	4.320E-03	1.299E-06	4.322E-03
3909100	Y	2.097	.019	1.623	1.795	1.451E-04	6.370E-07	1.459E-04	5.350E+05	1.446E-01	1.922E-03	8.435E-06	1.930E-03
4003500	ZR	.722	19.722	4.254	3.221	4.977E-05	3.163E-04	3.662E-04	9.598E+05	2.900E-01	6.616E-04	4.188E-03	4.850E-03
4109500	NB	.574	41.347	8.575	6.837	3.973E-05	6.985E-04	7.382E-04	2.037E+06	3.298E-01	5.261E-04	9.249E-03	9.775E-03
4410300	RU	.017	.511	.114	.132	1.189E-06	8.625E-06	9.814E-06	3.932E+04	7.181E-03	1.574E-05	1.142E-04	1.299E-04
4410600	RU	.095	0.000	.059	4.437	5.902E-06	0.	5.907E-06	1.322E+06	2.250E+00	7.815E-05	0.	7.815E-05
4510600	RH	12.366	6.988	11.311	4.437	8.557E-04	1.181E-04	9.738E-04	1.372E+06	2.110E-06	1.133E-02	1.563E-03	1.289E-02
5513400	CS	.095	3.818	.826	.304	6.585E-06	6.449E-05	7.108E-05	9.120E+04	3.165E-01	8.720E-05	8.540E-04	9.412E-04
5513700	CS	.923	0.000	.742	2.745	6.389E-05	0.	6.389E-05	8.181E+05	4.168E+01	8.460E-04	0.	8.460E-04
5613710	BA	0.000	13.981	2.645	2.597	0.	2.294E-04	2.294E-04	7.740E+05	6.321E-06	0.	3.038E-03	3.038E-03
5814400	CF	4.637	6.610	5.024	28.993	3.209E-04	1.117E-04	4.325E-04	8.640E+06	1.133E+01	4.249E-03	1.479E-03	5.727E-03
5914400	PR	70.581	7.107	54.125	28.993	4.884E-03	1.199E-04	5.004E-03	8.640E+06	4.782E-04	6.468E-02	1.588E-03	6.626E-02
6114700	PM	.984	.006	.792	8.092	6.807E-05	1.080E-07	6.817E-05	2.414E+06	1.066E+01	9.013E-04	1.431E-06	9.027E-04

TABLE B-XXIII

TMT, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

44=TIME STEP

7.20000E+07=TOTAL TIME SINCE LAST TIME AT POWER(S)
 1.01338E+08=TOTAL ELAPSED TIME(S)
 0.26531E+19=FISSIONS/S AT LAST TS AT POWER (22)
 2.69970E+09=POWER (WATTS) AT LAST TS AT POWER (2.69970E+03 MW)
 6.95228E+02=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.38997E+03=TOTAL FP IN SUM PER BARN-CM

4.67316E+17=TOTAL ACTIVITY (DIS/S)

1.26302E+07=TOTAL CURIES
 3.70253E-02=TOTAL BETA DECAY POWER (MW)
 5.69269E-03=TOTAL GAMMA DECAY POWER (MW)
 4.27180E-02=TOTAL DECAY POWER (MW)
 2.79614E-03=TOTAL BETA MFV/F
 4.29907E-04=TOTAL GAMMA MFV/F
 3.22604E-03=TOTAL DECAY MFV/F

ID	SYM	-----PERCENT OF ALL FP-----				-----MEV/FISS-----				---DECAY POWER IN MW---			
		BETA	GAMMA	TOTAL	CURIES	BETA	GAMMA	TOTAL	CURIES	DENSITY	BETA	GAMMA	TOTAL
3608500	KR	.335	.019	.293	.461	9.360E-06	8.329E-08	9.443E-06	8.344E+04	1.508E+00	1.239E-04	1.103E-06	1.250E-04
3809000	SR	2.412	0.000	2.091	6.025	6.745E-05	0.	6.745E-05	7.609E+05	3.602E+01	8.931E-04	0.	8.931E-04
3909000	Y	11.345	.022	9.816	6.026	3.172E-04	9.540E-08	3.173E-04	7.611E+05	9.373E-03	4.200E-03	1.263E-06	4.702E-03
4009500	ZR	.022	.895	.138	.092	6.078E-07	3.847E-06	4.455E-06	1.168E+04	3.527E-03	8.048E-06	5.094E-05	5.899E-05
4109500	NB	.018	2.005	.293	.199	4.906E-07	8.626E-06	9.116E-06	2.516E+04	4.073E-03	6.497E-06	1.142E-04	1.207E-04
4410600	RU	.096	0.000	.084	4.786	7.698E-06	0.	2.698E-06	6.045E+05	1.029E+00	3.573E-05	0.	3.573E-05
4510600	RH	13.992	12.955	13.870	4.786	3.912E-04	5.397E-05	4.452E-04	6.045E+05	9.649E-07	5.180E-03	7.147E-04	5.895E-03
5112500	S8	.042	1.434	.228	.241	1.185E-06	6.166E-06	7.351E-06	3.047E+04	1.401E-01	1.569E-05	8.165E-05	9.734E-05
5513400	CS	.160	10.220	1.921	.422	4.486E-06	4.394E-05	4.842E-05	6.213E+04	2.156E-01	5.940E-05	5.818E-04	6.412E-04
5513700	CS	2.226	0.000	1.929	6.310	6.223E-05	0.	6.223E-05	7.969E+05	4.041E+01	8.240E-04	0.	8.240E-04
5613710	BA	0.000	51.081	4.927	5.949	0.	2.235E-04	2.235E-04	7.539E+05	6.157E-06	0.	2.959E-03	2.959E-03
5814400	CE	4.157	9.408	4.856	24.778	1.162E-04	4.045E-05	1.567E-04	3.130E+06	4.109E+00	1.539E-03	5.356E-04	2.075E-03
5914400	PR	63.271	10.104	56.194	24.779	1.769E-03	4.344E-05	1.813E-03	3.130E+06	1.732E-04	2.343E-02	5.753E-04	2.400E-02
6114700	PM	1.801	.019	1.553	14.136	5.035E-05	7.992E-08	5.043E-05	1.785E+06	7.889E+00	6.667E-04	1.058E-06	6.678E-04
6315400	EU	.022	.734	.117	.045	6.251E-07	3.164E-06	3.789E-06	5.654E+03	8.185E-02	8.278E-06	4.189E-05	5.017E-05

TABLE B-XXIV

TMT, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

45-TIME STEP													
1.80000E+08=TOTAL TIME SINCE LAST TIME AT POWER(S)													
2.09338E+08=TOTAL ELAPSED TIME(S)													
8.26531E+19=FISSIONS/S AT LAST TS AT POWER.(22)													
2.6970E+09=POWER (WATTS) AT LAST TS AT POWER (2.6970E+03 MW)													
6.9228E+02=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)													
1.38994E+03=TOTAL FP IN SIM PER BARN-CM													
1.51690E+17=TOTAL ACTIVITY (DIS/S)													
4.0946E+06=TOTAL CURIES													
7.53402E-03=TOTAL BETA DECAY POWER (MW)													
3.11932E-03=TOTAL GAMMA DECAY POWER (MW)													
1.06523E-02=TOTAL DECAY POWER (MW)													
5.63966E-04=TOTAL BETA MEV/F													
2.35494E-04=TOTAL GAMMA MEV/F													
8.04460E-04=TOTAL DECAY MEV/F													
ID	SYM	PERCENT OF ALL FP			MEV/FISS			DECAY POWER IN MW			TOTAL		
ZZAAS		BETA	GAMMA	TOTAL	CURIES	BETA	GAMMA	TOTAL	DENSITY	BETA	GAMMA		
60R200	KR	1.319	.029	.941	1.632	7.503E-06	6.677E-08	7.570E-06	6.689E+04	1.209E+00	9.936E-05	8.842E-07	1.002E-04
809000	SR	10.894	0.070	7.775	17.042	6.190E-05	0.	6.190E-05	6.993E+05	3.310E+01	8.208E-04	0.	8.208E-04
909000	Y	51.239	.037	16.240	17.047	7.913E-04	8.768E-08	2.916E-04	6.995E+05	8.614E-03	3.860E-03	1.161E-06	3.862E-03
410600	RU	.045	0.000	.037	1.409	2.578E-07	0.	2.578E-07	5.777E+04	9.831E-02	3.414E-06	0.	3.414E-06
510600	RH	6.571	2.190	5.288	1.409	3.738E-05	5.158E-06	4.234E-05	5.777E+04	9.220E-08	4.950E-04	6.829E-05	5.633E-04
112300	SB	.087	1.094	.383	.312	4.969E-07	2.586E-06	3.043E-06	1.278E+04	5.877E-02	6.579E-06	3.424E-05	4.082E-05
513400	CS	.249	5.899	1.923	.479	1.418E-06	1.389E-05	1.531E-05	1.964E+04	6.817E-02	1.878E-05	1.839E-04	2.027E-04
513700	CS	10.109	0.000	7.150	17.070	5.752E-05	0.	5.752E-05	7.365E+05	3.735E+01	7.616E-04	0.	7.616E-04
613710	BA	0.000	87.704	25.674	17.000	0.	2.065E-04	2.065E-04	6.968E+05	5.691E-06	0.	2.739E-03	2.735E-03
814400	CE	.971	.814	.925	3.629	5.923E-06	1.922E-06	7.445E-06	1.487E+05	1.951E-01	7.313E-05	2.545E-05	9.858E-05
914400	PR	14.776	.877	10.727	3.629	8.407E-05	2.065E-06	8.614E-05	1.487E+05	8.231E-05	1.113E-03	2.734E-05	1.141E-03
114700	PM	3.582	.014	2.514	17.633	2.038E-05	3.235E-08	2.041E-05	7.227E+05	3.193E+00	2.699E-04	4.284E-07	2.703E-04
315400	EU	.093	1.019	.357	.105	4.743E-07	2.400E-06	2.875E-06	4.290E+03	6.210E-02	6.281E-06	3.179E-05	3.807E-05

SPECIAL (LIMITED) PRINT
 ALL FISSION PRODUCTS HAVING BETA, GAMMA, BETA+GAMMA OR CURIES
 EXCEEDING .500 PERCENT OF VALUE FOR ALL PRODUCTS
 (CINDER-10 CALCULATION, ENDF/R4 DATA)

TABLE B-XXV

TM-2 IF OPERATED 26K HRS AT 2772. MW CONT. CINDER-10(LASL) 07/79

22=TIME STEP

0.
 TOTAL TIME SINCE LAST TIME AT POWER(S)
 9.3491E+07=19.714 SECONDS AT LAST TS AT POWER(S) 22
 2.7720E+09=POWER (WATTS) AT LAST TS AT POWER (2.7720E+03 MW)
 7.28678E+03=ACCUMULATED FISSIONS PER BARN-CM
 1.44045E+04=TOTAL FP IN SUM PER BARN-CM

3.9892E+20=TOTAL ACTIVITY (DIS/S)
 1.0781E+10=TOTAL CURIES
 6.5273E+01=TOTAL BETA DECAY POWER (MW)
 6.1277E+01=TOTAL GAMMA DECAY POWER (MW)
 1.2551E+02=TOTAL DECAY POWER (MW)
 5.9149E+00=TOTAL BETA MW/F
 5.5493E+00=TOTAL GAMMA MW/F
 1.1443E+01=TOTAL DECAY MW/F

ID SYM -----PERCENT OF ALL FP-----
 ZTAAS BETA GAMMA TOTAL CURIES
 ---MEV/FISSIONS---
 TOTAL CURIES DENSITY BETA GAMMA TOTAL
 ---DECAY POWER IN MW---
 TOTAL

3508900	HR	.666	.435	.559	.222	3.941E-02	2.471E-02	6.359E-02	2.392E+07	2.030E-05	4.349E-01	2.668E-01	7.017E-01
3508900	KR	.085	.018	.441	.394	5.103E-03	4.541E-02	5.051E-02	3.822E+07	2.056E-02	5.633E-02	5.011E-01	5.574E-01
3508900	HR	.338	.254	.504	.352	3.363E-02	1.412E-02	5.775E-02	3.900E+07	2.211E-03	4.814E-01	1.558E-01	6.372E-01
3508900	KR	.521	.423	.714	.429	3.083E-02	5.124E-02	8.207E-02	4.624E+07	3.480E-04	3.402E-01	5.655E-01	9.057E-01
3708900	HR	.424	.758	.467	.667	7.511E-02	6.184E-02	8.695E-02	9.030E+07	2.449E-03	6.824E-01	9.595E-01	
3708900	KR	.991	.771	.526	.422	2.903E-02	4.277E-02	7.190E-02	4.552E+07	7.849E-05	3.203E-01	7.293E-01	
3709100	HR	.783	.419	.310	.439	4.633E-02	1.301E-02	5.256E-02	3.346E+07	1.554E-05	4.620E-01	6.546E-01	
3709100	KR	.931	.691	.435	.435	4.187E-02	6.716E-02	1.090E-01	4.693E+07	4.064E-04	4.620E-01	7.411E-01	
3709200	HR	.128	.947	.674	.674	7.549E-03	5.256E-02	6.011E-02	7.309E+07	3.806E-02	8.331E-02	6.633E-01	
3709200	KR	.675	.437	.439	.439	9.099E-02	7.486E-03	1.066E-01	5.332E+07	1.289E-05	1.093E+00	1.176E+00	
3809200	HR	.455	.127	.592	.592	4.784E-02	9.805E-03	6.655E-02	7.354E+07	4.989E-02	3.383E-01	7.465E-01	
3809200	KR	.743	.552	.374	.374	4.394E-02	3.066E-02	7.460E-02	4.035E+07	1.249E-05	4.849E-01	8.080E-01	
3809300	HR	.890	.111	.783	.783	9.263E-02	6.323E-02	1.159E-01	8.439E+07	2.027E-03	5.808E-01	6.978E-01	
3809300	KR	.937	.764	.478	.478	5.544E-02	4.193E-03	5.964E-02	8.714E+07	1.708E-01	6.118E-01	6.581E-01	
3809400	HR	.561	.490	.190	.190	3.171E-02	2.183E-02	5.501E-02	2.052E+07	2.946E-06	3.661E-01	6.070E-01	
3809400	KR	.657	.423	.771	.771	3.884E-02	9.549E-02	9.433E-02	8.314E+07	3.359E-04	4.286E-01	1.041E+00	
3809400	HR	.141	.141	.684	.684	7.687E-02	5.396E-02	1.308E-01	7.379E+07	1.024E-04	8.483E-01	1.444E+00	
3809400	KR	.545	.445	.914	.914	9.239E-02	2.584E-02	1.142E-01	9.852E+07	3.313E-03	1.202E+00	1.305E+00	
3809500	HR	.1562	.109	.411	.411	4.546E-03	4.047E-03	4.710E-02	1.029E+00	3.108E+01	7.001E-01	5.191E-01	
3809500	KR	.541	.775	.669	.669	2.445E-03	4.299E-02	4.543E-02	1.045E+00	1.691E+01	2.698E-02	4.744E-01	
3809600	HR	.615	.590	.445	.445	3.688E-02	3.012E-02	6.650E-02	5.008E+07	1.069E-05	4.015E-01	7.339E-01	
3809600	KR	2.033	1.114	1.699	1.699	1.203E-01	7.293E-01	1.932E-01	9.296E+07	1.046E-04	1.327E+00	8.048E-01	
3809700	HR	.539	.449	.234	.234	3.188E-02	2.494E-02	5.682E-02	2.526E+07	2.697E-07	3.519E-01	2.752E-01	
3809700	KR	.1950	.145	.732	.732	1.166E-02	3.964E-02	1.313E-01	7.882E+07	4.676E-06	1.011E+00	1.444E+00	
4109700	HR	.677	.185	.978	.978	4.003E-02	1.029E-02	5.032E-02	1.054E+00	3.402E-01	4.418E-01	5.553E-01	
4109700	KR	.453	.499	.949	.949	7.681E-02	3.879E-02	6.560E-02	1.067E+00	2.514E-02	2.959E-01	7.240E-01	
4109710	HR	.000	.555	.917	.917	3.634E-02	3.634E-02	9.110E-02	2.626E-04	2.626E-04	4.010E-01	4.010E-01	
3909700	HR	.666	.435	.559	.222	3.941E-02	2.471E-02	6.359E-02	2.392E+07	2.030E-05	4.349E-01	2.668E-01	
3909700	KR	.085	.018	.441	.394	5.103E-03	4.541E-02	5.051E-02	3.822E+07	2.056E-02	5.633E-02	5.011E-01	

5714000	LA	.576	2.499	1.479	1.039	3.112E-02	1.385E-01	1.695E-01	1.121E+08	8.664E-01	3.435E-01	1.528E+00	1.871E+00
5514100	CS	.874	1.235	1.040	.649	9.172E-02	6.855E-02	1.201E-01	6.993E+07	9.332E+05	5.709E-01	7.564E-01	1.327E+00
5614100	RA	.944	.872	.944	.944	4.990E-02	4.840E-02	9.830E-02	1.015E+08	5.947E-03	5.507E-01	5.341E-01	1.095E+00
5714100	LA	.917	.032	.499	.944	5.425E-02	1.798E-03	5.605E-02	1.020E+08	7.588E-02	5.987E-01	1.984E-02	6.185E-01
5814100	CF	.148	.071	.111	.944	4.759E-03	3.938E-03	1.270E-02	1.022E+08	1.534E+01	9.666E-02	4.345E-02	1.401E-01
5814200	CS	.760	1.007	.980	.379	4.493E-02	5.591E-02	1.004E-01	4.090E+07	3.712E+06	4.994E-01	6.169E-01	1.113E+00
5614200	RA	.372	.404	.445	.846	2.198E-02	5.197E-02	7.394E-02	9.553E+07	2.744E-03	2.425E-01	5.735E-01	8.160E-01
5714200	LA	.844	.280	1.539	.910	4.993E-02	1.266E-01	1.745E-01	9.816E+07	2.905E-02	5.511E-01	1.397E+00	1.948E+00
5714300	LA	.495	1.019	.952	.741	4.793E-02	6.970E-02	1.173E-01	8.203E+07	9.957E-05	5.296E-01	7.637E-01	1.793E+00
5814300	CE	.352	.245	.210	.858	4.119E-02	5.652E-02	9.770E-02	9.223E+07	4.135E-03	4.545E-01	6.237E-01	1.078E+00
5914300	PP	.270	0.000	.140	.893	2.083E-02	1.470E-02	3.534E-02	9.225E+07	5.868E-01	2.299E-01	1.623E-01	3.922E-01
5614400	RA	.355	.417	.472	.560	1.600E-02	0.	1.600E-02	9.193E+07	5.758E+00	1.765E-01	0.	1.765E-01
5714400	LA	1.101	1.504	1.276	.744	6.512E-02	8.348E-02	1.484E-01	8.039E+07	3.546E-05	2.319E-01	3.745E-01	6.064E-01
5814400	CE	.064	.024	.245	.701	1.809E-03	1.326E-03	5.135E-03	8.554E+07	1.714E-04	4.203E-02	9.213E-01	1.640E+00
5614500	RA	.379	.597	.493	.870	9.849E-02	1.436E-03	5.992E-02	8.622E+07	4.772E-03	6.454E-01	1.463E-02	5.666E-02
5714500	LA	.564	.863	.779	.544	2.219E-02	3.315E-02	5.534E-02	2.211E+07	1.063E-05	2.447E-01	1.585E-02	6.613E-01
5814500	CF	.363	.461	.411	.589	2.333E-02	4.787E-02	9.129E-02	5.864E+07	9.078E-05	3.678E-01	3.658E-01	6.107E-01
5914500	PR	.407	.003	.214	.500	2.150E-02	2.556E-02	4.706E-02	6.354E+07	6.716E-04	2.371E-01	2.821E-01	5.193E-01
5714600	LA	.618	.874	.744	.437	2.406E-02	4.705E-04	2.431E-02	6.357E+07	7.305E-02	2.655E-01	5.192E-03	2.707E-01
5914600	PR	.435	.817	.520	.479	3.653E-02	4.872E-02	8.525E-02	3.847E+07	1.704E-05	4.031E-01	5.376E-01	9.407E-01
5914800	PR	.603	.094	.357	.391	2.572E-02	4.532E-02	7.104E-02	5.161E+07	4.000E-03	2.838E-01	5.001E-01	7.840E-01
						3.568E-02	5.238E-03	4.092E-02	3.251E+07	2.082E-04	3.939E-01	5.781E-02	4.316E-01

TABLE B-XXVI

TMI-2 IF OPERATED 26K HRS AT 2772. MW CONT. CINDER-10(LASL) 8/79

23=TIME STEP

1-00000E+00=TOTAL TIME SINCE LAST TIME AT POWER(S)
 9.34916E+07=TOTAL ELAPSED TIME(S)
 6.88811E+19=FISSIONS/S AT LAST TS AT POWER(S) 22)
 2.77200E+00=POWER (WATTS) AT LAST TS AT POWER (2.77200E+03 MW)
 7.28678E+03=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.44045E+04=TOTAL FP IN SUM PER BARN-CM

3.83448E+20=TOTAL ACTIVITY (DIS/S)

1.03634E+10=TOTAL CURIES
 5.90576E+01=TOTAL BETA DECAY POWER (MW)
 5.71789E+01=TOTAL GAMMA DECAY POWER (MW)
 1.17136E+02=TOTAL DEFCAY POWER (MW)
 5.43328E+00=TOTAL DEFCAY POWER (MW)
 5.18148E+00=TOTAL GAMMA NEV/F
 1.06149E+01=TOTAL DEFCAY NEV/F

IO	SYM	PERCENT OF ALL FP		NEV/FISS		CURIES		TOTAL	DENSITY	--DECAY POWER IN MW--		TOTAL	
		BETA	GAMMA	BETA	GAMMA	CURIES	BETA			GAMMA			
3508800	BR	.698	.449	.577	.222	3.795E-02	2.327E-02	6.122E-02	2.303E+07	1.955E-05	4.187E-01	2.568E-01	6.755E-01
3608800	KR	.094	.876	.474	.369	9.103E-03	4.541E-02	3.031E-02	3.822E+07	2.056E-02	5.631E-02	5.011E-01	5.574E-01
3708800	RB	.903	.277	.544	.375	4.363E-02	1.412E-02	5.774E-02	3.900E+07	2.211E-03	4.814E-01	1.558E-01	6.372E-01
3808800	KR	.566	.987	.771	.449	3.075E-02	5.112E-02	8.187E-02	4.613E+07	4.668E-04	3.394E-01	5.641E-01	9.035E-01
3908800	SR	.462	1.103	.810	.489	2.511E-02	6.184E-02	8.695E-02	5.028E+07	2.448E-03	2.771E-01	6.824E-01	9.595E-01
4008800	SR	.301	0.000	.154	.804	1.633E-02	0.	1.633E-02	5.223E+07	1.253E+01	1.802E-01	0.	1.802E-01
4108800	KR	.525	.814	.545	.492	2.892E-02	4.202E-02	7.094E-02	4.473E+07	7.711E-05	3.147E-01	4.637E-01	7.784E-01

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5213300	TF	546	737	650	698	1.184E-02	3.818E-02	7.007E-02	7.229E+07	2.894E-03	3.514E-01	4.213E-01	7.727E-01
5213310	TF	240	850	638	624	1.303E-02	4.805E-02	5.704E-02	4.394E+07	7.797E-03	1.438E-01	4.861E-01	6.799E-01
5213300	I	524	787	654	1.226	7.849E-02	4.049E-02	6.937E-02	1.271E+08	5.081E-01	3.143E-01	4.512E-01	7.556E-01
5413300	XE	129	107	119	126	7.035E-03	5.624E-03	1.266E-02	1.286E+08	3.137E+00	7.764E-02	6.206E-02	1.397E-01
5213400	TE	139	791	647	892	7.552E-03	4.097E-02	4.852E-02	9.245E+07	1.244E-02	8.334E-02	4.521E-01	5.354E-01
5213400	I	930	1.658	751	1.313	5.031E-02	1.895E-01	2.400E-01	1.361E+08	2.629E+07	5.574E-01	2.091E+00	2.469E+00
5211500	TE	751	1.085	879	451	4.080E-02	5.466E-02	4.674E-02	4.674E+07	4.690E-05	4.502E-01	6.032E-01	1.053E+00
5213500	I	459	1.773	1.173	1.137	2.497E-02	9.218E-02	1.171E-01	1.179E+08	1.491E-01	2.750E-01	1.017E+00	1.292E+00
5213600	I	949	1.214	1.079	911	4.153E-02	6.299E-02	1.145E-01	5.298E+07	2.347E-04	5.647E-01	6.931E-01	1.264E+00
5213610	I	587	611	638	799	3.187E-02	3.154E-02	6.332E-02	3.060E+07	7.840E-05	3.517E-01	3.492E-01	7.003E-01
5213700	I	1.992	1.067	910	1.490	4.129E-02	5.530E-02	6.659E-02	5.075E+07	6.664E-07	5.557E-01	6.103E-01	1.066E+00
5213800	I	500	667	592	1.055	1.082E-01	1.148E-02	1.197E-01	1.094E+09	1.346E-03	1.194E+00	1.267E-01	1.321E+00
5413800	XF	652	1.262	960	967	2.716E-02	3.458E-02	6.175E-02	2.384E+07	8.270E-06	2.998E-01	3.816E-01	6.14E-01
5213800	CS	1.333	7.570	1.641	1.030	7.542E-02	6.436E-02	9.078E-02	1.003E+08	4.360E-07	3.909E-01	7.102E-01	1.101E+00
5413900	XF	1.321	7.119	1.077	1.721	7.175E-02	3.725E-02	1.070E-01	1.068E+08	1.101E-02	7.991E-01	1.474E+00	2.274E+00
5213900	CS	1.941	3.40	1.178	1.019	1.000E-01	1.762E-02	1.070E-01	7.476E+07	1.612E-04	7.914E-01	4.110E-01	1.203E+00
5413900	RA	978	0.80	530	1.064	5.314E-02	3.097E-03	5.624E-02	1.035E+08	2.942E-02	1.104E+00	1.945E-01	1.298E+00
5414000	XE	404	685	578	447	2.193E-02	3.392E-02	5.594E-02	4.634E+07	3.364E-05	2.420E-01	3.743E-01	6.162E-01
5214000	CS	1.806	2.089	1.944	913	9.811E-02	1.083E-01	2.064E-01	9.457E+07	3.221E-04	1.083E+00	1.195E+00	2.277E+00
5614000	RA	296	2.249	1.031	1.609E-02	1.245E-02	2.851E-01	1.656E-01	1.069E+08	6.303E+00	1.755E-01	1.374E-01	3.149E-01
5214100	CS	593	2.472	1.528	1.041	3.112E-02	1.385E-01	1.656E-01	1.069E+08	6.303E+00	1.755E-01	1.374E-01	3.149E-01
5614100	BA	918	0.94	1.178	0.60	5.060E-02	6.705E-02	1.176E-01	8.840E+07	9.124E-05	5.583E-01	1.528E+00	1.471E+00
5714100	LA	998	0.35	528	979	4.989E-02	4.839E-02	9.828E-02	1.014E+08	5.946E-03	5.506E-01	1.984E-02	6.185E-01
5814100	CE	161	0.76	170	0.987	5.425E-02	1.798E-03	5.605E-02	1.020E+08	7.988E-02	5.987E-01	1.984E-02	6.185E-01
5214200	CS	593	764	672	279	3.180E-02	3.957E-02	7.137E-02	2.895E+07	2.827E-06	3.509E-01	4.345E-02	1.401E-01
5714200	LA	919	1.002	838	921	2.196E-02	5.193E-02	7.399E-02	9.546E+07	3.272E-03	2.424E-01	5.731E-01	8.154E-01
5614300	BA	849	2.442	1.653	947	4.609E-02	1.266E-01	1.765E-01	9.814E+07	2.905E-02	5.511E-01	1.397E+00	1.948E+00
5714300	LA	759	1.091	920	760	4.609E-02	6.645E-02	1.125E-01	7.880E+07	5.720E-05	5.046E-01	7.333E-01	1.424E+00
5814300	CE	393	2.94	339	890	4.114E-02	5.651E-02	9.769E-02	9.222E+07	4.135E-03	4.544E-01	6.236E-01	1.078E+00
5214300	PR	294	0.000	181	893	2.083E-02	1.470E-02	3.594E-02	9.234E+07	5.868E-01	2.299E-01	1.623E-01	3.922E-01
5614400	BA	365	618	449	887	1.600E-02	0.	1.600E-02	9.193E+07	5.758E+00	1.765E-01	0.	1.765E-01
5714400	LA	1.193	1.604	1.374	950	1.984E-02	3.203E-02	5.187E-02	5.700E+07	3.347E-05	2.199E-01	3.535E-01	5.724E-01
5914400	CE	0.076	0.76	0.54	771	4.482E-02	8.310E-02	1.479E-01	7.989E+07	1.706E-04	7.133E-01	9.170E-01	1.832E+00
5914500	PR	1.076	0.78	0.55	825	3.809E-03	1.326E-03	5.135E-03	8.548E+07	1.121E+02	4.203E-02	1.463E-02	5.666E-02
5614500	BA	367	574	458	878	1.925E-02	2.976E-03	5.997E-02	8.622E+07	4.772E-03	6.454E-01	1.585E-02	6.613E-01
5714500	LA	607	913	776	959	3.295E-02	4.732E-02	8.028E-02	5.798E+07	9.540E-06	2.198E-01	3.284E-01	5.482E-01
5914500	CE	396	493	443	613	2.149E-02	2.555E-02	4.705E-02	6.352E+07	6.714E-04	3.637E-01	5.222E-01	8.959E-01
5914600	PR	443	0.07	231	613	2.406E-02	4.705E-04	2.453E-02	6.357E+07	7.305E-02	2.655E-01	2.820E-01	5.192E-01
5214600	LA	633	886	787	350	3.442E-02	4.550E-02	8.032E-02	3.625E+07	1.606E-05	3.794E-01	5.192E-03	2.707E-01
5914600	PR	473	895	689	890	2.572E-02	4.532E-02	7.104E-02	5.160E+07	4.000E-03	2.838E-01	5.001E-01	7.840E-01
5814700	CE	332	519	423	380	1.802E-02	2.691E-02	4.493E-02	3.940E+07	1.472E-04	1.988E-01	2.970E-01	4.958E-01
5914800	PR	656	101	385	313	3.566E-02	5.235E-03	4.089E-02	3.248E+07	2.081E-04	3.935E-01	5.777E-02	4.913E-01

TABLE B-XXVII

TIME-2 IF OPERATED 26K HRS AT 2772. MW CONT. CYNER-10(LASLI) #779

24=TIME STEP
 4.00000E+00=TOTAL TIME SINCE LAST TIME AT POWER(S)
 9.34916E+07=TOTAL ELAPSED TIME(S)
 6.88811E+10=FISSIONS/AT LAST TS AT POWER*(22)
 2.77200E+09=POWER (WATTS) AT LAST TS AT POWER (2.77200E+03 MW)
 7.28674E+03=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.64045E+04=TOTAL FP IN SIM PER BARN-CM

3.61232E+20=TOTAL ACTIVITY (DIS/S)

9.76303E+07=TOTAL CURIES

5.32319E+01=TOTAL BETA DECAY POWER (MW)

5.22197E+01=TOTAL GAMMA DECAY POWER (MW)

1.05452E+02=TOTAL DECAY POWER (MW)

4.82381E+00=TOTAL BETA MEV/VE

4.73208E+00=TOTAL GAMMA MEV/VE

9.55589E+00=TOTAL DECAY MEV/VE

ID ZZARAS	SYM	PERCENT OF ALL FP			MEV/FISS			TOTAL	CURIES	DENSITY	DECAY POWER IN MW		
		BETA	GAMMA	TOTAL	BETA	GAMMA	TOTAL				BETA	GAMMA	TOTAL
3504700	BR	.532	.439	.495	.229	2.568E-02	2.076E-02	4.644E-02	2.230E+07	6.666E-05	2.834E-01	2.291E-01	5.124E-01
3504800	BR	.636	.435	.566	.239	3.355E-02	2.058E-02	5.413E-02	2.036E+07	1.729E-05	3.702E-01	2.271E-01	5.973E-01
3604900	KR	.106	.989	.679	.391	5.103E-03	4.540E-02	5.051E-02	3.821E+07	2.056E-02	5.631E-02	5.010E-01	5.573E-01
3704800	RE	.904	.904	.604	.399	4.361E-02	1.412E-02	5.774E-02	3.900E+07	2.211E-03	4.814E-01	1.559E-01	6.372E-01
3604900	KR	.632	1.071	.840	.469	3.051E-02	5.069E-02	8.119E-02	4.574E+07	4.630E-04	3.366E-01	1.5594E-01	8.920E-01
3704900	BR	.522	1.007	.710	.515	2.510E-02	6.183E-02	8.693E-02	5.028E+07	2.648E-03	2.770E-01	6.823E-01	9.593E-01
3804900	SR	.334	0.000	.171	.535	1.633E-02	0.	1.633E-02	5.223E+07	1.253E-01	1.602E-01	0.	1.902E-01
3604900	KR	.557	.837	.676	.432	2.689E-02	3.961E-02	6.650E-02	4.216E+07	7.269E-05	2.967E-01	4.371E-01	7.338E-01
3704900	BR	.172	1.414	1.137	.480	4.173E-02	6.693E-02	3.536E-02	1.037E-01	4.050E-04	4.605E-01	7.386E-01	1.199E+00
3604900	KR	.704	.701	.455	.291	3.394E-02	9.526E-03	4.366E-02	1.334E+07	1.911E-04	9.141E-02	2.988E-01	3.902E-01
3704900	BR	.892	1.862	1.372	.615	4.307E-02	8.913E-02	1.317E-01	6.003E+07	1.138E-05	3.745E-01	1.051E-01	4.796E-01
3804900	SR	.487	.579	.578	.687	2.349E-02	2.504E-02	4.853E-02	6.704E+07	1.865E-04	4.747E-01	9.726E-01	1.447E+00
3904900	Y	.470	.002	.218	.711	2.267E-02	9.951E-05	2.277E-02	4.964E+07	1.321E-01	2.502E-01	2.763E-01	5.355E-01
3704900	BR	1.259	.007	.683	.335	6.071E-02	4.587E-02	6.510E-02	3.267E+07	7.900E-05	6.699E-01	1.098E-01	2.313E-01
3804900	SR	.196	1.111	.769	.769	7.548E-02	5.256E-02	6.010E-02	7.308E+07	3.806E-02	6.330E-02	5.062E-02	7.206E-01
3904900	Y	1.199	.707	.778	.793	4.784E-02	9.805E-03	6.765E-02	7.354E+07	4.989E-02	8.303E-01	1.082E-01	6.533E-01
3704900	BR	.532	.417	.532	.266	2.824E-02	1.972E-02	4.796E-02	2.595E+07	8.034E-06	3.119E-01	2.176E-01	5.295E-01
3804900	SR	1.067	1.331	1.208	.861	5.243E-02	6.300E-02	1.154E-01	8.440E+07	2.010E-03	5.786E-01	6.957E-01	1.274E+00
3904900	Y	1.149	.089	.674	.893	5.546E-02	4.143E-03	5.954E-02	8.171E+07	1.708E-01	6.118E-01	4.627E-02	6.581E-01
3804900	SR	.781	1.137	.887	.826	3.765E-02	5.180E-02	9.146E-02	8.051E+07	3.251E-04	4.158E-01	5.937E-01	1.009E+00
3904900	Y	1.775	1.039	1.410	.921	4.561E-02	4.916E-02	1.148E-01	9.280E+07	5.647E-03	9.448E-01	5.425E-01	1.487E+00
3804900	SR	1.435	1.077	1.233	.641	6.927E-02	4.960E-02	1.178E-01	6.645E+07	9.223E-05	7.639E-01	5.363E-01	1.300E+00
3704900	BR	1.913	.545	1.216	1.028	9.227E-02	2.581E-02	1.180E-01	9.840E+07	3.309E-03	1.018E+00	2.848E-01	1.303E+00
4004900	Q	.133	.860	.473	1.054	6.426E-03	4.067E-02	4.710E-02	1.029E+08	3.108E-01	7.091E-02	4.488E-01	5.198E-01
4104900	NA	.051	.904	.475	1.070	2.445E-02	4.299E-02	4.563E-02	1.049E+08	1.691E-01	2.694E-02	4.744E-01	5.013E-01
4204900	NA	.263	1.937	1.937	.961	1.188E-01	7.204E-02	1.909E-01	9.183E+07	6.765E-04	1.311E+00	7.950E-01	2.106E+00
4304900	NA	.836	.717	.537	1.070	4.003E-02	1.029E-02	5.032E-02	1.054E+08	3.402E-01	4.417E-01	1.133E-01	5.553E-01
4404900	NA	.556	.470	.657	1.093	2.681E-02	3.879E-02	6.560E-02	1.067E+08	2.514E-02	2.959E-01	4.281E-01	7.240E-01
4504900	NA	.000	.769	.390	.933	0.	3.634E-02	3.634E-02	9.108E+07	2.625E-04	0.	4.010E-01	4.010E-01
4604900	NA	.001	.487	.983	.983	4.651E-02	5.157E-05	4.651E-02	9.600E+07	1.289E-04	5.113E-01	5.690E-04	5.138E-01
4704900	NA	2.123	1.152	1.067	1.057	1.025E-01	7.699E-03	1.101E-01	1.022E+08	1.528E-05	1.330E+00	8.498E-02	1.215E+00
4804900	NA	.674	.337	.577	.393	3.292E-02	1.583E-02	4.845E-02	3.736E+07	4.786E-05	3.589E-01	1.758E-01	5.346E-01
4904900	NA	1.715	.770	.979	1.036	9.271E-02	1.085E-02	9.356E-02	1.011E+08	7.558E-05	9.124E-01	1.197E-01	1.032E+00
5004900	NA	.744	.370	.470	1.142	2.386E-02	1.154E-02	3.540E-02	1.154E+08	1.465E+00	2.633E-01	1.273E-01	3.906E-01
5104900	TC	.151	.080	1.070	.662	0.	7.637E-03	7.637E-03	9.963E+07	1.193E-01	0.	8.430E-02	8.430E-02
5204900	TC	.530	.464	.437	.662	2.588E-02	2.195E-02	4.783E-02	6.462E+07	2.449E-05	2.832E-01	2.422E-01	5.245E-01
5304900	NA	1.032	.981	1.077	.661	6.984E-02	4.641E-02	9.619E-02	4.498E+07	5.764E-05	5.493E-01	5.122E-01	1.061E+00
5404900	NA	1.071	.704	.880	.445	9.165E-02	3.329E-02	9.495E-02	4.539E+07	5.839E-06	5.700E-01	3.674E-01	9.374E-01
5504900	NA	.680	.334	.261	.924	3.283E-02	4.827E-03	3.765E-02	2.546E+07	4.885E-06	3.622E-01	5.326E-02	4.155E-01
5604900	NA	.712	.298	.916	.814	8.110E-02	1.408E-02	9.518E-02	7.944E+07	2.968E-05	8.949E-01	1.554E-01	1.050E+00
5704900	TC	.410	.433	1.100	1.101	3.445E-02	7.999E-02	1.144E-01	1.074E+08	5.024E-03	3.739E-01	8.628E-01	1.262E+00
5804900	NA	.575	.410	.433	1.101	2.772E-02	1.942E-02	4.715E-02	1.075E+08	4.891E-01	3.059E-01	2.143E-01	5.203E-01
5904900	NA	1.415	.770	1.130	.523	6.825E-02	4.634E-02	1.146E-01	5.109E+07	8.181E-06	7.531E-01	5.113E-01	1.264E+00
6004900	NA	.359	0.000	.191	1.060	1.730E-02	0.	1.730E-02	1.035E+08	3.680E-01	1.909E-01	0.	1.909E-01
6104900	TC	1.743	.544	1.150	1.062	4.407E-02	2.584E-02	1.099E-01	1.037E+08	2.935E-05	9.278E-01	2.852E-01	1.213E+00
6204900	NA	.986	.301	.896	.523	4.739E-02	3.788E-02	8.547E-02	5.102E+07	4.267E-05	5.241E-01	4.180E-01	9.431E-01

4210300	MD	1.171	1.349	1.077	7.342E-02	5.549E-02	1.299E-01	1.044E+08	3.350E-04	8.102E-01	6.123E-01	1.423E+00
4310300	TC	.471	.751	1.115	4.202E-02	2.971E-02	7.173E-02	1.084E+04	2.704E-04	4.637E-01	3.279E-01	7.916E-01
4410300	RU	.042	.343	1.120	3.965E-03	2.977E-02	3.274E-02	1.093E+08	1.998E-01	4.376E-02	1.175E-01	3.613E-01
4510310	RM	.040	.040	1.120	0.	2.336E-03	2.336E-03	1.093E+08	1.960E-02	0.	2.577E-02	2.577E-02
4210400	MD	.440	.440	.440	2.337E-02	2.040E-02	4.417E-02	7.942E+07	4.070E-04	2.579E-01	2.245E-01	4.474E-01
4310400	TC	1.171	1.553	.905	5.863E-02	6.875E-02	1.294E-01	8.834E+07	4.095E-03	6.249E-01	5.586E-01	1.384E+00
4510400	RM	.010	.470	.755	3.693E-02	4.547E-04	4.015E-02	7.368E+07	1.657E-01	4.300E-01	5.018E-03	4.431E-01
4210500	MD	.046	.046	.757	5.142E-02	4.177E-02	9.313E-02	5.568E+07	1.605E-04	5.674E-01	4.609E-01	1.028E+00
4310500	TC	.878	.743	.747	4.236E-02	3.246E-02	7.491E-02	7.484E+07	1.218E-01	4.674E-01	3.542E-01	6.756E-01
4410500	RU	.332	.044	.754	1.697E-02	3.240E-02	4.938E-02	7.658E+07	6.534E-02	1.873E-01	3.576E-01	5.449E-01
4510500	RM	.122	.044	.737	5.884E-03	3.046E-03	8.933E-03	7.138E+07	4.910E-01	6.697E-02	3.361E-02	9.498E-02
4310600	TC	1.158	.028	.466	5.855E-02	3.916E-02	9.501E-02	4.550E+07	7.986E-05	6.163E-01	4.321E-01	1.048E+00
4410600	RU	.735	.103	.462	3.544E-02	4.889E-02	4.033E-02	4.564E+07	7.284E-05	3.911E-01	5.391E-02	4.450E-01
4510700	RU	.554	.115	.467	2.671E-02	5.427E-03	3.214E-02	4.019E+07	5.406E-04	2.444E-01	5.984E-02	3.547E-01
4510800	RU	.510	.117	.277	2.651E-02	1.078E-02	3.679E-02	2.700E+07	2.450E-05	2.675E-01	1.134E-01	4.060E-01
45113010	SA	.340	.044	.746	1.841E-02	4.544E-02	6.205E-02	2.795E+07	3.312E-03	1.811E-01	5.037E-01	6.848E-01
5111300	SA	.409	.074	.527	1.874E-02	4.704E-02	6.649E-02	5.148E+07	3.793E-03	2.178E-01	5.196E-01	7.374E-01
5211300	TE	.417	.247	.363	2.010E-02	1.265E-02	3.274E-02	5.549E+07	4.459E-03	2.218E-01	1.396E-01	3.613E-01
5311300	TE	.132	.282	.277	6.369E-03	1.337E-02	1.973E-02	6.392E+07	2.370E-02	7.027E-02	1.475E-01	2.178E-01
5113200	SA	.574	.674	.307	2.710E-02	3.227E-02	5.997E-02	2.984E+07	2.014E-04	3.057E-01	3.561E-01	1.765E-01
5213200	TE	.061	.276	.147	2.827E-03	1.307E-02	1.592E-02	9.058E+07	1.358E+00	3.224E-02	1.442E-01	1.765E-01
5313200	TE	.539	.364	.944	2.601E-02	1.109E-01	1.170E-01	9.230E+07	4.053E-02	2.871E-01	1.224E+00	1.511E+00
5113300	SA	.136	.030	.336	9.551E-03	4.399E-02	5.344E-02	3.276E+07	2.518E-04	1.043E-01	4.854E-01	5.897E-01
5213300	TE	.619	.086	.732	3.183E-02	3.413E-02	6.993E-02	7.250E+07	2.890E-03	3.504E-01	4.208E-01	7.171E-01
5313300	TE	.270	.930	.450	1.302E-02	4.403E-02	5.704E-02	4.391E+07	7.792E-03	1.437E-01	4.858E-01	6.295E-01
5113400	TE	.156	.045	.132	2.848E-02	4.049E-02	6.937E-02	1.271E+08	5.040E-01	3.143E-01	4.512E-01	7.656E-01
5213400	TE	.156	.045	.946	7.566E-03	4.094E-02	4.848E-02	9.238E+07	1.243E-02	8.248E-02	4.517E-01	5.350E-01
5313400	TE	1.045	.938	1.394	5.050E-02	1.893E-01	2.407E-01	1.361E+08	2.292E-02	5.573E-01	2.091E+00	2.648E+00
5213500	TE	.776	.033	.828	3.648E-02	4.887E-02	8.934E-02	4.178E+07	4.025E-05	4.025E-01	5.393E-01	9.418E-01
5313500	TE	.517	1.049	1.207	2.492E-02	9.218E-02	1.171E-01	1.179E+08	1.491E-01	2.750E-01	1.017E+00	1.297E+00
5113600	TE	1.054	1.111	.935	9.085E-02	6.215E-02	1.130E-01	5.227E+07	3.315E-04	5.611E-01	6.858E-01	1.247E+00
5313610	TE	.633	.636	.300	3.052E-02	3.030E-02	6.082E-02	2.930E+07	2.350E-05	3.684E-01	3.344E-01	6.712E-01
5313700	TE	1.704	.938	.482	1.832E-02	5.132E-02	8.964E-02	4.710E+07	6.185E-05	4.272E-01	5.664E-01	9.892E-01
5413700	TE	.241	1.246	1.114	1.076E-01	1.142E-02	1.191E-01	1.089E+08	1.330E-03	1.148E+00	1.260E-01	1.314E+00
5313800	TE	.416	.420	.180	2.006E-02	2.554E-02	4.553E-02	1.760E+07	6.106E-06	2.213E-01	2.818E-01	5.031E-01
5413900	TE	.733	1.427	1.029	3.535E-02	6.423E-02	9.954E-02	1.001E+08	4.551E-03	3.901E-01	7.084E-01	1.099E+00
5513900	TE	1.401	.923	1.094	7.241E-02	1.336E-01	2.063E-01	1.088E+08	1.101E-02	7.991E-01	1.474E+00	2.273E+00
5513900	CS	2.071	.979	1.210	6.844E-02	3.553E-02	1.043E-01	7.131E+07	1.538E-04	7.553E-01	3.920E-01	1.147E+00
5613900	BA	.044	.449	.449	5.314E-02	3.097E-03	5.674E-02	1.103E+08	2.942E-02	5.864E-01	3.418E-02	6.206E-01
5414000	TE	.301	.616	.512	1.885E-02	2.915E-02	4.803E-02	3.984E+07	2.892E-05	2.080E-01	3.217E-01	5.297E-01
5514000	CS	1.998	.248	.992	9.633E-02	1.084E-01	2.074E-01	9.292E-02	3.165E-04	1.775E-01	1.374E-01	3.149E-01
5614000	BA	.333	.763	1.094	1.609E-02	1.245E-02	2.483E-02	1.049E+08	6.303E-01	8.664E-01	1.528E+00	1.871E+00
5714000	LA	.645	.296	1.148	3.112E-02	1.395E-01	1.693E-01	1.121E+08	8.671E-05	5.141E-01	6.867E-01	1.205E+00
5514100	CS	.973	1.143	.650	4.695E-02	6.223E-02	1.092E-01	6.348E+07	8.471E-05	5.502E-01	5.336E-01	1.084E+00
5614100	BA	.134	1.072	1.078	4.886E-02	4.835E-02	9.421E-02	1.014E+08	5.942E-03	5.987E-01	1.984E-02	1.185E+00
5714100	LA	1.123	.034	1.044	5.625E-02	1.799E-01	5.405E-02	1.020E+08	1.534E-01	9.666E-02	4.345E-02	1.401E-01
5814100	CF	.152	.093	1.047	8.759E-03	3.938E-02	1.270E-02	1.022E+08	3.263E-03	2.417E-01	5.716E-01	6.133E-01
5614200	BA	.454	1.094	.973	2.190E-02	5.179E-02	7.170E-02	9.521E+07	2.403E-02	5.101E-01	1.396E+00	1.948E+00
5714200	LA	1.035	.264	1.047	4.994E-02	1.265E-01	1.764E-01	9.816E+07	2.403E-02	5.101E-01	1.396E+00	1.948E+00
5614300	BA	.833	1.224	.704	4.011E-02	5.794E-02	9.812E-02	6.870E+07	4.988E-05	4.434E-01	6.394E-01	1.083E+00
5714300	LA	.893	1.104	.944	4.116E-02	5.648E-02	9.764E-02	9.217E+07	4.133E-03	4.542E-01	6.233E-01	1.078E+00
5814300	CE	.432	.372	.942	2.808E-02	1.470E-02	3.954E-02	9.254E+07	5.868E-01	2.299E-01	1.623E-01	3.922E-01
5914300	PR	.332	.000	.942	1.600E-02	0.	1.600E-02	9.193E+07	2.758E+00	1.765E-01	0.	1.765E-01
5614400	BA	.342	.563	.486	1.851E-02	2.666E-02	4.317E-02	9.744E+07	2.789E-05	1.822E-01	2.942E-01	4.763E-01
5714400	LA	1.320	1.274	.804	3.607E-02	8.163E-02	1.493E-01	7.848E+07	1.676E-04	7.027E-01	9.008E-01	1.604E+00
5814400	CE	.079	.034	.673	6.307E-03	1.326E-02	5.135E-03	8.548E+07	1.121E-02	4.203E-02	1.463E-02	5.666E-02
5914400	PR	1.212	.030	.677	5.848E-02	.436E-03	5.992E-02	8.622E+07	4.772E-03	6.454E-01	1.585E-02	6.612E-01
5714500	LA	.656	.960	.937	3.164E-02	4.543E-02	7.707E-02	5.566E+07	8.616E-05	3.491E-01	5.014E-01	8.505E-01

5814500	CE	.445	.939	.492	.690	2.147E-02	2.553E-02	4.700E-02	6.345E+07	6.706E-04	2.369E-01	2.817E-01	5.186E-01
5914500	PR	.499	.010	.257	.691	2.406E-02	4.705E-04	2.453E-02	6.357E+07	7.305E-02	2.655E-01	5.192E-01	2.707E-01
5714600	LA	.591	.799	.694	.392	2.801E-02	3.735E-02	6.535E-02	2.950E+07	1.307E-05	3.091E-01	4.122E-01	7.213E-01
5814600	CE	.139	.193	.151	.524	4.689E-03	8.663E-03	1.535E-02	5.131E+07	2.334E-01	7.382E-02	9.560E-02	1.694E-01
5914600	PR	.533	.958	.743	.529	2.572E-02	4.532E-02	7.104E-02	5.160E+07	4.000E-03	2.838E-01	5.001E-01	7.839E-01
5814700	CE	.367	.559	.452	.397	1.771E-02	2.645E-02	4.417E-02	3.873E+07	1.447E-04	1.955E-01	2.919E-01	4.874E-01
5914800	PR	.737	.110	.427	.332	3.558E-02	5.223E-03	4.090E-02	3.241E+07	2.076E-04	3.926E-01	5.763E-02	4.502E-01

TABLE B-XXVIII

TMI-2 IF OPERATED 26K HRS AT 2772. MW CONT, C1NER-10(LASL) B/79

25=TIME STEP

1.00000E+01=TOTAL TIME SINCE LAST TIME AT POWER(S)
 9.34917E+07=TOTAL ELAPSED TIME(S)
 6.88811E+19=FISSIONS/S AT LAST TS AT POWER (22)
 2.77200E+09=POWER (WATTS) AT LAST TS AT POWER (2.77200E+03 MW)
 7.28679E+03=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.44045E+04=TOTAL FP IN SUM PER BARN-CM

3.38753E+20=TOTAL ACTIVITY (DTS/S)
 9.15549E+09=TOTAL CURIES
 4.70729E+01=TOTAL BETA DECAY POWER (MW)
 4.77768E+01=TOTAL GAMMA DECAY POWER (MW)
 9.48497E+01=TOTAL DECAY POWER (MW)
 4.26567E+00=TOTAL BETA MFV/F
 4.32948E+00=TOTAL GAMMA MFV/F
 8.59516E+00=TOTAL DECAY MFV/F

ID	SYM	PERCENT OF		ALL FP		MEV/FISS			DECAY POWER IN MW				
ZZAAAS		BETA	GAMMA	TOTAL	CURIES	BETA	GAMMA	TOTAL	CURIES	DENSITY	BETA	GAMMA	TOTAL
3508700	RR	.567	.452	.529	.230	2.421E-02	1.997E-02	4.378E-02	2.110E+07	4.286E-05	2.671E-01	2.159E-01	4.831E-01
3508800	RR	.607	.367	.486	.172	2.590E-02	1.588E-02	4.179E-02	1.572E+07	1.334E-05	2.858E-01	1.753E-01	4.611E-01
3608900	KR	.120	1.049	.997	.417	3.102E-03	4.539E-02	5.049E-02	3.821E+07	2.056E-02	5.630E-02	5.009E-01	5.572E-01
3708900	RR	1.023	.324	.672	.426	4.362E-02	1.412E-02	5.774E-02	3.899E+07	2.211E-03	4.814E-01	1.558E-01	6.372E-01
3608900	KR	.701	1.142	.927	.490	2.992E-02	4.973E-02	7.965E-02	4.487E+07	4.542E-04	3.302E-01	5.488E-01	8.789E-01
3708900	RR	.588	1.427	1.011	.549	2.509E-02	6.180E-02	8.689E-02	5.026E+07	2.447E-03	2.769E-01	6.820E-01	9.588E-01
3808900	SR	.383	0.000	.120	.570	1.633E-02	0.	1.633E-02	5.223E+07	1.253E+01	1.802E-01	0.	1.802E-01
3609000	KR	.555	.806	.692	.406	2.330E-02	3.490E-02	5.858E-02	3.714E+07	6.404E-05	2.613E-01	3.851E-01	6.464E-01
3709000	RR	.971	1.535	1.255	.508	4.144E-02	6.646E-02	1.072E-01	4.691E+07	4.022E-04	4.572E-01	7.334E-01	1.191E+00
3709010	RR	.192	.620	.628	.151	8.210E-03	2.683E-02	3.504E-02	1.382E+07	1.894E-04	9.060E-02	2.961E-01	3.867E-01
3709100	RR	.961	1.941	1.455	.625	4.101E-02	8.402E-02	1.250E-01	5.723E+07	1.778E-04	4.526E-01	9.272E-01	1.380E+00
3809100	SR	.551	.974	.955	.732	2.349E-02	2.504E-02	4.853E-02	6.703E+07	1.221E-01	2.592E-01	2.763E-01	5.355E-01
3909100	Y	.531	.002	.245	.761	2.267E-02	9.951E-05	2.277E-02	6.964E+07	1.882E+01	2.502E-01	1.098E-03	2.513E-01
3709200	RR	.602	.049	.321	.151	2.566E-02	1.939E-03	2.760E-02	1.381E+07	3.340E-06	2.832E-01	2.140E-02	3.046E-01
3809200	SR	.177	1.214	.479	.794	7.546E-03	5.254E-02	6.009E-02	7.306E+07	3.805E-02	8.327E-02	5.798E-01	6.631E-01
3909200	Y	1.356	.224	.797	.803	3.784E-02	9.805E-03	4.765E-02	7.354E+07	4.989E-02	6.383E-01	1.082E-01	7.465E-01
3809300	SR	1.220	1.445	1.313	.912	5.206E-02	6.255E-02	1.146E-01	8.347E+07	2.005E-03	5.745E-01	6.902E-01	1.265E+00
3909300	Y	1.300	.002	.694	.952	3.544E-02	4.193E-03	3.964E-02	8.714E+07	1.708E-01	6.118E-01	4.627E-02	6.581E-01
3809400	SR	.838	1.170	1.010	.836	3.573E-02	5.105E-02	8.672E-02	7.650E+07	3.087E-04	3.943E-01	5.634E-01	9.577E-01
3909400	Y	2.006	1.134	1.567	1.013	8.556E-02	4.913E-02	1.347E-01	9.275E+07	5.644E-03	9.442E-01	5.422E-01	1.486E+00
3809500	SR	1.393	.957	1.154	.819	5.899E-02	4.141E-02	1.004E-01	5.663E+07	7.860E-05	6.510E-01	4.570E-01	1.108E+00
3909500	Y	2.158	.894	1.470	1.072	9.204E-02	2.575E-02	1.179E-01	9.816E+07	3.301E-03	1.016E+00	2.841E-01	1.300E+00

4009500	ZR	.151	.933	.548	1.124	6.426E-03	4.057E-02	4.710E-02	1.029E+08	3.108E+01	7.091E-02	4.488E-01	5.198E-01
4109500	NR	.057	.993	.539	1.141	2.445E-03	4.299E-02	4.543E-02	1.045E+08	1.691E+01	2.698E-02	4.744E-01	5.013E-01
3909500	Y	2.716	1.623	2.156	.978	1.159E-01	7.027F-02	1.861E-01	8.957E+07	6.598E-04	1.279E+00	7.754E-01	2.054E+00
4009700	ZR	.338	.239	.545	1.151	4.003E-02	1.029E-02	5.032E-02	1.054E+09	3.402E-01	4.417E-01	1.135E-01	5.532E-01
4109700	NR	.529	.895	.753	1.165	2.681E-02	3.879E-02	6.560E-02	1.067E+08	2.514E-02	2.959E-01	4.281E-01	7.239E-01
4109710	NR	0.000	.830	.423	.995	0.	3.633E-02	3.633E-02	9.107E+07	2.625E-04	0.	4.009E-01	4.009E-01
4009800	ZR	.954	.001	.474	.917	4.069E-02	4.510E-05	4.073E-02	8.396E+07	1.389E-04	4.489E-01	4.977E-04	4.494E-01
4109800	NR	2.150	.159	1.147	1.000	9.172E-02	6.895E-03	9.861E-02	9.154E+07	1.368E-05	1.012E+00	7.609E-02	1.088E+00
4109900	NR	1.575	.197	.854	.859	6.507E-02	8.536E-03	7.350E-02	7.956E+07	5.946E-05	7.180E-01	9.420E-02	8.122E-01
4209900	MD	.559	.265	.412	1.261	2.386E-02	1.154E-02	3.440E-02	1.154E+08	1.465E+00	2.633E-01	1.273E-01	3.906E-01
4309910	TC	0.000	.174	.099	1.088	0.	7.639E-03	7.639E-03	9.963E+07	1.153E-01	0.	8.430E-02	8.430E-02
4110000	NR	.679	.524	.651	.286	2.895E-02	2.700E-02	5.595E-02	2.617E+07	3.353E-06	3.195E-01	2.979E-01	6.174E-01
4110010	NR	.710	.451	.590	.291	3.029E-02	1.953E-02	4.982E-02	2.662E+07	3.424E-06	3.343E-01	2.155E-01	5.497E-01
4110100	NR	1.196	.205	.627	.344	5.101E-02	8.857E-03	5.987E-02	4.997E+07	1.867E-05	5.629E-01	9.774E-02	6.607E-01
4210100	MD	.803	1.844	1.329	1.171	3.427E-02	7.984E-02	1.141E-01	1.072E+08	5.014E-03	3.782E-01	8.811E-01	1.259E+00
4310100	TC	.450	.449	.549	1.175	2.772E-02	1.942E-02	4.715E-02	1.075E+08	4.891E-03	3.059E-01	2.143E-01	5.203E-01
4110200	NR	1.020	.597	.850	.356	4.349E-02	2.953E-02	7.302E-02	3.256E+07	5.214E-06	4.800E-01	3.259E-01	8.058E-01
4210200	MD	.404	0.000	.200	1.174	1.723E-02	0.	1.723E-02	1.031E+08	3.666E-03	1.902E-01	0.	1.902E-01
4310200	TC	1.766	.595	1.276	1.130	8.388E-02	2.578E-02	1.097E-01	1.035E+08	2.928E-05	9.256E-01	2.845E-01	1.210E+00
4110300	NR	.860	.575	.757	.430	3.670E-02	2.921E-02	6.591E-02	3.934E+07	3.291E-05	4.049E-01	3.224E-01	7.273E-01
4210300	MD	1.655	1.233	1.447	1.099	7.061E-02	5.337E-02	1.240E-01	1.006E+08	3.222E-04	7.792E-01	5.889E-01	1.368E+00
4310300	TC	.981	.833	.831	1.183	4.183E-02	2.957E-02	7.141E-02	1.083E+08	2.891E-04	4.616E-01	3.264E-01	7.880E-01
4410300	RU	.093	.565	.381	1.194	3.965E-03	2.877E-02	3.274E-02	1.093E+08	1.996E+01	4.376E-02	3.175E-01	3.613E-01
4510310	RH	0.000	.254	.027	1.194	0.	2.336E-03	2.336E-03	1.093E+08	1.960E-02	0.	2.577E-02	2.577E-02
4210400	MD	.525	.440	.422	.831	2.239E-02	1.993E-02	4.233E-02	7.611E+07	3.900E-04	2.471E-01	2.200E-01	4.671E-01
4310400	TC	1.327	1.587	1.559	.965	5.661E-02	6.871E-02	1.253E-01	8.834E+07	5.093E-03	6.247E-01	7.583E-01	1.383E+00
4510400	RH	.849	.010	.476	.735	3.624E-02	4.151E-04	3.665E-02	6.726E+07	1.508E-04	3.999E-01	4.581E-03	4.045E-01
4210500	MD	1.117	.994	1.035	.564	4.765E-02	3.871E-02	8.637E-02	5.161E+07	1.488E-04	5.259E-01	4.272E-01	9.531E-01
4310500	TC	.991	.769	.858	.815	4.225E-02	3.238E-02	7.463E-02	7.466E+07	1.913E-03	4.663E-01	3.573E-01	8.236E-01
4410500	RU	.399	.749	.574	.836	1.697E-02	3.240E-02	7.658E-02	7.658E+07	6.534E-02	1.873E-01	3.576E-01	5.449E-01
4510500	RH	.138	.070	.104	.786	5.888E-03	3.046E-03	8.933E-03	7.198E+07	4.910E-01	6.497E-02	3.361E-02	9.858E-02
4310600	TC	1.217	.841	1.029	.462	5.193E-02	3.641E-02	8.833E-02	4.230E+07	8.354E-05	5.730E-01	4.018E-01	9.748E-01
4510600	RH	.824	.112	.455	.494	3.513E-02	4.846E-03	3.997E-02	4.524E+07	7.220E-05	3.877E-01	5.348E-02	4.411E-01
4410700	RU	.621	.124	.371	.435	2.647E-02	5.377E-03	3.185E-02	3.982E+07	5.357E-04	2.921E-01	5.934E-02	3.515E-01
4510900	RH	.619	.235	.476	.294	2.639E-02	1.023E-02	3.662E-02	2.688E+07	2.439E-05	2.912E-01	1.129E-01	4.041E-01
5113010	SB	.395	1.054	.722	.305	1.640E-02	4.562E-02	6.202E-02	2.793E+07	3.310E-03	1.810E-01	5.034E-01	6.844E-01
5113100	SB	.462	1.085	.774	.561	1.970E-02	4.699E-02	6.669E-02	5.138E+07	3.785E-03	2.174E-01	5.185E-01	7.359E-01
5213100	TE	.471	.292	.331	.608	2.009E-02	1.264E-02	3.273E-02	5.568E+07	4.458E-03	2.217E-01	1.395E-01	3.612E-01
5313100	I	.149	.309	.230	.638	6.369E-03	1.337E-02	1.973E-02	6.392E+07	2.370E+00	7.028E-02	1.475E-01	2.178E-01
5113200	SA	.635	.729	.692	.320	2.709E-02	3.156E-02	5.865E-02	2.928E+07	1.970E-04	2.989E-01	3.483E-01	6.472E-01
5213200	TE	.068	.302	.154	.989	2.922E-03	1.307E-02	1.572E-02	9.058E+07	1.358E+00	3.224E-02	1.442E-01	1.765E-01
5313200	I	.610	2.562	1.593	1.008	2.601E-02	1.109E-01	1.370E-01	9.230E+07	4.053E-02	2.870E-01	1.224E+00	1.511E+00
5113300	SB	.215	.987	.634	.348	9.184E-03	4.274E-02	5.193E-02	3.183E+07	2.447E-04	1.013E-01	4.717E-01	5.730E-01
5213300	TE	.743	.879	.811	.786	3.171E-02	3.803E-02	6.974E-02	7.200E+07	2.883E-03	3.500E-01	4.197E-01	7.696E-01
5213310	TE	.305	1.014	.653	.479	1.301E-02	4.397E-02	5.697E-02	4.386E+07	7.782E-03	1.435E-01	4.852E-01	6.287E-01
5313300	I	.668	.944	.807	1.388	2.948E-02	4.089E-02	6.937E-02	1.271E+08	5.080E-01	3.143E-01	4.512E-01	7.655E-01
5413300	XE	.145	.130	.147	1.404	7.035E-03	5.624E-03	1.266E-02	1.286E+08	3.137E+00	7.764E-02	6.206E-02	1.397E-01
5213400	TE	.177	.944	.553	1.007	7.534E-03	4.087E-02	4.841E-02	9.223E+07	1.241E-02	8.314E-02	4.510E-01	5.342E-01
5313400	I	1.184	4.374	2.731	1.486	5.049E-02	1.894E-01	2.399E-01	1.360E+08	2.922E-02	5.571E-01	2.091E+00	2.648E+00
5213500	TE	.680	.907	.789	.363	2.900E-02	3.885E-02	6.794E-02	3.322E+07	3.192E-05	3.200E-01	4.287E-01	7.487E-01
5313500	I	.584	2.120	1.352	1.287	2.492E-02	9.217E-02	1.171E-01	1.178E+08	1.491E-01	2.750E-01	1.017E+00	1.292E+00
5313600	I	1.157	1.394	1.276	.554	4.937E-02	6.034E-02	1.097E-01	5.075E+07	2.248E-04	5.448E-01	6.659E-01	1.211E+00
5313610	I	.636	.542	.449	.293	2.799E-02	2.779E-02	5.377E-02	2.687E+07	6.884E-05	3.088E-01	3.067E-01	6.155E-01
5313700	I	.766	1.010	.899	.439	3.266E-02	4.375E-02	7.641E-02	4.015E+07	5.272E-05	3.604E-01	4.828E-01	8.432E-01
5413700	XE	2.496	.261	1.370	1.176	1.065E-01	1.129E-02	1.178E-01	1.077E+08	1.324E-03	1.175E+00	1.246E-01	2.299E+00
5413800	XE	.825	1.477	1.144	1.088	3.520E-02	6.396E-02	9.916E-02	9.964E+07	4.531E-03	3.884E-01	7.058E-01	1.094E+00
5513800	CS	1.697	3.085	2.397	1.166	7.240E-02	1.336E-01	2.063E-01	1.068E+08	1.101E-02	7.990E-01	1.474E+00	2.273E+00
5413900	XF	1.451	.742	1.074	.705	6.191E-02	3.214E-02	9.404E-02	6.450E+07	1.391E-04	6.832E-01	3.546E-01	1.038E+00
5513900	CS	2.336	.405	1.363	1.149	9.963E-02	1.756E-02	1.172E-01	1.052E+08	3.132E-03	1.099E+00	1.937E-01	1.293E+00
5613900	BA	1.246	.072	.554	1.204	5.314E-02	3.097E-03	5.624E-02	1.103E+08	2.941E-02	5.864E-01	3.417E-02	6.206E-01

5514000	CS	2.170	2.359	2.745	.974	9.255E-02	1.021E-01	1.947E-01	8.922E+07	3.038E-04	1.021E+00	1.127E+00	2.148E+00
5614000	BA	.377	.284	.332	1.147	1.609E-02	1.245E-02	2.853E-02	1.069E+08	6.303E+00	1.775E-01	1.374E-01	3.149E-01
5714000	LA	.730	3.194	1.973	1.224	3.112E-02	1.385E-01	1.696E-01	1.121E+08	8.664E-01	3.435E-01	1.528E+00	1.871E+00
5814100	CS	.935	1.221	1.179	.989	3.990E-02	5.288E-02	9.278E-02	5.395E+07	7.199E-05	4.403E-01	5.835E-01	1.024E+00
5614100	BA	1.167	1.115	1.141	1.106	4.978E-02	4.829E-02	9.805E-02	1.012E+08	5.933E-03	5.493E-01	5.327E-01	1.082E+00
5714100	LA	1.272	.742	.692	1.114	4.425E-02	1.798E-03	5.605E-02	1.020E+08	7.587E-02	5.987E-01	1.984E-02	6.185E-01
5814100	CE	.205	.071	.148	1.117	4.759E-03	3.938E-03	1.270E-02	1.022E+08	1.534E+01	9.665E-02	4.345E-02	1.401E-01
5614200	BA	.510	1.187	.892	1.034	2.177E-02	5.147E-02	7.324E-02	9.462E+07	3.243E-03	2.402E-01	5.680E-01	8.082E-01
5714200	LA	1.171	2.223	2.053	1.072	4.991E-02	1.265E-01	1.765E-01	9.816E+07	2.905E-02	5.510E-01	1.396E+00	1.947E+00
5814300	BA	.697	.993	.847	.557	2.981E-02	4.298E-02	7.279E-02	5.097E+07	3.700E-05	3.289E-01	4.743E-01	8.033E-01
5714300	LA	.763	1.302	1.134	1.035	4.109E-02	5.638E-02	9.747E-02	9.201E+07	4.126E-03	4.534E-01	6.222E-01	1.076E+00
5814300	CE	.488	.340	.413	1.011	2.081E-02	1.470E-02	3.554E-02	9.254E+07	5.868E-01	2.299E-01	1.623E-01	3.922E-01
5914300	PR	.375	0.000	.186	1.074	1.600E-02	0.	1.600E-02	9.193E+07	5.758E+00	1.765E-01	0.	1.765E-01
5714400	LA	1.419	1.793	1.677	.915	4.054E-02	7.762E-02	1.392E-01	7.462E+07	1.593E-04	6.681E-01	8.565E-01	1.525E+00
5814400	CE	.049	.031	.040	.934	3.809E-03	1.326E-03	5.135E-03	8.548E+07	1.121E+02	4.203E-02	1.463E-02	5.666E-02
5914400	PR	1.371	.033	.497	.942	5.844E-02	1.436E-03	5.992E-02	8.622E+07	4.772E-03	6.454E-01	1.585E-02	6.612E-01
5714500	LA	.669	.747	.970	.548	2.854E-02	4.099E-02	6.953E-02	5.022E+07	7.774E-05	3.150E-01	4.523E-01	7.673E-01
5814500	CF	.502	.588	.545	.621	2.140E-02	2.544E-02	4.683E-02	6.323E+07	6.683E-04	2.361E-01	2.807E-01	5.168E-01
5914500	PR	.564	.011	.285	.624	2.406E-02	4.705E-04	2.453E-02	6.357E+07	7.305E-02	2.655E-01	5.192E-03	2.707E-01
5714600	LA	.411	.540	.474	.202	1.752E-02	2.337E-02	4.059E-02	1.845E+07	8.176E-06	1.934E-01	2.579E-01	4.512E-01
5814600	CE	.156	.200	.179	.559	6.671E-03	8.640E-03	1.531E-02	5.118E+07	2.327E-03	7.362E-02	9.534E-02	1.690E-01
5914600	PR	.603	1.047	.826	.544	2.572E-02	4.532E-02	7.104E-02	5.160E+07	4.000E-03	2.838E-01	5.001E-01	7.839E-01
5814700	CE	.399	.587	.424	.405	1.702E-02	2.541E-02	4.243E-02	3.721E+07	1.390E-04	1.879E-01	2.804E-01	4.682E-01
5914800	PR	.829	.120	.472	.352	3.534E-02	5.189E-03	4.053E-02	3.220E+07	2.062E-04	3.900E-01	5.726E-02	4.473E-01

TABLE B-XXIX

TMI-2 IF OPERATED 26K HRS AT 2772. MW CONT. CINDER-10(LASL) 8/79

26=TIME STEP

4.00000E+01=TOTAL TIME SINCE LAST TIME AT POWER(S)
 9.34917E+07=TOTAL ELAPSED TIME(S)
 6.88811E+19=FISSIONS/S AT LAST TS AT POWER (22)
 2.77200E+09=POWER (WATTS) AT LAST TS AT POWER (2.77200E+03 MW)
 7.28678E+03=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.44045E+04=TOTAL FP IN SIM PER BARN-CM

2.95022E+20=TOTAL ACTIVITY (DIS/S)
 7.97356E+09=TOTAL CURIES
 3.64390E+01=TOTAL BETA DECAY POWER (MW)
 3.34933E+01=TOTAL GAMMA DECAY POWER (MW)
 7.59323E+01=TOTAL DECAY POWER (MW)
 3.30206E+00=TOTAL BETA MFV/F
 3.57884E+00=TOTAL GAMMA MFV/F
 6.88089E+00=TOTAL DECAY MFV/F

ID	SYM	-----PERCENT OF		ALL FP-----		-----MFV/FISS-----			---DECAY POWER IN MW---				
ZZAAAS		BETA	GAMMA	TOTAL	CURIES	BETA	GAMMA	TOTAL	CURIES	DENSITY	BETA	GAMMA	TOTAL
3508700	RR	.513	.393	.445	.195	1.694E-02	1.369E-02	3.063E-02	1.476E+07	4.398E-05	1.869E-01	1.511E-01	3.380E-01
3608700	KR	.578	.317	.442	.334	1.907E-02	1.133E-02	3.040E-02	2.661E+07	6.476E-03	2.105E-01	1.250E-01	3.355E-01
3608800	KR	.154	1.265	.713	.478	5.093E-03	4.532E-02	5.041E-02	3.815E+07	2.052E-02	5.621E-02	5.001E-01	5.563E-01
3708800	RR	1.321	.394	.819	.487	4.360E-02	1.411E-02	5.771E-02	3.898E+07	2.210E-03	4.812E-01	1.557E-01	6.369E-01
3608900	KR	.813	1.247	1.039	.505	2.586E-02	4.464E-02	7.150E-02	4.029E+07	4.077E-04	2.964E-01	4.927E-01	7.891E-01

3704900	RA	.757	1.721	1.759	.679	2.500E-02	6.158E-02	8.659E-02	5.009E+07	2.438E-03	2.759E-01	6.796E-01	9.555E-01
3809900	SR	.494	0.007	.717	.659	1.633E-02	0.	1.633E-02	5.223E+07	1.753E+01	1.807E-01	0.	1.802E-01
3609000	KR	.377	.517	.447	.745	1.244E-02	1.933E-02	3.079E-02	1.951E+07	3.365E-05	1.373E-01	2.023E-01	3.396E-01
3709000	RB	1.180	1.747	1.475	.549	1.897E-02	6.250E-02	1.015E-01	4.374E+07	3.787E-04	4.307E-01	6.898E-01	1.120E+00
3709010	RB	.235	.717	.497	.144	7.771E-03	2.540E-02	3.317E-02	1.308E+07	1.793E-04	8.575E-02	2.803E-01	3.660E-01
3709100	RB	.704	1.707	1.373	.927	2.986E-02	6.119E-02	9.107E-02	4.166E+07	1.294E-04	3.235E-01	6.749E-01	1.004E+00
3809100	SR	.711	.707	.775	.941	2.348E-02	2.504E-02	4.952E-02	6.702E+07	1.221E-01	2.592E-01	2.763E-01	5.354E-01
3909100	Y	.697	.703	.311	.973	2.267E-02	9.951E-05	2.277E-02	6.964E+07	1.887E+01	2.502E-01	1.098E-03	2.513E-01
3809200	SR	.228	1.465	.871	.914	7.531E-03	5.243E-02	5.975E-02	7.291E+07	3.797E-02	8.310E-02	5.786E-01	6.617E-01
3909200	Y	1.752	.274	.993	.927	5.784E-02	9.805E-03	6.765E-02	7.354E+07	4.989E-02	6.383E-01	1.082E-01	7.465E-01
3809300	SR	1.508	1.477	1.573	1.071	4.980E-02	5.984E-02	1.096E-01	7.985E+07	1.918E-03	5.496E-01	6.603E-01	1.210E+00
3909300	Y	1.679	.117	.867	1.093	5.544E-02	4.192E-03	5.963E-02	8.714E+07	1.708E-01	6.114E-01	4.626E-02	6.591E-01
3809400	SR	.823	1.084	.957	.729	2.716E-02	3.881E-02	6.597E-02	5.815E+07	2.347E-04	2.947E-01	4.282E-01	7.280E-01
3909400	Y	2.578	1.366	1.948	1.157	8.513E-02	4.988E-02	1.340E-01	9.228E+07	5.616E-03	9.395E-01	5.394E-01	1.479E+00
3809500	SR	.803	.920	.656	.319	2.651E-02	1.861E-02	4.512E-02	2.545E+07	3.532E-05	2.928E-01	2.054E-01	4.980E-01
3909500	Y	2.733	.709	1.678	1.207	9.024E-02	2.524E-02	1.155E-01	9.623E+07	3.236E-03	9.954E-01	2.785E-01	1.274E+00
4009500	ZR	.195	1.136	.494	1.290	6.426E-03	4.067E-02	4.710E-02	1.029E+08	3.108E+01	7.091E-02	4.488E-01	5.198E-01
4109500	NB	.074	1.701	.660	1.317	2.445E-03	4.299E-02	4.543E-02	1.045E+08	1.691E+01	2.698E-02	4.744E-01	5.013E-01
3909600	Y	3.027	1.694	2.334	.949	9.996E-02	6.042E-02	1.606E-01	7.727E+07	5.692E-04	1.103E+00	6.689E-01	1.722E+00
4009700	ZR	1.212	.297	.731	1.371	4.001E-02	1.028E-02	5.030E-02	1.053E+08	3.401E-01	4.416E-01	1.135E-01	3.551E-01
4109700	NB	.812	1.084	.957	1.338	2.681E-02	3.879E-02	6.560E-02	1.067E+08	2.514E-02	2.959E-01	4.281E-01	7.239E-01
4109710	NB	0.000	1.714	.579	1.141	0.	3.630E-02	3.630E-02	9.099E+07	2.627E-04	0.	4.006E-01	4.006E-01
4009800	ZR	.630	.701	.373	.538	2.080E-02	2.306E-05	2.087E-02	4.293E+07	7.104E-05	2.295E-01	2.545E-04	2.298E-01
4109800	NB	1.432	.099	.739	.592	4.728E-02	3.555E-03	5.084E-02	4.719E+07	7.053E-06	5.218E-01	3.923E-02	5.610E-01
4209900	MO	.722	.327	.514	1.448	2.386E-02	1.154E-02	3.539E-02	1.154E+08	1.465E+00	2.633E-01	1.273E-01	3.906E-01
4309910	TC	0.000	.713	.111	1.249	0.	7.639E-03	7.639E-03	9.963E+07	1.153E-01	0.	8.430E-02	8.430E-02
4210100	MO	1.017	2.187	1.476	1.318	3.359E-02	7.826E-02	1.119E-01	1.051E+08	4.915E-03	3.707E-01	8.637E-01	1.234E+00
4310100	TC	.919	.543	.499	1.348	2.772E-02	1.942E-02	4.713E-02	1.075E+08	4.889E-03	3.058E-01	2.143E-01	5.201E-01
4110200	NB	.545	.341	.439	.169	1.799E-02	1.221E-02	3.020E-02	1.346E+07	2.156E-06	1.985E-01	1.348E-01	3.332E-01
4210200	MO	.509	0.000	.744	1.241	1.681E-02	0.	1.681E-02	1.006E+08	3.575E-03	1.855E-01	0.	1.855E-01
4310200	TC	2.485	.705	1.457	1.270	8.205E-02	2.522E-03	1.073E-01	1.012E+08	2.864E-05	9.055E-01	2.783E-01	1.184E+00
4210300	MO	1.643	1.146	1.394	.949	5.424E-02	4.100E-02	9.524E-02	7.729E+07	2.475E-04	5.986E-01	4.524E-01	1.051E+00
4310300	TC	1.187	.774	.977	1.273	3.920E-02	2.771E-02	6.591E-02	1.015E+08	2.709E-04	4.325E-01	3.058E-01	7.383E-01
4410300	RU	.170	.804	.476	1.371	3.965E-03	2.877E-02	3.274E-02	1.093E+08	1.996E+01	4.376E-02	3.175E-01	3.513E-01
4510310	RH	0.000	.065	.034	1.371	0.	2.336E-03	2.336E-03	1.093E+08	1.960E-02	0.	2.577E-02	2.577E-02
4210400	MO	.546	.449	.435	.749	1.804E-02	1.605E-02	3.403E-02	6.131E+07	3.142E-04	1.990E-01	1.772E-01	3.762E-01
4310400	TC	1.707	1.917	1.813	1.103	5.636E-02	6.842E-02	1.249E-01	8.796E+07	5.071E-03	6.220E-01	7.550E-01	1.377E+00
4510400	RH	.703	.007	.341	.540	2.321E-02	2.659E-04	2.347E-02	4.307E+07	9.657E-05	2.961E-01	2.934E-03	2.590E-01
4210500	MO	.982	.734	.854	.440	3.243E-02	2.634E-02	5.877E-02	3.512E+07	1.012E-04	3.578E-01	2.907E-01	6.485E-01
4310500	TC	1.256	.988	1.065	.919	4.143E-02	3.179E-02	7.329E-02	7.331E+07	1.878E-03	4.579E-01	3.508E-01	8.087E-01
4410500	RU	.514	.905	.718	.960	1.697E-02	3.240E-02	4.939E-02	7.658E+07	6.534E-02	1.873E-01	3.576E-01	5.449E-01
4510500	RH	.178	.085	.130	.903	3.888E-03	3.046E-02	8.933E-03	7.198E+07	4.910E-01	6.497E-02	3.361E-02	9.858E-02
4310600	TC	.965	.624	.788	.326	3.187E-02	2.234E-02	5.421E-02	2.596E+07	5.127E-05	3.517E-01	2.465E-01	5.982E-01
4410600	RU	.007	0.000	.073	.534	2.273E-04	0.	2.273E-04	4.256E+07	7.243E+01	2.515E-03	0.	2.515E-03
4510600	RH	1.032	.131	.564	.551	3.409E-02	4.702E-03	3.879E-02	4.389E+07	7.006E-05	3.767E-01	5.189E-02	4.280E-01
4410700	RU	.758	.142	.437	.477	2.502E-02	5.092E-03	3.010E-02	3.764E+07	5.063E-04	2.761E-01	5.609E-02	3.322E-01
4510700	RH	.279	.191	.233	.519	9.205E-03	6.824E-03	1.603E-02	4.069E+07	2.828E-03	1.016E-01	7.530E-02	1.769E-01
4510800	RH	.763	.273	.578	.327	2.519E-02	9.764E-03	3.495E-02	2.565E+07	2.328E-05	2.780E-01	1.077E-01	3.857E-01
5113010	SB	.495	1.271	.838	.369	1.635E-02	4.547E-02	6.182E-02	2.785E+07	3.300E-03	1.804E-01	5.018E-01	6.822E-01
5113100	SB	.590	1.209	.799	.637	1.948E-02	4.648E-02	6.597E-02	5.083E+07	3.744E-03	2.150E-01	5.129E-01	7.280E-01
5213100	TE	.407	.373	.475	.497	2.005E-02	1.263E-02	3.264E-02	5.559E+07	4.451E-03	2.213E-01	1.393E-01	3.607E-01
5313100	I	.193	.373	.297	.872	6.369E-03	1.337E-02	1.973E-02	6.392E+07	2.370E+00	7.028E-02	1.475E-01	2.178E-01
5113200	SB	.726	.780	.754	.325	2.397E-02	2.793E-02	5.189E-02	2.591E+07	1.743E-04	2.645E-01	3.082E-01	5.727E-01
5113210	SB	.479	.531	.576	.218	1.581E-02	1.901E-02	3.492E-02	1.736E+07	2.279E-04	1.744E-01	2.097E-01	3.842E-01
5213200	TE	.088	.365	.217	1.134	2.922E-02	1.307E-02	1.599E-02	9.058E+07	1.358E+00	3.224E-02	1.442E-01	1.765E-01
5313200	I	.788	2.100	1.970	1.157	2.601E-02	1.109E-01	3.167E-01	9.229E+07	4.053E-02	2.870E-01	1.224E+00	1.511E+00
5113300	SB	.241	1.034	.693	.345	7.949E-03	3.700E-02	4.495E-02	2.755E+07	2.118E-04	8.771E-02	4.083E-01	4.960E-01
5213300	TE	.947	1.048	.979	.890	3.125E-02	3.749E-02	6.875E-02	7.098E+07	2.842E-03	3.450E-01	4.137E-01	7.587E-01
5213310	TE	.391	1.221	.873	.567	1.293E-02	4.370E-02	5.662E-02	4.359E+07	7.735E-03	1.427E-01	4.822E-01	6.249E-01
5313300	I	.863	1.143	1.079	1.974	2.848E-02	4.089E-02	6.937E-02	1.271E+08	5.080E-01	3.143E-01	4.512E-01	7.655E-01

5413300	XE	.713	.197	.194	1.412	7.035E-03	5.624E-03	1.266E-02	1.286E+08	3.137E+00	7.764E-02	6.206E-02	1.397E-01
5413400	TE	.226	1.133	.629	1.147	7.473E-03	4.054E-02	4.401E-02	9.146E+07	1.231E-02	8.247E-02	4.474E-01	5.298E-01
5313400	I	1.527	5.294	3.432	1.704	5.041E-02	1.892E-01	2.395E-01	1.358E+08	2.288E-02	5.563E-01	2.007E+00	2.644E+00
5313500	I	.754	2.573	1.700	1.477	2.490E-02	9.210E-02	1.177E-01	1.178E+08	1.490E-01	2.748E-01	1.016E+00	1.291E+00
5313600	I	1.241	1.400	1.374	.529	4.094E-02	5.010E-02	9.110E-02	4.214E+07	1.867E-04	4.524E-01	5.529E-01	1.005E+00
5313610	I	.550	.553	.524	.219	1.815E-02	1.802E-02	3.617E-02	1.742E+07	4.464E-05	2.002E-01	1.988E-01	3.991E-01
5313700	I	.427	.528	.479	.217	1.410E-02	1.888E-02	3.295E-02	1.733E+07	2.276E-05	1.556E-01	2.084E-01	3.640E-01
5313700	XE	3.012	.795	1.599	1.222	9.946E-02	1.055E-02	1.100E-01	1.006E+08	1.237E-03	1.098E+00	1.164E-01	1.214E+00
5413800	XE	1.041	1.745	1.477	1.225	3.438E-02	6.246E-02	9.684E-02	9.730E+07	4.425E-03	3.793E-01	6.893E-01	1.069E+00
5513800	CS	2.191	3.722	2.921	1.339	7.234E-02	1.335E-01	2.058E-01	1.067E+08	1.100E-02	7.983E-01	1.473E+00	2.271E+00
5413900	XE	1.121	.537	.817	.494	3.702E-02	1.927E-02	5.624E-02	3.857E+07	8.319E-05	4.096E-01	2.121E-01	6.706E-01
5513900	CS	2.960	.441	1.671	1.294	9.773E-02	1.722E-02	1.150E-01	1.032E+08	3.073E-03	1.079E+00	1.900E-01	1.269E+00
5613900	BA	1.409	.087	.817	1.392	5.313E-02	3.096E-03	5.627E-02	1.102E+08	2.941E-02	5.863E-01	3.417E-02	6.204E-01
5514000	CS	2.149	2.199	2.170	.459	7.098E-02	7.832E-02	1.493E-01	6.842E+07	2.330E-04	7.832E-01	8.643E-01	1.648E+00
5614000	BA	.487	.348	.415	1.340	1.609E-02	1.245E-02	2.453E-02	1.069E+08	6.303E+00	1.775E-01	1.374E-01	3.149E-01
5714000	LA	.943	3.869	2.655	1.425	3.112E-02	1.385E-01	1.696E-01	1.121E+08	8.664E-01	3.435E-01	1.528E+00	1.871E+00
5514100	CS	.524	.643	.587	.299	1.738E-02	2.303E-02	4.940E-02	2.349E+07	3.135E-05	1.917E-01	2.541E-01	4.459E-01
5614100	BA	1.489	1.333	1.409	1.294	4.918E-02	4.770E-02	9.688E-02	1.000E+08	5.862E-03	5.427E-01	5.264E-01	1.069E+00
5714100	LA	1.643	.052	.815	1.280	5.425E-02	1.798E-03	5.605E-02	1.020E+08	7.587E-02	5.986E-01	1.984E-02	6.18E-01
5814100	CE	.265	.110	.195	1.292	9.759E-03	3.938E-03	1.270E-02	1.022E+08	1.534E+01	9.666E-02	4.345E-02	1.401E-01
5614200	BA	.638	1.302	1.031	1.149	2.108E-02	4.983E-02	7.091E-02	9.161E+07	3.139E-03	2.326E-01	5.499E-01	7.825E-01
5714200	LA	1.512	2.535	2.564	1.231	4.992E-02	1.265E-01	1.764E-01	9.814E+07	2.904E-02	5.509E-01	1.396E+00	1.947E+00
5714300	CE	.631	.411	.514	1.134	4.037E-02	5.540E-02	9.376E-02	9.040E+07	4.053E-03	4.455E-01	6.113E-01	1.057E+00
5914300	PR	.484	0.000	.232	1.153	1.600E-02	0.	1.600E-02	9.173E+07	5.758E+00	1.765E-01	0.	1.765E-01
5714400	LA	1.225	1.442	1.361	.625	4.044E-02	5.185E-02	9.229E-02	4.984E+07	1.064E-04	4.463E-01	5.721E-01	1.018E+00
5814400	CE	.115	.037	.075	1.072	3.804E-03	1.326E-03	5.135E-03	8.348E-07	1.121E+02	4.203E-02	1.463E-02	5.666E-02
5914400	PR	1.771	.060	.871	1.091	5.847E-02	1.436E-03	5.991E-02	8.620E+07	4.771E-03	6.493E-01	1.585E-02	6.611E-01
5714500	LA	.444	.582	.520	.324	1.467E-02	2.107E-02	3.575E-02	2.582E+07	3.996E-05	1.619E-01	2.325E-01	3.945E-01
5814500	CE	.621	.641	.652	.760	2.051E-02	2.438E-02	4.489E-02	6.060E+07	6.405E-04	2.263E-01	2.690E-01	4.953E-01
5914500	PR	.729	.013	.357	.727	2.405E-02	4.705E-04	2.453E-02	6.357E+07	7.305E-02	2.655E-01	5.192E-03	2.707E-01
5814600	CE	.198	.234	.219	.629	6.532E-03	8.459E-03	1.499E-02	5.011E+07	2.279E-03	7.208E-02	9.335E-02	1.654E-01
5914600	PR	.779	1.266	1.732	.647	2.571E-02	4.531E-02	7.105E-02	5.159E+07	3.999E-03	2.838E-01	5.000E-01	7.837E-01
5814700	CE	.397	.567	.475	.340	1.312E-02	1.959E-02	3.271E-02	2.869E+07	1.072E-04	1.448E-01	2.162E-01	3.610E-01
5914700	PR	.494	.409	.437	.529	1.630E-02	1.787E-02	3.416E-02	4.056E+07	1.559E-03	1.798E-01	1.972E-01	3.770E-01
6014700	NO	.161	.073	.115	.514	5.326E-03	2.616E-03	7.942E-03	4.102E+07	2.079E+00	5.877E-02	2.886E-02	8.764E-02
5914800	PR	1.004	.134	.553	.379	3.316E-02	4.868E-03	3.803E-02	3.021E+07	1.935E-04	3.659E-01	5.372E-02	4.196E-01
6114900	PM	.250	.009	.124	.911	8.245E-03	3.115E-04	8.556E-03	4.076E+07	4.159E-01	9.098E-02	3.438E-03	9.442E-02

TABLE B-XXX

TIME-2 IF OPERATED 26K HRS AT 2772. MW CONT. CINDER-10(LASL) 8/79

27=TIME STEP

1.00000E+02=TOTAL TIME SINCE LAST TIME AT POWER(S)
 9.34917E+07=TOTAL ELAPSED TIME(S)
 6.88811E+19=FISSIONS/S AT LAST TS AT POWER, (22)
 2.77200E+09=POWER (WATTS) AT LAST TS AT POWER (2.77200E+03 MW)
 7.28674E+03=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.44045E+04=TOTAL RP IN SIM PER BARN-CM

2.63663E+20=TOTAL ACTIVITY (DIS/S)
 7.12602E+09=TOTAL CURIES
 2.95474E+01=TOTAL BETA DECAY POWER (MW)
 3.35110E+01=TOTAL GAMMA DECAY POWER (MW)

6.30284E+01=TOTAL DECAY POWER (MW)
 2.67754E+00=TOTAL BETA MVU/F
 3.03673E+00=TOTAL GAMMA MVU/F
 5.71427E+00=TOTAL DECAY HEAT MVU/F

ID ZZAAAS	SYM	-----PERCENT OF ALL FP-----				-----MEV/FISS-----				CURIES	DENSITY	---DECAY POWER IN MW---		
		BETA	GAMMA	TOTAL	CURIES	BETA	GAMMA	TOTAL	BETA			GAMMA	TOTAL	
3604700	KR	.708	.371	.529	.371	1.897E-02	1.177E-02	3.073E-02	2.646E+07	6.441E-03	2.093E-01	1.243E-01	3.336E-01	
3604800	KR	.149	1.487	.879	.533	5.073E-03	4.514E-02	5.021E-02	3.799E+07	2.044E-02	5.599E-02	4.981E-01	5.541E-01	
3704800	RR	1.627	.464	1.029	.546	4.357E-02	1.410E-02	5.766E-02	3.894E+07	2.208E-03	4.804E-01	1.556E-01	6.363E-01	
3604900	KR	.806	1.181	1.023	.454	2.157E-02	3.595E-02	5.742E-02	3.235E+07	3.274E-04	2.380E-01	3.956E-01	6.337E-01	
3704900	RR	.922	2.003	1.427	.434	2.469E-02	6.092E-02	8.551E-02	4.947E+07	2.404E-03	2.775E-01	6.712E-01	4.437E-01	
3804900	SR	.610	0.000	.286	.733	1.633E-02	0.	1.633E-02	5.223E+07	1.253E+01	1.802E-01	0.	1.802E-01	
3705000	RR	1.198	1.694	1.422	.505	3.208E-02	5.145E-02	8.353E-02	3.601E+07	3.114E-04	3.540E-01	5.678E-01	9.218E-01	
3705010	RB	.252	.729	.523	.160	6.761E-03	2.210E-02	2.886E-02	1.138E+07	1.559E-04	7.461E-02	2.438E-01	3.185E-01	
3705100	RB	.549	.901	.784	.289	1.470E-02	3.011E-02	4.480E-02	2.051E+07	6.371E-05	1.622E-01	3.322E-01	4.944E-01	
3805110	SR	.876	.824	.869	.940	2.347E-02	2.502E-02	4.849E-02	6.698E+07	1.220E-01	2.590E-01	2.761E-01	5.351E-01	
3905100	Y	.447	.003	.109	.977	2.267E-02	9.951E-05	2.277E-02	6.964E+07	1.882E+01	2.502E-01	1.098E-03	2.513E-01	
3905110	Y	0.000	.380	.202	.543	0.	1.153E-02	1.153E-02	3.866E+07	6.154E-03	0.	1.272E-01	1.272E-01	
3805200	SR	.285	1.719	1.045	1.012	7.499E-03	5.271E-02	5.971E-02	7.260E+07	3.781E-02	8.275E-02	5.761E-01	6.589E-01	
3905200	Y	2.160	.223	1.184	1.032	5.784E-02	9.805E-03	6.764E-02	7.354E+07	4.989E-02	6.383E-01	1.082E-01	7.465E-01	
3805300	SR	1.696	1.707	1.749	1.022	4.541E-02	5.456E-02	9.977E-02	7.281E+07	1.749E-03	5.011E-01	6.021E-01	1.103E+00	
3905300	Y	2.070	.139	1.043	1.223	5.543E-02	4.142E-03	5.963E-02	8.713E+07	1.708E-01	6.117E-01	4.626E-02	6.580E-01	
3805400	SR	.595	.727	.654	.471	1.587E-02	2.719E-02	3.804E-02	3.354E+07	1.354E-04	1.729E-01	2.470E-01	4.200E-01	
3905400	Y	3.121	1.580	2.372	1.271	8.356E-02	4.798E-02	1.315E-01	9.058E+07	5.512E-03	9.221E-01	5.295E-01	1.452E+00	
3905500	Y	3.193	.785	1.072	1.275	8.523E-02	2.384E-02	1.091E-01	9.089E+07	3.057E-03	9.405E-01	2.631E-01	1.204E+00	
4005500	ZR	.240	1.330	.824	1.444	5.426E-03	4.067E-02	4.710E-02	1.029E+08	3.108E+01	7.091E-02	4.488E-01	5.198E-01	
4105500	NB	.091	1.416	.735	1.444	2.445E-03	4.299E-02	4.543E-02	1.045E+08	1.691E+01	2.699E-02	4.744E-01	5.013E-01	
3905600	Y	2.762	1.477	2.779	.872	7.395E-02	4.485E-02	1.189E-01	5.716E+07	4.211E-04	8.160E-01	4.949E-01	1.311E+00	
4005700	ZR	1.493	.339	.890	1.477	3.999E-02	1.028E-02	5.026E-02	1.053E+08	3.399E-01	4.413E-01	1.134E-01	5.547E-01	
4105700	NB	1.001	1.277	1.149	1.497	2.681E-02	3.879E-02	6.559E-02	1.057E+08	2.514E-02	2.958E-01	4.280E-01	7.238E-01	
4105710	NB	0.000	1.194	.634	1.275	0.	3.625E-02	3.625E-02	9.087E+07	2.619E-04	0.	4.001E-01	4.001E-01	
4205900	MD	.491	.300	.619	1.620	2.385E-02	1.154E-02	3.539E-02	1.154E+08	1.464E+00	2.632E-01	1.273E-01	3.905E-01	
4305910	TC	0.000	.752	.134	1.398	0.	7.639E-03	7.639E-03	9.963E+07	1.153E-01	0.	8.430E-02	8.430E-02	
4210100	MD	1.197	2.458	1.867	1.407	2.204E-02	7.465E-02	1.067E-01	1.003E+08	4.688E-03	3.536E-01	8.238E-01	1.177E+00	
4310100	TC	1.033	.639	.873	1.505	2.766E-02	1.938E-02	4.703E-02	1.073E+08	4.879E-03	3.052E-01	2.138E-01	5.190E-01	
4210200	MD	.592	0.000	.278	1.332	1.586E-02	0.	1.586E-02	9.491E+07	3.374E-03	1.750E-01	0.	1.750E-01	
4310200	TC	2.895	.785	1.773	1.342	7.751E-02	2.383E-02	1.013E-01	9.564E+07	2.706E-05	8.554E-01	2.629E-01	1.118E+00	
4210300	MD	1.054	.703	.858	.565	2.823E-02	2.134E-02	4.953E-02	4.023E+07	1.289E-04	3.116E-01	2.355E-01	5.471E-01	
4310300	TC	1.082	.674	.853	1.053	2.897E-02	2.048E-02	4.945E-02	7.502E+07	2.002E-04	3.197E-01	2.260E-01	5.457E-01	
4410300	RU	.148	.947	.523	1.534	3.965E-03	2.877E-02	3.274E-02	1.093E+08	1.996E+01	4.375E-02	3.175E-01	3.613E-01	
4510310	RH	0.000	.077	.041	1.534	0.	2.336E-03	2.336E-03	1.093E+08	1.960E-02	0.	2.577E-02	2.577E-02	
4210400	MD	.437	.343	.397	.558	1.170E-02	1.041E-02	2.211E-02	3.975E+07	2.037E-04	1.291E-01	1.149E-01	2.439E-01	
4310400	TC	2.070	2.216	2.169	1.216	5.544E-02	6.729E-02	1.227E-01	8.651E+07	4.987E-03	6.117E-01	7.426E-01	1.354E+00	
4210500	MD	.561	.402	.476	.228	1.501E-02	1.220E-02	2.721E-02	1.626E+07	4.686E-05	1.657E-01	1.346E-01	3.002E-01	
4310500	TC	1.464	.989	1.211	.922	3.919E-02	3.003E-02	6.922E-02	6.924E+07	1.774E-03	4.325E-01	3.314E-01	7.638E-01	
4410500	RU	.534	1.047	.854	1.074	1.697E-02	3.240E-02	4.937E-02	7.657E+07	6.533E-02	1.873E-01	3.575E-01	5.448E-01	
4510500	RH	.220	1.100	.154	1.010	5.888E-03	3.046E-03	8.933E-03	7.198E+07	4.910E-01	6.497E-02	3.361E-02	9.558E-02	
4410600	RU	.009	0.000	.004	.597	2.279E-04	0.	2.279E-04	4.256E+07	7.243E+01	2.515E-03	0.	2.515E-03	
4510600	RH	1.244	.151	.453	.402	3.331E-02	4.595E-03	3.790E-02	4.289E+07	6.846E-05	3.676E-01	5.071E-02	4.183E-01	
4410700	RU	.909	.145	.456	.452	2.166E-02	4.401E-03	2.606E-02	3.259E+07	4.384E-04	2.391E-01	4.856E-02	2.876E-01	
4510700	RH	.342	.224	.279	.569	9.166E-03	6.794E-03	1.596E-02	4.051E+07	2.816E-03	1.012E-01	7.498E-02	1.761E-01	
4510800	RH	.817	.279	.531	.313	2.188E-02	8.479E-03	3.036E-02	2.228E+07	2.022E-05	2.414E-01	9.357E-02	3.350E-01	
5112900	SA	.159	.505	.343	.318	4.237E-03	1.535E-02	1.957E-02	2.196E+07	1.832E-02	4.675E-02	1.694E-01	2.161E-01	
5113010	SA	.506	1.484	1.023	.389	1.622E-02	4.511E-02	6.134E-02	2.763E+07	3.274E-03	1.790E-01	4.978E-01	6.769E-01	
5113100	SA	.710	1.493	1.126	.526	1.901E-02	4.534E-02	6.435E-02	4.958E+07	3.652E-03	2.097E-01	5.003E-01	7.101E-01	
5213100	TF	.747	.414	.570	.777	1.999E-02	1.258E-02	3.257E-02	5.540E+07	4.436E-03	2.206E-01	1.388E-01	3.594E-01	
5313100	I	.238	.440	.345	.897	6.369E-03	1.337E-02	1.973E-02	6.392E+07	2.370E+00	7.028E-02	1.475E-01	2.178E-01	

5113200	SR	.675	.624	.683	.774	1.809E-02	2.107E-02	3.016E-02	1.955E+07	1.315E-04	1.996E-01	2.326E-01	4.322E-01
5113210	SR	.499	.622	.614	.774	1.335E-02	1.605E-02	2.940E-02	1.466E+07	1.925E-04	1.473E-01	1.771E-01	3.244E-01
5213200	TE	.109	.420	.780	1.271	2.921E-03	1.307E-02	1.299E-02	9.057E+07	1.358E-00	3.274E-02	1.442E-01	1.764E-01
5113200	I	.971	.653	.725	2.126	2.601E-02	1.103E-01	1.369E-01	9.228E+07	4.052E-02	2.870E-01	1.224E+00	1.511E+00
5113300	SR	.277	.913	.999	.707	9.955E-03	2.777E-02	3.367E-02	2.064E+07	1.586E-00	3.671E-01	3.009E-01	7.371E-01
5213300	TE	1.130	1.185	1.165	.954	3.027E-02	3.629E-02	6.056E-02	8.872E+07	2.751E-03	3.340E-01	4.005E-01	7.345E-01
5213310	TE	.477	1.431	.979	.624	1.277E-02	4.311E-02	4.306E+07	7.640E-03	1.409E-01	4.763E-01	6.172E-01	
5113300	I	1.064	1.344	1.714	1.783	7.848E-02	4.089E-02	6.916E-02	4.306E+07	5.080E-01	3.143E-01	4.517E-01	7.655E-01
5413300	XF	.263	1.155	.722	1.904	7.035E-03	5.625E-03	1.266E-02	1.271E+08	3.137E+00	2.764E-02	6.206E-02	1.397E-01
5213400	TE	.275	1.313	.927	1.743	7.331E-03	3.948E-02	4.723E-02	8.999E+07	1.210E-02	8.112E-02	5.545E-01	2.612E-01
5313400	I	1.877	4.703	4.179	1.927	5.025E-02	1.889E-01	2.388E-01	1.354E+08	2.281E-02	5.545E-01	2.081E+00	2.635E+00
5313500	I	.928	3.028	2.044	1.540	2.446E-02	9.194E-02	1.169E-01	1.176E+08	1.488E-01	2.743E-01	1.015E+00	1.289E+00
5313600	I	.968	1.054	1.009	.374	2.593E-02	3.163E-02	5.763E-02	2.666E+07	1.181E-04	2.862E-01	3.498E-01	6.359E-01
5413700	XF	3.148	2.204	1.632	1.520	6.429E-02	8.942E-02	9.222E-02	8.525E+07	1.048E-03	9.302E-01	1.469E+00	2.266E+00
5413800	XE	1.223	1.753	1.614	1.120	3.274E-02	5.949E-02	9.222E-02	9.267E+07	4.214E-03	3.613E-01	6.565E-01	1.018E+00
5513900	CS	2.696	4.385	3.573	1.424	7.217E-02	1.332E-01	2.053E-01	1.064E+08	1.098E-02	7.965E-01	1.469E+00	2.266E+00
5513900	CS	3.449	.536	1.031	1.348	9.234E-02	1.627E-02	1.086E-01	9.747E+07	2.903E-03	1.019E+00	1.796E-01	1.199E+00
5613900	RA	1.983	1.103	.993	1.545	5.302E-02	3.094E-02	5.918E-02	1.101E+08	2.939E-02	5.859E-01	3.414E-02	6.200E-01
5514000	CS	1.413	1.375	1.333	.912	3.783E-02	4.177E-02	7.958E-02	3.647E+07	1.242E-04	4.175E-01	4.607E-01	8.781E-01
5614000	RA	.601	.410	.429	1.472	1.609E-02	1.245E-02	2.353E-02	1.069E+08	6.303E+00	1.775E-01	1.374E-01	3.149E-01
5714000	LA	1.162	4.550	2.268	1.473	3.117E-02	1.385E-01	1.696E-01	1.121E+08	8.664E-01	3.435E-01	1.528E+00	1.871E+00
5614100	BA	1.776	1.519	1.650	1.357	4.756E-02	4.611E-02	9.349E-02	9.671E+07	5.669E-03	5.249E-01	5.090E-01	1.034E+00
5714100	LA	2.026	.042	.281	1.832	9.424E-02	1.798E-02	5.804E-02	1.020E+08	7.587E-02	5.986E-01	1.984E-01	6.184E-01
5814100	CE	.327	1.130	.722	1.433	8.759E-03	3.938E-03	1.270E-02	1.022E+08	1.534E+01	9.665E-02	4.345E-02	1.401E-01
5614200	RA	.738	1.438	1.143	1.205	1.975E-02	4.671E-02	6.546E-02	8.596E+07	2.943E-03	2.180E-01	5.156E-01	7.334E-01
5714200	LA	1.463	4.163	3.066	1.375	4.989E-02	1.264E-01	1.763E-01	9.807E+07	2.902E-02	5.505E-01	1.395E+00	1.946E+00
5714300	CE	1.438	1.733	1.828	1.210	3.849E-02	5.282E-02	9.131E-02	8.620E+07	3.865E-03	4.247E-01	5.829E-01	1.008E+00
5814300	LA	.778	.484	.672	1.232	2.083E-02	1.470E-02	3.354E-02	9.253E+07	5.758E+00	1.293E-01	1.623E-01	3.922E-01
5914300	PR	.597	.000	.250	1.220	1.600E-02	0.	1.600E-02	9.193E+07	5.758E+00	1.765E-01	0.	1.765E-01
5714400	LA	.553	.625	.421	.256	3.377E-02	1.897E-02	3.377E-02	1.824E+07	3.894E-05	1.633E-01	2.094E-01	3.727E-01
5814400	CE	.070	.044	.030	1.139	3.809E-03	1.326E-03	5.135E-03	8.548E+07	1.121E+07	4.203E-02	1.463E-02	5.666E-02
5914400	PR	2.183	.067	1.068	1.229	5.845E-02	1.433E-02	5.989E-02	8.618E+07	4.769E-03	6.450E-01	1.584E-02	6.609E-01
5814500	CF	.653	.654	.670	.725	1.748E-02	2.078E-02	3.927E-02	5.166E+07	5.461E-04	1.929E-01	2.294E-01	4.223E-01
5914500	PR	.898	.015	.429	.822	2.406E-02	4.704E-04	2.453E-02	6.355E+07	7.303E-02	2.655E-01	5.191E-03	2.706E-01
5814600	CE	.232	.765	.250	.670	6.223E-03	8.059E-03	1.429E-02	4.773E+07	2.171E-03	6.867E-02	8.893E-02	1.576E-01
5914600	PR	.959	1.470	1.241	.723	2.548E-02	4.524E-02	7.092E-02	5.151E+07	3.993E-03	2.833E-01	4.992E-01	7.826E-01
5914700	PR	.593	.573	.582	.554	1.587E-02	1.740E-02	3.327E-02	3.905E+07	1.518E-03	1.751E-01	1.920E-01	3.672E-01
6014700	ND	.199	.044	.119	.874	5.326E-02	2.616E-03	7.942E-03	4.102E+07	2.079E+00	5.877E-02	2.886E-02	8.764E-02
5914800	PR	.791	1.128	.633	.333	2.654E-02	3.894E-03	3.044E-02	2.418E+07	1.549E-04	2.929E-01	4.300E-02	3.359E-01
6114900	PM	.308	.010	.150	.877	8.244E-03	3.115E-04	8.556E-03	4.075E+07	4.159E-01	9.037E-02	3.438E-03	4.441E-02
6214900	SM	.166	.066	.113	.504	4.431E-03	2.016E-03	6.467E-03	3.592E+07	3.223E-01	4.911E-02	2.225E-02	7.137E-02

TABLE B-XXXI

TMI-2 IF OPERATED 26K HRS AT 2772. MW CONT. CIMER-10(LASL) 8/79

2R=TIME STEP

4.00030E+02=TOTAL TIME SINCE LAST TIME AT POWER(S)
 9.34920E+07=TOTAL ELAPSED TIME(S)
 6.88811E+19=FISSIONS/CS AT LAST TS AT POWER(S) 22)
 2.77200E+09=POWER (WATTS) AT LAST TS AT POWER(S) 2.77200E+03 MW)
 7.28678E+03=ACCUMULATED FISSIONS (FISSIONS PER HARM-CM)
 1.64045E+04=TOTAL FP IN SIM PER HARM-CM

2.19484E+20=TOTAL ACTIVITY (DTC/S)

5.93200E+09=TOTAL CURIES

2.10801E+01=TOTAL BETA DECAY POWER (MW)

2.59069E+01=TOTAL GAMMA DECAY POWER (MW)

4.69870E+01=TOTAL DECAY POWER (MW)

1.91029E+00=TOTAL BETA MEV/F

2.34765E+00=TOTAL GAMMA MEV/F

4.25790E+00=TOTAL DECAY MEV/F

ID	SYM	PERCENT OF ALL F ²³⁵				MEV/FISS				TOTAL	CURIES	DENSITY	--DECAY POWER IN MW--		TOTAL
		BETA	GAMMA	TOTAL	CURIES	BETA	GAMMA	TOTAL	CURIES				BETA	GAMMA	
3608700	KR	.952	.480	.491	.429	1.818E-02	1.040E-02	2.858E-02	2.534E+07	6.173E-03	2.004E-01	1.192E-01	3.198E-01		
3608800	RA	.260	1.884	1.195	.627	4.970E-03	4.421E-02	4.919E-02	3.722E+07	2.003E-02	5.484E-02	4.880E-01	5.428E-01		
3608900	KR	2.267	.597	1.364	.653	4.330E-02	1.401E-02	5.731E-02	3.770E+07	2.003E-02	4.774E-01	1.546E-01	6.324E-01		
3609000	RA	.377	.510	.490	.192	7.203E-03	1.197E-02	1.918E-02	1.080E+07	1.093E-04	7.944E-02	1.321E-01	2.116E-01		
3609100	KR	1.132	2.248	1.798	.720	2.162E-02	5.325E-02	7.486E-02	4.331E+07	2.108E-03	2.384E-01	5.876E-01	8.261E-01		
3609200	SR	.855	0.000	.855	.890	1.633E-02	0.	1.633E-02	5.223E+07	1.253E-01	1.802E-01	0.	1.802E-01		
3609300	RA	.492	.675	.178	.178	9.336E-03	1.507E-02	2.447E-02	1.059E+07	9.120E-05	1.037E-01	1.663E-01	2.700E-01		
3609400	SR	1.222	1.069	1.132	1.123	2.334E-02	2.488E-02	4.822E-02	6.661E+07	1.213E-01	2.574E-01	2.746E-01	5.321E-01		
3609500	Y	1.187	.004	.535	1.174	2.267E-02	9.951E-05	2.277E-02	6.964E+07	1.882E-01	2.502E-01	1.048E-03	2.513E-01		
3609600	Y	0.000	.491	.271	.651	0.	1.152E-02	1.152E-02	3.864E+07	6.151E-03	0.	1.272E-01	1.272E-01		
3609700	SR	.394	2.177	1.373	1.108	7.340E-03	5.111E-02	5.845E-02	7.107E+07	3.701E-02	8.100E-02	5.640E-01	6.450E-01		
3609800	Y	3.027	.417	1.498	1.239	5.782E-02	9.801E-03	6.762E-02	7.351E+07	4.987E-02	6.380E-01	1.082E-01	7.462E-01		
3609900	SR	1.497	1.464	1.479	.773	2.861E-02	3.437E-02	6.297E-02	5.587E+07	1.102E-01	3.157E-01	3.793E-01	6.949E-01		
3610000	Y	2.897	.178	1.328	1.666	.533E-02	4.184E-03	5.932E-02	8.697E+07	1.705E-01	6.104E-01	4.618E-02	6.568E-01		
3610100	Y	3.733	1.744	2.637	1.393	7.132E-02	4.095E-02	1.173E-01	7.731E+07	4.704E-03	6.770E-01	4.519E-01	1.239E+00		
3610200	Y	.845	1.733	1.845	1.104	4.162E-02	1.718E-02	7.863E-02	6.550E+07	2.203E-03	6.778E-01	1.896E-01	8.673E-01		
3610300	NR	.336	1.733	1.176	1.734	6.426E-03	4.067E-02	4.710E-02	1.029E+08	3.107E-01	7.091E-02	4.488E-01	5.197E-01		
3610400	NR	.128	1.831	1.057	1.741	2.445E-03	4.299E-02	4.531E-02	1.045E+08	1.891E-01	2.698E-02	4.744E-01	5.013E-01		
3610500	Y	.858	.423	.619	.214	1.639E-02	9.938E-03	2.633E-02	1.267E+07	9.332E-05	1.808E-01	1.097E-01	2.905E-01		
3610600	Y	2.086	.435	1.176	1.749	3.985E-02	1.024E-02	5.009E-02	1.049E+08	3.387E-01	4.397E-01	1.130E-01	5.528E-01		
3610700	NR	1.402	1.539	1.540	1.797	2.679E-02	3.876E-02	6.595E-02	1.064E+08	2.512E-02	2.956E-01	4.277E-01	7.234E-01		
3610800	NR	.830	.491	.830	1.944	0.	3.611E-02	3.611E-02	9.052E+07	2.609E-04	0.	3.985E-01	3.985E-01		
3610900	TC	0.000	.329	.179	1.480	0.	1.153E-02	3.565E-02	1.153E+08	1.633E+00	2.630E-01	1.272E-01	3.902E-01		
3611000	TC	1.323	.909	1.074	1.313	2.527E-02	5.488E-02	7.639E-02	9.953E+07	1.193E-01	0.	8.430E-02	8.430E-02		
3611100	MD	.795	1.053	1.741	1.741	2.663E-02	1.865E-02	4.594E-02	1.033E+08	4.697E-03	2.789E-01	6.497E-01	9.286E-01		
3611200	MD	.609	0.000	.273	1.173	1.683E-02	0.	1.683E-02	6.956E+07	2.673E-03	1.283E-01	0.	1.283E-01		
3611300	RU	2.975	.744	1.745	1.182	5.683E-03	1.747E-02	7.430E-02	7.012E+07	1.984E-05	6.271E-01	1.928E-01	6.199E-01		
3611400	RU	.208	1.224	.749	1.443	3.965E-03	2.477E-02	3.274E-02	1.093E+08	1.966E-01	4.379E-02	3.175E-01	3.612E-01		
3611500	TC	0.000	.099	.099	1.843	0.	2.336E-03	2.336E-03	1.093E+08	1.960E-02	0.	2.577E-02	2.577E-02		
3611600	TC	2.486	2.486	1.249	1.249	4.749E-02	5.765E-02	1.031E-01	7.411E+07	4.273E-03	5.241E-01	6.362E-01	1.606E+00		
3611700	RU	1.169	.893	1.084	.779	2.614E-02	2.003E-02	4.617E-02	6.619E+07	1.184E-03	2.889E-01	2.211E-01	5.095E-01		
3611800	RU	.886	1.375	1.156	1.287	1.692E-02	3.229E-02	4.921E-02	7.632E+07	6.511E-02	1.867E-01	3.563E-01	5.430E-01		
3611900	RM	.308	.139	.210	1.214	5.884E-03	3.046E-03	8.934E-03	7.199E+07	4.911E-01	6.498E-02	3.361E-02	9.859E-02		
3612000	RU	.012	0.000	.012	.717	2.279E-04	0.	2.279E-04	4.256E+07	7.243E-01	2.515E-03	0.	2.515E-03		
3612100	RU	1.730	.194	.893	.717	3.305E-03	4.559E-03	3.761E-02	4.256E+07	6.793E-05	3.647E-01	5.031E-02	4.150E-01		
3612200	RU	.501	.093	.279	.241	9.569E-03	1.944E-03	1.191E-02	1.440E+07	1.936E-04	1.036E-01	2.145E-02	1.270E-01		
3612300	RU	.648	.279	.340	.637	4.551E-03	6.338E-03	1.489E-02	3.779E+07	2.627E-03	9.436E-02	6.994E-02	1.643E-01		
3612400	SA	.531	.147	.331	.174	1.014E-02	3.931E-03	1.407E-02	1.033E+07	9.373E-06	1.119E-01	4.338E-02	1.553E-01		
3612500	SA	.454	.367	.439	.439	4.200E-03	1.522E-02	1.962E-02	2.177E+07	1.816E-02	6.635E-02	1.679E-01	2.143E-01		
3612600	TE	.861	1.671	1.317	.723	1.644E-02	4.266E-02	5.772E-02	2.600E+07	3.081E-03	1.685E-01	4.685E-01	6.370E-01		
3612700	TE	1.020	.423	.744	.911	1.949E-02	3.927E-02	5.366E-02	4.289E+07	3.159E-03	1.814E-01	4.328E-01	6.143E-01		
3612800	TE	.333	.569	.443	1.077	6.369E-03	1.227E-02	3.176E-02	5.402E+07	4.326E-03	2.151E-01	1.354E-01	3.505E-01		
3612900	TE	.556	.375	.154	1.574	2.920E-03	1.336E-02	1.973E-02	6.392E+07	2.370E+00	7.029E-02	1.475E-01	2.178E-01		
3613000	TE	1.361	.672	.314	1.589	2.600E-02	1.109E-01	1.369E-01	9.052E+07	1.357E+00	3.222E-02	1.441E-01	1.763E-01		
3613100	TE	1.289	1.257	1.271	.942	2.462E-02	2.952E-02	5.414E-02	9.224E+07	4.050E-02	2.869E-01	1.223E+00	1.910E+00		
3613200	TE	.628	1.724	1.234	.892	1.200E-02	4.056E-02	5.256E-02	4.046E+07	7.179E-03	1.324E-01	4.476E-01	5.800E-01		

5313300	I	1.499	1.740	1.429	2.141	2.846E-02	4.084E-02	6.932E-02	1.270E+08	5.077E-01	3.141E-01	4.509E-01	7.650E-01
5313300	XE	.368	.240	.297	2.167	7.035E-03	5.624E-03	1.256E-02	1.286E+08	3.137E+00	7.764E-02	6.206E-02	1.397E-01
5213300	TF	.334	1.464	1.021	1.307	6.767E-03	3.678E-02	4.343E-02	8.286E+07	1.115E-02	7.470E-02	4.052E-01	4.799E-01
5313400	I	2.578	7.492	5.437	2.237	4.025E-02	1.844E-01	2.341E-01	1.327E+08	2.236E-02	5.435E-01	2.033E+00	2.583E+00
5313400	CS	.064	.510	.310	.239	1.222E-03	1.197E-02	1.319E-02	1.410E+07	4.894E+01	1.366E-02	1.321E-01	1.455E-01
5313500	I	1.290	3.442	2.719	1.944	2.464E-02	9.114E-02	1.154E-02	1.165E+08	1.475E-01	2.717E-01	1.006E+00	1.278E+00
5413700	XE	1.797	1.155	.822	.944	3.433E-02	3.642E-03	3.797E-02	3.472E+07	4.270E-04	3.788E-01	4.019E-02	4.190E-01
5413800	XE	1.343	1.084	1.637	1.224	2.565E-02	4.660E-02	7.225E-02	7.260E+07	3.302E-03	2.830E-01	5.143E-01	7.973E-01
5513900	CS	3.692	5.433	4.710	1.752	7.067E-02	1.300E-01	2.005E-01	1.039E+08	1.072E-07	7.778E-01	1.433E+00	2.213E+00
5613900	BA	2.750	.130	1.306	1.144	6.431E-02	1.133E-02	7.564E-02	6.788E+07	2.022E-03	9.077E-01	1.250E-01	8.347E-01
5614000	BA	.442	.510	.670	1.847	5.233E-02	3.042E-03	5.560E-02	1.090E+08	2.908E-02	5.977E-01	3.378E-02	6.135E-01
5714000	LA	1.629	5.407	3.942	1.842	1.608E-02	1.244E-01	2.853E-02	1.068E+08	6.302E+00	1.775E-01	1.373E-01	3.148E-01
5714100	BA	2.062	1.428	1.423	1.341	3.944E-02	1.384E-01	1.696E-01	1.121E+08	8.664E-01	3.434E-01	1.526E+00	1.871E+00
5814100	CE	.459	.074	1.313	1.714	5.413E-02	3.821E-02	7.741E-02	8.011E+07	4.696E-03	4.343E-01	4.217E-01	8.564E-01
5614200	BA	.748	1.430	1.129	1.724	8.759E-03	3.938E-03	5.593E-02	1.018E+08	7.571E-02	5.974E-01	1.980E-02	6.172E-01
5714200	LA	2.587	5.333	4.132	1.647	1.429E-02	3.378E-02	1.870E-02	1.022E+08	1.534E+01	9.666E-02	4.345E-02	1.401E-01
5714300	LA	1.573	1.674	1.135	1.438	4.942E-02	1.253E-01	4.807E-02	6.211E+07	2.128E-03	1.577E-01	3.728E-01	5.305E-01
5814300	CE	1.090	.474	.934	1.135	.009E-02	4.124E-02	7.129E-02	6.730E+07	2.875E-02	5.454E-01	1.382E+00	1.928E+00
5914300	PR	.837	0.000	.374	1.559	2.033E-02	1.470E-02	3.553E-02	9.251E+07	5.866E-01	2.298E-01	1.622E-01	3.920E-01
5814400	CE	.199	.034	.121	1.441	1.809E-03	1.326E-03	5.134E-03	8.547E+07	1.121E+02	4.203E-02	1.463E-02	5.666E-02
5914400	PR	3.055	.061	1.424	1.451	5.837E-02	1.433E-03	5.980E-02	8.605E+07	4.762E-03	6.441E-01	1.582E-02	6.599E-01
5914500	PR	1.253	.070	.573	1.066	.394E-02	4.682E-04	2.441E-02	6.325E+07	7.269E-02	2.642E-01	5.167E-03	2.594E-01
5814600	CE	.735	.249	.243	.810	4.875E-03	6.313E-03	1.117E-02	3.740E+07	1.701E-03	5.380E-02	6.967E-02	1.235E-01
5914600	PR	1.312	1.481	1.625	.844	5.066E-02	4.415E-02	6.921E-02	5.028E+07	3.897E-03	2.765E-01	4.872E-01	7.633E-01
5914700	PR	.548	.478	.439	.319	1.237E-02	1.356E-02	2.594E-02	3.079E+07	1.183E-03	1.365E-01	1.497E-01	2.862E-01
6014700	NO	.279	.111	.187	.692	5.326E-03	2.618E-03	7.941E-03	4.102E+07	2.079E+00	5.877E-02	2.886E-02	8.763E-02
6114900	PM	.431	.013	.201	.687	8.240E-03	3.114E-04	8.552E-03	4.074E+07	4.157E-01	9.093E-02	3.436E-03	9.437E-02
6215300	SM	.233	.044	.152	.635	4.466E-03	2.014E-03	6.460E-03	3.588E+07	3.220E-01	4.906E-02	2.223E-02	7.129E-02
6315600	EU	.235	.587	.429	.328	4.496E-03	1.377E-02	1.827E-02	1.946E+07	1.364E+00	4.962E-02	1.520E-01	2.016E-01

TABLE R-XXXII

TMY. UNIT 2. 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

29=TIME STEP

1.0000E+03=TOTAL TIME SINCE LAST TIME AT POWER(S)
 9.3432E+07=TOTAL FLAPS/F TIME(S)
 6.8881E+19=FISSIONS/S AT LAST TS AT POWER.(22)
 2.77200E+09=POWER (WATTS) AT LAST TS AT POWER (2.77200E+03 MW)
 7.28678E+03=ACCUMULATED FISSIONS (FISSIONS PER BARN-XXXIICH)
 1.44045E+04=TOTAL FP IN SIM PER BARN-C4

1.91487E+20=TOTAL ACTIVITY (NTS/S)
 5.17533E+09=TOTAL CURIES
 1.65560E+01=TOTAL BETA DECAY POWER (MW)
 2.16332E+01=TOTAL GAMMA DECAY POWER (MW)
 3.81901E+01=TOTAL GAMMA DECAY POWER (MW)
 1.50024E+00=TOTAL BETA NEUTRINO
 1.96046E+00=TOTAL GAMMA NEUTRINO
 3.46074E+00=TOTAL DECAY NEUTRINO

ID ZZAAAS	SYM	PERCENT OF ALL FP				MEV/FISS				DECAY POWER IN MW			
		BETA	GAMMA	TOTAL	CURIES	BETA	GAMMA	TOTAL	CURIES	DENSITY	BETA	GAMMA	TOTAL
360H700	KR	1.104	.503	.754	.447	1.660E-02	9.857E-03	2.645E-02	2.315E+07	5.635E-03	1.831E-01	1.088E-01	2.919E-01
360H800	KR	.318	2.164	1.754	.690	4.769E-03	4.243E-02	4.720E-02	3.572E+07	1.922E-02	5.263E-02	4.683E-01	5.209E-01
370H400	RR	2.431	.701	1.674	.734	4.247E-02	1.374E-02	5.621E-02	3.796E+07	2.152E-03	4.686E-01	1.516E-01	6.203E-01
370H900	RR	.963	1.914	1.445	.559	1.444E-02	3.557E-02	5.001E-02	2.893E+07	1.409E-03	1.594E-01	3.925E-01	5.519E-01
380H900	SR	1.099	0.000	.477	1.077	1.633E-02	0.	1.633E-02	5.223E+07	1.253E+01	1.807E-01	0.	1.802E-01
380H100	SR	1.537	1.254	1.774	1.771	2.306E-02	2.458E-02	4.763E-02	6.580E+07	1.199E-01	2.544E-01	2.712E-01	5.257E-01
390H100	Y	1.511	.005	.659	1.744	2.267E-02	9.951E-05	2.277E-02	6.964E+07	1.882E+01	2.502E-01	1.099E-03	2.513E-01
390H110	Y	0.000	.587	.337	.745	0.	1.150E-02	1.150E-02	3.857E+07	6.139E-03	0.	1.269E-01	1.269E-01
390H200	SR	.469	2.499	1.619	1.316	7.034E-03	4.899E-02	5.601E-02	6.810E+07	3.547E-02	7.762E-02	5.405E-01	6.181E-01
390H200	Y	3.347	.499	1.950	1.419	3.772E-02	9.784E-03	6.750E-02	7.338E+07	4.978E-02	6.369E-01	1.080E-01	7.449E-01
380H300	SR	.757	.496	.777	.337	1.135E-02	1.364E-02	2.499E-02	1.820E+07	4.372E-04	1.253E-01	1.505E-01	2.758E-01
390H300	Y	3.461	.217	1.777	1.469	5.493E-02	4.154E-02	5.909E-02	8.633E+07	1.692E-01	6.067E-01	4.584E-02	6.520E-01
390H400	Y	3.307	1.453	2.257	1.039	4.961E-02	2.849E-02	7.810E-02	5.378E+07	3.273E-03	5.475E-01	3.144E-01	8.619E-01
390H500	Y	2.116	.453	1.174	.454	3.174E-02	8.878E-03	4.062E-02	3.385E+07	1.138E-03	3.503E-01	9.797E-02	4.482E-01
400H500	ZR	.428	2.775	1.351	1.999	6.425E-03	4.067E-02	4.710E-02	1.029E+08	3.107E+01	7.091E-01	4.488E-01	5.197E-01
410H500	NR	.163	2.193	1.313	2.019	2.445E-03	4.299E-02	4.543E-02	1.045E+08	1.691E+01	2.698E-02	4.744E-01	5.013E-01
400H700	ZR	2.638	.519	1.437	2.013	1.958E-02	1.017E-02	4.975E-02	1.042E+08	3.364E-01	4.367E-01	1.123E-01	5.490E-01
410H700	NR	1.793	1.974	1.891	2.055	2.675E-02	3.970E-02	6.544E-02	1.064E+08	2.508E-02	2.952E-01	4.270E-01	7.222E-01
410H710	NR	0.000	1.829	1.035	1.737	0.	3.586E-02	3.586E-02	8.989E+07	2.591E-04	0.	3.958E-01	3.958E-01
420H900	MD	1.586	.587	1.020	2.224	2.379E-02	1.151E-02	3.530E-02	1.151E+08	1.461E+00	2.625E-01	1.270E-01	3.895E-01
430H910	TC	0.000	.390	.771	1.925	0.	7.639E-03	7.639E-03	9.962E+07	1.153E-01	0.	8.429E-02	8.429E-02
4210100	MD	1.048	1.869	1.513	.950	1.572E-02	3.667E-02	5.234E-02	4.919E+07	2.300E-03	1.735E-01	4.042E-01	5.776E-01
4310100	TC	1.499	.804	1.175	1.695	2.249E-02	1.576E-02	3.825E-02	8.724E+07	3.967E-03	2.482E-01	1.739E-01	4.221E-01
4210200	MD	.615	0.000	.190	.770	6.226E-03	0.	6.226E-03	3.725E+07	1.324E-03	6.870E-02	0.	6.870E-02
4310200	TC	2.029	.477	1.150	.776	3.043E-02	9.355E-03	3.979E-02	3.755E+07	1.062E-05	3.359E-01	1.032E-01	4.391E-01
4410300	RU	.264	1.467	.946	2.112	3.964E-03	2.877E-02	3.273E-02	1.093E+08	1.996E+01	4.375E-02	3.174E-01	3.612E-01
4510310	RH	0.000	.119	.067	2.112	0.	2.336E-03	2.336E-03	1.093E+08	1.960E-02	0.	2.577E-02	2.577E-02
4310400	TC	2.166	2.013	2.079	.980	1.250E-02	3.946E-02	7.196E-02	5.072E+07	2.924E-03	3.587E-01	4.354E-01	7.941E-01
4310500	TC	.733	.439	.552	.375	1.100E-02	8.430E-03	1.943E-02	1.944E+07	4.981E-04	1.214E-01	9.303E-02	2.144E-01
4410500	RU	1.110	1.422	1.420	1.452	1.666E-02	3.180E-02	4.845E-02	7.515E+07	6.412E-02	1.839E-01	3.509E-01	5.347E-01
4510500	RH	.393	.155	.258	1.391	5.889E-03	3.046E-03	8.936E-03	7.200E+07	4.912E-01	6.499E-02	3.362E-02	9.861E-02
4410600	RU	.015	0.000	.007	.922	2.279E-04	0.	2.279E-04	4.256E+07	7.243E-01	2.315E-03	0.	2.315E-03
4510600	RH	2.203	.733	1.087	.822	1.305E-02	4.559E-03	3.761E-02	4.256E+07	6.792E-05	3.647E-01	5.031E-02	4.150E-01
4510700	RH	.442	.291	.734	.555	6.631E-03	4.915E-03	1.155E-02	2.931E+07	2.037E-03	7.317E-02	5.424E-02	1.274E-01
511H810	SB	.333	.575	.447	.190	5.001E-03	1.049E-02	1.949E-02	9.829E+06	3.274E-04	5.519E-02	1.157E-01	1.709E-01
511H900	SB	.274	.759	.549	.411	4.104E-03	1.487E-02	1.897E-02	2.128E+07	1.774E-02	4.529E-02	1.641E-01	2.094E-01
5113010	SB	.961	1.831	1.411	.425	1.291E-02	3.591E-02	4.897E-02	2.199E+07	2.606E-03	1.425E-01	3.962E-01	5.387E-01
5113100	SR	.811	1.480	1.170	.613	1.217E-02	2.902E-02	4.117E-02	3.174E+07	2.338E-03	1.343E-01	3.203E-01	4.545E-01
5213100	TF	1.195	.575	.844	.260	1.792E-02	1.128E-02	2.920E-02	4.967E+07	3.977E-03	1.978E-01	1.245E-01	3.222E-01
5313100	I	.424	.482	.570	1.735	6.368E-03	1.336E-02	1.973E-02	6.391E+07	2.370E+00	7.028E-02	1.475E-01	2.178E-01
5213200	TF	.194	.665	.451	1.747	2.916E-03	1.304E-02	1.596E-02	9.039E+07	1.355E+00	3.217E-02	1.439E-01	1.761E-01
5313200	I	1.731	5.450	3.951	1.781	2.597E-02	1.108E-01	1.367E-01	9.215E+07	4.046E-02	2.866E-01	1.222E+00	1.509E+00
5213300	TF	1.021	.977	.973	.672	1.532E-02	1.837E-02	3.369E-02	3.478E+07	1.392E-03	1.691E-01	2.027E-01	3.718E-01
5213310	TF	.706	1.825	1.320	.620	1.059E-02	3.579E-02	4.638E-02	3.571E+07	6.335E-03	1.168E-01	3.950E-01	5.118E-01
5313300	I	1.893	2.089	1.929	2.449	7.840E-02	4.077E-02	6.917E-02	1.267E+08	5.066E-01	3.134E-01	4.499E-01	7.633E-01
5413300	XE	.469	.287	.356	2.494	7.035E-03	5.624E-03	1.266E-02	1.286E+08	3.137E+00	7.764E-02	6.206E-02	1.397E-01
5213400	TE	.383	1.588	1.065	1.157	5.739E-03	3.113E-02	3.687E-02	7.025E+07	9.450E-03	6.333E-02	3.436E-01	4.069E-01
5313400	I	3.115	.945	4.418	2.433	4.674E-02	1.754E-01	2.221E-01	1.259E+08	2.121E-02	5.157E-01	1.935E+00	2.451E+00
5513400	CS	.081	.610	.781	.272	1.222E-03	1.197E-02	1.319E-02	1.410E+07	4.894E+01	1.348E-02	1.321E-01	1.455E-01
5313500	I	1.614	4.568	3.797	2.713	2.421E-02	8.956E-02	1.138E-01	1.145E+08	1.449E-01	2.672E-01	9.883E-01	1.255E+00
5413900	XE	1.049	1.459	1.281	.851	1.574E-02	2.860E-02	4.435E-02	4.456E+07	2.027E-03	1.737E-01	3.157E-01	4.894E-01
5513900	CS	4.287	.653	5.297	1.833	6.431E-02	1.187E-01	1.840E-01	9.484E+07	9.781E-03	7.097E-01	1.309E+00	2.019E+00
5513900	CS	2.035	.274	1.037	.423	3.052E-02	5.378E-03	3.592E-02	3.222E+07	9.597E-04	4.368E-01	5.935E-02	3.962E-01
5613900	BA	3.344	.149	1.534	2.711	5.017E-02	2.924E-03	5.310E-02	1.041E+08	2.777E-02	5.537E-01	3.227E-02	5.859E-01
5614000	BA	1.072	.635	.824	2.063	1.608E-02	1.244E-02	2.852E-02	1.068E+08	6.300E+00	1.774E-01	1.373E-01	3.147E-01
5714000	LA	2.074	.704	4.879	2.145	3.112E-02	1.384E-01	1.695E-01	1.120E+08	8.662E-01	3.434E-01	1.528E+00	1.871E+00
5614100	BA	1.798	1.734	1.535	1.050	2.698E-02	2.616E-02	5.314E-02	5.885E+07	3.215E-03	2.977E-01	2.887E-01	5.864E-01
5714100	LA	3.572	.001	1.600	1.947	5.358E-02	1.776E-03	5.536E-02	1.008E+08	7.494E-02	5.913E-01	1.960E-02	6.109E-01

5814100	CE	.584	.201	.367	1.074	8.759E-03	3.938E-03	1.270E-02	1.022E+08	1.534E+01	9.666E-02	4.545E-02	1.401E-01
5814200	RA	.498	.002	.777	.624	7.475E-03	1.768E-02	2.515E-02	3.249E+07	1.114E-03	8.249E-02	1.931E-01	2.775E-01
5714200	LA	3.168	6.164	4.834	1.474	4.873E-02	1.204E-01	1.080E-01	9.343E+07	2.765E-02	5.245E-01	1.329E+00	1.854E+00
5714300	LA	1.221	1.282	1.793	1.214	1.832E-02	2.514E-02	4.345E-02	4.102E+07	1.839E-03	2.021E-01	2.774E-01	4.795E-01
5814300	CE	1.386	.749	1.074	1.783	2.080E-02	1.468E-02	3.547E-02	9.237E+07	5.857E-01	2.295E-01	1.620E-01	3.915E-01
5914300	PR	1.068	0.000	.452	1.774	1.600E-02	0.	1.600E-02	9.193E+07	5.758E+00	1.765E-01	0.	1.765E-01
5814400	CE	.254	.094	.144	1.652	3.809E-03	1.325E-03	5.134E-03	4.547E+07	1.121E+02	4.203E-01	1.463E-02	3.666E-02
5914400	PR	3.882	.073	1.724	1.659	5.824E-02	1.430E-03	5.967E-02	8.586E+07	4.752E-03	6.427E-01	1.578E-02	6.585E-01
5914500	PR	1.569	.023	.673	1.272	2.354E-02	4.603E-04	2.400E-02	6.219E+07	7.147E-02	2.598E-01	5.080E-03	2.648E-01
5914600	PR	1.496	2.018	1.722	.870	2.245E-02	3.955E-02	6.200E-02	4.504E+07	3.491E-03	2.477E-01	4.365E-01	6.842E-01
6014700	ND	.355	.133	.829	.793	8.235E-03	2.619E-03	7.940E-03	4.101E+07	2.079E+00	5.876E-02	2.886E-02	8.762E-02
6114900	PM	.549	.016	.747	.784	4.235E-03	3.111E-04	8.444E-03	4.070E+07	4.153E-01	9.085E-02	3.433E-03	9.428E-02
6215300	SM	.296	.103	.196	.692	4.435E-03	2.009E-03	6.444E-03	3.579E+07	3.212E-01	4.895E-02	2.218E-02	7.112E-02
6315600	EU	.300	.702	.924	.374	4.495E-03	1.377E-02	1.826E-02	1.945E+07	1.364E+00	4.960E-02	1.519E-01	2.015E-01

TABLE B-XXXIII

TMI-2 IF OPERATED 26K HRS AT 2772. MW CONT. CINCEN-10(LASLI 8/79

30=TIME STEP

3.60000E+03=TOTAL TIME SINCE LAST TIME AT POWER(S)

9.34952E+07=TOTAL ELAPSED TIME(S)

6.68811E+10=FISSIONS/AT LAST TS AT POWER(22)

2.77200E+09=POWER (WATTS) AT LAST TS AT POWER(2.77200E+03 MW)

7.28678E+03=ACCUMULATED FISSIONS PER BARN-CM

1.44045E+04=TOTAL FP IN SUM PER BARN-CM

1.52310E+20=TOTAL ACTIVITY (DIS/S)

4.11630E+09=TOTAL CURIES

1.1317E+01=TOTAL BETA DECAY POWER (MW)

1.50362E+01=TOTAL GAMMA DECAY POWER (MW)

2.61679E+01=TOTAL DECAY POWER (MW)

1.00874E+00=TOTAL BETA MEV/F

1.32256E+00=TOTAL GAMMA MEV/F

2.37130E+00=TOTAL DECAY MEV/F

ID ZZAAA	SYM	PERCENT OF ALL FP			MEV/FISS			TOTAL			CURIES			DENSITY			BETA			GAMMA			TOTAL
		BETA	GAMMA	TOTAL	BETA	GAMMA	TOTAL	BETA	GAMMA	TOTAL	BETA	GAMMA	TOTAL	BETA	GAMMA	TOTAL	BETA	GAMMA	TOTAL				
3604700	KR	1.108	.487	.791	1.118E-02	6.639E-03	1.782E-02	1.599E-02	1.599E+07	3.796E-03	1.234E-01	7.326E-02	1.966E-01										
3604800	KR	.395	2.626	1.655	3.985E-03	3.549E-02	3.947E-02	2.987E+07	1.607E-02	4.401E-02	3.916E-01	4.356E-01											
3704800	RR	3.663	.877	2.042	3.695E-02	1.194E-02	4.890E-02	3.303E+07	1.872E-03	4.077E-01	1.319E-01	5.396E-01											
3804900	SR	1.619	0.000	.888	1.632E-02	0.	1.632E-02	5.221E+07	1.252E+01	1.801E-01	0.	1.801E-01											
3904100	SR	2.168	1.711	1.935	2.187E-02	2.331E-02	4.519E-02	6.242E+07	1.137E-01	2.413E-01	2.573E-01	4.986E-01											
3904100	Y	2.247	.007	.940	2.267E-02	9.950E-05	2.277E-02	6.964E+07	1.882E+01	2.502E-01	1.094E-03	2.513E-01											
3904110	Y	0.000	.824	.475	0.	1.126E-02	1.126E-02	3.775E+07	6.008E-03	0.	1.242E-01	1.242E-01											
3804200	SR	.580	2.984	1.044	5.848E-03	4.072E-02	4.566E-02	5.661E+07	2.948E-02	6.453E-02	4.493E-01	5.138E-01											
3904300	Y	5.405	.703	2.744	5.654E-02	9.584E-03	6.612E-02	7.188E+07	4.876E-02	6.239E-01	1.058E-01	7.297E-01											
3904300	Y	5.195	.291	2.744	5.243E-02	3.965E-03	5.640E-02	8.241E+07	4.676E-02	5.786E-01	4.376E-02	6.224E-01											
3904400	Y	1.012	.440	.674	1.021E-02	5.863E-03	1.607E-02	1.107E+07	6.735E-04	1.127E-01	6.470E-02	1.774E-01											
4004500	ZR	.637	2.984	2.404	4.424E-03	4.064E-02	4.704E-02	1.026E+08	3.106E+01	7.089E-02	4.487E-01	5.194E-01											
4104500	NR	.242	3.154	1.016	2.445E-03	4.294E-02	4.543E-02	1.045E+08	1.691E+01	2.698E-02	4.743E-01	5.013E-01											
4004700	ZR	3.808	.775	2.016	3.841E-02	9.874E-03	4.829E-02	1.011E+08	3.265E-01	4.239E-01	1.090E-01	5.329E-01											
4104700	NR	2.620	2.805	2.737	2.643E-02	3.824E-02	6.467E-02	1.051E+08	2.478E-02	2.916E-01	4.220E-01	7.136E-01											

31=TIME STEP
7.2000E+03=TOTAL TIME SINCE LAST TIME AT POWER(S)
9.3498E+07=TOTAL ELAPSED TIME(S)

TIME-2 IF OPERATED 26K HRS AT 2772. MW CONT. CIMER-10(LASL) 8/79

TABLE B-XXIV

4100710	NA	0.000	2.955	1.454	2.120	0.	3.401E-02	3.401E-02	8.726E+07	2.515E-04	0.	3.841E-01	3.841E-01
4200900	MO	2.341	.834	1.477	2.775	2.361E-02	1.142E-02	3.503E-02	1.143E+08	1.449E+00	2.606E-01	1.260E-01	3.860E-01
4300910	TC	0.000	.560	.322	2.410	0.	7.635E-03	7.635E-03	9.957E+07	1.132E-01	0.	6.425E-02	9.425E-02
4310100	TC	.599	.311	.433	.549	6.043E-03	4.234E-03	1.028E-02	2.344E+07	1.066E-03	6.669E-02	4.672E-02	1.134E-01
4410300	RU	.193	.211	1.390	2.110	1.962E-03	2.875E-02	1.271E-02	1.092E+08	1.995E+01	4.372E-02	3.173E-01	3.610E-01
4510310	RM	0.000	.171	.034	2.654	0.	2.315E-03	2.315E-03	1.093E+08	1.960E-02	0.	2.577E-02	2.577E-02
4510400	TC	.607	.544	.572	.212	4.127E-03	7.438E-03	1.357E-02	9.562E+06	5.512E-04	6.762E-02	3.204E-02	1.497E-01
4410500	RU	1.487	.210	1.840	1.644	1.500E-02	2.863E-02	4.365E-02	6.766E+07	5.773E-07	1.655E-01	3.159E-01	4.614E-01
4510600	RU	.544	.224	.377	1.749	4.488E-03	3.056E-03	0.934E-03	7.199E+07	4.911E-01	6.498E-02	3.361E-02	9.859E-02
4510700	RU	.023	0.000	.010	1.034	2.279E-04	0.	2.279E-04	4.256E+07	7.247E-01	2.515E-03	0.	2.515E-03
4510900	RM	3.276	.334	1.546	1.034	1.305E-02	4.559E-03	3.761E-02	4.256E+07	6.792E-05	3.647E-01	5.031E-02	4.150E-01
5112900	SD	.602	.000	.171	.503	4.051E-03	2.346E-06	4.051E-03	2.071E+07	5.354E-02	4.471E-02	2.578E-05	4.478E-02
5122900	TE	.363	.074	.714	.662	4.665E-03	1.328E-02	1.694E-02	1.900E+07	1.585E-02	4.044E-02	1.465E-01	1.870E-01
5113010	SA	.571	.057	.275	.445	5.730E-03	7.823E-04	6.513E-03	1.998E+07	4.479E-03	6.323E-02	8.633E-03	7.186E-02
5113100	SA	.327	.175	.471	.234	7.759E-03	1.801E-02	2.177E-02	9.807E+06	1.162E-03	6.355E-02	1.767E-01	2.403E-01
5213100	TE	.941	.434	.652	.702	1.296E-03	7.863E-03	1.118E-02	8.598E+06	6.334E-04	3.637E-02	8.677E-02	1.231E-01
5213110	TE	.093	.566	.354	.639	9.492E-03	5.975E-03	1.547E-02	2.631E+07	2.106E-03	1.047E-01	6.593E-02	1.707E-01
5213100	TE	.631	.990	.432	1.551	3.364E-03	1.335E-02	1.973E-02	6.333E+06	5.554E-02	1.040E-02	8.515E-02	9.554E-02
5213200	TE	.287	.941	.659	2.182	2.897E-03	1.296E-02	1.586E-02	6.387E+07	2.368E+00	7.023E-02	1.474E-01	2.176E-01
5213200	I	2.563	.803	.741	2.229	2.586E-02	1.103E-01	1.361E-01	9.175E+07	1.346E+00	3.197E-02	1.430E-01	1.750E-01
5213310	TE	.610	1.527	1.137	.504	4.157E-03	2.081E-02	2.697E-02	2.076E+07	3.684E-03	6.794E-02	2.297E-01	2.976E-01
5213300	I	2.769	2.943	2.860	3.028	2.794E-02	4.010E-02	6.804E-02	1.247E+08	4.983E-01	3.083E-01	4.426E-01	7.508E-01
5213400	TE	.597	.413	.534	1.123	7.035E-03	5.624E-03	1.269E-02	1.286E+08	3.137E+00	7.764E-02	6.206E-02	1.397E-01
5213400	I	3.997	9.494	6.858	2.240	3.422E-02	1.284E-01	1.626E-01	3.436E+07	4.622E-03	3.098E-02	1.680E-01	1.990E-01
5213400	CS	.121	.874	.554	.343	1.222E-03	1.197E-02	1.319E-02	9.220E+07	1.593E-02	3.776E-01	1.417E+00	1.795E+00
5213500	XE	.590	.204	4.447	2.578	2.244E-02	8.300E-02	1.056E-01	1.616E+08	1.343E-01	1.348E-02	1.321E-01	1.455E-01
5213800	CS	3.153	4.307	.384	.721	4.943E-03	4.170E-03	9.114E-03	2.970E+07	5.233E-02	5.455E-02	4.602E-02	1.006E-01
5213900	BA	3.735	.155	1.419	1.139	3.181E-02	5.868E-02	9.049E-02	4.591E+07	4.837E-03	3.510E-01	6.476E-01	9.986E-01
5214000	BA	1.231	.912	1.271	2.590	1.605E-02	1.242E-02	2.843E-02	7.525E+07	2.008E-02	4.002E-01	2.332E-02	4.235E-01
5214000	LA	3.083	10.194	7.144	2.720	3.110E-02	1.393E-01	1.694E-01	1.066E+08	6.289E+00	1.771E-01	1.371E-01	3.142E-01
5214100	BA	.518	.372	.434	.258	9.226E-03	5.068E-03	1.029E-02	1.063E+07	6.226E-04	5.767E-02	5.593E-02	1.136E-01
5214100	LA	4.837	.119	2.176	2.229	4.879E-02	1.617E-03	5.041E-02	9.176E+07	6.824E-02	5.384E-01	1.785E-02	5.563E-01
5214100	CE	.068	.280	.335	2.484	8.759E-03	3.937E-03	1.270E-02	1.022E+08	1.534E+01	9.665E-02	4.345E-02	1.401E-01
5214200	LA	3.246	6.653	5.331	1.704	1.577E-02	9.065E-02	1.264E-01	7.932E+07	2.081E-02	3.947E-01	1.000E+00	1.395E+00
5214300	PR	2.036	1.044	1.474	2.214	2.054E-02	1.450E-02	3.504E-02	9.123E+07	5.785E-01	2.267E-01	1.600E-01	3.865E-01
5214300	PR	1.546	0.000	.674	2.233	1.600E-02	0.	1.600E-02	9.193E+07	5.785E+00	1.765E-01	0.	1.765E-01
5214400	CE	.378	.097	.217	2.076	1.802E-02	1.425E-03	5.135E-03	8.547E+07	1.121E-02	4.203E-02	1.463E-02	5.686E-02
5214500	PR	5.752	.104	2.577	2.074	8.809E-02	2.255E-04	5.944E-02	8.554E+07	4.734E-03	6.403E-01	1.572E-02	6.560E-01
5214500	PR	2.147	.031	.931	1.390	2.166E-02	4.235E-04	2.208E-02	5.722E+07	6.575E-02	2.390E-01	4.674E-03	2.437E-01
5214600	PR	.914	1.074	1.074	.450	9.225E-03	2.611E-03	2.548E-02	1.851E+07	1.435E-03	1.018E-01	1.794E-01	2.812E-01
6014700	ND	.527	.334	.905	.905	5.316E-03	2.611E-03	7.927E-03	4.095E+07	2.076E+00	5.867E-02	2.881E-02	8.748E-02
6114800	PM	.349	.431	.336	.336	5.538E-03	4.690E-03	1.023E-02	1.385E+07	3.431E-01	6.111E-02	5.176E-02	1.129E-01
6114900	PM	.812	.023	.349	.944	8.193E-03	3.906E-04	8.505E-03	4.050E+07	4.133E-01	9.041E-02	3.416E-03	9.382E-02
6215300	SM	.835	.146	.259	.940	4.388E-03	1.948E-03	6.376E-03	3.541E+07	3.178E-01	4.843E-02	2.194E-02	7.037E-02
6315600	EU	.445	1.000	.749	.472	4.489E-03	1.375E-02	1.824E-02	1.943E+07	1.362E+00	4.954E-02	1.517E-01	2.013E-01

6.8841E+19=FISSIONS/S AT LAST TS AT POWER (22)
 2.77200E+09=POWER (WATTS) AT LAST TS AT POWER (2.77200E+03 MW)
 7.2678E+03=ACCUMLATED FISSIONS PER BARN-CM
 1.64645E+04=TOTAL FP IN SIM PER BARN-CM
 1.36000E+20=TOTAL ACTIVITY (DPS/S)
 3.67568E+09=TOTAL CURTFS
 9.12635E+00=BETA DECAY POWER (MW)
 1.19009E+01=TOTAL GAMMA DECAY POWER (MW)
 2.10272E+01=TOTAL DECAY POWER (MW)
 8.27019E-01=TOTAL BETA W/F
 1.07844E+00=TOTAL GAMMA W/F
 1.90546E+00=TOTAL DECAY W/F

ID	SYN	-----PERCENT OF ALL P-----	-----MEV/FISS-----	BETA	GAMMA	TOTAL	CURIES	DENSITY	BETA	GAMMA	----DECAY POWER IN MW-----	TOTAL
3604700	KR	.782	.354	.541	.745	4.67E-03	3.84E-03	1.03E-02	9.02E+06	2.19E-03	7.13E-02	4.23E-02
3604700	KR	.756	.614	.147	.614	3.14E-03	2.77E-02	3.08E-02	2.33E+07	1.25E-02	3.43E-02	3.05E-02
3708800	RB	3.521	.974	.707	.778	1.91E-02	9.42E-03	3.85E-02	2.603E+07	1.47E-03	4.25E-01	1.040E-01
3708800	RB	.521	.974	.073	.778	1.91E-02	9.42E-03	3.85E-02	2.603E+07	1.47E-03	4.25E-01	1.040E-01
3804200	SR	.548	1.937	1.193	4.52E-03	3.13E-02	3.60E-02	4.38E+07	2.28E+02	4.97E-02	3.97E-01	6.69E-01
3909200	Y	6.661	.849	1.280	4.34E-02	9.05E-03	6.24E-02	6.79E+07	4.60E-02	5.89E-01	6.69E-01	6.69E-01
3909300	Y	5.924	.754	2.754	4.89E-02	3.70E-03	5.27E-02	7.70E+07	1.50E-01	5.40E-01	5.81E-01	5.81E-01
4009500	ZR	.776	3.759	2.470	2.70E-03	4.06E-02	4.70E-02	1.08E+08	3.10E+01	7.05E-02	5.19E-01	5.19E-01
4109500	NB	.296	3.934	2.394	2.44E-02	4.29E-02	4.54E-02	1.04E+08	1.69E+01	2.69E-02	5.13E-01	5.13E-01
4209700	ZR	4.457	.777	2.437	3.68E-02	9.47E-03	6.64E-02	9.70E+07	3.13E-01	4.06E-01	1.03E-01	1.03E-01
4307700	NR	3.114	.744	2.374	3.738	3.72E-02	3.72E-02	1.02E+07	3.13E-01	2.84E-02	6.55E-01	6.55E-01
4409710	MD	0.000	1.753	1.753	3.274	3.34E-02	3.34E-02	8.37E+07	2.43E-04	2.43E-04	3.68E-01	3.68E-01
4409900	NB	2.925	1.048	1.819	3.074	1.33E-02	1.33E-02	1.13E+06	1.43E+00	2.57E-01	3.86E-01	3.86E-01
4409910	TC	0.000	.707	.470	2.775	7.62E-03	7.62E-03	9.94E+07	1.150E-01	0.0	8.41E-02	8.41E-02
4510300	BU	2.444	1.714	2.970	2.69E-03	2.69E-02	2.69E-02	1.09E+08	1.99E+01	4.36E-02	3.17E-01	3.17E-01
4510310	RM	0.000	.714	.122	2.972	2.33E-03	2.33E-03	1.09E+08	1.99E+01	4.36E-02	2.57E-02	2.57E-02
4510500	RU	1.552	1.971	1.474	1.283E-02	2.44E-02	2.44E-02	5.78E+07	4.94E-02	1.46E-01	4.19E-01	4.19E-01
4510500	RM	.710	.982	.449	1.993	3.98E-03	3.98E-03	7.11E+07	4.89E-01	3.35E-02	9.83E-02	9.83E-02
4610600	RU	.028	0.000	.017	1.154	2.27E-04	0.0	2.25E+07	7.24E+01	2.51E-03	0.0	2.51E-03
4610600	PH	3.996	.473	1.973	3.30E-02	4.55E-03	3.76E-02	9.45E+07	5.79E-03	4.24E-02	4.45E-01	4.45E-01
4710910	AG	0.000	.085	.048	0.0	9.20E-04	9.20E-04	1.94E+07	4.130E-05	0.0	1.01E-02	1.01E-02
5112900	S8	1.049	.778	.441	3.12E-03	1.13E-02	1.44E-02	1.62E+07	1.35E-02	3.44E-02	1.24E-01	1.24E-01
5212900	TE	.642	.067	.317	.904	4.31E-03	7.52E-04	6.03E-03	1.85E+07	4.15E-03	8.00E-02	6.66E-02
5213110	TE	.111	.700	.444	9.21E-04	7.54E-03	8.46E-03	9.41E+04	5.43E-02	1.01E-02	8.34E-02	8.34E-02
5313110	TE	.768	1.234	1.033	1.734	4.34E-03	1.33E-02	6.37E+07	2.36E+00	7.00E-02	1.47E-01	1.47E-01
5313200	TE	.347	1.191	.894	2.427	2.87E-03	1.18E-02	8.90E+07	1.33E+00	3.16E-02	1.41E-01	1.41E-01
5313200	I	3.106	10.147	7.017	2.429	1.95E-01	1.35E-02	9.11E+07	4.00E-02	2.83E-02	1.20E+00	1.20E+00
5513300	I	3.812	3.612	3.457	3.274	2.74E-02	3.69E-02	6.60E-02	1.21E+08	4.84E-01	2.99E-01	2.99E-01
5513300	KE	.851	.521	.454	3.437	7.03E-03	5.62E-03	1.26E-03	1.28E+08	3.13E+00	7.74E-01	7.74E-01
5513400	TE	.126	.524	.324	1.043E-03	5.97E-03	6.70E-03	1.27E+07	1.71E-03	1.15E-02	6.24E-02	6.24E-02
5513400	I	2.376	.438	.401	1.965E-02	7.37E-02	9.39E-02	5.29E+07	8.29E-03	2.17E-02	8.13E-01	8.13E-01
5513500	I	2.442	.427	.499	2.020E-02	7.47E-02	9.49E-02	9.55E+07	1.20E-01	2.27E-01	1.04E+00	1.04E+00
5513500	KE	.703	.494	.452	9.378E-03	4.70E-03	5.49E-03	1.07E-02	3.49E+07	1.46E-02	6.41E-02	6.41E-02
5513800	CS	1.134	1.404	1.470	9.378E-03	4.70E-03	5.49E-03	1.07E-02	3.49E+07	1.46E-02	6.41E-02	6.41E-02
5613900	HA	2.547	.112	1.274	2.206E-02	1.28E-03	2.33E-02	4.57E+07	1.22E-02	2.43E-01	1.41E-02	2.97E-02

32=TIME STEP

1.80000E+04=TOTAL TIME SINCE LAST TIME AT POWER(S)

9.35096E+07=TOTAL ELAPSED TIME(S)

6.88811E+19=FISSIONS/S AT LAST TS AT POWER (22)

2.77200E+09=POWER (WATTS) AT LAST TS AT POWER (2.77200E+03 MW)

7.28678E+03=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)

1.44045E+04=TOTAL FP IN SUM PER 94RN-CM

1.17988E+20=TOTAL ACTIVITY (DIS/S)

3.18888E+09=TOTAL CURIES

7.12927E+00=TOTAL BETA DECAY POWER (MW)

6.96140E+00=TOTAL GAMMA DECAY POWER (MW)

1.60910E+01=TOTAL DECAY POWER (MW)

6.46073E-01=TOTAL BETA MEV/F

6.12071E-01=TOTAL GAMMA MEV/F

1.45814E+00=TOTAL DECAY MEV/F

ID	SYM	BETA	GAMMA	TOTAL	CURIES	MEV/FISS	BETA	GAMMA	TOTAL	CURIES	DENSITY	BETA	GAMMA	TOTAL
3609800	KR	.229	1.421	1.654	.349	1.482E-03	1.318E-02	1.466E-02	1.110E+07	5.970E-03	1.635E-02	1.455E-01	1.618E-01	1.618E-01
3709800	RB	2.148	.553	1.595	.399	1.387E-02	4.490E-03	1.830E-02	1.240E+07	7.031E-04	1.531E-01	4.955E-02	2.027E-01	1.868E+00
3809800	SR	2.521	0.000	1.117	1.414	1.629E-02	0.	1.629E-02	5.210E+07	1.249E-01	1.797E-01	0.	1.797E-01	1.797E-01
3909800	Y	.511	.000	.216	.207	3.299E-03	9.921E-07	3.300E-03	6.596E+06	8.123E-02	3.640E-01	1.095E-03	3.641E-02	1.095E-03
3809100	SR	2.527	2.143	2.313	1.461	1.632E-02	1.740E-02	3.373E-02	4.659E+07	8.487E-02	1.801E-01	1.920E-01	3.722E-01	1.920E-01
3909100	Y	3.507	.012	1.541	2.143	2.266E-02	9.947E-05	2.276E-02	6.961E+07	1.881E-01	2.501E-01	1.094E-03	2.512E-01	1.094E-03
3909110	Y	0.000	1.074	.520	.919	0.	8.737E-03	8.737E-03	2.930E+07	4.684E-03	0.	9.641E-02	9.641E-02	9.641E-02
3809200	SR	.325	1.802	1.148	.618	2.102E-03	1.464E-02	1.674E-02	2.035E+07	1.060E-02	2.320E-02	1.615E-01	1.847E-01	1.847E-01
3909200	Y	6.186	.914	1.304	1.596	3.997E-02	6.775E-03	4.674E-02	5.082E+07	3.447E-02	4.411E-01	7.477E-02	3.158E-01	7.477E-02
3909300	Y	6.184	.372	2.947	1.949	7.996E-02	3.021E-03	4.298E-02	6.280E+07	1.231E-01	4.409E-01	3.334E-02	4.743E-01	4.409E-01
4009300	ZR	.193	4.999	1.223	3.219	6.412E-03	4.059E-02	4.709E-02	1.027E+08	3.101E+01	2.698E-02	4.743E-01	5.013E-01	2.698E-02
4109300	NR	.379	5.293	1.114	1.277	2.443E-03	4.238E-02	4.543E-02	1.045E+08	1.691E+01	2.698E-02	4.743E-01	5.013E-01	2.698E-02
4009700	ZR	5.041	1.031	2.878	2.689	3.257E-02	8.371E-03	4.094E-02	8.575E+07	2.768E-01	3.594E-01	9.238E-02	4.518E-01	9.238E-02
4109700	NR	3.584	4.127	1.997	2.899	2.314E-02	3.351E-02	5.666E-02	9.215E+07	2.172E-02	2.556E-01	3.698E-01	6.259E-01	3.698E-01

TABLE B-XXXV

TMI-3 IF OPERATED 26K HRS AT 2772. MW CONT. CINDER-10(LASL) 8/79

4109710	NR	0.000	3.614	2.024	2.322	0.	2.951E-02	2.951E-02	7.398E+07	2.132E-04	0.	3.257E-01	3.257E-01
4209900	ND	3.504	1.344	2.334	3.439	2.264E-02	1.075E-02	3.359E-02	1.096E+08	1.390E+00	2.498E-01	1.208E-01	3.707E-01
4309910	TC	0.000	.922	.517	3.044	0.	7.545E-03	7.545E-03	9.840E+07	1.138E-01	0.	8.326E-02	8.326E-02
4410300	HU	.611	3.432	2.237	3.419	3.951E-03	2.867E-02	3.262E-02	1.089E+08	1.989E+01	4.360E-02	3.164E-01	3.600E-01
4510310	RH	0.000	.247	.140	3.419	0.	2.329E-03	2.329E-03	1.090E+08	1.955E-02	0.	2.571E-02	2.571E-02
4410500	RU	1.243	1.849	1.633	1.137	8.033E-03	1.533E-02	2.337E-02	3.624E+07	3.092E-02	8.865E-02	1.692E-01	2.579E-01
4510500	RH	.440	.354	.522	2.235	5.752E-03	2.976E-03	8.728E-03	7.032E+07	4.797E-01	6.348E-02	3.284E-02	9.632E-02
4410600	RU	.035	0.000	.014	1.334	2.278E-04	0.	2.278E-04	4.254E+07	7.240E+01	2.514E-03	0.	2.514E-03
4510600	RH	5.113	.951	2.578	1.334	3.304E-02	4.558E-03	3.759E-02	4.254E+07	6.790E-05	3.646E-01	5.029E-02	4.149E-01
4610900	PO	.510	.000	.226	.522	3.297E-03	1.902E-06	3.299E-03	1.686E+07	4.360E-02	3.638E-02	2.098E-05	3.640E-02
4710910	AG	0.000	.097	.054	.525	0.	7.886E-04	7.886E-04	1.674E+07	3.538E-05	0.	8.702E-03	8.702E-03
5112900	SR	.299	.963	.613	.315	1.935E-03	7.010E-03	8.944E-03	1.003E+07	8.365E-03	2.135E-02	7.735E-02	9.870E-02
5212400	TE	.605	.044	.325	.427	3.909E-03	5.337E-04	4.443E-03	1.363E+07	3.056E-03	4.314E-02	5.889E-03	4.903E-02
5213110	TE	.133	.867	.542	.276	8.602E-04	7.040E-03	7.900E-03	8.790E+06	5.067E-02	9.492E-03	7.769E-02	8.718E-02
5313100	I	.974	1.424	1.337	1.940	6.293E-03	1.321E-02	1.950E-02	6.315E+07	2.342E+00	6.944E-02	1.457E-01	2.152E-01
5213200	TE	.433	1.540	1.049	2.718	2.796E-03	1.231E-02	1.530E-02	8.668E+07	1.299E+00	3.085E-02	1.380E-01	1.689E-01
5313200	I	3.845	13.182	9.043	2.793	2.510E-02	1.071E-01	1.322E-01	8.906E+07	3.911E-02	2.770E-01	1.181E+00	1.458E+00
5313300	I	3.814	4.354	4.116	3.444	2.464E-02	3.537E-02	6.001E-02	1.100E+08	4.395E-01	2.719E-01	3.903E-01	6.622E-01
5413300	XE	1.047	.691	.857	4.025	7.025E-03	5.615E-03	1.264E-02	1.284E+08	3.132E+00	7.752E-02	6.197E-02	1.395E-01
5313400	I	.405	1.210	.854	.721	2.620E-03	9.830E+03	1.245E-02	7.059E+06	1.189E-03	2.891E-02	1.085E-01	1.374E-01
5513400	CS	.189	1.473	.924	.442	1.222E-03	1.196E-02	1.319E-02	1.410E+07	4.893E+01	1.348E-02	1.320E-01	1.455E-01
5313500	I	2.280	6.792	4.744	2.184	1.473E-02	5.448E-02	6.921E-02	6.966E+07	8.814E-02	1.625E-01	6.012E-01	7.637E-01
5413500	XE	1.145	.768	.935	1.393	7.397E-03	6.240E-03	1.364E-02	4.444E+07	7.830E-02	8.163E-02	6.886E-02	1.505E-01
5613900	BA	.764	.034	.358	.321	4.933E-03	2.875E-04	5.221E-03	1.024E+07	2.731E-03	5.444E-02	3.172E-03	5.761E-02
5614000	BA	2.442	1.514	1.935	3.313	1.591E-02	1.231E-02	2.822E-02	1.057E+08	6.233E+00	1.755E-01	1.358E-01	3.114E-01
5714000	LA	4.797	14.977	11.580	3.499	3.099E-02	1.379E-01	1.649E-01	1.116E+08	8.627E-01	3.420E-01	1.521E+00	1.863E+00
5714100	LA	3.726	.792	1.735	1.420	2.407E-02	7.978E-04	2.487E-02	4.527E+07	3.367E-02	2.656E-01	8.804E-03	2.744E-01
5814100	CE	1.354	.484	.870	3.202	8.748E-03	3.933E-03	1.268E-02	1.021E+08	1.532E+01	9.653E-02	4.340E-02	1.399E-01
5714200	LA	.918	1.851	1.438	.364	5.932E-03	1.503E-02	2.097E-02	1.166E+07	3.451E-03	6.546E-02	1.659E-01	2.314E-01
5914300	CF	2.924	1.442	2.210	2.631	1.889E-02	1.333E-02	3.223E-02	8.391E+07	5.321E-01	2.085E-01	1.471E-01	3.558E-01
5914300	PR	2.475	0.000	1.037	2.882	1.599E-02	0.	1.599E-02	9.189E+07	5.755E+00	1.764E-01	0.	1.764E-01
5814400	CE	.589	.143	.352	2.679	3.807E-03	1.325E-03	5.132E-03	8.543E+07	1.121E+02	4.201E-02	1.462E-02	5.663E-02
5914400	PR	8.970	.175	4.072	2.679	5.795E-02	1.423E-03	5.937E-02	8.543E+07	4.728E-03	6.395E-01	1.570E-02	6.552E-01
5914500	PR	2.108	.033	.952	1.179	1.362E-02	2.664E-04	1.389E-02	3.599E+07	4.136E-02	1.503E-01	2.940E-03	1.533E-01
6014700	ND	.814	.319	.538	1.271	5.261E-03	2.584E-03	7.844E-03	4.052E+07	2.054E+00	5.805E-02	2.851E-02	8.657E-02
6114800	PM	.839	.545	.687	.425	5.421E-03	4.591E-03	1.001E-02	1.356E+07	3.358E-01	5.983E-02	5.067E-02	1.105E-01
6114900	PM	1.217	.037	.540	1.219	7.862E-03	2.971E-04	8.159E-03	3.886E+07	3.966E-01	8.675E-02	3.278E-03	9.003E-02
6215300	SH	.640	.231	.412	1.046	4.135E-03	1.874E-03	6.009E-03	3.337E+07	2.995E-01	4.563E-02	2.068E-02	6.631E-02
6315600	EU	.690	1.581	1.242	.679	4.457E-03	1.365E-02	1.811E-02	1.929E+07	1.352E+00	4.919E-02	1.507E-01	1.999E-01

TABLE B-XXXVI

TMT-2 IF OPERATED 26K HRS AT 2772. MW CONT. CINDER-10(LASL) 8/79

33=TIME STEP
 3.60000E+04=TOTAL TIME SINCE LAST TIME AT POWER(S)
 9.35276E+07=TOTAL ELAPSED TIME(S)
 6.88811E+19=FISSIONS/S AT LAST TS AT POWER (22)
 2.77200E+09=POWER (WATTS) AT LAST TS AT POWER (2.77200E+03 MW)
 7.28678E+03=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.44045E+04=TOTAL FP IN SIM PER BARN-CM

1.04429E+20=TOTAL ACTIVITY (DIS/S)
 2.82240E+09=TOTAL CURTES
 5.80154E+00=TOTAL BETA DECAY POWER (MW)

7.52075E+00=TOTAL GAMMA DECAY POWER (MW)
 1.33223E+01=TOTAL DECAY POWER (MW)
 5.25724E-01=TOTAL BETA MEV/F
 6.81521E-01=TOTAL GAMMA MEV/F
 1.20725E+00=TOTAL DECAY MEV/F

ID	SYN	PERCENT OF ALL P	BETA	GAMMA	TOTAL	CURIES	MEV/FISS	BETA	GAMMA	TOTAL	CURIES	DENSITY	BETA	GAMMA	TOTAL
ZXAAS															
3608800	KR	.083	.561	.752	.114	4.297E-04	3.823E-03	4.253E-03	3.218E+06	1.732E-03	4.742E-03	4.219E-02	4.441E-02	4.693E-02	5.878E-02
3708800	RR	.765	.191	.127	.127	4.024E-03	1.302E-03	5.326E-03	3.597E+06	2.039E-04	4.441E-02	1.437E-02	1.792E-01	1.792E-01	1.792E-01
3808800	SR	3.089	1.345	1.841	1.841	1.624E-02	0.	1.624E-02	9.195E+07	1.246E+01	1.246E+01	0.	1.246E+01	1.246E+01	1.246E+01
3909000	Y	6.26	.000	.213	.213	1.200E-03	9.894E-07	1.200E-03	6.580E+06	8.102E-02	3.631E-02	1.092E-05	3.631E-02	3.631E-02	3.631E-02
3809100	SR	2.154	1.038	1.145	1.145	1.133E-02	1.207E-02	2.340E-02	3.232E+07	5.888E-02	1.250E-01	1.335E-01	1.250E-01	1.335E-01	2.582E-01
3909100	Y	4.306	.015	1.893	2.464	2.264E-02	9.937E-05	2.274E-02	6.954E+07	1.840E+01	2.498E-01	1.097E-03	2.509E-01	1.097E-03	2.509E-01
3909110	Y	0.000	.891	.722	.722	0.	6.073E-03	6.073E-03	2.036E+07	3.242E+03	0.	6.702E-02	6.702E-02	6.702E-02	6.702E-02
3809200	SM	.111	.594	.736	.736	4.074E-03	4.659E-03	5.665E+06	2.950E-03	6.457E-03	4.494E-02	3.754E-02	4.494E-02	3.754E-02	4.494E-02
3909200	Y	3.817	.409	1.044	1.044	7.007E-02	3.407E-03	2.347E-02	2.551E+07	1.731E-02	2.215E-01	2.374E-02	2.215E-01	2.374E-02	2.590E-01
3909300	Y	5.411	.416	2.534	1.594	2.845E-02	2.151E-03	3.040E-02	4.711E+07	8.763E-02	3.139E-01	2.374E-02	3.139E-01	2.374E-02	3.139E-01
4009500	ZR	1.217	5.942	1.895	3.620	3.98E-03	4.050E-02	4.690E-02	1.024E+08	3.094E+01	2.061E-02	4.743E-01	2.061E-02	4.743E-01	5.013E-01
4109500	NR	.465	6.304	3.743	3.743	2.445E-03	4.298E-02	4.542E-02	1.045E+08	1.691E+01	2.698E-02	7.516E-02	2.698E-02	7.516E-02	3.676E-01
4009700	ZR	9.040	.009	2.749	2.472	2.650E-02	6.811E-03	3.331E-02	6.976E+07	2.252E-01	2.924E-01	3.022E-01	2.924E-01	3.022E-01	3.022E-01
4109710	NR	3.600	4.018	3.836	2.664	1.893E-02	2.738E-02	4.631E-02	7.529E+07	1.775E-04	0.	2.650E-01	2.650E-01	2.650E-01	2.650E-01
4209900	NR	0.000	3.523	1.099	2.113	0.	2.401E-02	2.401E-02	6.019E+07	1.735E-04	0.	3.022E-01	3.022E-01	3.022E-01	3.022E-01
4209910	TC	0.000	1.524	2.440	2.440	1.039E-02	3.187E-02	1.039E+08	1.319E+00	2.371E-01	1.146E-01	3.152E-01	1.146E-01	3.152E-01	3.152E-01
4309910	RU	1.075	.637	3.845	0.	7.326E-03	7.326E-03	9.554E+07	1.105E-01	0.	8.084E-02	8.084E-02	8.084E-02	8.084E-02	8.084E-02
4410310	RU	.749	4.191	2.432	3.845	1.936E-03	2.250E-02	1.085E+08	1.982E+01	4.344E-02	3.152E-01	3.152E-01	3.152E-01	3.152E-01	3.152E-01
4510310	RU	0.000	.141	.132	.132	2.321E-03	2.321E-03	1.086E+08	1.948E-02	0.	2.561E-02	2.561E-02	2.561E-02	2.561E-02	2.561E-02
4410500	RU	.700	1.031	.987	.584	3.680E-03	7.023E-03	1.071E-02	1.606E+07	1.417E-02	4.061E-02	7.753E-02	4.061E-02	7.753E-02	4.061E-02
4510500	RU	1.028	.410	.640	2.342	5.407E-03	2.797E-03	8.203E-03	6.610E+07	7.237E+01	2.513E-03	3.086E-02	2.513E-03	3.086E-02	2.513E-03
4410600	RU	.043	0.000	.019	1.507	2.277E-04	0.	2.277E-04	4.253E+07	7.237E+01	2.513E-03	3.086E-02	2.513E-03	3.086E-02	2.513E-03
4510600	TE	.649	3.113	1.507	3.302E-02	4.554E-03	3.758E-02	4.554E-03	6.233E+07	6.787E-05	3.644E-01	5.27E-02	3.644E-01	5.27E-02	3.644E-01
5213110	TE	.920	.920	.584	.777	6.03E-04	6.272E-03	7.039E-03	7.831E+06	4.514E-02	8.437E-03	6.922E-02	8.437E-03	6.922E-02	7.767E-02
5313100	I	1.178	1.909	1.530	2.233	1.96E-03	1.300E-02	1.920E-02	6.218E+07	2.306E+00	6.837E-02	1.435E-01	2.306E+00	6.837E-02	1.435E-01
5213200	TE	.509	1.745	1.212	2.934	2.674E-03	1.196E-02	1.654E-02	8.291E+07	1.243E+00	2.951E-02	1.320E-01	1.243E+00	2.951E-02	1.320E-01
5313200	I	4.576	15.055	10.472	3.024	2.404E-02	1.020E-01	1.267E-01	8.536E+07	3.748E-02	2.655E-01	1.132E+00	3.748E-02	2.655E-01	1.132E+00
5313300	XE	1.369	4.304	4.210	3.290	2.087E-02	2.498E-02	5.052E-02	9.312E+07	3.722E-01	2.303E-01	3.306E-01	3.722E-01	2.303E-01	3.306E-01
5413300	XE	1.442	1.042	4.575	4.575	4.989E-03	5.587E-02	1.259E-02	1.277E+08	3.116E+00	7.713E-02	6.165E-02	3.116E+00	7.713E-02	6.165E-02
5513400	CS	.232	1.745	1.032	1.493	1.221E-03	1.196E-02	1.318E-02	1.406E+07	4.892E+01	1.348E-02	1.320E-01	1.406E+07	4.892E+01	1.348E-02
5413500	XE	1.655	4.722	3.387	1.454	8.702E-03	3.214E-02	4.089E-02	6.119E+07	5.207E-02	9.602E-02	3.552E-01	5.207E-02	9.602E-02	3.552E-01
5513500	XE	1.498	.924	1.732	1.674	7.974E-03	6.643E-03	1.522E-02	4.730E+07	8.336E-02	8.699E-02	7.330E-02	8.699E-02	7.330E-02	8.699E-02
5513600	CS	.038	.574	.312	1.102	1.976E-04	3.575E-03	3.772E-03	3.085E+06	1.849E-01	2.180E-03	3.945E-02	3.085E+06	1.849E-01	2.180E-03
5614000	BA	2.992	1.746	2.311	3.792	1.034E-02	1.217E-02	2.790E-02	1.045E+08	6.163E+00	1.736E-01	1.343E-01	1.045E+08	6.163E+00	1.736E-01
5714000	LA	5.866	20.131	13.919	3.935	1.594E-02	1.377E-01	1.680E-01	1.111E+08	8.585E-01	3.403E-01	1.514E+00	1.111E+08	8.585E-01	3.403E-01
5814100	LA	1.870	.044	.941	.655	9.830E-03	3.258E-04	1.016E-02	1.849E+07	1.375E-02	1.085E-01	3.595E-03	1.849E+07	1.375E-02	1.085E-01
5814100	CE	.475	1.047	3.604	3.604	7.720E-03	3.920E-02	1.264E-02	1.018E+08	1.527E+01	9.623E-02	4.326E-02	1.018E+08	1.527E+01	9.623E-02
5814300	CE	3.235	1.761	2.473	2.677	1.701E-02	1.200E-02	2.801E-02	7.554E+07	4.791E-01	1.877E-01	1.325E-01	7.554E+07	4.791E-01	1.877E-01
5914300	PR	3.037	0.600	1.733	3.251	1.597E-02	0.	1.597E-02	9.177E+07	5.747E+00	1.762E-01	0.	9.177E+07	5.747E+00	1.762E-01
5814400	CE	.425	.104	.425	3.025	3.805E-03	1.324E-03	5.129E-03	8.539E+07	1.120E+02	4.199E-02	1.461E-02	8.539E+07	1.120E+02	4.199E-02
5914400	PR	11.017	.209	4.016	3.025	5.792E-02	1.422E-03	5.934E-02	8.539E+07	4.726E-02	6.392E-01	1.570E-02	5.934E-02	8.539E+07	4.726E-02
5914500	PR	1.431	.072	.644	.714	7.630E-03	1.492E-04	7.779E-03	2.016E+07	2.317E-02	8.470E-02	1.647E-03	7.779E-03	2.016E+07	2.317E-02
6014700	ND	.374	.644	1.417	1.417	5.192E-03	2.550E-03	7.742E-03	3.999E+07	2.027E+00	5.730E-02	2.814E-02	5.192E-03	2.550E-03	7.742E-03
6114800	PM	1.004	.646	.408	.646	2.279E-03	4.471E-03	9.750E-03	1.320E+07	3.270E-01	5.825E-02	4.914E-02	1.320E+07	3.270E-01	5.825E-02
6114900	PM	1.404	.041	.615	1.223	7.383E-02	2.790E-04	7.662E-03	3.650E+07	3.725E-01	8.148E-02	3.079E-02	7.383E-02	2.790E-04	7.662E-03
6215300	SM	.730	.555	1.094	1.094	3.840E-03	1.740E-03	5.579E-03	3.098E+07	2.781E-01	4.237E-02	1.920E-02	3.840E-03	1.740E-03	5.579E-03
6315600	EU	.840	1.084	1.487	.677	4.417E-03	1.353E-02	1.795E-02	1.912E+07	1.340E+00	4.875E-02	1.493E-01	4.417E-03	1.353E-02	1.795E-02

TABLE B-XXXVII

TNT-? IF OPERATED 26K HRS AT 2772. MW CONT. CINER-10(LASL) 8/79

34=TIME STEP
 7.20000E+04=TOTAL TIME SINCE LAST TIME AT POWER(S)
 9.35636E+07=TOTAL ELAPSED TIME(S)
 6.88811E+19=FISSIONS/S AT LAST TS AT POWER (22)
 2.77200E+09=POWER (WATTS) AT LAST TS AT POWER (2.77200E+03 MW)
 7.28678E+03=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.44045E+04=TOTAL FP IN SUM PER BARN-CM

9.03368E+19=TOTAL ACTIVITY (DIS/S)
 2.44153E+09=TOTAL CURIES
 4.64695E+00=TOTAL BETA DECAY POWER (MW)
 6.34350E+00=TOTAL GAMMA DECAY POWER (MW)
 1.09905E+01=TOTAL DECAY POWER (MJ)
 4.21101E-01=TOTAL BETA MEV/F
 5.74840E-01=TOTAL GAMMA MEV/F
 9.95941E-01=TOTAL DECAY MEV/F

ID ZZAAA	SYM	PERCENT OF ALL FP				MEV/FISS			CURIES	DENSITY	DECAY POWER IN MW		
		BETA	GAMMA	TOTAL	CURIES	BETA	GAMMA	TOTAL			BETA	GAMMA	TOTAL
3808900	SR	3.936	0.000	1.622	2.114	1.615E-07	0.	1.615E-02	5.166E+07	1.239E+01	1.782E-01	0.	1.782E-01
3909000	Y	.778	.000	.329	.668	3.275E-03	9.350E-07	3.276E-03	6.549E+06	8.064E-02	3.614E-02	1.087E-05	3.615E-02
3809100	SR	1.293	1.011	1.131	.637	5.451E-03	5.812E-03	1.126E-02	1.556E+07	2.834E-02	6.016E-02	6.413E-02	1.243E-01
3909100	Y	5.359	.017	2.276	2.839	2.256E-02	9.905E-05	2.266E-02	6.932E+07	1.874E+01	2.490E-01	1.093E-03	2.501E-01
3909110	Y	0.000	.000	.000	.000	2.923E-03	9.803E+06	1.560E-03	0.	3.226E-02	3.226E-02	0.	3.226E-02
3909200	Y	.889	.110	.439	.195	3.742E-03	6.344E-04	4.377E-03	4.758E+06	3.228E-03	4.130E-02	7.001E-03	4.830E-02
3909300	Y	3.424	.100	1.557	.000	1.442E-02	1.090E-03	1.551E-02	2.266E+07	4.442E-02	1.591E-01	1.203E-02	1.711E-01
4009500	ZR	1.513	7.014	4.688	4.177	6.370E-03	4.032E-02	4.669E-02	1.020E+08	3.081E+01	7.029E-02	4.449E-01	5.152E-01
4109500	NR	.580	7.475	4.560	4.278	2.444E-03	4.297E-02	4.942E-02	1.045E+08	1.691E+01	2.697E-02	4.742E-01	5.012E-01
4009700	ZR	4.165	.784	2.214	1.891	1.754E-02	4.508E-03	2.205E-02	4.618E+07	1.491E-01	1.936E-01	4.975E-02	2.433E-01
4109700	NR	2.776	3.194	3.079	2.042	1.253E-02	1.813E-02	3.066E-02	4.985E+07	1.175E-02	1.383E-01	2.001E-01	3.384E-01
4109710	NR	0.000	2.745	1.936	1.637	0.	1.589E-02	1.589E-02	3.984E+07	1.148E-04	0.	1.754E-01	1.754E-01
4209900	MO	4.593	1.627	2.891	3.833	1.934E-02	9.354E-03	2.870E-02	9.359E+07	1.187E+00	2.134E-01	1.032E-01	3.167E-01
4309910	TC	0.000	1.177	.574	3.529	0.	6.737E-03	6.737E-03	8.787E+07	1.017E-01	0.	7.435E-02	7.435E-02
4410300	RU	.928	4.933	3.740	4.417	3.908E-03	3.226E-02	1.077E+08	1.967E+01	4.312E-02	3.129E-01	3.560E-01	3.560E-01
4510310	RH	0.000	.401	.231	4.417	0.	2.304E-03	2.304E-03	1.078E+08	1.934E-02	0.	2.543E-02	2.543E-02
4510500	RH	1.084	.411	.636	2.284	4.566E-03	2.362E-03	6.928E-03	5.582E+07	3.808E-01	5.039E-02	2.606E-02	7.645E-02
4410600	RU	.054	0.000	.023	1.740	2.276E-04	0.	2.276E-04	4.249E+07	7.232E-01	2.511E-03	0.	2.511E-03
4510600	RH	7.836	.797	3.770	1.740	3.300E-02	4.552E-03	3.755E-02	4.249E+07	6.782E-05	3.641E-01	5.024E-02	4.144E-01
4711000	AG	.616	.014	.270	.148	2.593E-03	9.143E-05	2.685E-03	4.092E+06	4.755E+00	2.862E-02	1.009E-03	2.963E-02
5213110	TE	.144	.846	.541	.255	4.082E-04	4.978E-03	5.586E-03	6.215E+06	3.583E-02	6.712E-03	5.494E-02	6.165E-02
5313100	I	1.425	2.191	1.857	2.457	6.002E-03	1.259E-02	1.860E-02	6.023E+07	2.234E+00	6.623E-02	1.390E-01	2.052E-01
5213200	TE	.581	1.904	1.344	3.177	2.447E-03	1.339E-02	7.586E+07	1.137E+00	2.700E-02	1.208E-01	1.478E-01	1.478E-01
5313200	I	5.230	1.340	11.643	3.271	2.202E-02	9.393E-02	1.160E-01	7.815E+07	3.431E-02	2.430E-01	1.037E+00	1.280E+00
5313300	I	3.351	3.734	3.657	2.733	1.495E-02	2.147E-02	3.642E-02	6.673E+07	2.667E-01	1.650E-01	2.369E-01	4.019E-01
5413300	XE	1.628	.954	1.219	9.137	4.857E-03	5.482E-03	1.234E-02	1.253E+08	3.057E+00	7.567E-02	6.049E-02	1.362E-01
5513400	CS	.290	2.080	1.373	.577	1.221E-03	1.196E-02	1.318E-02	1.409E+07	4.890E+01	1.347E-02	1.320E-01	1.454E-01
5313500	I	.721	1.954	1.433	.599	3.037E-03	1.123E-02	1.427E-02	1.436E+07	1.818E-02	3.352E-02	1.240E-01	1.575E-01
5413500	XF	1.380	.857	1.074	1.470	5.812E-03	4.903E-03	1.077E-02	3.492E+07	6.153E-02	6.414E-02	5.411E-02	1.183E-02
5513600	CS	.046	.608	.370	.124	1.932E-04	3.496E-03	3.699E-03	3.017E+06	1.809E-01	2.132E-03	3.858E-02	4.071E-02
5613710	BA	0.000	.511	.275	.339	0.	2.940E-03	2.940E-03	8.265E+06	6.750E-05	0.	3.244E-02	3.244E-02
5614000	BA	3.652	2.070	2.739	4.193	1.538E-02	1.190E-02	2.728E-02	1.021E+08	6.025E+00	1.697E-01	1.313E-01	3.010E-01

5714000 LA 7.243 23.603 16.685 4.409 3.050E-02 1.357E-01 1.602E-01 1.099E+08 8.490E-01 3.364E-01 1.497E+00 1.034E+00
 5814100 CE 2.954 .676 1.950 2.114 8.650E-03 3.888E-03 1.254E-02 1.010E+08 1.915E-01 9.545E-02 4.291E-02 1.384E-01
 5914300 CC 3.274 1.351 2.528 1.379E-02 9.730E-03 2.352E-02 6.123E+07 3.883E-01 1.521E-01 1.074E-01 2.595E-01
 5914300 PR 1.771 0.000 1.474 1.584E-02 0. 1.584E-02 9.127E+07 5.716E+00 1.752E-01 0. 1.752E-01
 5814400 CE .403 .230 .514 3.424 1.801E-03 1.323E-03 5.124E-03 8.530E+07 1.119E+02 4.195E-02 1.568E-02 5.655E-01
 5914400 PR 13.741 .547 4.953 3.424 5.780E-02 1.421E-03 5.924E-02 8.530E+07 1.119E+02 4.195E-02 1.568E-02 5.655E-01
 5914500 PR .569 .245 .250 2.394E-03 4.682E-05 2.441E-03 6.325E+06 7.269E-03 2.642E-02 5.167E-04 2.642E-02
 6014700 ND 1.201 .432 .757 1.534 5.057E-03 2.484E-03 7.511E-03 3.896E+07 1.975E+00 5.581E-02 2.741E-02 8.322E-02
 6114800 PM 1.189 .737 .928 .513 5.005E-03 4.239E-03 9.244E-03 1.252E+07 3.101E-01 9.523E-02 4.678E-02 1.020E-01
 6114900 PM 1.534 .043 .675 1.314 6.483E-03 2.450E-04 6.727E-03 3.205E+07 3.270E-01 7.154E-02 2.703E-03 7.424E-02
 6215300 SM .786 .261 .493 1.094 3.310E-03 1.500E-03 4.810E-03 2.671E+07 2.397E-01 3.653E-02 1.655E-02 5.307E-02
 6315600 EU 1.030 2.311 1.759 .759 4.337E-03 1.328E-02 1.762E-02 1.877E+07 1.316E+00 4.785E-02 1.466E-01 1.944E-01

TABLE A-XXXVIII

TMI-2 IF OPERATED 26K HRS AT 2772. MW CONT. CINDER-10(LASL) 8/79

35=TIME STEP

1.80000E+05=TOTAL TIME SINCE LAST TIME AT POWER(S)
 9.36710E+07=TOTAL ELAPSED TIME(S)
 6.88911E+19=FISSIONS/S AT LAST TS AT POWER*(22)
 2.77200E+09=POWER (WATTS) AT LAST TS AT POWER (2.77200E+03 MW)
 7.28679E+03=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.44045E+04=TOTAL FP IN SIM PER BARN-CM

7.26149E+19=TOTAL ACTIVITY (DIS/S)

1.95710E+09=TOTAL CURIES
 3.52107E+00=TOTAL BETA DECAY POWER (MW)
 5.00204E+00=TOTAL GAMMA DECAY POWER (MW)
 8.55312E+00=TOTAL DECAY POWER (MW)
 3.21794E-01=TOTAL BETA #FV/F
 4.53279E-01=TOTAL GAMMA #FV/F
 7.75073E-01=TOTAL DECAY #FV/F

ID	SYM	PERCENT OF ALL FP			NEUTRONS			CURIES	DENSITY	DECAY POWER IN MW		TOTAL
		BETA	GAMMA	TOTAL	BETA	GAMMA	TOTAL			BETA	GAMMA	
3808900	SR	4.936	0.000	2.049	2.594	1.588E-02	0. 1.588E-02	5.081E+07	1.219E+01	1.753E-01	0. 1.753E-01	
3903000	Y	1.006	.000	.419	.331	1.239E-03	9.737E-07	3.239E-03	7.972E-02	3.573E-02	1.074E-05	3.574E-02
3909100	Y	6.919	.022	2.885	3.495	2.227E-02	9.773E-05	2.236E-02	6.840E+07	1.849E+01	2.457E-01	1.079E-03
3909300	Y	.583	.031	.261	1.151	1.877E-03	1.420E-04	2.019E-03	2.950E+06	5.783E-03	2.075E-02	1.566E-03
4009500	ZR	1.954	9.779	5.045	5.142	6.286E-03	3.979E-02	4.604E-02	1.006E+08	3.040E+01	6.937E-02	4.391E-01
4109500	NB	.759	9.473	5.855	5.333	2.442E-03	4.294E-02	4.538E-02	1.044E+08	1.690E+01	2.695E-02	4.739E-01
4009700	ZR	1.581	.299	.855	5.087E-03	1.308E-03	6.395E-03	1.339E+07	4.324E-02	5.614E-02	1.443E-02	7.037E-02
4109700	NB	1.129	1.160	1.147	.739	3.634E-03	5.258E-03	8.893E-03	1.446E+07	3.408E-03	4.011E-02	5.803E-02
4109710	NB	0.000	1.017	.504	.490	0. 4.610E-03	4.610E-03	1.156E+07	3.331E-05	0. 1.558E-01	5.087E-02	5.087E-02
4209900	MD	4.397	1.504	2.772	3.490	6.826E-03	2.094E-02	6.830E+07	8.665E-01	1.558E-01	7.533E-02	2.311E-01
4309910	TC	0.000	1.097	.641	3.312	0. 4.971E-03	4.971E-03	6.483E+07	7.499E-02	0. 5.485E-02	5.485E-02	5.485E-02
4410300	RU	1.188	6.120	4.073	5.384	3.823E-03	2.774E-02	3.187E-02	1.094E+08	1.925E+01	4.219E-02	3.061E-01
4510310	RH	0.000	.697	.201	5.390	0. 2.254E-03	2.254E-03	2.254E-03	1.055E+08	1.892E-02	0. 2.486E-02	2.486E-02
4510500	RH	.797	.793	.452	1.607	2.564E-03	1.326E-03	3.890E-03	3.134E+07	2.138E-01	2.829E-02	1.464E-02
4410600	RU	.071	0.000	.029	2.166	2.270E-04	0. 2.270E-04	4.239E+07	7.215E-01	2.505E-03	0. 2.505E-03	
4510600	RH	10.230	1.000	4.813	2.144	3.292E-02	4.542E-03	3.745E-02	4.239E+07	6.766E-05	3.633E-01	5.012E-02
4711000	AG	.803	.020	.345	.208	7.583E-03	9.112E-05	2.676E-03	4.078E+06	4.739E+00	2.855E-02	1.005E-03

MI-2 IF OPERATED 26K HRS AT 2772. MW CONT. CINDER-10(LASL) 8/79

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3.60000E+05=TOTAL TIME SINCE LAST TIME AT POWER(S)
9.38516E+07=TOTAL ELAPSED TIME(S)
6.68811E+19=FE1STIONS/5 AT LAST TS AT POWER,( 22)
2.77200E+09=POWER (WATTS) AT LAST TS AT POWER ( 2.77200E+03 MW)
7.28678E+03=ACCUMULATED FE1STIONS (FE1STIONS PER BARN-CM)
1.44045E+04=TOTAL FD IN SUM PER 94BN-CM

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6.03494E+19=TOTAL ACTIVITY (DPS/S)

1.63106F+09=TOTAL	CURIE
2.97931E+00=TOTAL	BETA DECAY POWER (MW)
4.10425E+00=TOTAL	GAMMA DECAY POWER (MW)
7.40813E+00=TOTAL	DECAY POWER (MW)
2.69963F-01=TOTAL	BETA W/F/F
3.71732E-01=TOTAL	GAMMA W/F/F
6.41895E-01=TOTAL	DECAY W/F/F

ID	SYM	PERCENT OF ALL FD		CURIES		REV/FISS		TOTAL	CURIES	DENSITY	--DECAY POWER IN MW--	
		BETA	GAMMA	TOTAL	BETA	GAMMA	BETA				GAMMA	TOTAL
338089000	SR	5.723	0.000	2.407	3.033	1.545E-02	0.	1.545E-02	4.942E+07	1.189E+01	1.705E-01	1.705E-01
339090000	Y	1.184	0.000	4.030	3.392	3.119E-03	9.614E-07	3.119E-03	6.392E+06	7.871E-02	3.297E-02	3.529E-02
339031000	Y	6.048	0.766	3.430	4.032	2.173E-02	9.517E-04	2.17E-02	6.615E+07	1.803E+01	2.398E-01	1.055E-01
400095000	ZR	2.278	10.459	7.022	4.033	6.149E-03	3.822E-02	4.507E-02	9.844E+07	2.974E+01	6.786E-02	4.293E-01
414095000	MR	0.503	11.524	7.057	6.338	2.438E-02	4.284E-02	4.530E-02	1.042E+08	1.687E+01	2.690E-02	4.730E-01
420990000	MY	3.093	1.004	1.930	2.477	4.338E-03	4.008E-03	1.251E-02	4.041E+07	5.126E+01	9.215E-02	4.495E-02

4309910	TC	0.000	.791	.454	2.357	0.	2.942E-03	2.942E-03	3.837E+07	4.439E-02	0.	3.246E-02	3.746E-02
4410300	PU	1.365	7.197	4.747	6.730	3.686E-03	2.675E-02	3.044E-02	1.016E+08	1.856E+01	4.063E-02	2.952E-01	3.359E-01
4510310	RH	0.000	.584	.339	6.737	0.	2.174E-03	2.174E-03	1.017E+08	1.824E-02	0.	2.399E-02	2.399E-02
4510500	RH	.358	.134	.278	.774	9.660E-04	4.997E-04	1.466E-03	1.181E+07	8.057E-02	1.066E-02	5.514E-03	1.617E-02
4410600	RU	.084	0.000	.035	2.557	2.261E-04	0.	2.261E-04	4.223E+07	7.186E+01	2.496E-03	0.	2.496E-03
4510600	RH	12.147	1.714	5.813	2.999	3.279E-02	4.524E-03	3.732E-02	4.223E+07	6.740E-05	3.619E-01	4.992E-02	4.118E-01
4711000	AG	.952	.024	.414	.243	2.570E-03	9.059E-05	2.660E-03	4.054E+06	4.712E+00	2.836E-02	9.997E-04	2.936E-02
5313100	I	1.693	2.579	2.236	2.812	4.571E-03	9.591E-03	1.416E-02	4.587E+07	1.701E+00	5.044E-02	1.058E-01	1.563E-01
5213200	TE	.445	1.445	1.025	2.794	1.202E-03	5.376E-03	6.579E-03	3.726E+07	5.585E-01	1.326E-02	5.933E-02	7.259E-02
5313200	I	4.007	12.404	8.873	2.353	1.082E-02	4.614E-02	5.496E-02	3.839E+07	1.686E-02	1.194E-01	5.092E-01	6.285E-01
5413300	XE	1.817	1.054	1.375	5.495	4.905E-03	3.921E-03	8.826E-03	8.963E+07	2.187E+00	5.413E-02	4.327E-02	9.740E-02
5513400	CS	.451	2.205	2.047	.361	1.217E-03	1.192E-02	1.314E-02	1.405E+07	4.875E+01	1.343E-02	1.316E-01	1.450E-01
5513600	CS	.060	.787	.481	.155	1.618E-04	2.927E-03	3.089E-03	2.526E+06	1.514E-01	1.785E-03	3.230E-02	3.408E-02
5513700	CS	.303	0.000	.128	.536	8.184E-04	0.	8.184E-04	8.735E+06	4.429E+02	9.032E-03	0.	9.032E-03
5613710	BA	0.000	.790	.454	.507	0.	2.939E-03	2.939E-03	8.263E+06	6.748E-05	0.	3.243E-02	3.243E-02
5614000	BA	4.755	2.471	3.947	5.227	1.284E-02	9.932E-03	2.277E-02	8.526E+07	5.029E+00	1.416E-01	1.096E-01	2.513E-01
5714000	LA	9.893	31.947	22.672	5.896	2.671E-02	1.188E-01	1.455E-01	9.617E+07	7.435E-01	2.947E-01	1.311E+00	1.606E+00
5814100	CE	2.985	.974	1.820	5.764	8.058E-03	3.627E-03	1.168E-02	9.405E+07	1.411E+01	8.892E-02	3.997E-02	1.289E-01
5814300	CE	.251	.487	.693	.699	2.568E-03	1.813E-03	4.381E-03	1.141E+07	7.234E-02	2.834E-02	2.000E-02	4.835E-02
5914300	PR	5.254	0.000	2.210	4.078	1.418E-02	0.	1.418E-02	8.152E+07	5.106E+00	1.565E-01	0.	1.565E-01
5814400	CE	1.397	.353	.732	5.188	3.771E-03	1.312E-03	5.083E-03	8.461E+07	1.110E+02	4.161E-02	1.448E-02	5.609E-02
5914400	PR	21.260	.379	9.151	4.198	5.739E-02	1.409E-03	5.880E-02	8.461E+07	4.683E-03	6.334E-01	1.555E-02	6.489E-01
6014700	ND	1.518	.541	.952	1.936	4.099E-03	2.013E-03	6.111E-03	3.157E+07	1.600E+00	4.523E-02	2.221E-02	6.744E-02
6114700	PM	.146	.000	.051	.713	3.935E-04	6.246E-07	3.941E-04	1.163E+07	5.138E+01	4.342E-03	6.893E-06	4.349E-03
6114800	PM	1.212	.745	.947	.507	3.273E-03	2.772E-03	6.044E-03	8.185E+06	2.027E-01	3.611E-02	3.059E-02	6.670E-02
6114810	PM	.060	.594	.370	.126	1.621E-04	2.210E-03	2.372E-03	2.047E+06	3.900E-01	1.789E-03	2.439E-02	2.617E-02
6114900	PM	.845	.023	.359	.691	2.282E-03	8.621E-03	2.368E-03	1.128E+07	1.151E-01	2.518E-02	9.514E-04	2.613E-02
6315000	EU	1.381	3.069	2.339	.989	3.727E-03	1.142E-02	1.514E-02	1.613E+07	1.131E+00	4.113E-02	1.260E-01	1.671E-01

TABLE B-XL

TMT-2 [F OPERATED 26K HRS AT 2772. MW CONT. C(INER-10(LASL)) 8/79

37=TIME STEP
 7.20000E+05=TOTAL TIME SINCE LAST TIME AT POWER(S)
 9.42116E+07=TOTAL ELAPSED TIME(S)
 6.88811E+19=FISSIONS/S AT LAST TS AT POWER (22)
 2.77200E+09=POWER (WATTS) AT LAST TS AT POWER (2.77200E+03 MW)
 7.28678E+03=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.44044E+04=TOTAL FP IN SUM PER BARN-CM

4.92032E+19=TOTAL ACTIVITY (DIS/S)
 1.32982E+09=TOTAL CURIES
 2.51011E+00=TOTAL BETA DECAY POWER (MW)
 3.21344E+00=TOTAL GAMMA DECAY POWER (MW)
 5.72355E+00=TOTAL DECAY POWER (MW)
 2.27463E-01=TOTAL BETA MEV/F
 2.91198E-01=TOTAL GAMMA MEV/F
 5.18661E-01=TOTAL DECAY MEV/F

ID	SYM	-----PERCENT OF ALL FP-----				-----MEV/FISS-----			---DECAY POWER IN MW---				
ZZAAAS		BETA	GAMMA	TOTAL	CURIES	BETA	GAMMA	TOTAL	CURIES	DENSITY	BETA	GAMMA	TOTAL
3808900	SR	6.425	0.000	2.818	3.513	1.462E-02	0.	1.462E-02	4.679E+07	1.127E+01	1.613E-01	0.	1.613E-01
3909000	Y	1.388	.000	.679	.475	3.158E-03	9.499E-07	3.159E-03	6.315E+06	7.777E-02	3.485E-02	1.048E-03	3.486E-02

3909100	Y	9.093	.031	4.075	4.779	2.068E-02	9.078E-05	2.077E-02	6.354E+07	1.717E+01	2.282E-01	1.002E-03	2.292E-01
4009500	ZR	2.587	12.792	8.915	7.083	4.884E-03	3.724E-02	4.313E-02	9.420E+07	2.846E+01	6.493E-02	4.110E-01	4.759E-01
4109500	MB	1.065	14.631	9.631	7.798	2.423E-03	4.260E-02	4.503E-02	1.036E+08	1.676E+01	2.674E-02	4.701E-01	4.969E-01
4209900	MD	1.285	.485	.836	1.063	2.922E-03	1.413E-03	4.336E-03	1.414E+07	1.794E-01	3.225E-02	1.960E-02	4.785E-02
4309910	TC	0.000	.354	.129	1.010	0.	1.030E-03	1.030E-03	1.343E+07	1.553E-02	0.	1.136E-02	1.136E-02
4410100	RU	1.507	8.540	5.455	7.104	3.427E-03	2.487E-02	2.827E-02	9.447E+07	1.725E+01	3.782E-02	2.744E-01	3.122E-01
4510310	RM	0.000	.694	.330	7.111	0.	2.071E-03	2.021E-03	9.457E+07	1.696E-02	0.	2.230E-02	2.230E-02
4410600	RU	.099	0.000	.043	3.151	2.244E-04	0.	2.244E-04	4.190E+07	7.130E+01	2.476E-03	0.	2.476E-03
4510600	RM	14.304	1.541	7.138	3.141	3.254E-02	4.489E-03	3.702E-02	4.190E+07	6.687E-05	3.590E-01	4.953E-02	4.086E-01
4711000	AG	1.117	.031	.977	.301	2.540E-03	8.956E-05	2.630E-03	4.008E+06	4.658E+00	2.803E-02	9.883E-04	2.902E-02
5313100	I	1.404	2.309	1.013	2.417	3.202E-03	6.720E-03	9.922E-03	3.214E+07	1.192E+00	3.534E-02	7.416E-02	1.095E-01
5213200	TE	.217	.752	.522	1.152	4.942E-04	2.211E-03	2.705E-03	1.532E+07	2.297E-01	5.454E-03	2.440E-02	2.985E-02
5313200	I	1.958	8.513	4.916	1.187	4.449E-03	1.887E-02	2.342E-02	1.578E+07	6.931E-03	4.909E-02	2.094E-01	2.585E-01
5413300	XE	1.274	.796	1.074	3.943	2.899E-03	2.317E-03	5.216E-03	5.297E+07	1.292E+00	3.194E-02	2.557E-02	5.756E-02
5513400	CS	.533	4.078	2.573	1.052	1.213E-03	1.188E-02	1.309E-02	1.400E+07	4.857E+01	1.338E-02	1.311E-01	1.444E-01
5513600	CS	.057	.905	.477	.152	1.295E-04	2.344E-03	2.473E-03	2.023E+06	1.213E-01	1.424E-03	2.586E-02	2.729E-02
5513700	CS	.360	0.000	.158	.657	8.182E-04	0.	8.182E-04	8.732E+06	4.428E+02	9.029E-03	0.	9.029E-03
5613710	BA	0.000	1.009	.567	.621	0.	2.938E-03	2.938E-03	8.261E+06	6.747E-05	0.	3.242E-02	3.242E-02
5614000	BA	4.502	2.721	3.573	5.116	1.024E-02	7.925E-03	1.817E-02	6.803E+07	4.013E+00	1.130E-01	6.745E-02	2.005E-01
5714000	LA	9.516	33.067	22.719	5.961	2.165E-02	9.629E-02	1.179E-01	7.794E+07	6.026E-01	2.389E-01	1.063E+00	1.301E+00
5814100	CE	3.242	1.138	2.041	6.472	7.373E-03	3.315E-03	1.069E-02	8.606E+07	1.291E+01	8.137E-02	3.698E-02	1.179E-01
5914300	PR	5.109	0.000	2.240	5.072	1.167E-02	0.	1.162E-02	6.679E+07	4.183E+00	1.282E-01	0.	1.282E-01
5814400	CE	1.641	.446	.970	6.298	3.732E-03	1.299E-03	5.031E-03	8.376E+07	1.099E+02	4.119E-02	1.433E-02	5.552E-02
5914400	PR	24.977	.479	11.223	6.239	5.681E-02	1.395E-03	5.821E-02	8.376E+07	4.636E-03	6.270E-01	1.540E-02	6.424E-01
6014700	ND	1.385	.531	.978	1.825	3.151E-03	1.548E-03	4.699E-03	2.427E+07	1.230E+00	3.478E-02	1.708E-02	5.186E-02
6114700	PM	.174	.000	.076	.878	3.952E-04	6.273E-07	3.958E-04	1.168E+07	5.160E+01	4.361E-03	6.922E-06	4.368E-03
6114800	PM	.844	.562	.698	.363	1.931E-03	1.635E-03	3.966E-03	4.829E+06	1.196E-01	2.131E-02	1.805E-02	3.935E-02
6114810	PM	.066	.708	.476	.144	1.511E-04	2.061E-03	2.212E-03	1.909E+06	3.636E-01	1.668E-03	2.274E-02	2.441E-02
6315600	EU	1.355	3.242	2.414	1.073	3.082E-03	9.440E-03	1.252E-02	1.334E+07	9.350E-01	3.401E-02	1.042E-01	1.382E-01

TABLE B-XLI

TMT-2 IF OPERATED 26K HRS AT 2772. MW CONT. CINDER-10(LASL) 8/79

38=TIME STEP
 1.80000E+06=TOTAL TIME SINCE LAST TIME AT POWER(S)
 9.52916E+07=TOTAL ELAPSED TIME(S)
 6.88811E+19=FISSIONS/S AT LAST TS AT POWER (22)
 2.77200E+09=POWER (WATTS) AT LAST TS AT POWER (2.77200E+03 MW)
 7.28678E+03=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.44044E+04=TOTAL FP IN SUM PER BARN-CM

3.59195E+19=TOTAL ACTIVITY (DIS/S)
 9.70797E+08=TOTAL CURIES
 1.94141E+00=TOTAL BETA DECAY POWER (MW)
 2.08489E+00=TOTAL GAMMA DECAY POWER (MW)
 4.02629E+00=TOTAL DECAY POWER (MW)
 1.75928E-01=TOTAL BETA MFV/F
 1.88930E-01=TOTAL GAMMA MFV/F
 3.64858E-01=TOTAL DECAY MFV/F

ID	SYM	PERCENT OF ALL FP			MEV/FISS			DECAY POWER IN MW		
		BETA	GAMMA	TOTAL	BETA	GAMMA	TOTAL	BETA	GAMMA	TOTAL
3809000	SR	7.012	0.000	3.321	4.076	1.237E-02	0.0	1.237E-02	3.957E+07	9.491E+00
3809000	SR	1.379	0.000	.189	.646	1.237E-02	0.0	1.237E-02	3.957E+07	9.491E+00
3809000	Y	1.783	.000	.840	3.137E-03	9.435E-07	3.137E-03	6.679E-04	6.270E+06	2.968E+02
3809100	Y	10.140	.041	4.911	5.645	1.784E-02	7.831E-05	1.792E-02	5.680E+07	1.481E+01
4009500	ZR	2.930	17.271	10.356	5.531	1.155E-03	3.263E-02	3.778E-02	8.252E+07	2.493E+01
4109500	NR	1.332	21.611	11.936	10.314	2.344E-03	4.121E-02	4.358E-02	1.002E+08	1.621E+01
4410300	RU	1.565	10.576	6.231	7.819	2.754E-03	1.098E-02	2.273E-02	7.591E+07	1.386E+01
4510310	RH	0.000	.859	.445	7.827	0.	1.624E-03	1.624E-03	7.598E+07	1.386E+01
4510600	RU	.125	0.000	.040	4.216	2.192E-04	0.	2.192E-04	4.093E+07	6.955E+00
4510600	RH	18.065	2.321	.912	4.216	2.192E-04	0.	2.192E-04	4.093E+07	6.955E+00
4711000	AG	1.395	.044	.696	.379	2.455E-03	8.654E-05	2.541E-03	3.873E+06	4.501E+00
5313100	I	.620	1.212	.926	1.124	1.091E-03	2.249E-03	3.340E-03	1.095E+07	4.040E-01
5313200	I	.176	.598	.446	.113	1.093E-04	1.319E-03	1.629E-03	1.098E+06	4.819E-04
5513300	XE	.323	.241	.291	1.071	1.688E-04	4.547E-04	1.024E-03	1.039E+07	2.536E-01
5513400	CS	.681	6.214	3.546	1.429	1.199E-03	1.174E-02	1.294E-02	1.383E+07	4.801E+01
5513600	CS	.038	.637	.348	1.07	6.652E-05	1.204E-03	1.270E-03	1.039E+06	6.227E-02
5513700	CS	.465	0.000	.224	.899	1.176E-04	0.	8.178E-04	8.225E+06	4.424E+02
5613710	RA	0.000	1.554	.875	.850	0.	2.926E-03	2.926E-03	8.254E+06	6.741E-05
5614000	RA	2.957	2.131	2.929	3.959	5.202E-03	4.025E-03	9.227E-03	3.455E+07	2.038E+00
5714000	LA	8.277	26.002	16.431	4.096	1.104E-02	4.913E-02	6.017E-02	3.976E+07	3.074E-01
5814100	CE	3.211	1.344	2.244	6.792	5.649E-03	2.540E-03	8.189E-03	6.594E+07	9.893E+00
5814300	PR	3.498	0.000	1.697	3.643	6.154E-03	0.	6.154E-03	3.537E+07	2.215E+00
5814400	CE	2.058	.657	1.338	9.349	3.620E-03	1.260E-03	4.880E-03	8.124E+07	1.066E+02
5914400	PR	31.325	.716	15.479	9.349	5.511E-02	1.353E-03	5.645E-02	8.125E+07	4.496E-03
6014700	NO	.814	.372	.585	1.137	1.433E-03	7.036E-04	2.136E-03	1.103E+07	5.593E-01
6114700	PM	.226	.000	.179	1.204	3.968E-04	6.298E-07	3.974E-04	1.173E+07	5.181E+01
6114810	PM	.070	.884	.431	.159	1.225E-04	1.671E-03	1.793E-03	1.548E+06	2.948E-01
6315600	EU	.991	2.826	1.041	.777	1.743E-03	5.339E-03	7.081E-03	7.542E+06	5.287E-01

TABLE B-XLII

TIME-2 IF OPERATED 26K HRS AT 2772. MW CONT. CINDER-10(LASL) 8/79

39-THREE STEP	
3.60000E+06	TOTAL TIME SINCE LAST TIME AT POWER(S)
9.70916E+07	TOTAL ELAPSED TIME(S)
6.88811E+09	FISSTIONS/S AT LAST TS AT POWER.(22)
2.77200E+09	POWER (WATTS) AT LAST TS AT POWER (2.77200E+03 MW)
7.28678E+03	ACCUMULATED FISSTIONS (FISSTIONS PER BARN-CM)
1.44042E+04	TOTAL FP IN \$1M PER BARN-CM
2.69032E+19	
7.27113E+09	TOTAL ACTIVITY (DIS/S)
1.54835E+00	TOTAL CURIFS
1.37510E+00	TOTAL BETA DECAY POWER (MW)
2.92345E+00	TOTAL GAMMA DECAY POWER (MW)
1.40310E+01	TOTAL DECAY POWER (MW)
1.24610E+01	TOTAL BETA MEV/F
2.64919E+01	TOTAL GAMMA MEV/F
2.64919E+01	TOTAL DECAY MEV/F

ID ZZAAAS	SYM	-----PERCENT OF ALL FP-----				-----MEV/FISS-----			CURIES	DENSITY	---DECAY POWER IN MW---		
		BETA	GAMMA	TOTAL	CURIES	BETA	GAMMA	TOTAL			BETA	GAMMA	TOTAL
3808900	SR	6.680	0.000	3.538	4.123	9.372E-03	0.	9.372E-03	2.998E+07	7.190E+00	1.034E-01	0.	1.034E-01
3809000	SR	.475	0.000	.251	.451	6.659E-04	0.	6.659E-04	6.261E+06	2.964E+02	7.349E-03	0.	7.349E-03
3909000	Y	2.232	.001	1.193	.451	3.132E-03	9.420E-07	3.133E-03	6.263E+06	7.712E-02	3.456E-02	1.040E-05	3.457E-02
3909100	Y	9.938	.049	5.286	5.891	1.394E-02	6.120E-09	1.400E-02	4.284E+07	1.158E+01	1.539E-01	6.754E-04	1.545E-01
4009500	ZR	2.947	21.005	11.441	9.174	4.135E-03	2.617E-02	3.031E-02	6.620E+07	2.000E+01	4.563E-02	2.888E-01	3.345E-01
4109500	NR	1.921	30.104	14.966	12.941	2.134E-03	3.751E-02	3.965E-02	9.119E+07	1.476E+01	2.355E-02	4.140E-01	4.375E-01
4410300	RU	1.363	11.135	5.952	7.250	1.912E-03	1.388E-02	1.572E-02	5.271E+07	9.627E+00	2.110E-02	1.531E-01	1.742E-01
4510310	RH	0.000	.905	.426	7.257	0.	1.127E-03	1.127E-03	5.277E+07	9.464E-03	0.	1.244E-02	1.244E-02
4410600	RU	.150	0.000	.080	5.412	2.108E-04	0.	2.108E-04	3.935E+07	6.698E+01	2.326E-03	0.	2.326E-03
4510600	RH	21.781	3.383	13.127	5.412	3.056E-02	4.216E-03	3.478E-02	3.935E+07	6.281E-05	3.372E-01	4.653E-02	3.838E-01
4711000	AG	1.652	.066	.976	.503	2.318E-03	8.172E-05	2.400E-03	3.657E+06	4.250E+00	2.558E-02	9.018E-04	2.648E-02
5513400	CS	.838	9.242	4.791	1.867	1.176E-03	1.152E-02	1.262E-02	1.357E+07	4.710E+01	1.299E-02	1.271E-01	1.401E-01
5513700	CS	.582	0.000	.379	1.199	8.165E-04	0.	8.165E-04	8.714E+06	4.418E+02	9.010E-03	0.	9.010E-03
5613710	BA	0.000	2.353	1.177	1.134	0.	2.932E-03	2.932E-03	8.243E+06	6.732E-05	0.	3.236E-02	3.236E-02
5614000	RA	1.199	1.045	1.126	1.537	1.682E-03	1.302E-03	2.984E-03	1.117E+07	6.591E-01	1.856E-02	1.436E-02	3.292E-02
5714000	LA	2.545	12.748	7.344	1.758	3.571E-03	1.599E-02	1.946E-02	1.286E+07	9.941E-02	3.941E-02	1.753E-01	2.147E-01
5814100	CE	2.583	1.307	1.993	5.818	3.624E-03	1.629E-03	5.253E-03	4.230E+07	6.346E+00	3.992E-02	1.798E-02	5.797E-02
5914300	PR	1.514	0.000	.872	1.690	2.125E-03	0.	2.125E-03	1.221E+07	7.648E-01	2.345E-02	0.	2.345E-02
5814400	CE	2.453	.261	1.751	10.620	3.441E-03	1.198E-03	4.639E-03	7.722E+07	1.013E+02	3.797E-02	1.322E-02	5.119E-02
5914400	PR	37.333	1.032	20.258	10.421	5.238E-02	1.286E-03	5.367E-02	7.722E+07	4.274E-03	5.780E-01	1.420E-02	5.922E-01
6114700	PM	.281	.031	.149	1.601	3.940E-04	6.254E-07	3.946E-04	1.164E+07	5.145E+01	4.348E-03	6.902E-06	4.355E-03
6114810	PM	.062	.945	.477	.150	8.839E-05	1.178E-03	1.264E-03	1.091E+06	2.078E-01	9.532E-04	1.300E-02	1.395E-02
6315400	EU	.092	.924	.225	.134	1.289E-04	6.524E-04	7.814E-04	9.717E+05	1.407E+01	1.423E-03	7.200E-03	8.622E-03
6315600	EU	.480	1.687	1.034	.401	6.740E-04	2.065E-03	2.739E-03	2.917E+06	2.045E-01	7.438E-03	2.278E-02	3.022E-02

TABLE B-XLIII

TME, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

40=TIME STEP

7.20000E+06=TOTAL TIME SINCE LAST TIME AT POWER(S)
 1.00692E+08=TOTAL ELAPSED TIME(S)
 6.88811E+19=FISSIONS/S AT LAST TS AT POWER, (22)
 2.77200E+09=POWER (WATTS) AT LAST TS AT POWER (2.77200E+03 MW)
 7.28678E+03=ACCUMULATED FISSIONS (FISSIONS PER BARN-XLIIICM)
 1.44040E+04=TOTAL FP IN SUM PER BARN-CM

1.87185E+19=TOTAL ACTIVITY (DIS/S)
 5.05406E+09=TOTAL CURIES
 1.20708E+00=TOTAL BETA DECAY POWER (MW)
 8.54116E-01=TOTAL GAMMA DECAY POWER (MW)
 2.06120E+00=TOTAL DECAY POWER (MW)
 1.09384E-01=TOTAL BETA MEV/F
 7.73990E-02=TOTAL GAMMA MEV/F
 1.86783E-01=TOTAL DECAY MEV/F

ID ZZAAAS	SYM	-----PERCENT OF ALL FP-----				-----MEV/FISS-----			CURIES	DENSITY	---DECAY POWER IN MW---		
		BETA	GAMMA	TOTAL	CURIES	BETA	GAMMA	TOTAL			BETA	GAMMA	TOTAL
3808900	SR	4.217	0.000	2.870	3.420	5.378E-03	0.	5.378E-03	1.720E+07	4.126E+00	5.935E-02	0.	5.935E-02
3809000	SR	.607	0.000	.356	1.234	6.641E-04	0.	6.641E-04	6.244E+06	2.956E+02	7.328E-03	0.	7.328E-03
3909000	Y	2.455	.001	1.473	1.235	3.123E-03	9.393E-07	3.124E-03	6.245E+06	7.691E-02	3.447E-02	1.037E-05	3.448E-02
3909100	Y	7.787	.048	4.580	5.172	8.518E-03	3.739E-05	8.555E-03	2.617E+07	7.072E+00	9.400E-02	4.126E-04	9.441E-02
4009500	ZR	2.432	21.759	10.441	8.419	2.661E-03	1.684E-02	1.950E-02	4.259E+07	1.287E+01	2.936E-02	1.858E-01	2.152E-01

4109500	NR	1.490	34.779	14.127	13.679	1.619E-03	2.847E-02	3.009E-02	6.920E+07	1.120E+01	1.787E-02	3.141E-01	3.320E-01
4410300	RU	.843	4.444	4.076	4.075	7.221E-04	6.691E-03	7.613E-03	2.542E+07	4.643E+00	1.019E-02	7.384E-02	8.401E-02
4510310	RH	0.000	.702	.221	5.030	0.	5.437E-04	2.545E+07	4.564E-03	0.	6.000E-03	6.000E-03	0.
4410600	RU	.178	0.000	.174	7.193	1.949E-04	0.	1.949E-04	3.639E+07	6.193E+01	2.151E-03	0.	2.151E-03
4510600	RH	25.836	5.037	17.217	7.193	2.826E-02	3.899E-03	3.216E-02	3.639E+07	5.808E-05	3.119E-01	4.302E-02	3.549E-01
4711000	AG	1.890	.094	1.146	.645	2.067E-03	7.287E-05	2.140E-03	3.261E+06	3.790E+00	2.281E-02	8.041E-04	2.361E-02
5513400	CS	1.035	14.312	6.939	2.582	1.132E-03	1.108E-02	1.221E-02	1.306E+07	4.932E+01	1.249E-02	1.223E-01	1.348E-01
5513700	CS	.744	0.000	.436	1.719	8.144E-04	0.	8.144E-04	8.691E+06	4.407E+02	8.987E-03	0.	8.987E-03
5613710	RA	0.000	3.779	1.556	1.625	0.	2.924E-03	2.924E-03	8.222E+06	6.715E-05	0.	3.227E-02	3.227E-02
5714000	LA	.341	2.146	1.099	.256	3.734E-04	1.661E-03	2.034E-03	1.344E+06	1.039E-02	4.120E-03	1.833E-02	2.245E-02
5814100	CE	1.364	.845	1.197	3.441	1.491E-03	6.705E-04	2.162E-03	1.741E+07	2.612E+00	1.646E-02	7.399E-03	2.386E-02
5814400	CE	2.842	1.395	2.244	13.790	3.109E-03	1.082E-03	4.191E-03	6.976E+07	9.151E+01	3.431E-02	1.194E-02	4.625E-02
5914400	PR	43.263	1.591	25.099	13.790	4.732E-02	1.162E-03	4.849E-02	6.977E+07	3.861E-03	5.222E-01	1.282E-02	5.350E-01
6114700	PM	.350	.001	.276	2.239	3.834E-04	6.085E-07	3.840E-04	1.133E+07	5.006E+01	4.231E-03	6.715E-06	4.237E-03
6114810	PM	.039	.754	.316	.107	4.292E-05	5.852E-04	6.281E-04	5.422E+05	1.033E-01	4.737E-04	6.458E-03	6.932E-03
6315400	EU	.117	.835	.414	.190	1.277E-04	6.465E-04	7.742E-04	9.628E+05	1.394E+01	1.410E-03	7.134E-03	8.543E-03

TABLE B-XLIV

TMT-2 IF OPERATED 26K HRS AT 2772. MW CONT. CINDER-10(LASL) 8/79

41=TIME STEP
 1.80000E+07=TOTAL TIME SINCE LAST TIME AT POWER(S)
 1.11492E+08=TOTAL ELAPSED TIME(S)
 6.88811E+19=FISSIONS/S AT LAST TS AT POWER (22)
 2.77200E+09=POWER (WATTS) AT LAST TS AT POWER (2.77200E+03 MW)
 7.28678E+03=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.44033E+04=TOTAL FP IN SUM PER BARN-CM

9.94017E+19=TOTAL ACTIVITY (DIS/S)
 2.68653E+08=TOTAL CURIES
 7.92775E-01=TOTAL BETA DECAY POWER (MW)
 3.66300E-01=TOTAL GAMMA DECAY POWER (MW)
 1.15708E+00=TOTAL DECAY POWER (MW)
 7.18403E-02=TOTAL BETA MEV/F
 3.31937E-02=TOTAL GAMMA MEV/F
 1.05034E-01=TOTAL DECAY MEV/F

ID	SYM	-----PERCENT OF ALL FP-----				-----MEV/FISS-----				---DECAY POWER IN MW---			
ZZAAAS		BETA	GAMMA	TOTAL	CURIES	BETA	GAMMA	TOTAL	CURIES	DENSITY	BETA	GAMMA	TOTAL
3808900	SR	1.415	0.000	.949	1.210	1.016E-03	0.	1.016E-03	3.251E+06	7.796E-01	1.121E-02	0.	1.121E-02
3809000	SR	.917	0.000	.427	2.305	6.585E-04	0.	6.585E-04	8.191E+06	2.931E+02	7.267E-03	0.	7.267E-03
3909000	Y	4.311	.003	2.950	2.325	3.097E-03	9.314E-07	3.098E-03	6.193E+06	7.626E-02	3.418E-02	1.028E-05	3.419E-02
3909100	Y	2.703	.026	1.897	2.221	1.942E-03	8.524E-06	1.950E-03	5.966E+06	1.612E+00	2.143E-02	9.406E-05	2.152E-02
4009500	ZR	.987	13.516	4.946	4.223	7.088E-04	4.484E-03	5.195E-03	1.135E+07	3.428E+00	7.821E-03	4.951E-02	5.733E-02
4109500	NR	.734	27.939	9.332	9.391	5.275E-04	9.274E-03	9.802E-03	2.254E+07	3.649E+00	5.821E-03	1.023E-01	1.082E-01
4410300	RU	.144	2.261	.813	1.061	1.034E-04	7.504E-04	8.538E-04	2.851E+06	5.206E-01	1.141E-03	8.286E-03	9.422E-03
4510310	RH	0.000	.184	.059	1.042	0.	6.097E-05	6.097E-05	2.854E+06	5.118E-04	0.	6.729E-04	6.729E-04
4410600	RU	.215	0.000	.147	10.711	1.541E-04	0.	1.541E-04	2.878E+07	4.897E+01	1.701E-03	0.	1.701E-03
4510600	RH	31.105	9.297	24.210	10.711	2.235E-02	3.083E-03	2.543E-02	2.878E+07	4.593E-05	2.466E-01	3.402E-02	2.806E-01
4711000	AG	2.040	.184	1.445	.841	1.466E-03	5.167E-05	1.517E-03	2.312E+06	2.687E+00	1.617E-02	5.702E-04	1.674E-02
5513400	CS	1.404	29.757	10.354	4.333	1.009E-03	9.877E-03	1.099E-02	1.164E+07	4.039E+01	1.113E-02	1.090E-01	1.201E-01
5513700	CS	1.125	0.000	.749	3.210	8.080E-04	0.	8.080E-04	8.623E+06	4.372E+02	8.916E-03	0.	8.916E-03
5613710	RA	0.000	9.741	2.742	3.036	0.	2.901E-03	2.901E-03	8.157E+06	6.662E-05	0.	3.202E-02	3.202E-02
5814400	CE	3.191	2.403	2.942	19.149	2.292E-03	7.978E-04	3.090E-03	5.144E+07	6.747E+01	2.530E-02	8.803E-03	3.410E-02

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5914400 PR 48.573 2.5** 34.078 19.149 3.489E-02 8.569E-04 3.579E-02 5.144E+07 2.847E-03 3.851E-01 9.456E-03 3.945E-01
6114700 PM .488 .002 .334 3.953 3.503E-04 5.560E-07 3.509E-04 1.035E+07 4.574E+01 3.866E-03 6.136E-06 3.872E-03
6315400 EU .173 1.995 .717 .749 1.243E-04 6.299E-04 7.531E-04 9.366E+05 1.356E+01 1.371E-03 6.940E-03 8.311E-03

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TABLE 9-XLV

TMI-2 IF OPERATED 26K HRS AT 2772. MW CONT. CINDER-10(LASL) 8/79

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42=TIME STEP
3.15360E+07=TOTAL TIME SINCE LAST TIME AT POWER(S)
1.25028E+08=TOTAL ELAPSED TIME(S)
6.88811E+19=FISSIONS/S AT LAST TS AT POWER, ( 22)
2.77200E+09=POWER (WATTS) AT LAST TS AT POWER ( 2.77200E+03 MW)
7.28678E+03=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
1.44026E+04=TOTAL FP IN SUM PER BARN-CM

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6.47132E+18=TOTAL ACTIVITY (DIS/S)
1.74901E+08=TOTAL CURIES
5.49209E-01=TOTAL BETA DECAY POWER (MW)
2.04227E-01=TOTAL GAMMA DECAY POWER (MW)
7.53436E-01=TOTAL DECAY POWER (MW)
4.97686E-02=TOTAL BETA MFV/F
1.85068E-02=TOTAL GAMMA MFV/F
6.82754E-02=TOTAL DECAY MFV/F

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ID	SYM	-----PERCENT OF ALL FP-----				-----MEV/FISS-----			CURIES	DENSITY	---DECAY POWER IN MW---		
		BETA	GAMMA	TOTAL	CURIES	BETA	GAMMA	TOTAL			BETA	GAMMA	TOTAL
3809000	SR	1.309	0.000	.954	3.903	6.516E-04	0.	6.516E-04	6.126E+06	2.900E+02	7.190E-03	0.	7.190E-03
3909000	Y	6.157	.005	4.470	3.574	3.064E-03	9.216E-07	3.065E-03	6.128E+06	7.546E-02	3.382E-02	1.017E-05	3.383E-02
3909100	Y	.612	.007	.449	.539	3.044E-04	1.336E-06	3.057E-04	9.351E+05	2.527E-01	3.359E-03	1.474E-05	3.374E-03
4009500	ZR	.271	4.619	1.450	1.736	1.351E-04	8.549E-04	9.899E-04	2.162E+06	6.531E-01	1.490E-03	9.433E-03	1.092E-02
4109500	NB	.215	10.147	2.913	2.415	1.070E-04	1.882E-03	1.989E-03	4.574E+06	7.404E-01	1.181E-03	2.076E-02	2.194E-02
4410600	RU	.731	0.000	.189	12.259	1.148E-04	0.	1.148E-04	2.144E+07	3.649E+01	1.267E-03	0.	1.267E-03
4510600	RH	33.453	12.411	27.790	12.799	1.665E-02	2.297E-03	1.945E-02	2.144E+07	3.422E-05	1.837E-01	2.535E-02	2.091E-01
4711000	AG	1.914	.181	1.444	.959	9.525E-04	3.358E-05	9.861E-04	1.503E+06	1.746E+00	1.051E-02	3.706E-04	1.088E-02
5112500	SB	.057	.709	.799	.349	2.838E-05	1.477E-04	1.761E-04	6.083E+05	2.797E+00	3.132E-04	1.630E-03	1.943E-03
5513400	CS	1.754	46.199	13.971	5.761	8.730E-04	8.550E-03	9.423E-03	1.008E+07	3.497E+01	9.634E-03	9.435E-02	1.040E-01
5513700	CS	1.608	0.000	1.172	4.892	8.000E-04	0.	8.000E-04	8.538E+06	4.329E+02	8.829E-03	0.	8.829E-03
5613710	BA	0.000	15.523	4.209	4.619	0.	2.873E-03	2.873E-03	8.077E+06	6.597E-05	0.	3.170E-02	3.170E-02
5814400	CE	3.144	2.242	3.089	20.077	1.565E-03	5.446E-04	2.109E-03	3.512E+07	4.606E+01	1.727E-02	6.009E-03	2.328E-02
5914400	PR	47.960	3.161	35.764	20.077	2.382E-02	5.849E-04	2.440E-02	3.512E+07	1.943E-03	2.629E-01	6.455E-03	2.693E-01
6114700	PM	.628	.003	.499	5.284	3.128E-04	4.964E-07	3.133E-04	9.242E+06	4.084E+01	3.451E-03	5.478E-06	3.457E-03
6315400	EU	.241	3.292	1.056	.517	1.200E-04	6.075E-04	7.275E-04	9.047E+05	1.310E+01	1.325E-03	6.704E-03	8.028E-03

TABLE B-XLVI

TMI-2 TF OPERATED 26K HRS AT 2772. MW CONT. CINDER-10(LASL) 8/79

43=TIME STEP

3.0000E+07=TOTAL TIME SINCE LAST TIME AT POWER(S)
 1.29492E+03=TOTAL ELAPSED TIME(S)
 6.88811E+19=FISSIONS/AT LAST TS AT POWER (22)
 2.77200E+09=POWER (WATTS) AT LAST TS AT POWER (2.77200E+03 MW)
 7.28678E+03=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.44023E+04=TOTAL FP IN SIM PER BARN-CM

5.93253E+18=TOTAL ACTIVITY (DIS/S)

1.57630E+08=TOTAL CURIES
 4.93278E-01=TOTAL BETA DECAY POWER (MW)
 1.42615E-01=TOTAL GAMMA DECAY POWER (MW)
 6.75893E-01=TOTAL GAMMA DECAY POWER (MW)
 4.47003E-02=TOTAL BETA MEV/F
 1.65488E-02=TOTAL GAMMA MEV/F
 6.12486E-02=TOTAL DECAY MEV/F

ID	SYM	PERCENT OF ALL FP			NEUTRONS			CURIES	DENSITY	DECAY POWER IN MW		
		BETA	GAMMA	TOTAL	BETA	GAMMA	TOTAL			BETA	GAMMA	TOTAL
3809000	SR	1.453	0.007	1.040	3.873	6.493E-04	0.	6.493E-04	6.105E+06	2.890E+02	7.165E-03	7.165E-03
3909000	Y	6.832	0.004	4.947	3.874	1.054E-03	9.184E-07	3.075E-03	6.106E+06	7.519E-02	3.370E-02	3.371E-02
4009500	ZR	0.175	2.390	0.035	0.794	7.817E-05	4.948E-04	5.730E-04	1.251E+05	3.780E-01	8.624E-04	5.660E-03
4109500	NR	0.140	4.629	1.473	1.659	5.239E-05	1.097E-03	1.153E-03	2.666E+06	4.316E-01	6.885E-04	1.210E-02
4410500	RU	0.233	0.000	0.170	12.343	1.042E-04	0.	1.042E-04	1.946E+07	3.311E+01	1.150E-03	1.150E-03
4510600	QH	33.802	12.594	28.072	12.343	1.511E-02	2.084E-03	1.719E-02	1.946E+07	3.105E+05	1.667E-01	2.300E-02
4711000	AG	1.449	0.174	1.337	0.827	9.263E-04	2.913E-05	8.534E-04	1.304E+06	1.515E+00	9.114E-03	3.215E-04
5112500	SB	0.061	0.277	0.173	2.738E-05	1.425E-04	1.659E-04	1.659E-04	5.869E+05	2.659E+00	3.022E-04	1.573E-03
5513400	CS	1.862	49.245	14.670	5.094	9.324E-04	8.153E-03	8.955E-03	9.608E+06	3.334E+01	9.186E-03	8.997E-02
5613710	BA	0.000	17.304	1.332	5.309	7.974E-04	0.	7.974E-04	8.510E+06	4.315E+02	8.800E-03	8.800E-03
5814400	CE	3.086	2.901	3.014	19.640	1.380E-03	4.801E-04	2.864E-03	8.051E+06	6.575E+05	0.	3.160E-02
5914400	PR	46.982	3.114	39.130	19.641	2.100E-02	5.157E-04	1.860E-03	3.096E+07	4.041E+01	1.522E-02	5.298E-03
6114700	PM	0.674	0.003	0.433	5.644	3.013E-04	4.782E-07	3.014E-04	8.903E+06	3.934E+01	3.325E-03	5.277E-06
6315600	EU	0.265	3.629	1.174	0.567	1.187E-04	6.006E-04	7.193E-04	8.945E+05	1.295E+01	1.310E-03	6.626E-03

TABLE B-XLVII

TMI-2 TF OPERATED 26K HRS AT 2772. MW CONT. CINDER-10(LASL) 8/79

44=TIME STEP

7.20000E+07=TOTAL TIME SINCE LAST TIME AT POWER(S)
 1.65492E+08=TOTAL ELAPSED TIME(S)
 6.88811E+19=FISSIONS/AT LAST TS AT POWER (22)
 2.77200E+09=POWER (WATTS) AT LAST TS AT POWER (2.77200E+03 MW)
 7.28678E+03=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.44006E+04=TOTAL FP IN SIM PER BARN-CM

3.12381E+19=TOTAL ACTIVITY (DIS/S)
 8.44272E+07=TOTAL CURIES
 2.28701E-01=TOTAL BETA DECAY POWER (MW)
 1.14504E-01=TOTAL GAMMA DECAY POWER (MW)
 3.43205E-01=TOTAL DECAY POWER (MW)
 2.07246E-02=TOTAL BETA MEV/F
 1.03762E-02=TOTAL GAMMA MEV/F
 3.11008E-02=TOTAL DECAY MEV/F

ID	SYM	PERCENT OF		ALL FP		MEV/FISS			CURIES	DENSITY	DECAY POWER IN MW		
ZZAAS		BETA	GAMMA	TOTAL	CURIES	BETA	GAMMA	TOTAL			BETA	GAMMA	TOTAL
3608500	KR	.418	.007	.291	.762	9.662E-05	7.709E-07	8.740E-05	6.435E+05	1.163E+01	9.559E-04	8.507E-06	9.644E-04
3809000	SR	3.044	0.000	2.030	7.030	6.313E-04	0.	6.313E-04	5.935E+06	2.810E+02	6.966E-03	0.	6.966E-03
3909000	Y	14.326	.009	9.949	7.037	2.969E-03	8.929E-07	2.970E-03	5.937E+06	7.311E-02	3.276E-02	9.854E-06	3.277E-02
4410600	RU	.230	0.000	.153	10.536	4.764E-05	0.	4.764E-05	8.895E+06	1.514E+01	5.257E-04	0.	5.257E-04
4510600	RH	33.331	9.184	25.275	10.576	6.908E-03	9.530E-04	7.861E-03	8.895E+06	1.420E-05	7.623E-02	1.052E-02	8.674E-02
4711000	AG	1.267	.099	.874	.471	2.627E-04	9.260E-06	2.719E-04	4.144E+05	4.816E-01	2.899E-03	1.022E-04	3.001E-03
5112500	SB	.099	1.028	.679	.570	2.050E-05	1.067E-04	1.272E-04	4.393E+05	2.020E+00	2.262E-04	1.177E-03	1.403E-03
5513400	CS	2.736	59.525	19.431	7.792	5.671E-04	5.554E-03	6.121E-03	6.545E+06	2.271E+01	6.258E-03	6.129E-02	6.755E-02
5513700	CS	3.748	0.000	2.439	9.919	7.768E-04	0.	7.768E-04	8.290E+06	4.203E+07	8.572E-03	0.	8.572E-03
5613710	BA	0.000	26.982	9.949	9.294	0.	2.789E-03	2.789E-03	7.842E+06	6.405E-05	0.	3.078E-02	3.078E-02
5814400	CE	2.411	1.475	2.156	13.283	4.997E-04	1.739E-04	6.736E-04	1.121E+07	1.471E+01	5.515E-03	1.919E-03	7.434E-03
5914400	PR	36.705	1.900	28.099	13.283	7.607E-03	1.868E-04	7.794E-03	1.121E+07	6.207E-04	8.394E-02	2.061E-03	8.601E-02
6114700	PM	1.075	.003	.719	7.801	2.229E-04	3.538E-07	2.232E-04	6.586E+06	2.910E+01	2.459E-03	3.904E-06	2.463E-03
6315400	EU	.522	5.279	2.170	.946	1.082E-04	5.478E-04	6.560E-04	8.135E+05	1.181E+01	1.194E-03	6.045E-03	7.239E-03
6315500	EU	.060	.194	.135	.556	1.252E-05	2.009E-05	3.261E-05	4.273E+05	3.453E+00	1.381E-04	2.217E-04	3.599E-04

TABLE B-XLVIII

TMI-2 IF OPERATED 26K HRS AT 2772. MW CONT. CIMER-10(LASL) 8/79

45=TIME STEP

1.80000E+08=TOTAL TIME SINCE LAST TIME AT POWER(S)
 2.73492E+08=TOTAL ELAPSED TIME(S)
 6.88811E+19=FISSIONS/S AT LAST TS AT POWER (22)
 2.77200E+09=POWER (WATTS) AT LAST TS AT POWER (2.77200E+03 MW)
 7.28678E+03=ACCUMULATED FISSIONS (FISSIONS PER BARN-CM)
 1.43963E+04=TOTAL FP IN SUM PER BARN-CM

1.29457E+18=TOTAL ACTIVITY (DIS/S)
 3.49883E+07=TOTAL CURIES
 6.09451E-02=TOTAL BETA DECAY POWER (MW)
 5.42983E-02=TOTAL GAMMA DECAY POWER (MW)
 1.15243E-01=TOTAL DECAY POWER (MW)
 5.52277E-03=TOTAL BETA MEV/F
 4.92045E-03=TOTAL GAMMA MEV/F
 1.04432E-02=TOTAL DECAY MEV/F

ID	SYM	PERCENT OF		ALL FP		MEV/FISS			CURIES	DENSITY	DECAY POWER IN MW		
ZZAAS		BETA	GAMMA	TOTAL	CURIES	BETA	GAMMA	TOTAL			BETA	GAMMA	TOTAL
3608500	KR	1.257	.013	.671	1.474	6.944E-07	6.180E-07	7.006E-05	5.159E+05	9.329E+00	7.663E-04	6.819E-06	7.731E-04
3809000	SR	10.505	0.000	9.995	15.391	5.802E-04	0.	5.802E-04	5.455E+06	2.582E+02	6.402E-03	0.	6.402E-03

3909000	Y	49.408	.717	26.137	15.975	2.729E-03	8.207E-07	2.730E-03	5.456E+06	6.719E-02	3.011E-02	9.056E-06	3.012E-02
4410600	RU	.082	0.000	.044	2.429	6.552E-06	0.	6.552E-06	8.500E+05	1.447E+00	5.024E-05	0.	5.024E-05
4510600	RM	11.952	1.851	7.133	2.429	6.601E-04	9.106E-05	7.511E-04	8.500E+05	1.357E-06	7.284E-03	1.005E-03	8.289E-03
5112500	SR	.156	.909	.511	.577	8.596E-06	4.474E-05	5.333E-05	1.842E+05	8.473E-01	9.486E-05	4.937E-04	5.886E-04
5513400	CS	3.246	35.687	18.531	4.914	1.793E-04	1.756E-03	1.935E-03	2.069E+06	7.181E+00	1.979E-03	1.938E-02	2.136E-02
5513700	CS	12.989	0.000	6.874	21.807	7.179E-04	0.	7.179E-04	7.661E+06	3.885E+02	7.922E-03	0.	7.922E-03
5613710	BA	0.000	55.392	24.494	70.715	0.	2.578E-03	2.578E-03	7.248E+06	5.919E-05	0.	2.845E-02	2.845E-02
5814400	CE	.420	.164	.307	1.523	2.375E-05	8.264E-05	3.201E-05	5.329E+05	6.990E-01	2.621E-04	9.120E-05	3.533E-04
5914400	PR	6.545	.180	3.545	1.523	3.615E-04	6.377E-06	3.704E-04	5.329E+05	2.949E-05	3.985E-03	9.796E-05	4.087E-03
6114700	PM	1.634	.003	.855	7.673	9.022E-05	1.432E-07	9.034E-05	2.666E+06	1.174E+01	9.958E-04	1.580E-05	9.972E-04
6315400	EU	1.487	4.444	4.757	1.749	8.213E-05	4.157E-04	4.979E-04	6.191E+05	8.962E+00	9.064E-04	4.587E-03	5.493E-03
6315500	EU	.138	.249	.190	.745	7.633E-06	1.225E-05	1.995E-05	2.606E+05	2.105E+00	8.423E-05	1.352E-04	2.195E-04

APPENDIX C

TMI-2 NOBLE GAS AND HALOGENS AND COMPARISON RESULTS FOLLOWING A LONG IRRADIATION

These 58 tables are based on the same CINDER-10 calculations in Appendix B, the first 29 being for the TMI-2 power history and the remainder for 26 000 hours at a constant, full power level of 2772 MW. Comments preceding the tables in Appendix B also apply here and are not repeated. Graphical summaries of the aggregate gas fractions are shown in Figs. C-1 and C-2 for TMI-2.

The tables list data for each noble gas and halogen isotope (isotopes of Kr and Xe for noble gases and of Br and I for halogens). There are >90 isotopes for these four elements. *The tables list density, curies and beta, gamma, and total decay powers as fractions of the total fission product ensemble for the corresponding quantity.* Each noble gas and halogen is listed that exceeds 0.01% of the curies, beta, gamma or beta + gamma decay power of the aggregate noble gases + halogen value. Therefore, only the radioactive isotopes of any significance appear in the tables.

Where quantities are labeled total gas, all gas, etc., the reference is to noble gas + halogens.

Heading and following each table are values for the total core for all fission products, all gases, etc. Quantities labeled total without further identification refer to all fission products; the product of these and the corresponding fractional values in the detailed nuclide tables provide the actual nuclide value for the total core.

Each table is followed by summations over all noble gases, all halogens, noble gas plus halogens, etc., some information being redundant with data preceeding each table. Here, the first three lines are summations of the quantity labeling each tabular column, and the last four are total fractions of all the fission products. Thus at the instant of shutdown, the total gas accounts for ~2.6 of the 11.9 MeV/fiss total decay power or ~21% of the total. Since only radioactive nuclides produce decay energy, the density and fractional density of these are listed. Thus at the instant of shutdown, <1% of the fission products are gases but these account for ~21% of the total fission product decay power. The fractional values of all noble gases and

the net fractional density of the noble gases that are radioactive are listed in the last two lines following each table.

Five tables of summary output from CINDER-10 follow the detailed gas tables for the TMI-2 and 26 000-hour power histories (Tables C-XXV through C-XXIX for TMI-2 and Tables C-LIV through C-LVIII for the 26 000-hour irradiation).

TABLE C-I

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

CONTENT OF NOBLE GASES AND HALOGENS
(EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 22
ELAPSED TIME=2.9337E+07 SEC
COOLING TIME=0. SEC
TOTAL ACTIVITY=4.6118E+20
CURIES IN ALL FP= 1.2464E+17
IN ALL GAS= 2.3378E+09
IN HALOGENS= 1.1515E+07
IN NOBLE GAS= 1.1863E+02
TOTAL BETA MEV/FISS=6.2595E+00
TOTAL GAMMA MEV/FISS=5.9665E+00
TOTAL BETA+GAMMA=1.2226E+01
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=1.9212E-01
GAMMA FRACTION=2.4012E-01
TOTAL FRACTION=2.1555E-01
FRACTIONAL DENSITY ALL GAS=1.5570E-01
DENSITY OF RADIOACTIVE GAS=9.7078E-03
FRACTIONAL GAS ACTIVITY=1.8756E-01

DECAY POWER IN MW FOR ALL FP IS
TOTAL BETA MW=8.2985E+01
TOTAL GAMMA MW=7.9009E+01
TOTAL BETA+GAMMA MW=1.6187E+02
(MULTIPLY MEV/F BY 1.3241E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
358R 83 0	3.68159E-04	8.90197E-04	2.57104E-04	6.07705E-06	1.34596E-04
358R 84 0	1.52144E-06	1.56587E-03	1.86474E-03	2.73050E-03	2.29725E-03
358R 85 0	1.68411E-07	2.04314E-03	1.81202E-03	1.23582E-04	9.88020E-04
36KR 85 1	1.59682E-05	2.04842E-03	4.14848E-04	3.54401E-04	3.86373E-04
353R 86 0	4.02545E-08	1.52203E-03	2.41958E-03	4.74413E-03	3.55402E-03
353R 86 1	3.32699E-09	1.54456E-03	4.24822E-03	2.40652E-03	3.34943E-03
358R 87 0	9.51548E-08	3.56255E-03	6.78197E-03	5.75120E-03	6.27893E-03
36KR 87 0	8.97724E-06	4.11284E-03	4.89259E-03	3.04846E-03	3.99260E-03
358R 88 0	3.09518E-08	4.06681E-03	1.11192E-02	7.15401E-03	9.18408E-03
36KR 88 0	2.81383E-05	5.83179E-03	1.29225E-03	1.20625E-02	6.54838E-03
358R 89 0	6.69701E-09	3.10909E-03	7.80170E-03	5.76292E-03	6.80673E-03
36KR 89 0	6.82596E-07	7.52124E-03	8.32171E-03	1.45104E-02	1.13419E-02
353R 90 0	1.62373E-09	2.12219E-03	6.34703E-03	4.59135E-03	5.49021E-03
36KR 90 0	1.17806E-07	7.61952E-03	8.06245E-03	1.24632E-02	1.02101E-02
353R 91 0	1.76431E-10	5.83950E-04	1.85873E-03	1.48822E-03	1.68303E-03
36KR 91 0	2.38163E-08	5.71901E-03	1.31416E-02	3.86972E-03	8.61667E-03
353R 92 0	5.66430E-12	4.64085E-05	1.53247E-04	1.29568E-04	1.41691E-04

36KR 92 0	2.33042E-09	7.64594E-03	5.65926E-03	1.86033E-03	3.80999E-03
36KR 93 0	5.91037E-10	9.72245E-04	2.32010E-03	1.85441E-03	2.12867E-03
36KR 94 0	4.06216E-11	4.04112E-04	7.45793E-04	6.79478E-04	7.13425E-04
53 I131 0	1.70599E-03	5.12968E-03	9.48227E-04	1.86740E-03	1.34561E-03
53 I132 0	3.10281E-05	7.88009E-03	3.68555E-03	1.64899E-02	9.93437E-03
53 I133 0	4.35304E-04	1.21448E-02	4.51640E-03	6.80199E-03	5.63178E-03
54XE133 0	2.62777E-03	1.20116E-02	1.02096E-03	9.14794E-04	1.00493E-03
53 I134 0	2.04392E-05	1.35298E-02	9.33302E-03	3.28028E-02	2.02749E-02
53 I134 1	8.79221E-09	9.69715E-04	0.	2.56765E-04	1.25309E-04
53 I135 0	1.29056E-04	1.13711E-02	3.99097E-03	1.54855E-02	9.60055E-03
54XE135 0	4.17109E-05	2.63963E-03	7.29170E-04	6.45332E-04	6.89255E-04
54XE135 1	9.02236E-07	2.05325E-03	0.	1.01155E-03	4.93662E-04
53 I136 0	2.19267E-07	5.51900E-03	9.90971E-03	1.14241E-02	1.01368E-02
53 I136 1	7.75383E-09	3.37474E-03	5.93309E-03	6.07651E-03	5.95193E-03
53 I137 0	6.90792E-09	5.86646E-03	7.92047E-03	1.11290E-02	9.49632E-03
54XE137 0	1.18500E-06	1.07448E-02	1.76305E-02	1.96199E-03	9.98387E-03
53 I138 0	9.55350E-09	3.07053E-03	5.80703E-03	7.75600E-03	6.75818E-03
54XE138 0	4.46571E-06	1.09500E-02	6.41979E-03	1.22374E-02	9.25893E-03
53 I139 0	1.68997E-09	1.47107E-03	2.29639E-03	3.40164E-03	2.83578E-03
54XE139 0	1.72825E-07	9.93595E-03	1.42343E-02	7.75144E-03	1.10705E-02
53 I140 0	1.93097E-10	4.69074E-04	8.72778E-04	1.28632E-03	1.07460E-03
54XE140 0	4.09692E-09	6.27785E-03	4.92974E-03	7.99833E-03	6.42679E-03
53 I141 0	1.52886E-11	7.98696E-05	1.38549E-04	2.15480E-04	1.76145E-04
54XE141 0	1.83502E-09	2.22892E-03	3.12205E-03	4.73157E-03	3.90753E-03
54XE142 0	4.67976E-10	8.01361E-04	7.93847E-04	1.32299E-03	1.04696E-03
54XE143 0	1.86109E-11	1.29602E-04	2.07824E-04	3.25889E-04	2.65443E-04
TOTAL GAS	2.16424E+02	2.33787E+09	1.20263E+00	1.43272E+00	2.63535E+00
	1.34940E+01	(RADIODACTIVE GAS DENSITY)			
TOTAL FP	1.39000E+03	1.24645E+10	6.25950E+00	5.96669E+00	1.22262E+01
TOTAL GAS FRACTIONS	1.55701E-01	1.87562E-01	1.92128E-01	2.40121E-01	2.15550E-01
	9.70789E-03	(RADIODACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS	1.48399E-01	9.51785E-02	9.41967E-02	8.99751E-02	9.21365E-02
	4.04436E-03	(NOBLE RADIODACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-II

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 23
 ELAPSED TIME=2.93378E+07 SEC
 COOLING TIME=1.00070E+00 SEC
 TOTAL ACTIVITY=4.32726E+20
 CURIES IN ALL FP= 1.19845E+10
 IN ALL GAS= 2.24979E+09
 IN HALOGENS= 1.11210E+09
 IN NOBLE GAS= 1.13769E+09
 TOTAL BETA MEV/FISS=5.49773E+00
 TOTAL GAMMA MEV/FISS=5.53358E+00
 TOTAL BETA+GAMMA=1.12213E+01
 FRACTION OF TOTALS IN GAS PRODUCTS
 BETA FRACTION=1.95897E-01
 GAMMA FRACTION=2.45623E-01
 TOTAL FRACTION=2.20315E-01

REACTIONAL DENSITY ALL GAS=1.55701E-01
 DENSITY OF RADIOACTIVE GAS=9.70796E-03

REACTIONAL GAS ACTIVITY=1.49305E-01

DECAY POWER IN MW FOR ALL FP IS

TOTAL FTA MW=7.53147E+01

TOTAL GAMMA MW=7.32734E+01

TOTAL BETA+GAMMA MW=1.49999E+02

(MULTIPLY MEV/F BY 1.32415E+01 TO GET MW)

TABLE VALUES ARE GIVEN AS REACTIONS OF ALL NUCLIDES

NUCLIDE DENSITY CURIES BETA MEV/F GAMMA MEV/F B+G MEV/F

35SR	83	0	3.69159E-06	9.33541E-04	2.82949E-04	6.55269E-06	1.46550E-04
35SR	84	0	1.52143E-06	1.74715E-03	2.05219E-03	2.49441E-03	2.49206E-03
35SR	85	0	1.69306E-07	2.14153E-03	1.90293E-03	1.33172E-04	1.07583E-03
36KR	85	1	1.56492E-06	2.14593E-03	4.59753E-04	3.82140E-04	4.20973E-04
35SR	86	0	4.00993E-09	1.59703E-03	2.65193E-03	5.09433E-03	3.85630E-03
35SR	86	1	3.16709E-09	1.54279E-03	4.45059E-03	2.47016E-03	3.47397E-03
35SR	87	0	9.44957E-09	3.71054E-03	7.471205E-03	6.15839E-03	6.79383E-03
35SR	88	0	8.37705E-06	4.31349E-03	5.39431E-03	3.28699E-03	4.35006E-03
35SR	88	0	2.97969E-09	4.10474E-03	1.17764E-02	7.42363E-03	9.62992E-03
36KR	88	0	2.91377E-06	6.11529E-03	1.42212E-03	1.30063E-02	7.13454E-03
35SR	89	0	5.76504E-09	2.80704E-03	7.39114E-03	5.34923E-03	6.38421E-03
36KR	89	0	6.81062E-07	7.89705E-03	9.13769E-03	1.56109E-02	1.23299E-02
35SR	90	0	1.65144E-09	1.45354E-03	4.56501E-03	3.23618E-03	3.91023E-03
36KR	90	0	1.15871E-07	7.84617E-03	8.72725E-03	1.33218E-02	1.09419E-02
35SR	91	0	6.21091E-11	2.26911E-04	5.97258E-04	5.07388E-04	5.79810E-04
36KR	91	0	2.21225E-09	5.57155E-03	1.34341E-02	3.87586E-03	8.72064E-03
36KR	92	0	1.60224E-09	1.90819E-03	4.29932E-03	1.37929E-03	2.85429E-03
36KR	93	0	3.43151E-10	5.92026E-04	1.52717E-03	1.16092E-03	1.34656E-03
53	131	0	1.70589E-03	5.38003E-03	9.33497E-03	2.01356E-03	1.46611E-03
53	132	0	3.10291E-06	8.25445E-03	4.05405E-03	1.77805E-02	1.08240E-02
53	133	0	4.35304E-04	1.27375E-02	4.97042E-03	7.33427E-03	6.13611E-03
54XE	133	0	2.62797E-03	1.25974E-02	1.27952E-03	9.86394E-03	1.09493E-03
53	134	0	2.04398E-05	1.41894E-02	9.17056E-03	3.53696E-02	2.20901E-02
53	134	1	8.96340E-09	9.09239E-04	4.0.0.0	2.75975E-04	1.36092E-04
53	135	0	1.20564E-04	1.19290E-02	4.19200E-03	1.66973E-02	1.04601E-02
54XE	135	1	4.17138E-05	2.75945E-03	9.0.0.0	6.95892E-04	7.49934E-04
54XE	135	0	2.15316E-03	9.77361E-03	1.09057E-03	5.37796E-04	5.37796E-04
53	136	1	2.18557E-07	5.75969E-03	1.22783E-02	1.10088E-02	1.10088E-02
53	136	0	7.64267E-09	3.49870E-03	5.32742E-03	6.45818E-03	6.39190E-03
53	137	0	6.74395E-09	5.09563E-03	8.97967E-03	1.117150E-02	1.00093E-02
54XE	137	0	1.18328E-06	1.12529E-02	1.93747E-02	2.11248E-03	1.08622E-02
53	139	0	9.65354E-09	2.91702E-03	5.79877E-03	7.57254E-03	6.66733E-03
54XE	139	0	4.46307E-06	1.14777E-02	7.05097E-03	1.31874E-02	1.00821E-02
53	139	0	1.15743E-03	1.97409E-03	1.97409E-03	2.76347E-03	2.32788E-03
54XE	139	0	1.70298E-07	9.23607E-03	1.56362E-02	8.23595E-03	1.18555E-02
53	140	0	9.72090E-11	2.22194E-04	4.33726E-04	6.26407E-04	5.28779E-04
54XE	140	0	3.89099E-09	5.26973E-03	9.15430E-03	8.21110E-03	6.66677E-03
54XE	141	0	1.23501E-09	1.57323E-03	2.31244E-03	3.43369E-03	2.96536E-03
54XE	142	0	2.55817E-10	4.77399E-04	4.99993E-04	8.10291E-04	6.47942E-04

TOTAL GAS 2.16424E+02 2.24979E+09 1.11415E+00 1.35807E+00 2.47222E+00
 TOTAL FP 1.39000E+03 1.19945E+10 5.59773E+00 5.53358E+00 1.12213E+01

TOTAL GAS FRACTIONS 1.55701E-01 1.49305E-01 1.95987E-01 2.45423E-01 2.20315E-01
 9.70786E-03 (RADIOACTIVE FRACTION OF TOTAL FP)

NOBLE GAS

FRACTIONS 1.48388E-01 9.57220E-02 9.63172E-02 9.09572E-02 9.36740E-02
4.04434E-03 (NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)

TABLE C-III

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10 (LASL) 7/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 24
ELAPSED TIME=2.93378E+07 SEC
COOLING TIME=4.00000E+00 SEC
TOTAL ACTIVITY=4.09239E+20
CURIES IN ALL FP= 1.10794E+10
IN ALL GAS= 2.10987E+02
IN HALOGENS= 1.04690E+02
IN NOBLE GAS= 1.04198E+02
TOTAL BETA MEV/FISS=4.98347E+00
TOTAL GAMMA MEV/FISS=5.01953E+00
TOTAL BETA+GAMMA=1.00020E+01
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=1.96072E-01
GAMMA FRACTION=2.48520E-01
TOTAL FRACTION=2.22388E-01
FRACTIONAL DENSITY ALL GAS=1.55701E-01
DENSITY OF RADIOACTIVE GAS=9.70779E-03
FRACTIONAL GAS ACTIVITY=1.90341E-01

DECAY POWER IN MW FOR ALL FP IS
TOTAL BETA MW=6.59991E+01
TOTAL GAMMA MW=6.54534E+01
TOTAL BETA+GAMMA MW=1.32443E+02
(MULTIPLY MEV/F BY 1.32416E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
35BR 83 0	3.68157E-06	1.00149E-03	3.22934E-04	7.22516E-06	1.64526E-04
35BR 84 0	1.52138E-06	1.97405E-03	2.34217E-03	3.24625E-03	2.79577E-03
35BR 85 0	1.67913E-07	2.29177E-03	2.26926E-03	1.46496E-04	1.20416E-03
36KR 85 1	1.59691E-05	2.32699E-03	5.23583E-04	4.21358E-04	4.72291E-04
35BR 86 0	3.95246E-05	1.68899E-03	2.98402E-03	5.53817E-03	4.26558E-03
35BR 86 1	2.74561E-02	1.43309E-03	4.40354E-03	2.36120E-03	3.37879E-03
35BR 87 0	9.22386E-04	3.98509E-03	4.25745E-03	6.62822E-03	7.43998E-03
36KR 87 0	8.97645E-06	4.62658E-03	6.14480E-03	3.62408E-03	4.88002E-03
35BR 88 0	2.63230E-08	3.89098E-03	1.19776E-02	7.23361E-03	9.54748E-03
36KR 89 0	2.81355E-05	6.56019E-03	1.62297E-03	1.43400E-02	8.00379E-03
35BR 89 0	3.63586E-02	1.99396E-03	5.32015E-03	3.71985E-03	4.51719E-03
36KR 89 0	6.75756E-07	8.37647E-03	1.03478E-02	1.70790E-02	1.37252E-02
35BR 90 0	2.91062E-12	4.27549E-04	1.42901E-03	9.78480E-04	1.20295E-03
36KR 90 0	1.09392E-07	7.35993E-03	2.40359E-03	1.37596E-02	1.15892E-02
36KR 91 0	1.74700E-08	4.71949E-03	1.21090E-02	3.37484E-03	7.72611E-03
36KR 92 0	5.17751E-10	6.41340E-04	1.58178E-03	4.91398E-04	1.03458E-03
36KR 93 0	6.67487E-11	1.23527E-04	3.39041E-04	2.48994E-04	2.93860E-04
53 I131 0	1.70589E-03	5.77095E-03	1.06542E-03	2.22021E-03	1.64484E-03

53 I132 0	3.10281E-05	9.86514E-03	4.62924E-03	1.96052E-02	1.21435E-02
53 I133 0	4.35304E-04	1.36530E-02	5.67293E-03	8.08696E-03	6.88413E-03
54XE133 0	2.62797E-03	1.35132E-02	1.37017E-03	1.08763E-03	1.22841E-03
53 I134 0	2.04377E-05	1.52201E-02	1.04660E-02	3.89974E-02	2.47817E-02
53 I134 1	8.87752E-09	9.65960E-04	0.	3.01382E-04	1.51219E-04
53 I135 0	1.29049E-04	1.27941E-02	5.01244E-03	1.84101E-02	1.17347E-02
54XE135 0	4.17228E-05	2.97049E-03	9.15141E-04	7.67477E-04	8.41548E-04
54XE135 1	9.01734E-07	2.30844E-03	0.	1.20200E-03	6.03104E-04
53 I136 0	2.16249E-07	6.12344E-03	1.10370E-02	1.33955E-02	1.22204E-02
53 I136 1	7.31864E-09	3.58393E-03	6.91544E-03	6.81906E-03	6.86708E-03
53 I137 0	6.25244E-09	5.97360E-03	9.00455E-03	1.19761E-02	1.04955E-02
54XE137 0	1.17788E-06	1.20154E-02	2.22118E-02	2.31865E-03	1.21307E-02
53 I139 0	6.36376E-07	2.30102E-03	4.85862E-03	6.14250E-03	5.50291E-03
54XE139 0	4.45459E-04	1.22992E-02	8.74351E-03	1.45132E-02	1.12897E-02
53 I139 0	5.36389E-10	5.25280E-04	9.15493E-04	1.28365E-03	1.10022E-03
54XE139 0	1.52425E-07	2.44913E-03	1.68031E-02	8.66133E-03	1.27179E-02
54XE140 0	3.34424E-09	5.77937E-03	5.06520E-03	7.78160E-03	6.42951E-03
54XE141 0	3.69564E-10	5.04990E-04	7.82765E-04	1.13295E-03	9.61960E-04
54XE142 0	4.83516E-11	9.31478E-05	1.01725E-04	1.62517E-04	1.32229E-04
TOTAL GAS	2.16424E+02	2.10887E+09	9.77121E-01	1.24721E+00	2.22433E+00
	1.34939E+01	(RADIOACTIVE GAS DENSITY)			
TOTAL FP	1.39000E+03	1.10794E+10	4.98347E+00	5.01853E+00	1.00020E+01
TOTAL GAS FRACTIONS	1.55701E-01	1.90341E-01	1.96072E-01	2.48520E-01	2.22389E-01
	9.70779E-03	(RADIOACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS	1.48388E-01	9.59511E-02	9.71795E-02	9.11393E-02	9.41483E-02
	4.04430E-03	(NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-IV

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 25
 ELAPSED TIME=2.93379E+07 SEC
 COOLING TIME=1.00000E+01 SEC
 TOTAL ACTIVITY=3.80462E+20
 CURIES IN ALL FP= 1.02927E+10
 IN ALL GAS= 1.24710E+02
 IN HALOGENS= 9.79955E+09
 IN NOBLE GAS= 9.87141E+09
 TOTAL BETA MEV/FISS=4.34924E+00
 TOTAL GAMMA MEV/FISS=4.56194E+00
 TOTAL BETA+GAMMA=8.91119E+00
 FRACTION OF TOTALS IN GAS PRODUCTS
 BETA FRACTION=1.95071E-01
 GAMMA FRACTION=2.50527E-01
 TOTAL FRACTION=2.23496E-01
 FRACTIONAL DENSITY ALL GAS=1.55701E-01
 DENSITY OF RADIOACTIVE GAS=9.70779E-03
 FRACTIONAL GAS ACTIVITY=1.91301E-01

DECAY POWER IN MW FOR ALL FP IS

TOTAL BETA MW=5.75919E+01
 TOTAL GAMMA MW=5.04074E+01
 TOTAL BETA+GAMMA MW=1.17099E+02
 (MULTIPLY MEV/F BY 1.32416E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE DENSITY CURTES BETA MEV/F GAMMA MEV/F B+G MEV/F
 Z A S

353R	83	0	3.69153E-06	1.07906E-03	3.70022E-04	7.94823E-06	1.84664E-04
353R	84	0	1.52125E-05	2.01907E-03	2.64934E-03	3.57085E-03	3.13773E-03
353R	85	0	1.56804E-07	2.45303E-03	2.59930E-03	1.60094E-04	1.34263E-03
36K2	85	1	1.59580E-05	2.50727E-03	5.99930E-04	4.63528E-04	5.30101E-04
353R	86	0	3.81512E-08	1.75661E-03	3.30034E-03	5.88078E-03	4.61219E-03
353R	86	1	2.09176E-09	1.17715E-03	3.84409E-03	1.97894E-03	2.88926E-03
353R	87	0	8.69920E-09	3.94753E-03	9.92237E-03	6.87607E-03	7.97480E-03
36K2	87	0	9.97494E-06	4.98421E-03	7.03949E-03	3.98614E-03	5.47647E-03
353R	88	0	2.03117E-08	3.23597E-03	1.05047E-02	6.14211E-03	9.27113E-03
36K2	88	0	7.06708E-05	1.85927E-03	1.85927E-03	1.57722E-02	8.98175E-03
353R	89	0	1.44230E-09	9.11909E-04	2.41220E-03	1.62399E-03	2.01210E-03
36K2	89	0	6.63260E-07	8.85881E-03	1.16375E-02	1.84409E-02	1.51204E-02
353R	90	0	2.16449E-11	3.42593E-05	1.21745E-04	8.00478E-05	1.00409E-04
36K2	90	0	9.64223E-09	7.55971E-03	9.49740E-03	1.34422E-02	1.14657E-02
36K2	91	0	1.08327E-08	3.15317E-03	9.40270E-03	2.30210E-03	5.37721E-03
36K2	92	0	5.40130E-11	7.43390E-05	1.89078E-04	5.63947E-05	1.21115E-04
353R	93	0	1.70588E-03	5.21809E-03	1.22078E-03	2.44242E-03	1.84618E-03
353R	93	0	3.10279E-05	9.55199E-03	5.30429E-03	2.15644E-02	1.36299E-02
353R	93	0	4.35302E-04	1.47214E-02	6.50004E-03	8.89634E-03	7.72679E-03
353R	93	0	2.60354E-05	1.63974E-02	1.19908E-02	4.28957E-02	2.78121E-02
353R	94	1	8.70822E-09	1.02095E-03	0	3.25224E-04	1.66493E-04
353R	94	0	1.29035E-04	1.37839E-02	5.74277E-03	2.02505E-02	1.31698E-02
353R	95	0	4.17409E-05	3.20202E-03	1.05019E-03	8.44459E-04	9.44497E-04
353R	95	0	9.00983E-07	2.49544E-03	0	1.32120E-03	6.76367E-04
353R	96	1	2.10959E-07	4.63449E-03	1.23371E-02	1.43757E-02	1.33807E-02
353R	96	1	6.71122E-09	3.54071E-03	7.25522E-03	6.87896E-03	7.06797E-03
353R	97	0	5.32477E-08	5.48145E-03	9.79680E-03	1.12200E-02	1.00325E-02
353R	97	0	1.15604E-04	1.29142E-02	2.49581E-02	2.52508E-03	1.34788E-02
353R	98	0	3.37857E-09	1.31432E-03	2.95572E-03	3.58761E-03	3.27921E-03
353R	98	0	4.43599E-04	1.31847E-02	9.17774E-03	1.58987E-02	1.26184E-02
353R	99	0	9.48237E-11	1.00054E-04	1.85443E-04	2.49637E-04	2.18306E-04
353R	99	0	1.46911E-07	9.20827E-03	1.74144E-02	8.61812E-03	1.29113E-02
353R	100	0	2.46357E-09	4.58729E-03	4.27504E-03	6.30613E-03	5.31531E-03

TOTAL GAS 2.16424E+02 1.96710E+09 9.49411E-01 1.14321E+00 1.99162E+00
 TOTAL FP 1.39000E+03 1.02927E+10 4.34324E+00 4.56194E+00 8.91119E+00

FRACTIONS 1.55701E-01 1.91301E-01 1.9571E-01 2.50597E-01 2.23495E-01
 FRACTIONS 9.70765E-03 (PAOTIVATIVE FRACTION OF TOTAL FP)

NOBLE GAS FRACTIONS 1.48393E-01 9.59998E-02 9.79437E-02 9.13966E-02 9.46054E-02
 4.04423E-03 (NOBLE RADIIATIVE GAS FRACTION OF TOTAL FP)

TABLE C-V

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

CONTENT OF NOBLE GASES AND HALOGENS
(EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 26
ELAPSED TIME=2.93370E+07 SEC
COOLING TIME=4.00000E+01 SEC
TOTAL ACTIVITY=3.25417E+20
CURIES IN ALL FP= 8.79505E+09
 IN ALL GAS= 1.57208E+09
 IN HALOGENS= 8.49583E+09
 IN NOBLE GAS= 8.23493E+09
TOTAL BETA MEV/FISS=3.30255E+00
TOTAL GAMMA MEV/FISS=3.71469E+00
TOTAL BETA+GAMMA=7.01722E+00
FRACTION OF TOTALS IN GAS PRODUCTS
 BETA FRACTION=1.94439E-01
 GAMMA FRACTION=2.52049E-01
 TOTAL FRACTION=2.20229E-01
FRACTIONAL DENSITY ALL GAS=1.55700E-01
DENSITY OF RADIOACTIVE GAS=9.70705E-03
FRACTIONAL GAS ACTIVITY=1.90116E-01

DECAY POWER IN MW FOR ALL FP IS
 TOTAL BETA MW=4.37310E+01
 TOTAL GAMMA MW=4.91883E+01
 TOTAL BETA+GAMMA MW=9.29193E+01
(MULTIPLY MEV/F BY 1.32416E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURTES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
35BR 83 0	3.68075E-05	1.26131E-03	4.87191E-04	9.75899E-06	2.34455E-04
35BR 84 0	1.51969E-05	2.35819E-03	3.53028E-03	4.38081E-03	3.98052E-03
35BR 84 1	5.94493E-09	4.89932E-05	5.21994E-05	1.43461E-04	1.00510E-04
35BR 85 0	1.56901E-07	2.69771E-03	3.19971E-03	1.84937E-04	1.60379E-03
36KR 85 1	1.59671E-05	2.93120E-03	7.90022E-04	5.69217E-04	6.73135E-04
35BR 86 0	2.92857E-09	1.57450E-03	3.33536E-03	5.54383E-03	4.50492E-03
35BR 86 1	5.84707E-10	3.94704E-04	1.41509E-03	6.79340E-04	1.02561E-03
35BR 87 0	6.08783E-09	3.23019E-03	8.22391E-03	5.91020E-03	6.99911E-03
36KR 87 0	8.96141E-04	5.81851E-03	9.25683E-03	4.88794E-03	6.94409E-03
35BR 88 0	5.49528E-09	1.02328E-03	3.74167E-03	2.04016E-03	2.84096E-03
36KR 88 0	2.80869E-05	8.24981E-03	2.44479E-03	1.93398E-02	1.13895E-02
36KR 89 0	5.95574E-07	9.30198E-03	1.37641E-02	2.03393E-02	1.72448E-02
36KR 90 0	5.06623E-09	4.64391E-03	6.57177E-03	8.60921E-03	7.65029E-03
36KR 91 0	9.92434E-10	3.37741E-04	1.03792E-03	2.59010E-04	6.25592E-04
53 I131 0	1.70583E-03	7.25988E-03	1.60767E-03	2.99950E-03	2.34447E-03
53 I132 0	3.10274E-05	1.11675E-02	6.99528E-03	2.64861E-02	1.73094E-02
53 I133 0	4.35275E-04	1.77115E-02	8.56000E-03	1.09253E-02	9.81210E-03
54XE133 0	2.62798E-03	1.70231E-02	2.06757E-03	1.46939E-03	1.75091E-03
53 I134 0	2.04229E-05	1.91594E-02	1.57815E-02	5.26475E-02	3.52971E-02
53 I134 1	7.90897E-09	1.08409E-03	0.	3.62745E-04	1.92025E-04
53 I135 0	1.28945E-04	1.61043E-02	7.55761E-03	2.48521E-02	1.67127E-02
54XE135 0	4.18313E-05	3.75175E-03	1.39603E-03	1.03956E-03	1.20262E-03
54XE135 1	8.97271E-07	2.89389E-03	0.	1.61586E-03	8.55381E-04

53 I136 0 1.77671E-07 6.33790E-03 1.36935E-02 1.48688E-02 1.43109E-02
53 I136 1 4.35168E-09 2.64422E-03 6.20492E-03 5.47781E-03 5.81997E-03

53 I137 0 2.29742E-09 2.76506E-03 4.99269E-03 5.94512E-03 5.49698E-03
54XE137 0 1.09289E-04 1.40441E-02 3.09197E-02 2.90649E-03 1.60430E-02
53 I139 0 1.39003E-10 6.29604E-05 1.59991E-04 1.79960E-04 1.70091E-04
54XE138 0 4.33204E-04 1.50541E-02 1.19034E-02 1.90679E-02 1.56491E-02
54XE139 0 8.78587E-09 6.43979E-03 1.37153E-02 6.32954E-03 9.80552E-03
54XE140 0 5.33984E-09 1.16249E-03 1.22059E-03 1.67863E-03 1.46306E-03

TOTAL GAS 2.16424E+02 1.67208E+09 6.09115E-01 9.36279E-01 1.54539E+00
1.34928E+01 (RADIOACTIVE GAS DENSITY)

TOTAL FP 1.39000E+03 9.79505E+09 3.30255E+00 3.71468E+00 7.01722E+00

TOTAL GAS FRACTIONS 1.55700E-01 1.90116E-01 1.94439E-01 2.52049E-01 2.20229E-01
9.70705E-03 (RADIOACTIVE FRACTION OF TOTAL FP)

NOBLE GAS FRACTIONS 1.48388E-01 9.36314E-02 9.49904E-02 8.83396E-02 9.14179E-02
4.04388E-03 (NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)

TABLE C-VI

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 27
ELAPSED TIME=2.93379E+07 SEC
COOLING TIME=1.00000E+02 SEC
TOTAL ACTIVITY=2.97992E+00
CURIES IN ALL FP= 7.79331E+00
IN ALL GAS= 1.45754E+00
IN HALOGENS= 7.54374E+00
IN NOBLE GAS= 7.03162E+00
TOTAL BETA MEV/FISS=2.66002E+00
TOTAL GAMMA MEV/FISS=3.10892E+00
TOTAL BETA+GAMMA=5.76994E+00
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=1.59499E-01
GAMMA FRACTION=2.53515E-01
TOTAL FRACTION=2.14775E-01
FRACTIONAL DENSITY ALL GAS=1.55700E-01
DENSITY OF RADIOACTIVE GAS=9.70603E-03
FRACTIONAL GAS ACTIVITY=1.97244E-01

DECAY POWER IN MW FOR ALL FP IS
TOTAL BETA MW=3.52229E+01
TOTAL GAMMA MW=4.11672E+01
TOTAL BETA+GAMMA MW=7.63901E+01
(MULTIPLY MEV/F BY 1.32416E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
35BR 83 0	3.67601E-06	1.42343E-03	6.04094E-04	1.16455E-05	2.84819E-04
35BR 84 0	1.51234E-06	2.65193E-03	4.36192E-03	5.20907E-03	4.81841E-03

353R 94 1	5.29537E-09	4.92210E-05	5.77375E-05	1.52712E-04	1.08920E-04
353R 85 0	1.29750E-07	2.52107E-03	3.29541E-03	1.82747E-04	1.61336E-03
353R 95 1	1.59450E-05	3.21097E-03	9.97453E-04	6.79848E-04	8.18455E-04
353R 86 0	1.46212E-09	3.89396E-04	2.06807E-03	3.30711E-03	2.73580E-03
353R 86 1	4.77013E-11	3.54444E-05	1.43331E-04	6.62202E-05	1.01776E-04
353R 87 0	2.37083E-03	1.73326E-03	4.84846E-03	3.35331E-03	4.04271E-03
363R 87 0	8.91199E-04	4.53952E-03	1.14293E-02	5.80804E-03	8.39997E-03
353R 98 0	4.01813E-10	2.45477E-05	3.39677E-04	1.78242E-04	2.52679E-04
363R 99 0	2.79763E-05	2.29549E-03	3.02338E-03	2.30171E-02	1.37981E-02
363R 89 0	4.79362E-07	2.44097E-03	1.37233E-02	1.95162E-02	1.68451E-02
363R 90 0	1.39796E-09	1.44792E-03	2.25139E-03	2.83846E-03	2.56777E-03
53 I131 0	1.70588E-03	2.21490E-03	1.92604E-03	3.58394E-03	2.85177E-03
53 I132 0	3.10263E-05	1.26183E-02	8.67227E-03	3.16457E-02	2.10528E-02
53 I133 0	4.35275E-04	1.24479E-02	1.06272E-02	1.30534E-02	1.19347E-02
54XE133 0	2.62798E-03	1.02359E-02	2.56699E-03	1.75569E-03	2.12977E-03
54XE133 1	4.34798E-05	7.54934E-04	0.	1.96887E-04	1.06104E-04
53 I134 0	2.23934E-05	2.16184E-02	1.95652E-02	6.28144E-02	4.29725E-02
53 I134 1	6.52379E-09	1.01047E-03	0.	3.57514E-04	1.92667E-04
53 I135 0	1.39729E-04	1.81672E-02	9.36742E-03	2.96446E-02	2.02949E-02
54XE135 0	4.20115E-05	4.25770E-03	1.72824E-03	1.24746E-03	1.46914E-03
54XE135 1	9.20052E-07	3.24375E-03	0.	1.91517E-03	1.03210E-03
53 I136 0	1.13399E-07	4.57093E-03	1.08431E-02	1.13391E-02	1.11104E-02
53 I136 1	1.82365E-08	1.27527E-03	3.23935E-03	2.75188E-03	2.97646E-03
53 I137 0	4.23674E-02	5.74197E-04	1.14312E-03	1.30998E-03	1.23304E-03
54XE137 0	9.28227E-07	1.34786E-02	3.24979E-02	2.94955E-03	1.65741E-02
54XE138 0	4.12578E-06	1.62010E-02	1.39570E-02	2.16984E-02	1.81289E-02
54XE139 0	3.13841E-09	2.59898E-03	6.08266E-03	2.70152E-03	4.26054E-03
TOTAL GAS	2.16423E+02	1.45754E+09	4.52959E-01	7.88158E-01	1.23903E+00
	1.34914E+01	(RADIOACTIVE GAS DENSITY)			
TOTAL FP	1.39000E+03	7.78331E+09	2.66002E+00	3.10892E+00	5.76894E+00
TOTAL GAS FRACTIONS	1.55700E-01	1.87264E-01	1.69498E-01	2.53515E-01	2.14775E-01
	9.70603E-03	(RADIOACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS	1.48388E-01	9.03423E-02	8.93268E-02	8.44963E-02	8.62625E-02
	4.04332E-03	(NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-VII

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

CONTENT OF NOBLE GASES AND HALOGENS
(EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 28
ELAPSED TIME=2.93392E+07 SEC
COOLING TIME=4.00000E+02 SEC
TOTAL ACTIVITY=2.36830E+20
CURIES IN ALL FP= 4.40082E+09
 IN ALL GAS= 1.19754E+09
 IN HALOGENS= 6.63455E+08
 IN NOBLE GAS= 5.34081E+08
TOTAL BETA MEV/FISS=1.89353E+00

REACTION OF TOTALS IN GAS PHASES
 GAMA REACTION=1.6023E-01
 GAMA REACTION=2.7131E-01
 TOTAL REACTION=2.1442E-01
 DENSITY OF GAS=1.5559E-01
 REACTION OF RADIATIVE GAS=9.7022E-03
 TOTAL REACTION=2.1442E-01
 TOTAL GAMMA MEV/F=2.34725E+00
 TOTAL REIT+GAMMA=4.73079E+00
 REACTION OF TOTALS IN GAS PHASES
 GAMA REACTION=1.6023E-01
 GAMA REACTION=2.7131E-01
 TOTAL REACTION=2.1442E-01
 DENSITY OF GAS=1.5559E-01
 REACTION OF RADIATIVE GAS=9.7022E-03
 TOTAL REACTION=2.1442E-01
 TOTAL GAMMA MEV/F=2.34725E+00
 TOTAL REIT+GAMMA=4.73079E+00
 TABLE VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES
 NUCLIDE DENSITY CURVES BETA MEV/F GAMMA MEV/F B+G MEV/F
 2 4 S
 3532 83 0 3.5251E-05 1.70692E-03 9.4132E-04 1.52109E-05 3.82994E-04
 3532 84 0 1.42329E-05 3.03473E-03 5.79729E-03 6.49314E-03 6.18335E-03
 3532 85 0 4.00731E-08 9.46725E-04 1.43229E-03 7.47501E-05 6.79393E-04
 3632 85 1 1.59495E-05 3.99770E-03 1.37492E-03 8.94130E-04 1.10818E-03
 3632 86 0 5.9597E-10 5.07401E-05 1.54945E-04 1.06926E-04 1.32711E-04
 3632 87 0 8.54187E-04 7.62064E-03 1.54709E-02 3.37332E-03 1.09783E-02
 3632 88 0 2.74055E-05 1.10606E-02 4.19265E-03 2.98640E-02 1.84307E-02
 3632 89 0 1.59751E-07 3.42774E-03 5.47737E-03 8.63240E-03 7.67073E-03
 3632 90 0 1.59751E-07 3.42774E-03 5.47737E-03 8.63240E-03 7.67073E-03
 3632 91 0 1.70593E-03 7.94927E-03 2.91922E-03 4.74694E-03 3.84859E-03
 3632 92 0 3.10203E-05 1.53415E-02 1.22453E-02 4.19071E-02 2.87018E-02
 3632 93 0 4.35099E-04 2.36348E-02 1.50022E-02 1.72822E-02 1.56271E-02
 3632 94 0 2.62800E-03 2.33908E-02 3.62527E-03 2.32542E-03 2.90411E-03
 3632 95 0 2.01702E-05 2.50002E-02 2.73296E-02 8.22869E-02 5.78197E-02
 3632 96 0 2.49115E-09 4.49104E-04 0. 1.80819E-04 1.00319E-04
 3632 97 0 1.27606E-04 2.18981E-02 2.84725E-03 3.89215E-02 2.74320E-02
 3632 98 0 5.28995E-05 2.84725E-03 2.84725E-03 3.89215E-02 2.74320E-02
 3632 99 0 3.57675E-07 3.90088E-03 0. 2.44435E-03 1.35614E-03
 3632 100 0 9.39705E-09 4.50593E-04 1.24455E-03 1.24455E-03 1.24455E-03
 3632 101 0 3.78252E-07 5.67895E-03 1.87023E-02 1.59196E-03 9.20942E-03
 3632 102 0 3.23229E-05 1.54338E-02 1.54421E-02 2.25155E-02 1.93644E-02
 TOTAL GAS 2.16422E+00 1.19754E+09 2.78807E-01 6.36836E-01 9.15642E-01
 TOTAL FP 1.39009E+03 5.40082E+09 1.98353E+00 2.34725E+00 4.23079E+00
 TOTAL GAS FRACTIONS 1.5559E-01 1.49023E-01 2.7131E-01 2.1442E-01
 TOTAL GAS FRACTIONS 1.5559E-01 1.49023E-01 2.7131E-01 2.1442E-01
 NGRE GAS FRACTIONS 1.48899E-01 9.36394E-02 7.7754E-02 7.3311E-02
 4.04139E-03 0.31409E-03 0.00000E-03 0.00000E-03 0.00000E-03

TABLE C-VIII

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 29
ELAPSED TIME=2.93399E+07 SEC
COOLING TIME=1.00000E+03 SEC
TOTAL ACTIVITY=2.04110E+20
CURIES IN ALL FP= 5.51549E+09
IN ALL GAS= 1.07219E+09
IN HALOGENS= 6.39396E+09
IN NOBLE GAS= 4.12789E+09
TOTAL BETA MEV/FISS=1.47043E+00
TOTAL GAMMA MEV/FISS=1.93313E+00
TOTAL BETA+GAMMA=3.40356E+00
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=1.46081E-01
GAMMA FRACTION=2.97667E-01
TOTAL FRACTION=2.32174E-01
FRACTIONAL DENSITY ALL GAS=1.55499E-01
DENSITY OF RADIOACTIVE GAS=9.69523E-03
FRACTIONAL GAS ACTIVITY=1.94354E-01

DECAY POWER IN MW FOR ALL FP IS
TOTAL BETA MW=1.94709E+01
TOTAL GAMMA MW=2.55977E+01
TOTAL BETA+GAMMA MW=4.50686E+01
(MULTIPLY MEV/F BY 1.32415E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
35SR 93 0	3.50063E-06	1.91253E-03	1.04067E-03	1.78351E-05	4.59729E-04
35R 84 0	1.17331E-06	2.90399E-03	6.12427E-03	6.50216E-03	6.33890E-03
36KR 85 1	1.54809E-05	4.53097E-03	1.72034E-03	1.06050E-03	1.34556E-03
36KR 87 0	7.79794E-06	9.07219E-03	1.90913E-02	8.17315E-03	1.24591E-02
36KR 88 0	2.62978E-05	1.23150E-02	5.14115E-03	3.47960E-02	2.19843E-02
36KR 89 0	1.79162E-06	4.43567E-04	9.24607E-04	1.16897E-03	1.06340E-03
53 I131 0	1.70587E-03	1.15205E-02	3.61082E-03	5.76380E-03	4.83365E-03
53 I132 0	3.10089E-05	1.77939E-02	1.56793E-02	5.08649E-02	3.56637E-02
53 I133 0	4.34336E-04	2.73902E-02	1.91831E-02	2.09476E-02	2.01853E-02
54XE133 0	2.62805E-03	2.71410E-02	4.64382E-03	2.82364E-03	3.61000E-03
54XE133 1	4.34768E-05	1.05914E-03	0.	3.16620E-04	1.79831E-04
53 I134 0	1.94751E-05	2.91294E-02	3.37997E-02	9.64716E-02	6.93956E-02
53 I135 0	1.25337E-04	2.49669E-02	1.65057E-02	4.84376E-02	3.35062E-02
54XE135 0	4.46148E-05	6.37949E-03	3.32012E-03	2.13052E-03	2.64446E-03
54XE135 1	9.07675E-07	4.15379E-03	0.	2.79497E-03	1.58745E-03
54XE137 0	6.22084E-08	1.27451E-03	3.93994E-03	3.17907E-04	1.88273E-03
54XE138 0	1.98393E-06	1.09914E-02	1.21406E-02	1.67798E-02	1.47755E-02
TOTAL GAS	2.16422E+02	1.07219E+09	2.14902E-01	5.75429E-01	7.90231E-01
	1.34773E+01	(RADIOACTIVE GAS DENSITY)			
TOTAL FP	1.39000E+03	5.51549E+09	1.47043E+00	1.93313E+00	3.40356E+00

TOTAL GAS
FRACTIONS 1.55699E-01 1.94359E-01 1.46091E-01 2.97667E-01 2.32178E-01
9.59623E-03 (RADIOACTIVE FRACTION OF TOTAL FP)

NOBLE GAS
FRACTIONS 1.48392E-01 7.94533E-02 4.99292E-02 7.04829E-02 6.16031E-02
4.03924E-03 (NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)

TABLE C-IX

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 30
ELAPSED TIME=2.93414E+07 SEC
COOLING TIME=3.60000E+03 SEC
TOTAL ACTIVITY=1.57103E+20
CURIES IN ALL FP= 4.24604E+09
IN ALL GAS= 9.20610E+09
IN HALOGENS= 5.77107E+09
IN NOBLE GAS= 3.43503E+09
TOTAL BETA MEV/FISS=9.66804E-01
TOTAL GAMMA MEV/FISS=1.30647E+00
TOTAL BETA+GAMMA=2.27323E+00
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=1.69336E-01
GAMMA FRACTION=3.59191E-01
TOTAL FRACTION=2.78020E-01
FRACTIONAL DENSITY ALL GAS=1.55497E-01
DENSITY OF RADIOACTIVE GAS=9.67117E-03
FRACTIONAL GAS ACTIVITY=2.16916E-01

DECAY POWER IN MW FOR ALL FP IS
TOTAL BETA MW=1.28021E+01
TOTAL GAMMA MW=1.72991E+01
TOTAL BETA+GAMMA MW=3.01012E+01
(MULTIPLY MEV/F BY 1.32416E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE		DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z	A S					
358R	83 0	2.92557E-06	2.07640E-03	1.32277E-03	2.20555E-05	5.75250E-04
358R	94 0	4.58483E-07	1.47368E-03	3.63924E-03	3.75807E-03	3.70711E-03
36KR	85 1	1.38474E-05	5.26553E-03	2.34741E-03	1.40365E-03	1.80205E-03
36KR	87 0	5.25213E-06	7.06366E-03	1.95326E-02	8.14567E-03	1.25632E-02
36KR	88 0	2.19924E-05	1.33802E-02	5.53913E-03	4.30586E-02	2.75268E-02
53 I	131 0	1.70476E-03	1.50486E-02	5.49918E-03	8.52319E-03	7.23240E-03
53 I	132 0	3.09386E-05	2.30657E-02	2.37930E-02	7.50952E-02	5.32763E-02
53 I	133 0	4.27733E-04	3.50319E-02	2.87324E-02	3.05253E-02	2.97629E-02
54XE	133 0	2.62816E-03	3.52634E-02	7.05317E-03	4.17835E-03	5.40527E-03
54XE	133 1	4.34647E-05	1.39348E-03	0.	4.68374E-04	2.69174E-04

TM1, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LAST) 7/79

CONTENT OF VAPOR GASES AND HALOGENS
(EXCEPTING 1.0000E-02 PERCENT OF TOTAL GAS)

```

ELAPSED TIME=2.93450E+07 SEC
COOLING TIME=7.20000E+03 SEC
TOTAL ACTIVITY=1.34500E+20
CURIES IN ALL FO= 3.49918E+09
IN ALL GAS= 8.13780E+08
IN HALOGENS= 5.02752E+09
IN NBLE GAS= 7.11170E+09
TOTAL BETA MEV/FISS=7.60420E-01
TOTAL GAMMA MEV/FISS=9.99050E-01
TOTAL BETA+GAMMA=1.76968E+00
FRACTION OF TOTALS IN GAS COMPONENTS
BETA FRACTION=1.69912E-01
GAMMA FRACTION=3.77268E-01
TOTAL FRACTION=3.97051E-01
FRACTIONAL DENSITY ALL GAS=1.55999E-01
DENSITY OF PARTICULATE GAS=9.63623E-03
FRACTIONAL GAS ACTIVITY=2.20585E-01

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DECAY POWER IN KW FOR ALL FD IS
TOTAL 9674 KW=1.018955*10
TOTAL 64644 KW=1.322905*10
TOTAL 9674+64644 KW=7.34755*10
(40711674 KEV/F KW 1.324754*10 17 551 MW)

NUCLEIDE
Z
A
3538 83 0 2.15555E-05 1.80999E-03 1.25971E-03 2.18416E-05 5.59977E-04
3638 83 1 2.51311E-05 2.64415E-03 0. 1.83043E-04 1.03408E-04
3538 84 0 1.23979E-07 6.58546E-04 1.23619E-03 1.32986E-03 1.28954E-03

TABLE VALUES ARE GIVEN AS RATIOS OF ALL NUCLEIDES
NUCLEIDE
Z
A
3538 83 0 2.15555E-05 1.80999E-03 1.25971E-03 2.18416E-05 5.59977E-04
3638 83 1 2.51311E-05 2.64415E-03 0. 1.83043E-04 1.03408E-04
3538 84 0 1.23979E-07 6.58546E-04 1.23619E-03 1.32986E-03 1.28954E-03


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TIME, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., (INDEX-10(LAST) 7/79
CONTENT OF NITRE GASES AND HALOGENS
EXCEEDING 1.00700E-02 PERCENT OF TOTAL GAS)
TIME STEP      32
ELAPSED TIME=2.9358E+07 SEC
COOLING TIME=1.8000E+06 SEC
TOTAL ACTIVITY=1.13097E+20
CURIES IN ALL FP=3.05641E+03
IN ALL GAS=6.55267E+09
IN HALOGENS=3.87156E+09
IN NITRE GAS=2.58891E+09
TOTAL BETA MEV/FISC=5.41417E-01
TOTAL GAMMA MEV/FISC=7.01233E-01
TOTAL BETA+GAMMA=1.26295E+00
FRACTION OF TOTALS IN GAS COMPONENTS
BETA FRACTION=1.41867E-01
GAMMA FRACTION=3.53096E-01
TOTAL FRACTION=2.60665E-01
FRACTIONAL DENSITY ALL GAS=1.55554E-01
DENSITY OF ADDITIVE GAS=9.56271E-03
FRACTIONAL GAS ACTIVITY=2.16399E-01
DECAY POWER IN MW FOR ALL FP IS
TOTAL BETA MW=7.63671E+00
TOTAL GAMMA MW=9.29565E+00
TOTAL BETA+GAMMA MW=1.54722E+01
(MULTIPLY MEV/F BY 1.32415E+01 TO GET MW)

```

1X-0 9767A

[illegible]

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
353R 83 0	2.34165E-07	2.21164E-04	7.27103E-04	1.31205E-05	3.30644E-04
364R 85 1	7.45745E-04	1.93949E-03	2.16277E-03	1.40832E-03	1.74695E-03
364R 87 0	5.98462E-07	1.09947E-03	3.57449E-03	1.70030E-03	2.53379E-03
364R 89 0	8.17012E-06	4.90552E-03	4.19192E-03	2.98014E-02	1.84079E-02
53 I131 0	1.68555E-03	2.06704E-02	9.34129E-03	1.57001E-02	1.28722E-02
53 I132 0	3.02177E-05	3.12282E-02	4.00770E-02	1.36654E-01	9.36729E-02
53 I133 0	3.77865E-04	4.20032E-02	4.36955E-02	5.02394E-02	4.73292E-02
54XE133 0	2.62516E-03	4.89329E-02	1.21451E-02	7.77550E-03	9.71877E-03
54XE133 1	4.32551E-05	1.91270E-03	0.	8.68389E-04	4.82199E-04
53 I134 0	1.23150E-04	3.32479E-03	5.59642E-03	1.68186E-02	1.18279E-02
53 I135 0	7.62745E-05	2.74122E-02	2.62994E-02	7.78746E-02	5.49332E-02
54XE135 0	7.21613E-05	1.86237E-02	1.40601E-02	9.49976E-03	1.15279E-02
54XE135 1	4.52211E-07	4.19699E-03	0.	4.31399E-03	2.39547E-03
TOTAL GAS	2.16359E+02	6.55247E+08	2.09074E-02	2.47595E-01	3.38502E-01
	1.32544E+01	(RADIODACTIVE GAS DENSITY)			
TOTAL FP	1.39000E+03	3.05641E+09	5.61617E-01	7.01234E-01	1.26295E+00
TOTAL GAS FRACTIONS	1.55654E-01	2.14395E-01	1.41967E-01	3.53084E-01	2.69046E-01
	9.54271E-03	(RADIODACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS	1.48489E-01	9.77112E-02	3.41507E-02	5.55645E-02	4.69307E-02
	4.02826E-03	(NOBLE RADIODACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-VII

TMI, UNIT 3, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEPTING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 33
 ELAPSED TIME=2.23739E+07 SEC
 COOLING TIME=3.60000E+04 SEC
 TOTAL ACTIVITY=9.59714E+19
 CURIES IN ALL FP= 2.59382E+03
 IN ALL GAS= 5.51609E+09
 IN HALOGENS= 3.15967E+09
 IN NOBLE GAS= 2.25741E+08
 TOTAL BETA MEV/FISS=4.22372E-01
 TOTAL GAMMA MEV/FISS=5.59211E-01
 TOTAL BETA+GAMMA=9.81583E-01
 FRACTION OF TOTALS IN GAS PRODUCTS
 BETA FRACTION=1.72431E-01
 GAMMA FRACTION=3.33085E-01
 TOTAL FRACTION=2.54462E-01
 FRACTIONAL DENSITY ALL GAS=1.55598E-01
 DENSITY OF RADIODACTIVE GAS=9.60726E-03
 FRACTIONAL GAS ACTIVITY=2.12662E-01

DECAY POWER IN MW FOR ALL FP IS
TOTAL BETA MW=5.59299E+00

TOTAL GAMMA MW=7.40494E+00
TOTAL BETA+GAMMA MW=1.29977E+01
(MULTIPLY MEV/F BY 1.32415E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
35SR 83 0	2.20439E-07	2.56139E-04	2.29143E-04	3.88243E-06	1.00391E-04
36KR 85 1	3.44048E-06	2.14150E-03	1.33103E-03	8.14737E-04	1.03690E-03
36KR 87 0	3.81454E-09	8.39900E-05	3.79793E-04	1.38209E-04	2.11310E-04
36KR 89 0	2.36959E-06	2.36000E-03	1.61275E-03	1.08385E-02	5.86869E-03
53 I131 0	1.65905E-03	2.39739E-02	1.22256E-02	1.93779E-02	1.63003E-02
53 I132 0	2.90249E-05	3.54225E-02	5.10931E-02	1.64584E-01	1.15750E-01
53 I133 0	3.20040E-04	4.29797E-02	4.92095E-02	5.33579E-02	5.15729E-02
54XE133 0	2.61271E-03	5.73961E-02	1.60725E-02	9.70401E-03	1.24443E-02
54XE133 1	4.26700E-05	2.22333E-03	0.	1.07421E-03	6.11979E-04
53 I134 0	2.95616E-09	9.40354E-05	1.78613E-04	5.06213E-04	3.65248E-04
53 I135 0	4.50619E-05	1.90929E-02	2.05511E-02	5.76916E-02	4.17532E-02
54XE135 0	7.51339E-05	2.29505E-02	1.94666E-02	1.24039E-02	1.54429E-02
54XE135 1	2.67160E-07	2.92154E-03	0.	3.19592E-03	1.82073E-03
TOTAL GAS	2.16292E+02	5.51609E+09	7.29299E-02	1.86768E-01	2.59598E-01
	1.30761E+01	(RADIOACTIVE GAS DENSITY)			
TOTAL FP	1.39000E+03	2.59382E+09	4.22372E-01	5.59211E-01	9.81583E-01
TOTAL GAS FRACTIONS	1.55599E-01	2.12662E-01	1.72431E-01	3.33985E-01	2.64469E-01
	9.40726E-03	(RADIOACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS	1.48545E-01	9.09957E-02	3.99164E-02	3.82811E-02	3.85115E-02
	4.00743E-03	(NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-VIII

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

CONTENT OF NOBLE GASES AND HALOGENS
(EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 34
ELAPSED TIME=2.94009E+07 SEC
COOLING TIME=7.20000E+04 SEC
TOTAL ACTIVITY=7.90362E+19
CURIES IN ALL FP= 2.13606E+09
IN ALL GAS= 4.61153E+09
IN HALOGENS= 2.41504E+09
IN NOBLE GAS= 1.09549E+09
TOTAL BETA MEV/FISS=3.05970E-01
TOTAL GAMMA MEV/FISS=4.50542E-01
TOTAL BETA+GAMMA=7.56512E-01
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=1.91559E-01
GAMMA FRACTION=3.10107E-01
TOTAL FRACTION=2.58111E-01

FRACTIONAL DENSITY ALL GAS=1.55499E-01
 DENSITY OF RADIOACTIVE GAS=9.16092E-03

FRACTIONAL GAS ACTIVITY=2.06526E-01

DECAY POWER IN MW F70 ALL FP IS
 TOTAL BETA MW=4.05154E+00
 TOTAL GAMMA MW=5.04590E+00
 TOTAL BETA+GAMMA MW=1.00174E+01
 (MULTIPLY MEV/F BY 1.32416E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
36KR 85 1	7.32280E-07	5.53505E-04	3.91076E-04	2.15237E-04	2.86355E-04
35KR 83 0	1.99327E-07	2.41763E-04	1.87272E-04	1.13162E-03	7.49691E-04
53 I131 0	1.60635E-03	2.81966E-02	1.63404E-02	2.32877E-02	2.04779E-02
53 I132 0	2.55874E-05	3.94015E-02	6.46077E-02	1.87127E-01	1.37574E-01
53 I133 0	2.29343E-04	3.73374E-02	4.86794E-02	4.74592E-02	4.79527E-02
54XE133 0	2.56465E-03	6.84021E-02	2.17789E-02	1.18230E-02	1.58497E-02
54XE133 1	4.06992E-05	2.57509E-03	0.	1.27172E-03	7.57374E-04
53 I135 0	1.57278E-05	4.08781E-03	9.94989E-03	2.49927E-02	1.89087E-02
54XE135 0	5.46506E-05	2.01814E-02	1.95450E-02	1.11977E-02	1.45738E-02
54XE135 1	9.32461E-09	1.23826E-03	0.	1.38451E-03	8.24549E-04
TOTAL GAS	2.16143E+02	4.41153E+08	5.55513E-02	1.39713E-01	1.95264E-01
	1.27337E+01				(RADIOACTIVE GAS DENSITY)
TOTAL FP	1.39000E+03	2.13604E+09	3.05970E-01	4.50542E-01	7.56512E-01
TOTAL GAS FRACTIONS	1.55499E-01	2.06526E-01	1.81558E-01	3.10100E-01	2.58111E-01
	9.16092E-03				(RADIOACTIVE FRACTION OF TOTAL FP)
NOBLE GAS FRACTIONS	1.48613E-01	9.34654E-02	4.19395E-02	2.70885E-02	3.30950E-02
	3.93186E-03				(NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)

TABLE C-XIV

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

CONTENT OF NOBLE GASES AND HALOGENS
 (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 35
 ELAPSED TIME=2.95174E+07 SEC
 COOLING TIME=1.80000E+05 SEC
 TOTAL ACTIVITY=5.90702E+19
 CURIES IN ALL FP= 1.59649E+09
 IN ALL GAS= 2.93143E+08
 IN HALOGENS= 1.49035E+08
 IN NOBLE GAS= 1.44128E+08
 TOTAL BETA MEV/FISS=2.75286E-01
 TOTAL GAMMA MEV/FISS=3.34870E-01
 TOTAL BETA+GAMMA=5.40866E-01
 FRACTION OF TOTALS IN GAS PRODUCTS
 BETA FRACTION=1.56938E-01

GAMMA FRACTION=2.64569E-01
TOTAL FRACTION=2.23569E-01

FRACTIONAL DENSITY ALL GAS=1.55272E-01
DENSITY OF RADIOACTIVE GAS=9.54867E-03
FRACTIONAL GAS ACTIVITY=1.93630E-01

DECAY POWER IN MW FOR ALL FP IS
TOTAL BETA MW=2.72752E+00
TOTAL GAMMA MW=4.43634E+00
TOTAL BETA+GAMMA MW=7.16386E+00
(MULTIPLY MEV/F BY 1.32416E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
53 I131 0	1.45301E-03	3.41131E-02	2.19552E-02	2.83403E-02	2.59085E-02
53 I132 0	2.03667E-05	4.03936E-02	7.35142E-02	1.92854E-01	1.47404E-01
53 I133 0	9.43931E-05	1.83922E-02	2.66079E-02	2.34957E-02	2.46809E-02
54 Xe133 0	2.31920E-03	9.27254E-02	2.92415E-02	1.43780E-02	2.00387E-02
54 Xe133 1	3.20043E-05	2.70733E-03	0.	1.34543E-03	8.33027E-04
53 I135 0	6.68726E-07	4.40106E-04	5.29405E-04	1.42968E-03	1.12452E-03
54 Xe135 0	9.08101E-06	4.49691E-03	4.82411E-03	2.50331E-03	3.38718E-03
TOTAL GAS	2.15828E+02	2.93163E+08	3.23765E-02	8.85986E-02	1.20905E-01
	1.18927E+01	(RADIOACTIVE GAS DENSITY)			
TOTAL FP	1.39000E+03	1.59449E+09	2.05986E-01	3.34879E-01	5.40866E-01
TOTAL GAS FRACTIONS	1.55272E-01	1.93430E-01	1.56939E-01	2.64569E-01	2.23540E-01
	3.54867E-03	(RADIOACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS	1.48688E-01	2.02779E-02	3.41240E-02	1.83878E-02	2.43807E-02
	3.62996E-03	(NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-XV

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

CONTENT OF NOBLE GASES AND HALOGENS
(EXCEPTING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 36
ELAPSED TIME=2.96979E+07 SEC
COOLING TIME=3.60000E+05 SEC
TOTAL ACTIVITY=4.66291E+19
CURIES IN ALL FP= 1.26022E+09
IN ALL GAS= 2.00311E+09
IN HALOGENS= 9.24625E+07
IN NOBLE GAS= 1.07441E+09
TOTAL BETA MEV/FISS=1.59970E-01
TOTAL GAMMA MEV/FISS=2.64555E-01
TOTAL BETA+GAMMA=4.24525E-01
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=1.21051E-01
GAMMA FRACTION=2.09622E-01

TOTAL FRACTION=1.75566E-01
FRACTIONAL DENSITY ALL GAS=1.54971E-01

DENSITY OF RADIOACTIVE GAS=7.74794E-03
FRACTIONAL GAS ACTIVITY=1.59949E-01

DECAY POWER IN MW FOR ALL FP IS
TOTAL BETA MW=2.11493E+00
TOTAL GAMMA MW=3.49121E+00
TOTAL BETA+GAMMA MW=5.60615E+00
(MULTIPLY MEV/F BY 1.32416E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
53 I131 0	1.22120E-03	3.63211E-02	2.37753E-02	3.02534E-02	2.78080E-02
53 I132 0	1.30632E-05	3.28762E-02	6.07337E-02	1.57076E-01	1.20712E-01
53 I133 0	1.59462E-05	4.40252E-03	6.47914E-03	5.63912E-03	5.95583E-03
54XE133 0	1.83435E-03	8.29241E-02	2.98129E-02	1.44505E-02	2.02494E-02
54XE133 1	1.94277E-05	1.38379E-03	0.	9.87696E-04	6.14856E-04
54XE135 0	2.49451E-07	1.55139E-04	1.70742E-04	8.73411E-05	1.18823E-04
TOTAL GAS	2.15410E+02	2.00311E+08	1.93523E-02	5.50042E-02	7.43565E-02
	1.07695E+01	(RADIOACTIVE GAS DENSITY)			
TOTAL FP	1.39000E+03	1.25022E+09	1.59970E-01	2.63655E-01	4.23525E-01
TOTAL GAS FRACTIONS	1.54971E-01	1.59949E-01	1.21051E-01	2.08622E-01	1.75566E-01
	7.74794E-03	(RADIOACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS	1.49671E-01	8.54148E-02	3.00513E-02	1.56238E-02	2.10698E-02
	3.12308E-03	(NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-XVI

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

CONTENT OF NOBLE GASES AND HALOGENS
(EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 37
ELAPSED TIME=3.00578E+07 SEC
COOLING TIME=7.20000E+05 SEC
TOTAL ACTIVITY=3.54130E+19
CURIES IN ALL FP= 9.57109E+08
IN ALL GAS= 1.12071E+03
IN HALOGENS= 4.97555E+07
IN NOBLE GAS= 6.28153E+07
TOTAL BETA MEV/FISS=1.24088E-01
TOTAL GAMMA MEV/FISS=1.95420E-01
TOTAL BETA+GAMMA=3.19709E-01
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=7.66977E-02
GAMMA FRACTION=1.27884E-01
TOTAL FRACTION=1.08014E-01
FRACTIONAL DENSITY ALL GAS=1.54487E-01

DENSITY OF RADIOACTIVE GAS=6.61871E-03
FRACTIONAL GAS ACTIVITY=1.17093E-01

DECAY POWER IN MW FOR ALL FP IS
TOTAL BETA MW=1.54317E+00
TOTAL GAMMA MW=2.59033E+00
TOTAL BETA+GAMMA MW=4.23346E+00
(MULTIPLY MEV/F BY 1.37416E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
53 I131 0	8.55257E-04	3.34929E-02	2.14521E-02	2.85565E-02	2.57991E-02
53 I132 0	5.37046E-06	1.77623E-02	3.21797E-02	8.70546E-02	6.57557E-02
53 I133 0	5.69398E-07	2.06894E-04	2.98704E-04	2.71376E-04	2.81712E-04
54XE133 0	1.08273E-03	6.44484E-02	2.24712E-02	1.14958E-02	1.58333E-02
54XE133 1	5.30132E-06	7.48588E-04	0.	3.81514E-04	2.33437E-04
TOTAL GAS	2.14738E+02	1.12071E+08	9.51605E-03	2.50171E-02	3.45331E-02
	9.20001E+00	(RADIOACTIVE GAS DENSITY)			
TOTAL FP	1.39000E+03	9.57109E+08	1.24088E-01	1.95620E-01	3.19709E-01
TOTAL GAS FRACTIONS	1.54487E-01	1.17093E-01	7.66877E-02	1.27886E-01	1.08014E-01
	6.61871E-03	(RADIOACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS	1.48536E-01	6.56302E-02	2.27584E-02	1.19998E-02	1.61756E-02
	2.35612E-03	(NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-XVII

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 38
ELAPSED TIME=3.11378E+07 SEC
COOLING TIME=1.30000E+06 SEC
TOTAL ACTIVITY=2.24734E+19
CURIES IN ALL FP= 5.07389E+08
IN ALL GAS= 2.45126E+07
IN HALOGENS= 1.21006E+07
IN NOBLE GAS= 1.24120E+07
TOTAL BETA MEV/FIS=8.10982E-02
TOTAL GAMMA MEV/FIS=1.11906E-01
TOTAL BETA+GAMMA=1.93025E-01
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=2.15356E-02
GAMMA FRACTION=3.16783E-02
TOTAL FRACTION=2.74165E-02
FRACTIONAL DENSITY ALL GAS=1.53957E-01
DENSITY OF RADIOACTIVE GAS=5.23441E-03
FRACTIONAL GAS ACTIVITY=4.03573E-02

DECAY POWER IN MW FOR ALL FP IS

TOTAL BETA MW=1.07388E+00
 TOTAL GAMMA MW=1.48182E+00
 TOTAL BETA+GAMMA MW=2.55570E+00
 (MULTIPLY MEV/F BY 1.32416E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
53 I131 0	2.91304E-04	1.79762E-02	1.11798E-02	1.70026E-02	1.45559E-02
53 I132 0	3.73415E-07	1.94614E-03	1.42345E-03	1.05811E-02	7.57354E-03
54 Xe133 0	2.12215E-04	1.99051E-02	6.79905E-03	3.93875E-03	5.14062E-03
TOTAL GAS	2.13861E+02	2.45124E+02	1.74651E-03	3.54500E-03	5.29151E-03
	7.27583E+00	(RADIOACTIVE GAS DENSITY)			
TOTAL FP	1.39000E+02	6.07389E+00	8.19082E-02	1.11906E-01	1.93005E-01
TOTAL GAS FRACTIONS	1.53857E-01	4.03573E-02	2.15354E-02	3.16783E-02	2.74165E-02
	5.23441E-03	(RADIOACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS	1.48392E-01	2.04349E-02	6.93230E-03	4.09457E-03	5.28696E-03
	1.47333E-03	(NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-XVIII

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

CONTENT OF NOBLE GASES AND HALOGENS
 (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 39
 ELAPSED TIME=3.29378E+07 SEC
 COOLING TIME=3.50000E+06 SEC
 TOTAL ACTIVITY=1.46128E+10
 CURIES IN ALL FP= 2.94940E+08
 IN ALL GAS= 2.79257E+05
 IN HALOGENS= 1.82618E+04
 IN NOBLE GAS= 9.46321E+05
 TOTAL BETA MEV/FISS=5.29149E-02
 TOTAL GAMMA MEV/FISS=6.36475E-02
 TOTAL BETA+GAMMA=1.16562E-01
 FRACTION OF TOTALS IN GAS PRODUCTS
 BETA FRACTION=2.78960E-03
 GAMMA FRACTION=5.72947E-03
 TOTAL FRACTION=4.94895E-03
 FRACTIONAL DENSITY ALL GAS=1.53757E-01
 DENSITY OF RADIOACTIVE GAS=4.86341E-03
 FRACTIONAL GAS ACTIVITY=7.07069E-03

DECAY POWER IN MW FOR ALL FP IS
 TOTAL BETA MW=7.00670E-01
 TOTAL GAMMA MW=9.42725E-01
 TOTAL BETA+GAMMA MW=1.54347E+00
 (MULTIPLY MEV/F BY 1.32416E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
53 I131 0	4.83513E-05	4.59874E-03	2.84402E-03	4.96190E-03	4.00047E-03
53 I132 0	4.39027E-09	3.51892E-05	4.15978E-05	2.18728E-04	1.47439E-04
54XE133 0	1.38568E-05	1.99897E-03	6.80409E-04	4.52185E-04	5.55790E-04
TOTAL GAS	2.13722E+02	2.79250E+06	2.00526E-04	3.64679E-04	5.65205E-04
	6.76012E+00	(RADIOACTIVE GAS DENSITY)			
TOTAL FP	1.39000E+03	3.94940E+08	5.29149E-02	6.36475E-02	1.16562E-01
TOTAL GAS FRACTIONS	1.53757E-01	7.07069E-03	3.78259E-03	5.72967E-03	4.84895E-03
	4.36341E-03	(RADIOACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS	1.48444E-01	2.44575E-03	8.83877E-04	5.49039E-04	7.01043E-04
	1.26515E-03	(NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-VIX

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

CONTENT OF NOBLE GASES AND HALOGENS
(EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 40
ELAPSED TIME=3.65378E+07 SEC
COOLING TIME=7.20000E+06 SEC
TOTAL ACTIVITY=8.49737E+18
CURIES IN ALL FP= 2.29675E+08
IN ALL GAS= 1.57207E+05
IN HALOGENS= 4.99302E+04
IN NOBLE GAS= 1.07276E+05
TOTAL BETA MEV/FISS=3.20401E-02
TOTAL GAMMA MEV/FISS=3.39143E-02
TOTAL BETA+GAMMA=6.59543E-02
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=4.67764E-04
GAMMA FRACTION=2.82135E-04
TOTAL FRACTION=3.72312E-04
FRACTIONAL DENSITY ALL GAS=1.53937E-01
DENSITY OF RADIOACTIVE GAS=4.87676E-03
FRACTIONAL GAS ACTIVITY=5.84675E-04

DECAY POWER IN MW FOR ALL FP IS
TOTAL BETA MW=4.24262E-01
TOTAL GAMMA MW=4.49080E-01
TOTAL BETA+GAMMA MW=8.73342E-01
(MULTIPLY MEV/F BY 1.32416E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
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Z	A	S				
36KR	85	0	1.23891E-03	4.14916E-04	3.33566E-04	2.80436E-06 1.63486E-04
53	131	0	1.33209E-04	2.17396E-04	1.29401E-04	2.56547E-04 1.94781E-04
TOTAL GAS			2.13833E+02	1.57207E+05	1.49977E-05	9.56841E-06 2.45556E-05
			6.77866E+00	(RADIODACTIVE GAS DENSITY)		
TOTAL FP			1.38999E+03	2.29675E+04	3.20401E-02	3.39143E-02 6.59543E-02
TOTAL GAS FRACTIONS			1.53837E-01	6.84475E-04	4.67764E-04	2.82135E-04 3.72312E-04
			4.97676E-03	(RADIODACTIVE FRACTION OF TOTAL FP)		
NOBLE GAS FRACTIONS			1.48469E-01	4.47079E-04	3.39349E-04	2.55310E-05 1.77495E-04
			1.23931E-03	(NOBLE RADIODACTIVE GAS FRACTION OF TOTAL FP)		

TABLE C-XX

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEPTING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 41
ELAPSED TIME=4.73379E+07 SEC
COOLING TIME=1.90000E+07 SEC
TOTAL ACTIVITY=2.93655E+18
CURIES IN ALL FP= 7.93662E+07
IN ALL GAS= 2.31976E+04
IN HALOGENS= 1.23586E+03
IN NOBLE GAS= 9.31964E+04
TOTAL BETA MEV/FISS=1.41514E-02
TOTAL GAMMA MEV/FISS=9.96273E-03
TOTAL BETA+GAMMA=2.41142E-02
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=7.39715E-04
GAMMA FRACTION=9.40677E-06
TOTAL FRACTION=4.27403E-04
FRACTIONAL DENSITY ALL GAS=1.53897E-01
DENSITY OF RADIODACTIVE GAS=4.90599E-03
FRACTIONAL GAS ACTIVITY=1.17427E-03

DECAY POWER IN MW FOR ALL FP IS
TOTAL BETA MW=1.97399E-01
TOTAL GAMMA MW=1.21923E-01
TOTAL BETA+GAMMA MW=3.19311E-01
(MULTIPLY MEV/F BY 1.32416E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F	
Z	A	S				
36KR	85	0	1.21193E-02	1.17417E-03	7.39709E-04 9.33763E-06 4.37370E-04	
TOTAL GAS			2.13915E+02	9.31976E+04	1.04539E-05 9.37172E-08 1.05475E-05	
			6.81927E+00	(RADIODACTIVE GAS DENSITY)		
TOTAL FP			1.38999E+03	7.93662E+07	1.41514E-02 9.96273E-03 2.41142E-02	

TOTAL GAS
FRACTIONS 1.53897E-01 1.17427E-03 7.39715E-04 9.40677E-06 4.37403E-04
4.30599E-03 (RADIOACTIVE FRACTION OF TOTAL FP)

NOBLE GAS
FRACTIONS 1.48444E-01 1.17426E-03 7.39709E-04 9.38816E-06 4.37391E-04
1.21193E-03 (NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)

TABLE C-VXI

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL COPE CALC., CINDER-10(LASL) 7/79

CONTENT OF NOBLE GASES AND HALOGENS
(EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 42
ELAPSED TIME=6.08738E+07 SEC
COOLING TIME=3.15340E+07 SEC
TOTAL ACTIVITY=1.31440E+19
CURIES IN ALL FP= 3.55244E+07
IN ALL GAS= 9.06432E+04
IN HALOGENS= 1.92084E-01
IN NOBLE GAS= 9.06430E+04
TOTAL BETA MEV/FISS=7.36628E-03
TOTAL GAMMA MEV/FISS=2.49154E-03
TOTAL BETA+GAMMA=1.04478E-02
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=1.27640E-03
GAMMA FRACTION=3.64636E-05
TOTAL FRACTION=9.81889E-04
FRACTIONAL DENSITY ALL GAS=1.53897E-01
DENSITY OF RADIOACTIVE GAS=4.87740E-03
FRACTIONAL GAS ACTIVITY=2.55159E-03

DECAY POWER IN MW FOR ALL FP IS
TOTAL BETA MW=1.05486E-01
TOTAL GAMMA MW=3.28534E-02
TOTAL BETA+GAMMA MW=1.38345E-01
(MULTIPLY MEV/F BY 1.32416E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
36KR 85 0	1.17872E-03	2.55157E-03	1.27640E-03	3.64636E-05	9.81889E-04
TOTAL GAS	2.13926E+02	2.06432E+04	1.01681E-05	9.04895E-08	1.02596E-05
	6.77950E+00 (RADIOACTIVE GAS DENSITY)				
TOTAL FP	1.38998E+03	3.55244E+07	7.95629E-03	2.48154E-03	1.04478E-02
TOTAL GAS					
FRACTIONS	1.53884E-01	2.55159E-03	1.27640E-03	3.64630E-05	9.81890E-04
	4.87740E-03 (RADIOACTIVE FRACTION OF TOTAL FP)				

NOBLE GAS FRACTIONS 1.48411E-01 2.55157E-03 1.27640E-03 3.64636E-05 9.81889E-04
 1.17872E-03 (NITRILE RADIOACTIVE GAS FRACTION OF TOTAL FP)

TABLE C-VIII

TM, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEPTING 1.70000E-02 PERCENT OF TOTAL GAS)

TIME STEP 43
 ELAPSED TIME=6.53378E+07 SEC
 COOLING TIME=3.60000E+07 SEC
 TOTAL ACTIVITY=1.10743E+19
 CURIES IN ALL FP=2.99009E+07
 IN ALL GAS=8.29197E+04
 IN HALOGENS=1.92790E-01
 IN NOBLE GAS=8.29195E+04
 TOTAL BETA MEV/FP=5.92002E-03
 TOTAL GAMMA MEV/FP=1.68930E-03
 TOTAL BETA+GAMMA=8.60932E-03
 FRACTION OF TOTALS IN GAS PRODUCT
 BETA FRACTION=1.45601E-03
 GAMMA FRACTION=5.30790E-05
 TOTAL FRACTION=1.18073E-03
 FRACTIONAL DENSITY ALL GAS=1.53876E-01
 DENSITY OF RADIOACTIVE GAS=4.44690E-03
 FRACTIONAL GAS ACTIVITY=3.01395E-03

DECAY POWER IN MW FOR ALL FP IS
 TOTAL BETA MW=0.15321E-02
 TOTAL GAMMA MW=2.23491E-02
 TOTAL BETA+GAMMA MW=1.14001E-01
 (MULTIPLY MEV/FP BY 1.32416E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES
 NUCLIDE DENSITY CURIES BETA MEV/FP GAMMA MEV/FP B+G MEV/FP
 36KR 85 0 1.16799E-03 3.01395E-03 1.45601E-03 5.30769E-05 1.18073E-03
 TOTAL GAS 2.13835E+02 8.99197E+04 1.07755E-05 8.96664E-08 1.01653E-05
 5.76475E+00 (RADIOACTIVE GAS DENSITY)
 TOTAL FP 1.38998E+03 2.99009E+07 4.92002E-03 1.68930E-03 8.60932E-03
 TOTAL GAS FRACTIONS 1.53876E-01 3.01395E-03 1.45601E-03 5.30790E-05 1.18073E-03
 4.86680E-03 (RADIOACTIVE FRACTION OF TOTAL FP)
 NOBLE GAS FRACTIONS 1.48401E-01 3.01395E-03 1.45601E-03 5.30769E-05 1.18073E-03
 1.16799E-03 (NITRILE RADIOACTIVE GAS FRACTION OF TOTAL FP)

TABLE C-XXIII

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 44
ELAPSED TIME=1.01338E+09 SEC
COOLING TIME=7.20000E+07 SEC
TOTAL ACTIVITY=4.67316E+17
CURIES IN ALL FP= 1.26302E+07
IN ALL GAS= 9.34378E+04
IN HALOGENS= 1.93746E-01
IN NOBLE GAS= 9.34378E+04
TOTAL BETA MEV/FISS=2.79614E-03
TOTAL GAMMA MEV/FISS=4.29909E-04
TOTAL BETA+GAMMA=3.22604E-03
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=3.34742E-03
GAMMA FRACTION=1.93754E-04
TOTAL FRACTION=2.92715E-03
FRACTIONAL DENSITY ALL GAS=1.53800E-01
DENSITY OF RADIOACTIVE GAS=4.79393E-03
FRACTIONAL GAS ACTIVITY=6.60622E-03

DECAY POWER IN MW FOR ALL FP IS
TOTAL BETA MW=3.70253E-02
TOTAL GAMMA MW=5.69269E-03
TOTAL BETA+GAMMA MW=4.27190E-02
(MULTIPLY MEV/F BY 1.32416E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
36KR 85 0	1.08503E-03	6.60621E-03	3.34742E-03	1.93746E-04	2.92715E-03
TOTAL GAS	2.13778E+02	9.34378E+04	9.35983E-06	8.32965E-08	9.44313E-06
	6.64951E+00 (RADIOACTIVE GAS DENSITY)				
TOTAL FP	1.38997E+03	1.26302E+07	2.79614E-03	4.29909E-04	3.22604E-03
TOTAL GAS FRACTIONS	1.53800E-01	6.60622E-03	3.34742E-03	1.93754E-04	2.92715E-03
	4.79393E-03 (RADIOACTIVE FRACTION OF TOTAL FP)				
NOBLE GAS FRACTIONS	1.48319E-01	6.60621E-03	3.34742E-03	1.93746E-04	2.92715E-03
	1.08503E-03 (TOTAL RADIOACTIVE GAS FRACTION OF TOTAL FP)				

TABLE C-XXIV

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

CONTENT OF NOBLE GASES AND HALOGENS
(EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 45

ELAPSED TIME=2.09338E+08 SEC
COOLING TIME=1.80700E+08 SEC
TOTAL ACTIVITY=1.51650E+17
CURIES IN ALL FP= 4.09864E+06
 IN ALL GAS= 5.68884E+04
 IN HALOGENS= 1.92202E-01
 IN NOBLE GAS= 5.68882E+04
TOTAL BETA MEV/FISS=5.69966E-04
TOTAL GAMMA MEV/FISS=2.35494E-04
TOTAL BETA+GAMMA=8.04460E-04
FRACTION OF TOTALS IN GAS PRODUCTS
 BETA FRACTION=1.31877E-02
 GAMMA FRACTION=2.83556E-04
 TOTAL FRACTION=9.41022E-03
FRACTIONAL DENSITY ALL GAS=1.53589E-01
DENSITY OF RADIOACTIVE GAS=4.56881E-03
FRACTIONAL GAS ACTIVITY=1.63197E-02

DECAY POWER IN MW FOR ALL FP IS
 TOTAL BETA MW=7.53402E-03
 TOTAL GAMMA MW=3.11832E-03
 TOTAL BETA+GAMMA MW=1.05523E-02
(MULTIPLY MEV/F BY 1.32416E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
36KR 85 0	8.69835E-04	1.63196E-02	1.31877E-02	2.83541E-04	9.41020E-03
TOTAL GAS	2.13479E+02	4.68884E+04	7.50337E-06	6.67758E-08	7.57014E-06
	6.35039E+00 (RADIOACTIVE GAS DENSITY)				
TOTAL FP	1.38994E+03	4.09864E+06	5.69966E-04	2.35494E-04	8.04460E-04
TOTAL GAS FRACTIONS	1.53589E-01	1.63197E-02	1.31877E-02	2.83556E-04	9.41022E-03
	4.56881E-03 (RADIOACTIVE FRACTION OF TOTAL FP)				
NOBLE GAS FRACTIONS	1.48107E-01	1.63196E-02	1.31877E-02	2.83541E-04	9.41020E-03
	8.69835E-04 (NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)				

TABLE C-XXV

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

SUMMARY OF PROBLEM OUTPUT

POWER, TOTAL CONTENT, FISSION DENSITY, ACTIVITY

TS ELAPSED TIME (S)	RAPNS/FISSION (LAST 4 GROUPS)					
1	2.2320E+05	4.2670E-02	1.9407E-01	1.8209E+01	2.3692E+04	
2	1.2937E+07	5.1250E-02	2.5527E-01	2.3247E+01	1.0764E+03	
3	1.4072E+07	4.7297E-02	2.2595E-01	1.8429E+01	4.7082E+03	
4	1.4468E+07	4.7016E-02	2.2243E-01	1.7806E+01	4.2004E+03	
5	1.5109E+07	4.8949E-02	2.3672E-01	1.8907E+01	7.8369E+02	
6	1.6423E+07	4.8299E-02	2.2756E-01	1.7598E+01	1.9211E+03	
7	1.6801E+07	4.9264E-02	2.3460E-01	1.8168E+01	5.0712E+02	
8	1.7010E+07	4.9708E-02	2.2964E-01	1.7925E+01	1.8624E+03	
9	1.7105E+07	4.9196E-02	2.3263E-01	1.8193E+01	1.7356E+03	
10	1.7289E+07	4.8903E-02	2.3042E-01	1.7924E+01	1.6423E+03	
11	1.9580E+07	5.1755E-02	2.4458E-01	1.9947E+01	4.5269E+02	
12	2.0546E+07	4.9725E-02	2.3427E-01	1.8474E+01	1.1044E+03	
13	2.1182E+07	5.0477E-02	2.3996E-01	1.8948E+01	3.3503E+02	
14	2.2021E+07	4.9909E-02	2.3492E-01	1.8412E+01	8.7503E+02	
15	2.3173E+07	5.0104E-02	2.3584E-01	1.8356E+01	6.8214E+02	
16	2.4666E+07	5.1255E-02	2.4360E-01	1.9398E+01	2.4581E+02	
17	2.4700E+07	5.1257E-02	2.4367E-01	1.9414E+01	2.5185E+02	
18	2.7119E+07	5.0780E-02	2.3966E-01	1.8859E+01	4.7701E+02	
19	2.7607E+07	5.0806E-02	2.3772E-01	1.8857E+01	4.5321E+02	
20	2.7657E+07	5.0917E-02	2.4043E-01	1.8935E+01	6.2907E+02	
21	2.7724E+07	5.0907E-02	2.4066E-01	1.8887E+01	3.7188E+02	
22	2.9338E+07	5.1057E-02	2.4111E-01	1.8957E+01	3.7778E+02	
23	2.9338E+07	5.1057E-02	2.4111E-01	1.8957E+01	3.7780E+02	
24	2.9338E+07	5.1057E-02	2.4111E-01	1.8957E+01	3.7786E+02	
25	2.9338E+07	5.1057E-02	2.4111E-01	1.8957E+01	3.7797E+02	
26	2.9338E+07	5.1057E-02	2.4112E-01	1.8958E+01	3.7851E+02	
27	2.9338E+07	5.1058E-02	2.4112E-01	1.8958E+01	3.7961E+02	
28	2.9338E+07	5.1059E-02	2.4112E-01	1.8959E+01	3.8501E+02	
29	2.9339E+07	5.1062E-02	2.4114E-01	1.8962E+01	3.9543E+02	
30	2.9341E+07	5.1070E-02	2.4119E-01	1.8971E+01	4.3592E+02	
31	2.9345E+07	5.1072E-02	2.4123E-01	1.8982E+01	4.8165E+02	
32	2.9356E+07	5.1100E-02	2.4135E-01	1.9005E+01	5.6374E+02	
33	2.9374E+07	5.1124E-02	2.4152E-01	1.9019E+01	5.8378E+02	
34	2.9410E+07	5.1160E-02	2.4180E-01	1.9017E+01	4.6389E+02	
35	2.9518E+07	5.1237E-02	2.4243E-01	1.9015E+01	1.9742E+02	
36	2.9696E+07	5.1361E-02	2.4322E-01	1.9085E+01	1.5254E+02	
37	3.0058E+07	5.1512E-02	2.4438E-01	1.9256E+01	1.5791E+02	
38	3.1138E+07	5.1832E-02	2.4646E-01	1.9655E+01	1.6091E+02	
39	3.2938E+07	5.2057E-02	2.4821E-01	2.0044E+01	1.6138E+02	
40	3.6538E+07	5.2230E-02	2.5002E-01	2.0428E+01	1.6151E+02	
41	4.7338E+07	5.2480E-02	2.5182E-01	2.0688E+01	1.6168E+02	
42	6.0874E+07	5.2714E-02	2.5216E-01	2.0564E+01	1.6203E+02	
43	6.5339E+07	5.2777E-02	2.5216E-01	2.0505E+01	1.6214E+02	
44	1.0134E+08	5.3073E-02	2.5175E-01	2.0047E+01	1.6232E+02	
45	2.0934E+08	5.3174E-02	2.5045E-01	1.9246E+01	1.6479E+02	

TABLE C-XXVI

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CODE CALC., CINDER-10(LASL) 7/79

SUMMARY OF PROBLEM OUTPUT

POWER, TOTAL CONTENT, FISS DENSITY, ACTIVITY

TS	ELAPSED TIME (S)	COOLING TIME (S)	TOTAL NUC	FISS DENS	ACTIVITY	POWER
1	2.23200E+05	0.	9.37137E+00	4.18487E+00	9.37567E+19	6.11500E+08
2	1.29366E+07	1.27134E+07	9.37176E+00	4.18487E+00	4.61989E+16	0.
3	1.40724E+07	0.	4.49117E+01	2.24508E+01	8.59513E+19	5.24520E+08
4	1.44684E+07	0.	7.18462E+01	3.59149E+01	1.78202E+20	1.10900E+09
5	1.51092E+07	6.40800E+05	7.18471E+01	3.59149E+01	5.70238E+19	0.
6	1.64232E+07	0.	1.91823E+02	9.58909E+01	2.46449E+20	1.48894E+09
7	1.68012E+07	3.78000E+05	1.31824E+02	9.58909E+01	1.59692E+19	0.
8	1.70100E+07	0.	2.22507E+02	1.11231E+02	3.76507E+20	2.39780E+09
9	1.71054E+07	9.54000E+04	2.22508E+02	1.11231E+02	3.23746E+19	0.
10	1.72990E+07	0.	2.45405E+02	1.22679E+02	3.25770E+20	2.03410E+09
11	1.95304E+07	2.29140E+05	2.45407E+02	1.22679E+02	5.75479E+18	0.
12	2.05460E+07	0.	3.82770E+02	1.91357E+02	3.45392E+20	2.10409E+09
13	2.11324E+07	5.36400E+05	3.82772E+02	1.91357E+02	1.80575E+19	0.
14	2.20212E+07	0.	5.09515E+02	2.54733E+02	4.05876E+20	2.46730E+09
15	2.31732E+07	0.	6.70806E+02	3.35397E+02	3.85618E+20	2.28180E+09
16	2.46660E+07	1.49291E+05	6.70807E+02	3.35397E+02	1.61236E+19	0.
17	2.46996E+07	0.	6.70875E+02	3.35431E+02	2.04580E+19	3.34000E+07
18	2.71189E+07	0.	1.02539E+03	5.17777E+02	4.17448E+20	2.46214E+09
19	2.76075E+07	0.	1.11750E+03	5.58856E+02	4.62845E+20	2.74350E+09
20	2.76669E+07	5.94000E+04	1.11750E+03	5.58856E+02	7.85243E+19	0.
21	2.77236E+07	0.	1.12339E+03	5.61806E+02	3.00661E+20	1.69760E+09
22	2.93378E+07	0.	1.39000E+03	6.95228E+02	4.61196E+20	2.69970E+09
23	2.93378E+07	1.00000E+00	1.39000E+03	6.95228E+02	4.39726E+20	0.
24	2.93378E+07	4.00000E+00	1.39000E+03	6.95228E+02	4.09939E+20	0.
25	2.93378E+07	1.00000E+01	1.39000E+03	6.95228E+02	3.80462E+20	0.
26	2.93378E+07	4.00000E+01	1.39000E+03	6.95228E+02	3.25417E+20	0.
27	2.93378E+07	1.00000E+02	1.39000E+03	6.95228E+02	2.87992E+20	0.
28	2.93382E+07	4.00000E+02	1.39000E+03	6.95228E+02	2.36830E+20	0.
29	2.93388E+07	1.00000E+03	1.39000E+03	6.95228E+02	2.04110E+20	0.
30	2.93414E+07	3.60000E+03	1.39000E+03	6.95228E+02	1.57103E+20	0.
31	2.93450E+07	7.20000E+03	1.39000E+03	6.95228E+02	1.36500E+20	0.
32	2.93558E+07	1.80000E+04	1.39000E+03	6.95228E+02	1.13087E+20	0.
33	2.93738E+07	3.60000E+04	1.39000E+03	6.95228E+02	9.59714E+19	0.
34	2.94099E+07	7.20000E+04	1.39000E+03	6.95228E+02	7.90343E+19	0.
35	2.95178E+07	1.80000E+05	1.39000E+03	6.95228E+02	5.90702E+19	0.
36	2.96978E+07	3.60000E+05	1.39000E+03	6.95228E+02	4.66281E+19	0.
37	3.00578E+07	7.20000E+05	1.39000E+03	6.95228E+02	3.54130E+19	0.
38	3.11378E+07	1.80000E+06	1.39000E+03	6.95228E+02	2.24734E+19	0.
39	3.29378E+07	3.60000E+06	1.39000E+03	6.95228E+02	1.46128E+19	0.
40	3.65378E+07	7.20000E+06	1.39000E+03	6.95228E+02	8.49797E+18	0.
41	4.73378E+07	1.80000E+07	1.39000E+03	6.95228E+02	2.93655E+18	0.
42	6.08738E+07	3.15300E+07	1.39000E+03	6.95228E+02	1.31440E+18	0.
43	6.53378E+07	3.60000E+07	1.39000E+03	6.95228E+02	1.10263E+18	0.
44	1.01338E+08	7.20000E+07	1.39000E+03	6.95228E+02	4.67316E+17	0.
45	2.09338E+08	1.90000E+08	1.39000E+03	6.95228E+02	1.51650E+17	0.

TABLE CXXVII

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

SUMMARY OF PROBLEM OUTPUT

ENERGY DATA (MEV/F) ALL NUCLIDES

TS	COOLING TIME (S)	TOTAL DENS	ACTIVITY	BETA MEV/F	GAMMA MEV/F	TOTAL MEV/F
1	0.	8.37137E+00	9.37567E+19	5.21458E+00	5.80503E+00	1.20196E+01
2	1.27134E+07	8.37176E+00	4.41289E+14	7.85868E-04	8.18572E-04	1.60444E-03
3	0.	4.49112E+01	8.59513E+19	5.30776E+00	5.97155E+00	1.22793E+01
4	0.	7.18467E+01	1.78202E+20	6.27471E+00	5.41864E+00	1.21933E+01
5	6.40800E+05	7.18471E+01	5.70238E+19	4.45826E-02	8.51404E-02	1.31823E-01
6	0.	1.91823E+02	2.46449E+20	5.31017E+00	5.93993E+00	1.23001E+01
7	3.78000E+05	1.91824E+02	1.59692E+19	9.70929E-02	1.74116E-01	2.71209E-01
8	0.	2.22507E+02	3.76507E+20	5.22379E+00	5.84975E+00	1.20735E+01
9	9.54000E+04	2.22508E+02	3.23746E+19	1.45697E-01	2.12227E-01	3.59225E-01
10	0.	2.45406E+02	3.25772E+20	5.24960E+00	5.89508E+00	1.21447E+01
11	2.29140E+06	2.45407E+02	5.75470E+18	2.78111E-02	3.90360E-02	5.68471E-02
12	0.	3.82770E+02	3.45392E+20	5.27945E+00	5.94626E+00	1.22257E+01
13	5.36400E+05	3.82772E+02	1.80575E+19	7.82079E-02	1.34679E-01	2.12987E-01
14	0.	5.09515E+02	4.05974E+20	5.27053E+00	5.94075E+00	1.22113E+01
15	0.	5.70806E+02	3.85618E+20	5.29620E+00	5.99549E+00	1.22917E+01
16	1.49281E+06	5.70807E+02	1.41234E+19	5.87215E-02	1.01924E-01	1.70646E-01
17	0.	6.70875E+02	2.04580E+19	1.05191E+01	1.23084E+01	2.28275E+01
18	0.	1.03533E+03	4.17448E+20	5.28042E+00	5.98059E+00	1.22610E+01
19	0.	1.11750E+03	4.52845E+20	5.25354E+00	5.94884E+00	1.22024E+01
20	5.94000E+04	1.11750E+03	7.85243E+19	3.12430E-01	4.43888E-01	7.56368E-01
21	0.	1.12333E+03	3.70561E+20	5.22578E+00	6.06708E+00	1.23629E+01
22	0.	1.33000E+03	4.41186E+20	6.25950E+00	5.96669E+00	1.22262E+01
23	1.00000E+00	1.33000E+03	4.39726E+20	5.68773E+00	5.53358E+00	1.12213E+01
24	4.00000E+00	1.33000E+03	4.09339E+20	4.98347E+00	5.01853E+00	1.00020E+01
25	1.00000E+01	1.33000E+03	2.80462E+20	4.34924E+00	4.56194E+00	8.91119E+00
26	4.00000E+01	1.33000E+03	3.25417E+20	3.30255E+00	3.71468E+00	7.01722E+00
27	1.00000E+02	1.33000E+03	2.87392E+20	2.65002E+00	3.10892E+00	5.76894E+00
28	4.00000E+02	1.33000E+03	2.36330E+20	1.88353E+00	2.34725E+00	4.23079E+00
29	1.00000E+03	1.33000E+03	2.04110E+20	1.47043E+00	1.93313E+00	3.40356E+00
30	3.60000E+03	1.33000E+03	1.57103E+20	2.66906E-01	1.30642E+00	2.27323E+00
31	7.20000E+03	1.33000E+03	1.36500E+20	7.69429E-01	9.99050E-01	1.76848E+00
32	1.80000E+04	1.33000E+03	1.12987E+20	5.61417E-01	7.01234E-01	1.26285E+00
33	3.60000E+04	1.33000E+03	9.59714E+19	4.22372E-01	5.59211E-01	9.91593E-01
34	7.20000E+04	1.33000E+03	7.90343E+19	3.05970E-01	4.50542E-01	7.56512E-01
35	1.30000E+05	1.33000E+03	5.90702E+19	2.05986E-01	3.34879E-01	5.40866E-01
36	3.60000E+05	1.33000E+03	4.46281E+19	1.59870E-01	2.63655E-01	4.23525E-01
37	7.20000E+05	1.33000E+03	3.54130E+19	1.24088E-01	1.95620E-01	3.19709E-01
38	1.80000E+06	1.33000E+03	2.24734E+19	8.10989E-02	1.11706E-01	1.93005E-01
39	3.60000E+06	1.33000E+03	1.46128E+19	5.29149E-02	6.36475E-02	1.16562E-01
40	7.20000E+06	1.33999E+03	8.43797E+18	3.20401E-02	3.39143E-02	6.59543E-02
41	1.30000E+07	1.33999E+03	2.93555E+18	1.41514E-02	9.96273E-03	2.41142E-02
42	3.15360E+07	1.33999E+03	1.31440E+18	7.25628E-03	2.48154E-03	1.04478E-02
43	3.60000E+07	1.33999E+03	1.17263E+18	6.22002E-03	1.68930E-03	8.60932E-03
44	7.20000E+07	1.33999E+03	4.67315E+17	2.72614E-03	4.29909E-04	3.22604E-03
45	1.80000E+08	1.38994E+03	1.51650E+17	5.68956E-04	2.35494E-04	8.04460E-04

TABLE C-XXVIII

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

SUMMARY OF PROGRAM OUTPUT

TOTAL GAS FRACTIONS

GAS FRACTIONS OF TOTAL NUCLIDE VALUES

TS	COOLING TIME (S)	DENSITY	P-DENSITY	ACTIVITY	BETA	GAMMA	TOTAL
1	0.	1.6319E-01	5.934E-02	1.732E-01	2.0144E-01	2.4566E-01	2.2280E-01
2	1.2713E+07	1.4063E-01	4.479E-03	4.707E-04	3.7932E-04	1.4857E-05	1.9337E-04
3	0.	1.5244E-01	2.953E-02	2.725E-01	2.0193E-01	2.4968E-01	2.2515E-01
4	0.	1.5513E-01	3.070E-02	1.992E-01	2.0116E-01	2.4803E-01	2.2391E-01
5	6.4080E+05	1.4915E-01	1.470E-02	2.704E-01	1.6107E-01	2.4923E-01	2.1801E-01
5	0.	1.5578E-01	2.184E-02	1.985E-01	2.0024E-01	2.4785E-01	2.2343E-01
7	3.7800E+05	1.5297E-01	1.460E-02	2.195E-01	1.7318E-01	2.7912E-01	2.4119E-01
8	0.	1.5446E-01	1.949E-02	1.933E-01	1.9891E-01	2.4344E-01	2.2049E-01
9	9.5400E+04	1.5346E-01	1.614E-02	2.408E-01	2.1494E-01	3.5139E-01	2.9562E-01
10	0.	1.5427E-01	1.790E-02	1.947E-01	1.9895E-01	2.4447E-01	2.2105E-01
11	2.2914E+06	1.4885E-01	5.177E-03	3.813E-02	1.9629E-02	2.6944E-02	2.3901E-02
12	0.	1.5482E-01	1.552E-02	1.957E-01	1.9883E-01	2.4677E-01	2.2215E-01
13	5.3640E+05	1.5265E-01	2.725E-03	1.700E-01	1.4221E-01	2.3689E-01	2.0211E-01
14	0.	1.5519E-01	1.438E-02	1.941E-01	1.9770E-01	2.4532E-01	2.2087E-01
15	0.	1.5561E-01	1.312E-02	1.933E-01	1.9656E-01	2.4425E-01	2.1992E-01
16	1.4928E+06	1.5250E-01	5.788E-03	6.948E-02	3.8068E-02	5.5343E-02	4.8386E-02
17	0.	1.5248E-01	5.748E-03	9.417E-02	1.2681E-01	1.3305E-01	1.3018E-01
19	0.	1.5550E-01	1.064E-02	1.904E-01	1.9457E-01	2.4248E-01	2.1794E-01
19	0.	1.5567E-01	1.043E-02	1.895E-01	1.9349E-01	2.4150E-01	2.1690E-01
20	5.9400E+04	1.5546E-01	1.007E-02	2.189E-01	1.8919E-01	3.3347E-01	2.7397E-01
21	0.	1.5542E-01	9.992E-03	1.893E-01	1.9331E-01	2.4072E-01	2.1653E-01
22	0.	1.5570E-01	9.703E-03	1.875E-01	1.9213E-01	2.4012E-01	2.1555E-01
23	1.0000E+00	1.5570E-01	9.703E-03	1.893E-01	1.9589E-01	2.4542E-01	2.2031E-01
24	4.0000E+00	1.5570E-01	9.703E-03	1.703E-01	1.9607E-01	2.4852E-01	2.2239E-01
25	1.0000E+01	1.5570E-01	9.708E-03	1.913E-01	1.9507E-01	2.5060E-01	2.2350E-01
26	4.0000E+01	1.5570E-01	9.707E-03	1.901E-01	1.8444E-01	2.5205E-01	2.2023E-01
27	1.0000E+02	1.5570E-01	9.706E-03	1.873E-01	1.6950E-01	2.5351E-01	2.1478E-01
28	4.0000E+02	1.5570E-01	9.702E-03	1.871E-01	1.4802E-01	2.7131E-01	2.1642E-01
29	1.0000E+03	1.5570E-01	9.696E-03	1.944E-01	1.4608E-01	2.9767E-01	2.3218E-01
30	3.6000E+03	1.5570E-01	9.671E-03	2.148E-01	1.6934E-01	3.5919E-01	2.7802E-01
31	7.2000E+03	1.5569E-01	9.636E-03	2.206E-01	1.6991E-01	3.7727E-01	2.8705E-01
32	1.8000E+04	1.5565E-01	9.543E-03	2.144E-01	1.6187E-01	3.5308E-01	2.6805E-01
33	3.6000E+04	1.5560E-01	9.407E-03	2.127E-01	1.7243E-01	3.3399E-01	2.6447E-01
34	7.2000E+04	1.5550E-01	9.161E-03	2.055E-01	1.8156E-01	3.1010E-01	2.5811E-01
35	1.8000E+05	1.5527E-01	8.542E-03	1.834E-01	1.5684E-01	2.6457E-01	2.2354E-01
36	3.6000E+05	1.5497E-01	7.748E-03	1.593E-01	1.2105E-01	2.0862E-01	1.7557E-01
37	7.2000E+05	1.5449E-01	6.619E-03	1.171E-01	7.6688E-02	1.2789E-01	1.0801E-01
38	1.8000E+06	1.5336E-01	5.234E-03	4.036E-02	2.1536E-02	3.1678E-02	2.7416E-02
39	3.6000E+06	1.5376E-01	4.843E-03	7.071E-03	3.7896E-03	5.7297E-03	4.8489E-03
40	7.2000E+06	1.5384E-01	4.877E-03	6.945E-04	4.6776E-04	2.8214E-04	3.7231E-04
41	1.8000E+07	1.5390E-01	4.906E-03	1.174E-03	7.3872E-04	9.4068E-06	4.3740E-04
42	3.1536E+07	1.5388E-01	4.877E-03	2.552E-03	1.2764E-03	3.6465E-05	9.8189E-04
43	3.6000E+07	1.5388E-01	4.847E-03	3.014E-03	1.4560E-03	5.3079E-05	1.1807E-03
44	7.2000E+07	1.5380E-01	4.784E-03	6.604E-03	3.3474E-03	1.9375E-04	2.9272E-03
45	1.8000E+08	1.5359E-01	4.559E-03	1.632E-02	1.3188E-02	2.6356E-04	9.4102E-03

TABLE C-XXIX

TMI, UNIT 2, 22-STEP POWER HISTORY, FULL CORE CALC., CINDER-10(LASL) 7/79

SUMMARY OF PROGRAM OUTPUT

NITRILE GAS FRACTIONS

NITRILE GAS FRACTIONS OF TOTAL NUCLIDE VALUES

TS	COOLING TIME (S)	DENSITY	R-DENSITY	ACTIVITY	BETA	GAMMA	TOTAL
1	0.	1.2747E-01	2.471E-02	1.040E-01	1.0069E-01	9.8800E-02	9.9776E-02
2	1.2713E+07	1.3560E-01	1.297E-03	4.933E-04	3.7504E-04	5.2312E-06	1.8688E-04
3	0.	1.3767E-01	1.517E-02	1.059E-01	9.9893E-02	9.6671E-02	9.8326E-02
4	0.	1.3893E-01	1.534E-02	1.070E-01	9.9457E-02	9.6649E-02	9.8094E-02
5	5.4090E+05	1.4071E-01	7.884E-03	1.265E-01	4.5449E-02	2.0964E-02	2.9635E-02
6	0.	1.4248E-01	1.122E-02	1.073E-01	9.8584E-02	9.5151E-02	9.6912E-02
7	3.7800E+05	1.4466E-01	7.922E-03	1.202E-01	4.3143E-02	2.0647E-02	2.8701E-02
8	0.	1.4292E-01	9.341E-03	1.001E-01	9.8752E-02	9.6243E-02	9.7536E-02
9	9.5400E+04	1.4406E-01	9.270E-03	1.055E-01	5.1137E-02	3.2464E-02	4.0096E-02
10	0.	1.4333E-01	9.455E-03	1.005E-01	9.8509E-02	9.5640E-02	9.7117E-02
11	2.2914E+06	1.4366E-01	1.599E-03	1.921E-02	6.0665E-03	3.5729E-03	4.6103E-03
12	0.	1.4527E-01	7.491E-03	1.001E-01	9.7804E-02	9.4549E-02	9.6220E-02
13	5.3640E+05	1.4595E-01	4.609E-03	1.075E-01	3.8413E-02	4.7227E-02	2.6067E-02
14	0.	1.4601E-01	6.739E-03	9.898E-02	9.7221E-02	9.3870E-02	9.5591E-02
15	0.	1.4704E-01	6.120E-03	9.987E-02	9.6513E-02	9.2623E-02	9.4616E-02
16	1.4929E+06	1.4695E-01	1.894E-03	3.755E-02	1.2710E-02	6.9985E-03	9.2986E-03
17	0.	1.4694E-01	1.857E-03	5.117E-02	6.1943E-02	4.7227E-02	5.4009E-02
19	0.	1.4788E-01	4.639E-03	9.717E-02	9.5480E-02	9.1478E-02	9.3528E-02
19	0.	1.4801E-01	4.595E-03	9.628E-02	9.4940E-02	9.0963E-02	9.3001E-02
20	5.9400E+04	1.4827E-01	4.507E-03	9.694E-02	4.3547E-02	3.1063E-02	3.6221E-02
21	0.	1.4820E-01	4.400E-03	9.764E-02	9.4703E-02	8.9189E-02	9.1997E-02
22	0.	1.4839E-01	4.044E-03	9.518E-02	9.4197E-02	8.9975E-02	9.2136E-02
23	1.0000E+00	1.4839E-01	4.044E-03	9.573E-02	9.6317E-02	9.0957E-02	9.3674E-02
24	4.0000E+00	1.4839E-01	4.044E-03	9.585E-02	9.7178E-02	9.1139E-02	9.4148E-02
25	1.0000E+01	1.4839E-01	4.044E-03	9.600E-02	9.7994E-02	9.1387E-02	9.4606E-02
26	4.0000E+01	1.4839E-01	4.044E-03	9.363E-02	9.4880E-02	8.8340E-02	9.1418E-02
27	1.0000E+02	1.4839E-01	4.043E-03	9.034E-02	8.8327E-02	8.4496E-02	8.6263E-02
29	4.0000E+02	1.4839E-01	4.041E-03	9.344E-02	6.7824E-02	7.7715E-02	7.3312E-02
29	1.0000E+03	1.4839E-01	4.039E-03	7.945E-02	4.9929E-02	7.0483E-02	6.1603E-02
30	3.6000E+03	1.4841E-01	4.036E-03	9.070E-02	4.2519E-02	6.7620E-02	5.6945E-02
31	7.2000E+03	1.4844E-01	4.034E-03	9.431E-02	3.9804E-02	5.7775E-02	5.5605E-02
32	1.8000E+04	1.4849E-01	4.028E-03	9.771E-02	3.6151E-02	5.5564E-02	4.6931E-02
33	3.6000E+04	1.4855E-01	4.007E-03	9.082E-02	3.8817E-02	3.8291E-02	3.8512E-02
34	7.2000E+04	1.4861E-01	3.932E-03	9.347E-02	4.1940E-02	2.7089E-02	3.3095E-02
35	1.8000E+05	1.4869E-01	3.630E-03	9.028E-02	3.4124E-02	1.8388E-02	2.4381E-02
36	3.6000E+05	1.4867E-01	3.123E-03	9.541E-02	3.0051E-02	1.5624E-02	2.1070E-02
37	7.2000E+05	1.4954E-01	2.356E-03	6.563E-02	2.2759E-02	1.2000E-02	1.6176E-02
38	1.8000E+06	1.4839E-01	1.473E-03	2.043E-02	6.9323E-03	4.0946E-03	5.2870E-03
39	3.6000E+06	1.4844E-01	1.265E-03	2.447E-03	8.8388E-04	5.4904E-04	7.0104E-04
40	7.2000E+06	1.4847E-01	1.239E-03	4.671E-04	3.3835E-04	2.5531E-05	1.7750E-04
41	1.8000E+07	1.4844E-01	1.212E-03	1.174E-03	7.3871E-04	9.3882E-06	4.3739E-04
42	3.1536E+07	1.4841E-01	1.179E-03	2.552E-03	1.2764E-03	3.6464E-05	9.8199E-04
43	3.6000E+07	1.4840E-01	1.168E-03	3.014E-03	1.4560E-03	5.3077E-05	1.1807E-03
44	7.2000E+07	1.4932E-01	1.095E-03	6.606E-03	3.3474E-03	1.9375E-04	2.9272E-03
45	1.8000E+08	1.4811E-01	8.698E-04	1.632E-02	1.3188E-02	2.8354E-04	9.4102E-03

TABLE C-XXX

TMI-2 IF OPERATED 25K MWS AT 7777. MW CONT. CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEPTING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 22
ELAPSED TIME=0.34914E+07 SEC
COOLING TIME=0. SEC
TOTAL ACTIVITY=3.00926E+20
CURIES IN ALL FP= 1.07810E+19
IN ALL GAS= 1.65495E+09
IN HALOGENS= 8.71078E+08
IN NOBLE GAS= 7.81976E+08
TOTAL BETA MEV/FISS=5.91407E+00
TOTAL GAMMA MEV/FISS=5.54930E+00
TOTAL BETA+GAMMA=1.14643E+01
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=1.53027E-01
GAMMA FRACTION=7.10133E-01
TOTAL FRACTION=1.80649E-01
FRACTIONAL DENSITY ALL GAS=1.55526E-01
DENSITY OF RADIOACTIVE GAS=6.21837E-03
FRACTIONAL GAS ACTIVITY=1.53425E-01

DECAY POWER IN MW FOR ALL FP IS
TOTAL BETA MW=6.52732E+01
TOTAL GAMMA MW=6.12379E+01
TOTAL BETA+GAMMA MW=1.24511E+02
(MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
35BR 83 0	2.21179E-07	6.40708E-04	2.03257E-04	4.88132E-06	1.07233E-04
35BR 84 0	8.33663E-08	1.09255E-03	1.24457E-03	2.00039E-03	1.66202E-03
35BR 85 0	9.01849E-09	1.31079E-03	1.27689E-03	8.84820E-05	7.01641E-04
36KR 86 1	9.59493E-07	1.33381E-03	2.95255E-04	2.55048E-04	2.75792E-04
35BR 86 0	1.99145E-09	9.06229E-04	1.57516E-03	3.13797E-03	2.33164E-03
35BR 86 1	1.63852E-10	9.11316E-04	2.75319E-03	1.58462E-03	2.18753E-03
35BR 87 0	4.77709E-09	2.14242E-03	4.48240E-03	3.86035E-03	4.18026E-03
36KR 87 0	4.50399E-07	2.47209E-03	3.23014E-03	2.04490E-03	2.65642E-03
35BR 89 0	1.40958E-09	2.21892E-03	6.46353E-03	4.35601E-03	5.54657E-03
36KR 89 0	1.42764E-06	3.54477E-03	9.62762E-04	8.19262E-03	4.40596E-03
35BR 89 0	2.65977E-10	1.47332E-03	4.07737E-03	3.06014E-03	3.58498E-03
36KR 89 0	3.24897E-08	4.28982E-03	5.21222E-03	9.23416E-03	7.15905E-03
35BR 90 0	5.83240E-11	9.12242E-04	2.92296E-03	2.20492E-03	2.61512E-03
36KR 90 0	5.44883E-09	4.22213E-03	4.90719E-03	7.70735E-03	6.26262E-03
35BR 91 0	7.32512E-12	3.05559E-04	9.17021E-04	7.42007E-04	9.32305E-04
36KR 91 0	1.07890E-09	3.10351E-03	7.83324E-03	2.34359E-03	5.17597E-03
35BR 92 0	5.05561E-13	4.21774E-05	1.52982E-04	1.31418E-04	1.42544E-04
36KR 92 0	1.16454E-10	1.58405E-03	3.72734E-03	1.24293E-03	2.52476E-03
36KR 93 0	3.08608E-11	6.08192E-04	1.44224E-03	1.29459E-03	1.47394E-03
36KR 94 0	1.79923E-13	2.14424E-04	4.34681E-04	4.02385E-04	4.19049E-04
53 I130 0	3.75752E-07	2.10665E-04	6.08492E-05	4.66104E-04	2.57014E-04

53 I131 0	1.64553E-04	5.92810E-03	1.07471E-03	2.40842E-03	1.72133E-03
53 I132 0	2.81355E-04	9.56043E-03	4.39774E-03	1.99918E-02	1.19461E-02
53 I133 0	3.52704E-04	1.17889E-02	4.81544E-03	7.36957E-03	6.05130E-03
54XE133 0	2.17750E-04	1.19235E-02	1.19941E-03	1.01344E-03	1.10423E-03
53 I134 0	1.59170E-04	1.26228E-02	8.53963E-03	3.41542E-02	2.09383E-02
53 I134 1	1.21999E-04	1.41343E-03	0.	4.65761E-04	2.25452E-04
54XE134 1	1.31370E-12	1.13395E-04	0.	2.36689E-04	1.14570E-04
53 I135 0	1.03546E-04	1.09320E-02	4.21356E-03	1.66117E-02	1.02149E-02
54XE135 0	2.81263E-04	2.13242E-03	5.47025E-04	5.81913E-04	6.15459E-04
54XE135 1	8.84982E-08	2.41280E-03	0.	1.32659E-03	6.42141E-04
53 I136 0	1.63631E-04	4.93422E-03	9.74952E-03	1.13986E-02	1.00318E-02
53 I136 1	5.52184E-09	2.87321E-03	5.46429E-03	5.78572E-03	5.62091E-03
53 I137 0	4.73707E-09	4.81953E-03	7.14730E-03	1.02036E-02	8.62673E-03
54XE137 0	9.35926E-08	1.01669E-02	1.83238E-02	2.07184E-03	1.04570E-02
53 I138 0	6.32246E-10	2.43444E-03	5.05715E-03	6.86273E-03	5.93114E-03
54XE138 0	3.16728E-07	9.30417E-03	5.99164E-03	1.16044E-02	8.70849E-03
53 I139 0	1.12593E-10	1.17422E-03	2.01338E-03	3.03024E-03	2.50559E-03
54XE139 0	1.13595E-08	7.03671E-03	1.23106E-02	6.81135E-03	9.64866E-03
53 I140 0	1.24565E-11	3.62517E-04	7.40988E-04	1.10944E-03	9.19288E-04
54XE140 0	2.45286E-09	4.51404E-03	3.89271E-03	6.41836E-03	5.11525E-03
53 I141 0	1.10131E-12	6.89470E-05	1.31499E-04	2.07644E-04	1.68357E-04
54XE141 0	1.09904E-10	1.59924E-03	2.45050E-03	3.78891E-03	3.10357E-03
54XE142 0	3.13877E-11	4.42917E-04	6.91823E-04	1.18639E-03	9.31218E-04
54XE143 0	1.44972E-12	1.20946E-04	2.13029E-04	3.39407E-04	2.74203E-04
TOTAL GAS	2.24027E+03	1.65425E+09	9.05151E-01	1.16609E+00	2.07124E+00
	8.95723E+01	(RADIODACTIVE GAS DENSITY)			
TOTAL FP	1.44045E+04	1.07819E+10	5.91497E+00	5.54930E+00	1.14643E+01
TOTAL GAS FRACTIONS	1.55526E-01	1.53495E-01	1.53027E-01	2.10133E-01	1.80669E-01
	6.21837E-03	(RADIODACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS	1.48297E-01	7.27037E-02	7.40230E-02	6.84145E-02	7.13082E-02
	1.16532E-03	(NOBLE RADIODACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-XXXI

TMI-2 IF OPERATED 26K WPS AT 2772. MW CONT. CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 23
 ELAPSED TIME=9.34914E+07 SEC
 COOLING TIME=1.00000E+00 SEC
 TOTAL ACTIVITY=3.83449E+20
 CURIES IN ALL FP= 1.03634E+10
 IN ALL GAS= 1.50554E+09
 IN HALOGENS= 8.50323E+03
 TOTAL BETA MEV/FTSS=5.43328E+00
 TOTAL GAMMA MEV/FTSS=5.18149E+00

TOTAL BETA+GAMMA=1.04149E+01
 FRACTION OF TOTALS IN GAS PRODUCTS
 BETA FRACTION=1.56400E-01
 GAMMA FRACTION=2.15243E-01
 TOTAL FRACTION=1.95123E-01
 FRACTIONAL DENSITY ALL GAS=1.55526E-01
 DENSITY OF RADIOACTIVE GAS=6.21934E-03
 FRACTIONAL GAS ACTIVITY=1.54926E-01

DECAY POWER IN MW FOR ALL FD IS
 TOTAL BETA MW=5.99576E+01
 TOTAL GAMMA MW=5.71790E+01
 TOTAL BETA+GAMMA MW=1.17134E+02
 (MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
358R 83 0	2.21178E-07	6.66570E-04	2.21276E-04	5.22782E-06	1.15814E-04
358R 84 0	9.33649E-09	1.13769E-03	1.46374E-03	2.14235E-03	1.79500E-03
358R 84 1	7.69720E-10	5.56733E-05	5.10829E-05	1.65587E-04	1.06977E-04
358R 85 0	9.00986E-09	1.36239E-03	1.39977E-03	9.46725E-05	7.57069E-04
36KR 85 1	8.59498E-07	1.39765E-03	3.21430E-04	2.73153E-04	2.97864E-04
358R 86 0	1.98106E-09	9.37892E-04	1.70586E-03	3.34319E-03	2.50511E-03
358R 86 1	1.54025E-10	8.91245E-04	2.91751E-03	1.59533E-03	2.22092E-03
358R 87 0	4.74345E-09	2.21349E-03	4.84326E-03	4.10528E-03	4.68302E-03
36KR 87 0	4.50390E-07	2.57192E-03	3.51644E-03	2.19001E-03	2.96895E-03
358R 88 0	1.35704E-09	2.22234E-03	6.99392E-03	4.49136E-03	5.76720E-03
36KR 88 0	1.42760E-06	3.68777E-03	9.39233E-04	8.76326E-03	4.75844E-03
358R 89 0	2.29256E-10	1.32656E-03	3.92602E-03	2.82490E-03	3.33734E-03
36KR 89 0	3.24092E-09	4.45089E-03	5.66025E-03	9.86516E-03	7.71293E-03
358R 90 0	3.81832E-11	6.21399E-04	2.13812E-03	1.54598E-03	1.84907E-03
36KR 90 0	5.35352E-09	4.31573E-03	5.24980E-03	8.11010E-03	6.64551E-03
358R 91 0	2.31895E-12	1.00637E-04	3.16044E-04	2.51577E-04	2.84575E-04
36KR 91 0	1.00110E-09	2.99623E-03	7.91349E-03	2.32917E-03	5.18757E-03
36KR 92 0	8.01644E-11	1.13444E-03	2.79329E-03	9.16344E-04	1.97709E-03
36KR 93 0	1.79264E-11	3.67541E-04	1.03951E-03	8.05383E-04	9.24713E-04
53 I130 0	3.75750E-07	2.19168E-04	4.62434E-05	4.99189E-04	2.77581E-04
53 I131 0	1.64553E-04	6.16740E-03	1.17217E-03	2.57939E-03	1.85909E-03
53 I132 0	2.81354E-06	9.90598E-03	4.78762E-03	2.14109E-02	1.29021E-02
53 I133 0	3.52704E-05	1.22649E-02	5.24237E-03	7.89164E-03	6.53559E-03
54XE133 0	2.17750E-04	1.24048E-02	1.23486E-03	1.08538E-03	1.19260E-03
53 I134 0	1.59163E-06	1.31317E-02	9.29606E-03	3.65771E-02	2.26130E-02
53 I134 1	1.21608E-08	1.44598E-03	0.	4.97226E-04	2.42715E-04
53 I135 0	1.03544E-05	1.13731E-02	4.59704E-03	1.77907E-02	1.10322E-02
54XE135 0	2.81289E-06	2.21871E-03	7.04454E-04	6.23173E-04	6.64777E-04
54XE135 1	8.34759E-08	2.50957E-03	0.	1.42041E-03	6.93358E-04
53 I136 0	1.62941E-08	5.11174E-03	9.49501E-03	1.21562E-02	1.07999E-02
53 I136 1	5.44267E-09	2.95249E-03	5.86559E-03	6.10760E-03	5.98372E-03
53 I137 0	4.62664E-09	4.89720E-03	7.52956E-03	1.06732E-02	9.09994E-03
54XE137 0	9.34376E-08	1.05598E-02	1.99153E-02	2.21524E-03	1.12752E-02
53 I138 0	5.74131E-10	2.29992E-03	4.92244E-03	6.67431E-03	5.91701E-03
54XE138 0	3.16536E-07	9.67389E-03	6.51987E-03	1.24206E-02	9.39974E-03
53 I139 0	8.50659E-11	2.22915E-04	1.45592E-03	2.45180E-03	2.04442E-03
54XE139 0	1.11928E-08	7.21326E-03	1.32064E-02	7.16844E-03	1.02688E-02
53 I140 0	5.56676E-12	1.71575E-04	3.66929E-04	5.40541E-04	4.51676E-04
54XE140 0	2.33568E-09	4.47199E-03	4.03534E-03	6.54558E-03	6.26070E-03
54XE141 0	7.40735E-11	1.12138E-03	1.80544E-03	2.73495E-03	2.25917E-03
54XE142 0	1.78541E-11	3.81062E-04	4.29414E-04	7.22754E-04	5.72093E-04

TOTAL GAS 2.24027E+02 1.40554E+09 4.49763E-01 1.11528E+00 1.96504E+00
 8.95722E+01 (RADIODACTIVE GAS DENSITY)

TOTAL FP 1.44045E+04 1.03634E+10 5.43329E+00 5.18148E+00 1.06143E+01

TOTAL GAS
 FRACTIONS 1.55524E-01 1.54924E-01 1.54400E-01 2.15243E-01 1.85123E-01
 6.21836E-03 (RADIODACTIVE FRACTION OF TOTAL FP)

NOBLE GAS
 FRACTIONS 1.48297E-01 7.28755E-02 7.54494E-02 6.85263E-02 7.20695E-02
 1.16532E-03 (NOBLE RADIODACTIVE GAS FRACTION OF TOTAL FP)

TABLE G-XXXXII

TMI-2 IF OPERATED 26K WPS AT 2772. MW CONT. CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 24
 ELAPSED TIME=9.34914E+07 SEC
 COOLING TIME=4.00000E+00 SEC
 TOTAL ACTIVITY=3.51232E+20
 CURIES IN ALL FP= 2.74303E+00
 IN ALL GAS= 1.52644E+09
 IN HALOGENS= 8.14380E+09
 IN NOBLE GAS= 7.12055E+09
 TOTAL BETA MEV/FISS=4.82391E+00
 TOTAL GAMMA MEV/FISS=4.73208E+00
 TOTAL BETA+GAMMA=9.55599E+00
 FRACTION OF TOTALS IN GAS PRODUCTS
 BETA FRACTION=1.58157E-01
 GAMMA FRACTION=2.19708E-01
 TOTAL FRACTION=1.88682E-01
 FRACTIONAL DENSITY ALL GAS=1.55524E-01
 DENSITY OF RADIODACTIVE GAS=6.21836E-03
 FRACTIONAL GAS ACTIVITY=1.54349E-01

DECAY POWER IN MW FOR ALL FP IS
 TOTAL BETA MW=5.32312E+01
 TOTAL GAMMA MW=5.22197E+01
 TOTAL BETA+GAMMA MW=1.05452E+02
 (MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
35SR 83 0	2.21176E-07	7.07557E-04	2.49231E-04	5.72424E-06	1.28646E-04
35SR 84 0	3.33600E-09	1.20758E-03	1.64950E-03	2.34567E-03	1.99378E-03
35SR 84 1	7.65297E-10	5.87569E-05	5.72057E-05	1.80268E-04	1.18146E-04
35SR 85 0	8.98028E-09	1.44143E-03	1.55910E-03	1.03323E-04	8.38197E-04
36KR 85 1	3.59496E-07	1.47299E-03	3.42741E-04	2.99093E-04	3.30869E-04

359R	86	0	1.94732E-09	9.78415E-04	1.89867E-03	3.59835E-03	2.73530E-03	1.29336E-19	7.04410E-04	2.44491E-03	1.46683E-03	2.07157E-03
359R	87	0	4.52844E-09	2.79295E-03	5.32339E-03	4.38654E-03	4.85947E-03	2.72280E-03	3.94044E-03	2.39783E-03	3.18654E-03	3.18654E-03
364R	87	0	4.50359E-07	2.72280E-03	3.94044E-03	2.39783E-03	3.18654E-03	2.09577E-03	6.95512E-03	4.34823E-03	5.56419E-03	5.56419E-03
364R	88	0	1.19945E-09	2.09577E-03	6.95512E-03	4.34823E-03	5.56419E-03	3.91422E-03	1.05781E-03	9.59433E-03	5.25253E-03	5.25253E-03
364R	89	0	1.44636E-10	9.88394E-04	2.71878E-03	1.95146E-03	2.33981E-03	4.66692E-04	5.61094E-04	1.07124E-03	8.46963E-03	8.46963E-03
364R	90	0	3.21011E-09	4.68832E-03	5.32247E-03	1.07124E-03	8.46963E-03	1.04817E-11	1.91071E-06	5.57292E-03	8.37111E-03	8.37111E-03
364R	90	0	5.04445E-09	4.31947E-03	5.57292E-03	8.37111E-03	5.62837E-04	5.04445E-09	4.31947E-03	5.57292E-03	8.37111E-03	8.37111E-03
364R	91	0	7.90153E-10	2.51935E-03	7.03352E-03	2.01299E-03	4.54822E-03	3.89145E-04	1.01455E-04	3.24247E-03	6.73837E-04	6.73837E-04
364R	92	0	2.59099E-11	3.89145E-04	1.01455E-04	3.24247E-03	6.73837E-04	2.59099E-11	3.89145E-04	1.01455E-04	3.24247E-03	6.73837E-04
364R	93	0	3.48089E-12	7.59019E-05	2.27539E-04	1.71543E-04	1.99809E-04	3.48089E-12	7.59019E-05	2.27539E-04	1.71543E-04	1.99809E-04
364R	93	0	3.75743E-07	2.32443E-04	7.46117E-05	5.46586E-04	3.08334E-04	3.75743E-07	2.32443E-04	7.46117E-05	5.46586E-04	3.08334E-04
53	131	0	1.64553E-04	4.44449E-03	1.32027E-03	2.82434E-03	2.06509E-03	1.64553E-04	4.44449E-03	1.32027E-03	2.82434E-03	2.06509E-03
53	132	0	2.81353E-05	9.45344E-03	5.39249E-03	2.34442E-02	1.443317E-02	2.81353E-05	9.45344E-03	5.39249E-03	2.34442E-02	1.443317E-02
53	133	0	3.52703E-09	1.30191E-02	5.90471E-03	8.64407E-03	7.25976E-03	3.52703E-09	1.30191E-02	5.90471E-03	8.64407E-03	7.25976E-03
53	134	0	1.59140E-04	1.39374E-02	1.06691E-02	4.00451E-02	2.51152E-02	1.59140E-04	1.39374E-02	1.06691E-02	4.00451E-02	2.51152E-02
53	134	1	1.20443E-08	1.54123E-03	0.	5.39230E-04	7.67027E-04	1.20443E-08	1.54123E-03	0.	5.39230E-04	7.67027E-04
53	135	0	1.03533E-05	1.20712E-02	4.15611E-03	1.94791E-02	1.22254E-02	1.03533E-05	1.20712E-02	4.15611E-03	1.94791E-02	1.22254E-02
53	135	0	2.81349E-04	2.35683E-03	7.93634E-04	6.82548E-04	7.38649E-04	2.81349E-04	2.35683E-03	7.93634E-04	6.82548E-04	7.38649E-04
53	135	1	9.84093E-09	2.64190E-03	0.	1.55413E-03	7.69607E-04	9.84093E-09	2.64190E-03	0.	1.55413E-03	7.69607E-04
53	136	1	5.21192E-09	3.00119E-03	5.32599E-03	6.46040E-03	6.36497E-03	5.21192E-09	3.00119E-03	5.32599E-03	6.46040E-03	6.36497E-03
53	137	0	4.29344E-09	4.92421E-03	7.94345E-03	1.08457E-02	9.38073E-03	4.29344E-09	4.92421E-03	7.94345E-03	1.08457E-02	9.38073E-03
53	138	0	9.29570E-09	1.11514E-02	2.23162E-02	2.44314E-03	1.24602E-02	9.29570E-09	1.11514E-02	2.23162E-02	2.44314E-03	1.24602E-02
53	139	0	4.23928E-10	1.80264E-03	4.15790E-03	5.39621E-03	4.77111E-03	4.23928E-10	1.80264E-03	4.15790E-03	5.39621E-03	4.77111E-03
53	139	0	3.15924E-07	1.02490E-02	7.324931E-03	1.35739E-02	1.04211E-02	3.15924E-07	1.02490E-02	7.324931E-03	1.35739E-02	1.04211E-02
53	139	0	3.59492E-11	4.13993E-04	7.84445E-04	1.13202E-03	9.57593E-04	3.59492E-11	4.13993E-04	7.84445E-04	1.13202E-03	9.57593E-04
53	139	0	1.67505E-09	7.30405E-03	1.41982E-02	7.50759E-03	1.08800E-02	1.67505E-09	7.30405E-03	1.41982E-02	7.50759E-03	1.08800E-02
53	140	0	2.00775E-09	4.09044E-03	3.90707E-03	6.16092E-03	5.02318E-03	2.00775E-09	4.09044E-03	3.90707E-03	6.16092E-03	5.02318E-03
53	141	0	2.21770E-11	3.56379E-04	5.09429E-04	8.96583E-04	7.51324E-04	2.21770E-11	3.56379E-04	5.09429E-04	8.96583E-04	7.51324E-04
53	142	0	3.24794E-12	7.35842E-05	9.77821E-05	1.43967E-04	1.15605E-04	3.24794E-12	7.35842E-05	9.77821E-05	1.43967E-04	1.15605E-04
TOTAL GAS			2.24027E+03	1.52544E+09	7.62921E-01	1.04010E+00	1.80302E+00					
TOTAL FP			1.44045E+04	3.76303E+09	4.82281E+00	4.73208E+00	9.55589E+00					
TOTAL GAS FRACTIONS			1.55525E-01	1.54349E-01	1.54157E-01	2.19798E-01	1.88692E-01					
NORLE GAS FRACTIONS			1.48297E-01	7.29339E-02	7.52481E-02	6.82082E-02	7.22788E-02					
			1.16532E-03	(NORLE PAO)NORLE GAS FRACTION OF TOTAL FP)								

TABLE C-XXXXIII

TMI-2 IF OPERATED 26K WRS AT 2772. MW CONT. CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 25
ELAPSED TIME=9.34917E+07 SEC

COOLING TIME=1.00000E+01 SEC
TOTAL ACTIVITY=3.39753E+20
CURIES IN ALL FP= 9.15549E+09
IN ALL GAS= 1.46463E+09
IN HALOGENS= 7.74744E+08
IN NOBLE GAS= 4.62885E+08
TOTAL BETA MEV/FISS=4.26563E+00
TOTAL GAMMA MEV/FISS=4.32248E+00
TOTAL BETA+GAMMA=8.59516E+00
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=1.52071E-01
GAMMA FRACTION=2.23519E-01
TOTAL FRACTION=1.21534E-01
FRACTIONAL DENSITY ALL GAS=1.55526E-01
DENSITY OF RADIOACTIVE GAS=6.21335E-03
FRACTIONAL GAS ACTIVITY=1.57798E-01

DECAY POWER IN MW FOR ALL FPTS
TOTAL BETA MW=4.70729E+01
TOTAL GAMMA MW=4.77768E+01
TOTAL BETA+GAMMA MW=9.48497E+01
(MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
358R 83 0	2.21171E-07	7.54421E-04	2.81834E-04	6.25640E-06	1.43023E-04
358R 84 0	8.33481E-08	1.28753E-03	1.86402E-03	2.56343E-03	2.21632E-03
358P 84 1	7.55497E-10	6.19352E-05	4.39475E-05	1.94769E-04	1.29844E-04
358R 85 0	8.90574E-09	1.52432E-03	1.74846E-03	1.11994E-04	9.24152E-04
36K 85 1	8.59490E-07	1.57073E-03	4.09408E-04	3.26904E-04	3.67850E-04
358R 86 0	1.87022E-09	1.00228E-03	2.25130E-03	3.77739E-03	2.92075E-03
358R 86 1	9.44661E-11	6.18734E-04	2.22102E-03	1.17099E-03	1.68218E-03
358R 87 0	4.36358E-09	2.20488E-03	5.67493E-03	4.51970E-03	5.09303E-03
36KR 87 0	4.50284E-07	2.91044E-03	4.47789E-03	2.62037E-03	3.54224E-03
358P 88 0	9.26284E-10	1.71707E-03	6.07183E-03	3.66899E-03	4.86152E-03
36KR 89 0	1.42716E-06	4.17204E-03	1.12595E-03	1.04846E-02	5.87472E-03
358P 89 0	5.73994E-11	3.75355E-04	1.22013E-03	8.46464E-04	1.03191E-03
36KR 89 0	3.15289E-08	4.20129E-03	7.01374E-03	1.14859E-02	9.26640E-03
36KR 90 0	4.44574E-09	4.05678E-03	5.55185E-03	8.06226E-03	6.81536E-03
36KR 91 0	4.89950E-10	1.65286E-03	4.93305E-03	1.36425E-03	3.13541E-03
53 I130 0	3.75729E-07	2.48271E-04	8.43702E-05	5.97393E-04	3.42796E-04
53 I131 0	1.64553E-06	4.98112E-03	1.42301E-03	3.08699E-03	2.29591E-03
53 I132 0	2.81350E-06	1.00809E-02	6.09792E-03	2.56240E-02	1.59335E-02
53 I133 0	3.52700E-05	1.38922E-02	6.67725E-03	9.44456E-03	8.07117E-03
54XE133 0	2.17750E-04	1.42415E-02	1.64229E-03	1.29397E-03	1.47293E-03
53 I134 0	1.59095E-06	1.48580E-02	1.19355E-02	4.37567E-02	2.79146E-02
53 I134 1	1.18146E-09	1.61214E-03	0.	5.78135E-04	2.91213E-04

53 I135 0	1.03525E-05	1.29714E-02	5.94159E-03	2.12890E-02	1.36221E-02
54XE135 0	2.91528E-06	2.51358E-03	9.99039E-04	7.46442E-04	8.21677E-04
54XE135 1	8.92765E-09	2.83428E-03	0.	1.69510E-03	8.54345E-04
53 I136 0	1.56096E-09	5.54313E-03	1.15739E-02	1.39373E-02	1.27643E-02
53 I136 1	4.77935E-09	2.93472E-03	6.56759E-03	6.41868E-03	5.49910E-03
53 I137 0	3.65921E-09	4.39505E-03	7.65714E-03	1.01046E-02	8.88995E-03
54XE137 0	9.19293E-09	1.17407E-02	2.49547E-02	2.60835E-03	1.36996E-02
53 I133 0	2.25554E-10	1.02277E-03	2.50170E-03	3.13809E-03	2.82225E-03
54XE139 0	3.14584E-07	1.08927E-02	9.25201E-03	1.47732E-02	1.15368E-02
53 I139 0	6.34112E-12	7.79745E-05	1.57224E-04	2.18733E-04	1.88208E-04
54XE139 0	2.65671E-09	7.04510E-03	1.45129E-02	7.42239E-03	1.09413E-02
54XE140 0	1.47905E-09	3.20542E-03	3.25482E-03	4.96064E-03	4.11406E-03

TOTAL GAS 2.24027E+03 1.44463E+09 6.79546E-01 9.67721E-01 1.64627E+00

8.95720E+01 (RADIOACTIVE GAS DENSITY)

TOTAL FP 1.44045E+04 9.15549E+09 4.25559E+00 4.32948E+00 8.59516E+00

TOTAL GAS FRACTIONS 1.55526E-01 1.57799E-01 1.59271E-01 2.23519E-01 1.91534E-01
6.21835E-03 (RADIOACTIVE FRACTION OF TOTAL FP)

NOBLE GAS FRACTIONS 1.48297E-01 7.31674E-02 7.73214E-02 6.82010E-02 7.27284E-02
1.16532E-03 (NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)

TABLE C-XXXIV

TMI-2 IF OPERATED 26K MPS AT 2772. MW CONT. CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 26
ELAPSED TIME=9.34917E+07 SEC
COOLING TIME=4.00000E+01 SEC
TOTAL ACTIVITY=2.95022E+20
CURIES IN ALL FP= 7.97354E+09
IN ALL GAS= 1.26663E+09
IN HALOGENS= 6.91878E+09
IN NOBLE GAS= 5.74549E+09
TOTAL BETA MEV/FISS=3.30204E+00
TOTAL GAMMA MEV/FISS=3.57884E+00
TOTAL BETA+GAMMA=6.88089E+00
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=1.55004E-01
GAMMA FRACTION=2.28921E-01
TOTAL FRACTION=1.93450E-01
FRACTIONAL DENSITY ALL GAS=1.55526E-01
DENSITY OF RADIOACTIVE GAS=6.21835E-03
FRACTIONAL GAS ACTIVITY=1.58828E-01

DECAY POWER IN MW FOR ALL FP IS
TOTAL BETA MW=3.88390E+01
TOTAL GAMMA MW=3.94933E+01
TOTAL BETA+GAMMA MW=7.53323E+01
(MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE		DENSITY	CURTIS	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z	A S					
353R	83 0	2.21109E-07	9.66089E-04	3.63977E-04	7.56653E-06	1.78604E-04
353R	84 0	8.32402E-09	1.47647E-03	2.40488E-03	3.09708E-03	2.76490E-03
353R	84 1	7.14033E-10	6.71255E-05	7.79726E-05	2.22396E-04	1.53089E-04
353R	85 0	8.32974E-09	1.47687E-03	2.11236E-03	1.26706E-04	1.07960E-03
364R	85 1	9.59425E-07	1.90342E-03	5.28846E-04	3.95440E-04	4.59459E-04
353R	86 0	1.41687E-09	9.71843E-04	2.00750E-03	3.46184E-03	2.76392E-03
353R	86 1	2.52126E-11	1.99616E-04	7.59975E-04	3.78084E-04	5.60821E-04
353R	87 0	3.05304E-09	1.85168E-03	5.12225E-03	3.82553E-03	4.45117E-03
364R	87 0	4.49605E-07	3.33835E-03	5.77594E-03	3.16519E-03	4.41806E-03
353R	83 0	2.50576E-10	5.33263E-04	2.12155E-03	1.20051E-03	1.64250E-03
364R	88 0	1.42490E-06	4.78401E-03	1.54251E-03	1.26635E-02	7.32667E-03
364R	89 0	2.83050E-08	5.05253E-03	9.13436E-03	1.24746E-02	1.03919E-02
364R	90 0	2.33577E-02	2.44735E-03	3.76914E-03	5.12304E-03	4.47284E-03
364R	91 0	4.48866E-11	1.74409E-04	5.83928E-04	1.51200E-04	3.58813E-04
53 I	130 0	3.75459E-07	2.94720E-04	1.08972E-04	7.22557E-04	4.28105E-04
53 I	131 0	1.64553E-04	9.01593E-03	1.92971E-03	3.73446E-03	2.86790E-03
53 I	132 0	2.81337E-06	1.15746E-02	7.87719E-03	3.09971E-02	1.99021E-02
53 I	133 0	3.52688E-05	1.59402E-02	9.62553E-03	1.14251E-02	1.00816E-02
54XE	133 0	2.17750E-04	1.61279E-02	2.13050E-03	1.57142E-03	1.93976E-03
54XE	133 1	4.25339E-06	7.47112E-04	0.	2.08053E-04	1.08211E-04
53 I	134 0	1.53862E-06	1.70354E-02	1.52671E-02	5.28566E-02	3.48179E-02
53 I	134 1	1.07303E-09	1.69123E-03	0.	6.35204E-04	3.30377E-04
53 I	135 0	1.03450E-05	1.47686E-02	7.54080E-03	2.57342E-02	1.70034E-02
54XE	135 0	2.92323E-04	2.89432E-03	1.16339E-03	9.05554E-04	1.02928E-03
54XE	135 1	9.76205E-08	3.23022E-03	0.	2.03660E-03	1.05926E-03
53 I	136 0	1.29610E-09	5.28480E-03	1.24143E-02	1.39997E-02	1.32389E-02
53 I	136 1	3.09922E-09	2.18501E-03	5.40544E-03	5.03495E-03	5.25593E-03
53 I	137 0	1.57989E-09	2.17350E-03	4.27000E-03	5.27678E-03	4.79364E-03
54XE	137 0	8.59443E-08	1.26154E-02	3.01201E-02	2.94798E-03	1.59876E-02
53 I	139 0	9.21630E-12	4.79857E-05	1.32052E-04	1.55119E-04	1.44049E-04
54XE	139 0	3.07208E-07	1.22029E-02	1.04102E-02	1.74527E-02	1.40731E-02
54XE	139 0	5.77517E-09	4.83785E-03	1.12122E-02	5.36998E-03	8.17358E-03
54XE	140 0	3.20588E-10	7.97770E-04	9.11370E-04	1.30075E-03	1.11389E-03
TOTAL GAS		2.24027E+03	1.26643E+03	5.11939E-01	8.19270E-01	1.33111E+00
		(RADIOACTIVE GAS DENSITY)				
TOTAL FP		1.44045E+04	7.97354E+09	3.32204E+00	3.57884E+00	6.89089E+00
TOTAL GAS FRACTIONS		1.55526E-01	1.59928E-01	1.55006E-01	2.28921E-01	1.93450E-01
		(RADIOACTIVE FRACTION OF TOTAL FP)				
NOBLE GAS FRACTIONS		1.48297E-01	7.20568E-02	7.43119E-02	6.58192E-02	7.08545E-02
		(NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)				

TIME-2 IF OPERATED 24X HRS AT 2772. MW CNT. CINDER-10(LASL)8/79

TABLE C-XXXX

CONTENT OF NITRE GASES AND HALOGENS
(EXCEPTING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 27
ELAPSED TIME=9.34917E+07 SEC
COOLING TIME=1.00000E+02 SEC
TOTAL ACTIVITY=2.63643E+20
CURIES IN ALL FP=7.12502E+09
IN ALL GAS=1.12910E+09
IN HALOGENS=6.29372E+09

IN NITRE GAS=4.99722E+09

TOTAL BETA MEV/FISS=2.67754E+00

TOTAL GAMMA MEV/FISS=3.03673E+00

TOTAL BETA+GAMMA=5.71427E+00

FRACTION OF TOTALS IN GAS PRODUCTS

BETA FRACTION=1.64379E-01

GAMMA FRACTION=2.3907E-01

TOTAL FRACTION=1.92941E-01

FRACTIONAL DENSITY ALL GAS=1.55626E-01

DENSITY OF RADIOACTIVE GAS=6.21924E-03

FRACTIONAL GAS ACTIVITY=1.59447E-01

DECAY POWER IN MW FOR ALL FP IS

TOTAL BETA MW=2.95474E+01

TOTAL GAMMA MW=3.75110E+01

TOTAL BETA+GAMMA MW=6.30584E+01

(MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABLE VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES
NUCLIDE DENSITY CURIES BETA MEV/F GAMMA MEV/F B+G MEV/F

353R 83 0 2.20809E-07 9.67782E-04 4.49254E-04 8.90518E-06 2.14776E-04
353R 84 0 8.27977E-09 1.64333E-03 2.95710E-03 3.63066E-03 3.31175E-03
353R 94 1 6.35135E-09 5.69147E-05 9.55479E-05 2.33502E-04 1.64231E-04
353R 95 0 6.55340E-09 1.50712E-03 2.16359E-03 1.22874E-04 1.06973E-03
353R 95 1 8.50455E-07 2.01702E-03 6.51303E-04 4.65827E-04 5.53017E-04
353R 96 0 7.02734E-10 4.89346E-04 1.22790E-03 2.02350E-03 1.65070E-03
353R 97 0 1.46973E-09 9.93949E-04 3.07171E-03 2.14084E-03 2.54515E-03
353R 97 0 4.47119E-07 3.71307E-03 7.09374E-03 3.70962E-03 5.29064E-03
353R 98 0 1.83191E-11 4.34297E-05 1.91303E-04 1.03451E-04 1.44619E-04
353R 98 0 1.61926E-04 5.33193E-03 1.89474E-03 1.48651E-02 8.78758E-03
353R 99 0 2.27313E-09 4.54004E-03 9.05505E-03 1.18062E-02 1.00489E-02
353R 99 0 6.44523E-10 7.55533E-04 1.29229E-03 1.66599E-03 1.486620E-03
353R 99 0 3.75506E-07 3.18532E-04 1.36334E-04 8.51200E-04 5.15297E-04
353 113 0 1.64753E-04 9.95932E-03 2.37956E-03 4.40113E-03 3.45341E-03
353 113 0 2.1311E-04 1.25501E-02 9.71344E-03 3.65272E-02 2.39631E-02
353 113 0 3.22657E-05 1.79344E-02 1.05364E-02 1.34635E-02 1.21388E-02
353 113 0 2.17750E-04 1.90405E-02 2.62754E-03 1.85195E-03 2.21537E-03
353 113 0 4.25533E-04 9.25953E-04 9.0. 2.45191E-04 1.303020E-04
353 113 0 1.58353E-04 1.90005E-02 1.87477E-02 6.20931E-02 4.17921E-02
353 113 0 8.85099E-09 1.55177E-03 0. 6.17489E-04 3.29151E-04
353 113 0 1.03275E-05 1.549271E-02 9.29399E-03 3.02276E-02 2.04402E-02

54XE135	0	2.83906E-04	3.25672E-03	1.44279E-03	1.07319E-03	1.24637E-03
54XE135	1	8.63489E-09	3.56195E-03	0.	2.36534E-03	1.25701E-03
53 I135	0	8.19907E-09	3.74777E-03	9.68497E-03	1.04371E-02	1.00847E-02
53 I136	1	1.30297E-09	1.02794E-03	2.64945E-03	2.49484E-03	2.66100E-03
53 I137	0	2.91354E-10	4.48497E-04	9.71111E-04	1.14683E-03	1.06449E-03
54XE137	0	7.27887E-08	1.19534E-02	3.14815E-02	2.94450E-03	1.63161E-02
54XE138	0	2.92580E-07	1.30741E-02	1.22270E-02	1.95890E-02	1.61394E-02
54XE139	0	2.06296E-09	1.93367E-03	4.93927E-03	2.26066E-03	3.51578E-03
TOTAL GAS		2.24027E+03	1.12919E+09	3.91935E-01	7.10009E-01	1.10194E+00
		9.95704E+01	(RADIOACTIVE GAS DENSITY)			
TOTAL FP		1.44045E+04	7.12502E+09	2.67754E+00	3.03673E+00	5.71427E+00
TOTAL GAS FRACTIONS		1.55526E-01	1.58447E-01	1.46379E-01	2.33807E-01	1.92841E-01
		6.21824E-03	(RADIOACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS		1.48297E-01	7.01272E-02	7.17830E-02	6.29788E-02	6.71042E-02
		1.16526E-03	(NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-XXXVI

TMI-2 IF OPERATED 26K WRS AT 2772. MW CONT. CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 29
 ELAPSED TIME=9.34920E+07 SEC
 COOLING TIME=4.00700E+07 SEC
 TOTAL ACTIVITY=2.19494E+20
 CURIES IN ALL FP= 5.93200E+09
 IN ALL GAS= 9.42270E+09
 IN HALOGENS= 5.64175E+09
 IN NOBLE GAS= 3.85195E+09
 TOTAL BETA MEV/FISS=1.91025E+09
 TOTAL GAMMA MEV/FISS=2.34745E+00
 TOTAL BETA+GAMMA=4.25790E+09
 FRACTION OF TOTALS IN GAS PRODUCTS
 BETA FRACTION=1.31627E-01
 GAMMA FRACTION=2.53079E-01
 TOTAL FRACTION=1.98591E-01
 FRACTIONAL DENSITY ALL GAS=1.55526E-01
 DENSITY OF RADIOACTIVE GAS=6.21798E-03
 FRACTIONAL GAS ACTIVITY=1.60742E-01

DECAY POWER IN MW FOR ALL FP IS
 TOTAL BETA MW=2.10901E+01
 TOTAL GAMMA MW=2.50049E+01
 TOTAL BETA+GAMMA MW=4.60970E+01
 (MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
35BR 83 0	2.17821E-07	1.14695E-03	6.19816E-04	1.13631E-05	2.84338E-04
35BR 84 0	7.78258E-08	1.95552E-03	3.98667E-03	4.41420E-03	4.17753E-03

359R	84	1	3.57019E-10	4.51137E-05	6.73916E-05	1.69514E-04	1.23698E-04
359R	85	0	2.10965E-02	5.57310E-04	9.24996E-04	4.89256E-05	4.41919E-04
36KR	85	1	8.52907E-07	2.40570E-03	9.07226E-04	5.98250E-04	7.36863E-04
36KR	87	0	4.28555E-07	4.27525E-03	9.51493E-03	4.59922E-03	6.90544E-03
36KR	88	0	1.39030E-06	6.27434E-03	2.60164E-03	1.88359E-02	1.15526E-02
36KR	89	0	7.59121E-09	1.92135E-03	3.77095E-03	5.09997E-03	4.50372E-03
53	I130	0	3.74545E-07	3.91659E-04	1.87911E-04	1.09822E-03	6.89779E-04
53	I131	0	1.64552E-04	1.07746E-02	3.33395E-03	5.69291E-03	4.63459E-03
53	I132	0	2.91178E-06	1.55474E-02	1.34799E-02	4.72263E-02	3.21443E-02
53	I133	0	3.52439E-05	2.14110E-02	1.49996E-02	1.74045E-02	1.62807E-02
54XE133	0		2.17750E-04	2.16718E-02	3.69296E-03	2.39553E-03	2.97312E-03
54XE133	1		4.25302E-06	1.00415E-03	0.	3.17136E-04	1.74857E-04
53	I134	0	1.55200E-06	2.23704E-02	2.57923E-02	7.87189E-02	5.49696E-02
53	I134	1	3.37962E-09	7.11804E-04	0.	3.05003E-04	1.68167E-04
53	I135	0	1.02374E-05	1.96449E-02	1.28994E-02	3.88220E-02	2.71922E-02
54XE135	0		2.91668E-06	4.71920E-03	2.07759E-03	1.42615E-03	1.71841E-03
54XE135	1		8.07225E-09	4.00011E-03	0.	2.86025E-03	1.57704E-03
53	I136	0	6.77762E-10	3.71456E-04	1.12217E-03	1.11600E-03	1.11877E-03
54XE137	0		2.96439E-09	5.95201E-03	1.79710E-02	1.55115E-03	9.91769E-03
54XE138	0		2.29218E-07	1.22385E-02	1.34247E-02	1.98513E-02	1.69690E-02
TOTAL GAS			2.24027E+03	9.49370E+08	2.51440E-01	5.94141E-01	8.45581E-01
			8.95666E+01	(RADIODACTIVE GAS DENSITY)			
TOTAL FP			1.44045E+04	5.93200E+09	1.91025E+00	2.34765E+00	4.25790E+00
TOTAL GAS FRACTIONS			1.55526E-01	1.60742E-01	1.31627E-01	2.53079E-01	1.98591E-01
			6.21798E-03	(RADIODACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS			1.48298E-01	4.49350E-02	5.40506E-02	5.76365E-02	5.60277E-02
			1.16516E-03	(NOBLE RADIODACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-XXV VII

TMI-2 IF OPERATED 26K HPS AT 2772. MW CONT. CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 29
 ELAPSED TIME=9.34926E+07 SEC
 COOLING TIME=1.00070E+03 SEC
 TOTAL ACTIVITY=1.91497E+20
 CURIES IN ALL FP= 5.17533E+09
 IN ALL GAS= 9.56053E+09
 IN HALOGENS= 5.42995E+09
 IN NOBLE GAS= 3.13157E+09
 TOTAL BETA MEV/FISS=1.50029E+00
 TOTAL GAMMA MEV/FISS=1.96046E+00
 TOTAL BETA+GAMMA=3.46074E+00
 FRACTION OF TOTALS IN GAS PRODUCTS
 BETA FRACTION=1.39730E-01
 GAMMA FRACTION=2.76456E-01
 TOTAL FRACTION=2.13282E-01
 FRACTIONAL DENSITY ALL GAS=1.55526E-01
 DENSITY OF RADIODACTIVE GAS=6.21798E-03
 FRACTIONAL GAS ACTIVITY=1.65410E-01

DECAY POWER IN MW FOR ALL FP IS
 TOTAL BETA MW=1.55560E+01
 TOTAL GAMMA MW=2.14342E+01
 TOTAL BETA+GAMMA MW=3.69901E+01
 (MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
35SR 82 0	1.29586E-07	5.26105E-05	1.36479E-05	1.97696E-04	1.17909E-04
35SR 83 0	2.10519E-07	1.27744E-03	7.62734E-04	1.31512E-05	3.38106E-04
35SR 84 0	6.41430E-08	1.75289E-03	4.07869E-03	4.35665E-03	4.23615E-03
36KR 85 1	8.33732E-07	2.62334E-03	1.17822E-03	6.99753E-04	8.85528E-04
36KR 87 0	3.91231E-07	4.47354E-03	1.10621E-02	5.02789E-03	7.64379E-03
36KR 88 0	1.33411E-06	5.97107E-03	3.17867E-03	2.16443E-02	1.36392E-02
36KR 89 0	8.46608E-10	2.32824E-04	5.35475E-04	6.81105E-04	6.17972E-04
53 I130 0	3.71960E-07	4.34451E-04	2.37481E-04	1.30604E-03	8.42807E-04
53 I131 0	1.64546E-04	1.23495E-02	4.24483E-03	6.81700E-03	5.70193E-03
53 I132 0	2.90910E-06	1.78058E-02	1.73110E-02	5.64995E-02	3.95107E-02
53 I133 0	3.51680E-05	2.44887E-02	1.89302E-02	2.07970E-02	1.99877E-02
54XE133 0	2.17751E-04	2.48405E-02	4.68938E-03	2.86866E-03	3.65797E-03
54XE133 1	4.25238E-06	1.15779E-03	0.	3.79712E-04	2.15102E-04
53 I134 0	1.47276E-06	2.43321E-02	3.11515E-02	8.94531E-02	6.41785E-02
53 I135 0	1.00594E-05	2.21254E-02	1.61387E-02	4.56808E-02	3.28739E-02
54XE135 0	3.06523E-06	4.84148E-03	2.78705E-03	1.79479E-03	2.22191E-03
54XE135 1	7.23708E-08	4.11759E-03	0.	3.07077E-03	1.73955E-03
54XE137 0	4.87531E-09	1.13332E-03	3.76319E-03	3.05490E-04	1.80445E-03
54XE139 0	1.40687E-07	8.60922E-03	1.04928E-02	1.45905E-02	1.28141E-02
TOTAL GAS	2.24027E+03	8.56753E+08	1.96132E-01	5.41981E-01	7.38113E-01
	8.95605E+01	(RADIOACTIVE GAS DENSITY)			
TOTAL FP	1.44045E+04	5.17533E+09	1.50029E+00	1.96046E+00	3.46074E+00
TOTAL GAS FRACTIONS	1.55526E-01	1.65410E-01	1.30730E-01	2.76456E-01	2.13282E-01
	6.21755E-03	(RADIOACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS	1.48298E-01	6.05797E-02	3.76269E-02	5.11600E-02	4.53235E-02
	1.16507E-03	(NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-XXXVIII

THI-2 IF OPERATED 25K WPS AT 2772, MW CONT, CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 30
ELAPSED TIME=9.34952E+07 SEC
COOLING TIME=3.60000E+03 SEC
TOTAL ACTIVITY=1.52310E+20
CURIES IN ALL FP= 4.11650E+09
IN ALL GAS= 7.42203E+09
IN HALOGENS= 4.00094E+09
IN NOBLE GAS= 2.52107E+09
TOTAL BETA MEV/FISS=1.00974E+00
TOTAL GAMMA MEV/FISS=1.36256E+00
TOTAL BETA+GAMMA=2.37130E+00
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=1.49880E-01

GAMMA FRACTION=2.25579E-01
TOTAL FRACTION=2.50837E-01
FRACTIONAL DENSITY ALL GAS=1.55526E-01
DENSITY OF RADIOACTIVE GAS=4.21576E-03
FRACTIONAL GAS ACTIVITY=1.80300E-01

DECAY POWER IN MW FOR ALL FP IS
TOTAL BETA MW=1.11317E+01
TOTAL GAMMA MW=1.50367E+01
TOTAL BETA+GAMMA MW=2.61679E+01
(MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
35BR 82 0	1.26923E-07	6.52360E-05	2.00201E-05	2.80547E-04	1.69720E-04
35BR 83 0	1.76269E-07	1.33739E-03	9.49844E-04	1.58436E-05	4.13162E-04
35BR 84 0	2.50514E-08	8.60491E-04	2.36919E-03	2.44815E-03	2.41455E-03
36KR 85 1	7.45175E-07	3.02880E-03	1.50101E-03	9.00569E-04	1.15599E-03
36KR 97 0	2.63507E-07	3.79910E-03	1.10913E-02	4.87246E-03	7.51367E-03
36KR 88 0	1.11569E-06	7.25546E-03	3.95341E-03	2.60435E-02	1.66466E-02
53 I130 0	3.57952E-07	5.25631E-04	3.39902E-04	1.80838E-03	1.18370E-03
53 I131 0	1.64425E-06	1.55145E-02	6.30861E-03	9.80109E-03	8.31541E-03
53 I132 0	2.79674E-06	2.22973E-02	2.56332E-02	8.09342E-02	5.74094E-02
53 I133 0	3.45920E-05	3.02833E-02	2.76935E-02	2.94327E-02	2.86929E-02
54XE133 0	2.17747E-06	3.12293E-02	6.97432E-03	4.12737E-03	5.33845E-03
54XE133 1	4.24925E-06	1.44573E-03	0.	5.45931E-04	3.13695E-04
53 I134 0	1.07834E-06	2.23993E-02	3.39234E-02	9.42374E-02	6.85802E-02
53 I135 0	9.32300E-06	2.57802E-02	2.22457E-02	6.09145E-02	4.44650E-02
54XE135 0	3.63301E-06	7.21427E-03	4.90061E-03	3.06070E-03	3.84339E-03
54XE135 1	5.70612E-08	4.07467E-03	0.	3.48359E-03	2.00169E-03
54XE138 0	1.69675E-08	1.30549E-03	1.98214E-03	2.53183E-03	2.25546E-03
TOTAL GAS	2.24027E+03	7.42203E+09	1.51189E-01	4.43620E-01	5.94809E-01
	8.95347E+01				(RADIOACTIVE GAS DENSITY)
TOTAL FP	1.44045E+04	4.11650E+09	1.00974E+00	1.36256E+00	2.37130E+00

TOTAL GAS
FRACTIONS 1.55526E-01 1.80300E-01 1.49880E-01 3.25578E-01 2.50837E-01
6.21576E-03 (RADIOACTIVE FRACTION OF TOTAL FP)

NOBLE GAS
FRACTIONS 1.48300E-01 6.12432E-02 3.03949E-02 4.57023E-02 3.91906E-02
1.16506E-03 (NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)

TABLE C-XXXXIX

TMI-2 IF OPERATED 26K WPS AT 2772. MW CONT. CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 31
ELAPSED TIME=9.34089E+07 SEC
COOLING TIME=7.20000E+03 SEC
TOTAL ACTIVITY=1.36000E+20
CURIES IN ALL FP= 3.67544E+09
IN ALL GAS= 4.65449E+09
IN HALOGENS= 4.31947E+09
IN NOBLE GAS= 2.34587E+09
TOTAL BETA MEV/FISS=8.27019E-01
TOTAL GAMMA MEV/FISS=1.07844E+00
TOTAL BETA+GAMMA=1.90566E+00
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=1.50737E-01
GAMMA FRACTION=3.35912E-01
TOTAL FRACTION=2.55541E-01
FRACTIONAL DENSITY ALL GAS=1.55526E-01
DENSITY OF RADIOACTIVE GAS=6.21372E-03
FRACTIONAL GAS ACTIVITY=1.81313E-01

DECAY POWER IN MW FOR ALL FP IS
TOTAL BETA MW=9.12636E+00
TOTAL GAMMA MW=1.19009E+01
TOTAL BETA+GAMMA MW=2.10272E+01
(MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
35BR 82 0	1.24365E-07	7.16430E-05	2.39456E-05	3.47586E-04	2.07118E-04
35BR 83 0	1.33581E-07	1.13575E-03	9.77977E-04	1.51698E-05	3.89650E-04
35BR 84 0	6.77409E-09	2.60649E-04	7.81410E-04	8.36402E-04	8.12534E-04
36KR 85 1	6.38357E-07	2.90581E-03	1.56838E-03	9.74724E-04	1.23239E-03
36KR 87 0	1.52454E-07	2.45446E-03	7.81985E-03	3.56166E-03	5.40982E-03
36KR 88 0	8.71023E-07	6.34389E-03	3.76483E-03	2.56890E-02	1.61734E-02
53 I130 0	3.38517E-07	5.54704E-04	3.92077E-04	2.16075E-03	1.39310E-03
53 I131 0	1.64055E-04	1.73361E-02	7.67748E-03	1.23553E-02	1.03250E-02
53 I132 0	2.77799E-06	2.47927E-02	3.10558E-02	1.01571E-01	7.09655E-02
53 I133 0	3.36025E-05	3.29451E-02	3.28124E-02	3.61232E-02	3.46862E-02
54XE133 0	2.17716E-04	3.49695E-02	8.50555E-03	5.21398E-03	6.64261E-03
54XE133 1	4.24374E-06	1.61701E-03	0.	6.88863E-04	3.89879E-04
53 I134 0	6.19286E-07	1.44058E-02	2.37627E-02	6.83779E-02	4.90138E-02
53 I135 0	8.39154E-06	2.59873E-02	2.44278E-02	6.92732E-02	4.98070E-02
54XE135 0	4.27124E-06	3.43880E-03	7.02749E-03	4.54638E-03	5.62325E-03
54XE135 1	4.98692E-08	3.98816E-03	0.	3.84660E-03	2.17709E-03
54XE138 0	9.07108E-10	7.81633E-05	1.22731E-04	1.71015E-04	1.50059E-04

TOTAL GAS 2.24027E+01 5.66449E+00 1.24552E-01 3.62262E-01 4.86924E-01
8.94981E+01 (RADIOACTIVE GAS DENSITY)

TOTAL FP 1.44045E+04 3.67569E+09 8.27019E-01 1.07844E+00 1.90546E+00

TOTAL GAS FRACTIONS 1.55526E-01 1.81313E-01 1.50737E-01 3.35912E-01 2.55541E-01
6.21322E-03 (RADIOACTIVE FRACTION OF TOTAL FP)

NOBLE GAS FRACTIONS 1.48302E-01 6.39214E-02 2.99302E-02 4.48517E-02 3.79414E-02
1.16513E-03 (NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)

TABLE C-XL

TMI-2 IF OPERATED 26K HRS AT 2772. MW CONT. CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS
(EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 32
ELAPSED TIME=9.35094E+07 SEC
COOLING TIME=1.90000E+04 SEC
TOTAL ACTIVITY=1.17988E+20
CURIES IN ALL FP= 3.18988E+09
IN ALL GAS= 5.56429E+09
IN HALOGENS= 3.42640E+09
IN NOBLE GAS= 2.13789E+09
TOTAL BETA MEV/FISS=6.46073E-01
TOTAL GAMMA MEV/FISS=9.12071E-01
TOTAL BETA+GAMMA=1.45914E+00
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=1.42699E-01
GAMMA FRACTION=3.11061E-01
TOTAL FRACTION=2.36375E-01
FRACTIONAL DENSITY ALL GAS=1.55524E-01
DENSITY OF RADIOACTIVE GAS=6.20614E-03
FRACTIONAL GAS ACTIVITY=1.74491E-01

DECAY POWER IN MW FOR ALL FP IS
TOTAL BETA MW=7.12957E+00
TOTAL GAMMA MW=9.26140E+00
TOTAL BETA+GAMMA MW=1.60910E+01
(MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE		DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z	A S					
35BR	82 0	1.17270E-07	7.78639E-05	2.99034E-05	4.35266E-04	2.55215E-04
35BR	83 0	5.63334E-09	5.51741E-04	4.73954E-04	8.49579E-06	2.14731E-04
36KR	85 1	4.01311E-07	2.10564E-03	1.26213E-03	8.13771E-04	1.01243E-03
36KR	87 0	2.95233E-09	5.47884E-04	1.73950E-03	9.15987E-04	1.36904E-03
36KR	88 0	4.14476E-07	3.47955E-03	2.29323E-03	1.62337E-02	1.00570E-02
53 I130	0	2.36255E-07	5.47624E-04	4.24403E-04	2.42650E-03	1.53941E-03
53 I131	0	1.62593E-04	1.98045E-02	9.74015E-03	1.62619E-02	1.33723E-02
53 I132	0	2.71489E-04	2.79295E-02	3.89509E-02	1.31824E-01	9.06295E-02

53 I133 0	3.05108E-04	3.44973E-02	3.81375E-02	4.35583E-02	4.11564E-02
54XE133 0	2.17424E-04	4.02539E-02	1.08731E-02	6.91499E-03	8.66876E-03
54XE133 1	4.21866E-04	1.85285E-03	0.	9.09415E-04	5.06472E-04
53 I134 0	8.25526E-04	2.21349E-03	4.05480E-03	1.21048E-02	8.53804E-03
53 I135 0	6.11927E-06	2.18434E-02	2.27975E-02	6.70852E-02	4.74622E-02
54XE135 0	5.43607E-06	1.39348E-02	1.14489E-02	7.68423E-03	9.35229E-03
54XE135 1	3.62795E-04	3.34428E-03	0.	3.71630E-03	2.06968E-03
TOTAL GAS	2.24024E+02	5.56429E+09	9.20648E-02	2.52604E-01	3.44669E-01
	9.93962E+01	(RADIOACTIVE GAS DENSITY)			
TOTAL FP	1.44045E+04	3.18888E+09	6.46073E-01	8.12071E-01	1.45814E+00
TOTAL GAS FRACTIONS	1.55524E-01	1.74491E-01	1.42499E-01	3.11061E-01	2.36375E-01
	6.20614E-03	(RADIOACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS	1.48307E-01	5.70422E-02	2.79713E-02	3.73348E-02	3.31860E-02
	1.16516E-03	(NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-XLI

TMI-2 IF OPERATED 26K HRS AT 2772. MW CONT. CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 33
 ELAPSED TIME=9 3274E+07 SEC
 COOLING TIME=7 50000E+04 SEC
 TOTAL ACTIVITY=1.04429E+20
 CURIES IN ALL FP= 2.82240E+03
 IN ALL GAS= 4.79919E+09
 IN HALOGENS= 2.83925E+09
 IN NOBLE GAS= 1.95894E+09
 TOTAL BETA MEV/FISS=5.25729E-01
 TOTAL GAMMA MEV/FISS=6.81521E-01
 TOTAL BETA+GAMMA=1.20775E+00
 FRACTION OF TOTALS IN GAS PRODUCTS
 BETA FRACTION=1.44620E-01
 GAMMA FRACTION=2.91454E-01
 TOTAL FRACTION=2.27624E-01
 FRACTIONAL DENSITY ALL GAS=1.55521E-01
 DENSITY OF RADIOACTIVE GAS=6.12530E-03
 FRACTIONAL GAS ACTIVITY=1.70024E-01

DECAY POWER IN MW FOR ALL FP IS
 TOTAL BETA MW=5.80154E+10
 TOTAL GAMMA MW=7.52075E+00
 TOTAL BETA+GAMMA MW=1.33223E+01
 (MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
353R 82 0	1.06333E-07	7.97744E-05	3.22070E-05	4.70273E-04	2.79506E-04
36KR 95 1	1.85144E-07	1.09757E-03	7.15571E-04	4.47348E-04	5.64153E-04
36KR 97 0	1.91379E-09	4.01266E-05	1.54422E-04	7.07501E-05	1.07197E-04
36KR 98 0	1.20211E-07	1.14022E-03	3.17359E-04	5.51020E-03	3.52303E-03
53 I130 0	2.16459E-07	4.53575E-04	3.94334E-04	2.18633E-03	1.40598E-03
53 I131 0	1.60081E-04	2.20303E-02	1.17844E-02	1.90776E-02	1.59018E-02
53 I132 0	2.60209E-06	3.02438E-02	4.57604E-02	1.50549E-01	1.04916E-01
53 I133 0	2.58393E-05	3.29227E-02	3.24217E-02	4.39555E-02	4.20987E-02
54XE133 0	2.16318E-04	4.52492E-02	1.32941E-02	8.19766E-03	1.04170E-02
54XE133 1	4.15114E-04	2.05927E-03	0.	1.06628E-03	6.01938E-04
53 I134 0	1.35047E-09	5.90888E-05	1.17733E-04	3.40786E-04	2.43652E-04
53 I135 0	3.61518E-04	1.45804E-02	1.65515E-02	4.72249E-02	3.38674E-02
54XE135 0	5.78675E-06	1.67598E-02	1.42774E-02	9.74686E-03	1.20246E-02
54XE135 1	2.14334E-09	2.23229E-03	0.	2.61610E-03	1.47695E-03
TOTAL GAS	2.24019E+03	4.79819E+08	7.60709E-02	1.98768E-01	2.74799E-01
	8.92399E+01	(RADIOACTIVE GAS DENSITY)			
TOTAL FP	1.44045E+04	2.82240E+09	5.25728E-01	6.81521E-01	1.20725E+00
TOTAL GAS FRACTIONS	1.55521E-01	1.70704E-01	1.44620E-01	2.91654E-01	2.27624E-01
	6.19530E-03	(RADIOACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS	1.49313E-01	4.94068E-02	3.01497E-02	2.78465E-02	2.88495E-02
	1.16374E-03	(NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-XLII

TMI-2 IF OPERATED 26K WPS AT 2772. MW CONT. CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 34
 ELAPSED TIME=9.35436E+07 SEC
 COOLING TIME=7.20000E+04 SEC
 TOTAL ACTIVITY=9.03368E+19
 CURIES IN ALL FP= 2.44153E+09
 IN ALL GAS= 3.90513E+09
 IN HALOGENS= 2.20426E+09
 IN NOBLE GAS= 1.70086E+09
 TOTAL BETA MEV/FISS=4.21101E-01
 TOTAL GAMMA MEV/FISS=5.74940E-01
 TOTAL BETA+GAMMA=9.95941E-01
 FRACTION OF TOTALS IN GAS PRODUCTS
 BETA FRACTION=1.42203E-01
 GAMMA FRACTION=2.45227E-01
 TOTAL FRACTION=2.12365E-01
 FRACTIONAL DENSITY ALL GAS=1.55514E-01
 DENSITY OF RADIOACTIVE GAS=6.17485E-03
 FRACTIONAL GAS ACTIVITY=1.59946E-01

DECAY POWER IN MW FOR ALL FP IS
 TOTAL BETA MW=4.54695E+00
 TOTAL GAMMA MW=6.74350E+00
 TOTAL BETA+GAMMA MW=1.03905E+01
 (MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE			DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z	A	S					
35R	82	0	8.74240E-04	7.58197E-05	3.30589E-05	4.58402E-04	2.78559E-04
36Kr	85	0	9.35626E-04	3.05389E-04	2.38339E-04	1.55373E-06	1.01670E-04
36Kr	95	1	3.94055E-04	2.70051E-04	1.90145E-04	1.12885E-04	1.45552E-04
36Kr	88	0	1.01120E-04	1.10975E-04	8.59379E-05	5.59503E-05	3.59229E-04
53	I130	0	1.23770E-07	3.04434E-04	2.81537E-04	1.48214E-03	9.74505E-04
53	I131	0	1.55070E-04	2.46497E-02	1.42523E-02	2.19100E-02	1.86722E-02
53	I132	0	2.38217E-06	3.20068E-02	5.23014E-02	1.63404E-01	1.16429E-01
53	I133	0	1.95166E-05	2.73309E-02	3.55103E-02	3.73444E-02	3.65689E-02
54Xe	133	0	2.12239E-04	5.13214E-02	1.52841E-02	9.53572E-03	1.23891E-02
54Xe	133	1	3.94439E-06	2.26266E-03	0.	1.20120E-03	6.93310E-04
53	I135	0	1.26180E-06	5.88281E-03	7.21224E-03	1.95417E-02	1.43286E-02
54Xe	135	0	4.27159E-04	1.43014E-02	1.38027E-02	8.53006E-03	1.07594E-02
54Xe	135	1	7.48086E-09	9.00673E-04	0.	1.08255E-03	6.24827E-04
TOTAL GAS			2.24010E+03	3.90513E+04	5.90335E-02	1.52463E-01	2.11503E-01
			8.89455E+01	(RADIOACTIVE GAS DENSITY)			
TOTAL FP			1.44045E+04	2.44153E+09	4.21101E-01	5.74840E-01	9.95941E-01
TOTAL GAS FRACTIONS			1.55514E-01	1.59946E-01	1.40203E-01	2.65227E-01	2.12365E-01
			6.17486E-03	(RADIOACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS			1.48320E-01	6.96639E-02	3.05020E-02	2.10866E-02	2.51099E-02
			1.15760E-03	(NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-XLIII

TMI-2 IF OPERATED 25K HRS AT 2772. MW CONT. CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS
 (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 35
 ELAPSED TIME=9.36714E+07 SEC
 COOLING TIME=1.80000E+05 SEC
 TOTAL ACTIVITY=7.24149E+10
 CURIES IN ALL FP= 1.05716E+07
 IN ALL GAS= 2.64410E+09
 IN HALOGENS= 1.30904E+09
 IN NOBLE GAS= 1.24416E+09
 TOTAL BETA MEV/FISS=3.21794E-01
 TOTAL GAMMA MEV/FISS=4.53722E-01
 TOTAL BETA+GAMMA=7.75073E-01
 FRACTION OF TOTALS IN GAS PRODUCTS
 BETA FRACTION=1.09507E-01
 GAMMA FRACTION=2.17119E-01
 TOTAL FRACTION=1.72641E-01

FRACTIONAL DENSITY ALL GAS=1.55499E-01
 DENSITY OF RADIOACTIVE GAS=6.12303E-03

FRACTIONAL GAS ACTIVITY=1.35104E-01

DECAY POWER IN MW FOR ALL FP IS
 TOTAL BETA MW=3.55107E+00
 TOTAL GAMMA MW=5.0204E+00
 TOTAL BETA+GAMMA MW=8.55312E+00
 (MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
35BR 82 0	4.85870E-09	5.25465E-05	2.40429E-05	3.23086E-04	1.98929E-04
36KR 85 0	9.35428E-04	3.80988E-04	3.11925E-04	1.96999E-06	1.30615E-04
53 I130 0	2.31388E-09	7.14454E-05	6.89762E-05	3.51395E-04	2.34099E-04
53 I131 0	1.40404E-04	2.78446E-02	1.68848E-02	2.51581E-02	2.17240E-02
53 I132 0	1.82476E-06	3.05851E-02	5.24270E-02	1.58736E-01	1.14599E-01
53 I133 0	6.81369E-06	1.25462E-02	1.70996E-02	1.74272E-02	1.72912E-02
54XE133 0	1.91765E-04	5.78471E-02	1.92540E-02	1.09265E-02	1.43839E-02
54XE133 1	3.08273E-06	2.20609E-03	0.	1.19056E-03	6.96265E-04
53 I135 0	5.36500E-09	3.12033E-04	4.01292E-04	1.05372E-03	7.82845E-04
54XE135 0	7.16943E-07	2.99441E-03	3.03158E-03	1.81564E-03	2.32047E-03
TOTAL GAS	2.23983E+03	2.64419E+09	3.52388E-02	9.84153E-02	1.33654E-01
	8.81989E+01	(RADIOACTIVE GAS DENSITY)			
TOTAL FP	1.44045E+04	1.95716E+09	3.21794E-01	4.53279E-01	7.75073E-01
TOTAL GAS FRACTIONS	1.55499E-01	1.35104E-01	1.09507E-01	2.17119E-01	1.72441E-01
	6.12303E-03	(RADIOACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS	1.48330E-01	6.36716E-02	2.25994E-02	1.40695E-02	1.76111E-02
	1.13244E-03	(NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-VLIV

TMI-2 IF OPERATED 26K HPS AT 2772. MW CONT. CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS
 (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 36
 ELAPSED TIME=9.38516E+07 SEC
 COOLING TIME=3.60000E+05 SEC
 TOTAL ACTIVITY=6.03404E+19
 CURIES IN ALL FP= 1.43106E+09
 IN ALL GAS= 1.82335E+09
 IN HALOGENS= 8.89449E+07
 IN NOBLE GAS= 9.33900E+07
 TOTAL BETA MEV/FISS=2.69063E-01

TOTAL GAMMA MEV/FISS=3.71922E-01
 TOTAL BETA+GAMMA=6.41995E-01

FRACTION OF TOTALS IN GAS PRODUCTS
 BETA FRACTION=7.95141E-02
 GAMMA FRACTION=1.65570E-01
 TOTAL FRACTION=1.29377E-01
 FRACTIONAL DENSITY ALL GAS=1.55478E-01
 DENSITY OF RADIOACTIVE GAS=6.05458E-03
 FRACTIONAL GAS ACTIVITY=1.11789E-01

DECAY POWER IN MW FOR ALL FP IS
 TOTAL BETA MW=2.97911E+00
 TOTAL GAMMA MW=4.10425E+00
 TOTAL BETA+GAMMA MW=7.08336E+00
 (MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
36KR 85 0	9.35084E-04	4.56970E-04	3.71556E-04	2.40004E-06	1.57659E-04
53 I131 0	1.18092E-04	2.81222E-02	1.69302E-02	2.57889E-02	2.20631E-02
53 I132 0	1.17013E-06	2.35340E-02	4.00736E-02	1.24056E-01	8.87349E-02
53 I133 0	1.28752E-04	2.84470E-03	3.95149E-03	4.01339E-03	3.94530E-03
54XE133 0	1.51816E-04	5.49519E-02	1.81694E-02	1.05424E-02	1.37502E-02
54XE133 1	1.77525E-06	1.52437E-03	0.	8.35583E-04	4.84155E-04
TOTAL GAS	2.23959E+03	1.82335E+09	2.14552E-02	6.15790E-02	8.30448E-02
	8.72129E+01 (RADIOACTIVE GAS DENSITY)				
TOTAL FP	1.44045E+04	1.63176E+09	2.69963E-01	3.71922E-01	6.41995E-01
TOTAL GAS FRACTIONS	1.55478E-01	1.11789E-01	7.95141E-02	1.65570E-01	1.29377E-01
	6.05458E-03 (RADIOACTIVE FRACTION OF TOTAL FP)				
NOBLE GAS FRACTIONS	1.48334E-01	5.72571E-02	1.86405E-02	1.15304E-02	1.45207E-02
	1.09010E-03 (NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)				

TABLE C-XLV

TMI-2 IF OPERATED 26K HRS AT 2772. MW CONT. CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS
 (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 37
 ELAPSED TIME=9.42114E+07 SEC
 COOLING TIME=7.20000E+05 SEC
 TOTAL ACTIVITY=4.92032E+19
 CURIES IN ALL FP= 1.33382E+03
 IN ALL GAS= 1.02954E+09
 IN HALOGENS= 4.80920E+07

IN NOBLE GAS= 5.47417E+07
 TOTAL BETA MEV/FISS=2.27463E-01

TOTAL GAMMA MEV/FISS=2.91198E-01
 TOTAL BETA+GAMMA=5.18661E-01
 FRACTION OF TOTALS IN GAS PRODUCTS
 BETA FRACTION=4.69951E-02
 GAMMA FRACTION=9.68103E-02
 TOTAL FRACTION=7.49590E-02
 FRACTIONAL DENSITY ALL GAS=1.55444E-01
 DENSITY OF RADIOACTIVE GAS=5.95776E-03
 FRACTIONAL GAS ACTIVITY=7.73443E-02

DECAY POWER IN MW FOR ALL FP IS
 TOTAL BETA MW=2.51011E+00
 TOTAL GAMMA MW=3.21344E+00
 TOTAL BETA+GAMMA MW=5.72355E+00
 (MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
36KR 85 0	9.34397E-04	5.59954E-04	4.40554E-04	3.06310E-06	1.94972E-04
53 I131 0	8.27369E-05	2.41461E-02	1.40777E-02	2.30767E-02	1.91301E-02
53 I132 0	4.81167E-07	1.18695E-02	1.95574E-02	6.51541E-02	4.51573E-02
53 I133 0	4.59719E-08	1.24582E-04	1.63215E-04	1.83027E-04	1.74338E-04
54XE133 0	8.97210E-05	3.98327E-02	1.27441E-02	7.95759E-03	1.00563E-02
54XE133 1	5.07995E-07	5.35009E-04	0.	3.05381E-04	1.71454E-04
TOTAL GAS	2.23908E+03	1.02954E+08	1.04874E-02	2.81910E-02	3.88783E-02
	8.58181E+01 (RADIOACTIVE GAS DENSITY)				
TOTAL FP	1.44044E+04	1.32982E+09	2.27463E-01	2.91198E-01	5.18661E-01
TOTAL GAS FRACTIONS	1.55444E-01	7.73443E-02	4.69951E-02	9.68103E-02	7.49590E-02
	5.95776E-03 (RADIOACTIVE FRACTION OF TOTAL FP)				
NOBLE GAS FRACTIONS	1.48329E-01	4.11799E-02	1.31849E-02	8.36973E-03	1.04814E-02
	1.02591E-03 (NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)				

TABLE C-XLVI

TMI-2 IF OPERATED 26K HRS AT 2772. MW CONT. CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS
 (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 38
 ELAPSED TIME=9.52914E+07 SEC
 COOLING TIME=1.80000E+06 SEC
 TOTAL ACTIVITY=3.59195E+19
 CURIES IN ALL FP= 2.70797E+09

IN ALL GAS= 2.34136E+07
IN HALOGENS= 1.20440E+07

IN NOBLE GAS= 1.13496E+07
TOTAL BETA MEV/FISS=1.75929E-01
TOTAL GAMMA MEV/FISS=1.88930E-01
TOTAL BETA+GAMMA=3.64858E-01
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=1.17599E-02
GAMMA FRACTION=2.16229E-02
TOTAL FRACTION=1.68671E-02
FRACTIONAL DENSITY ALL GAS=1.55401E-01
DENSITY OF RADIOACTIVE GAS=5.83940E-03
FRACTIONAL GAS ACTIVITY=2.41179E-02

DECAY POWER IN MW FOR ALL FP IS
TOTAL BETA MW=1.94141E+00
TOTAL GAMMA MW=2.09499E+00
TOTAL BETA+GAMMA MW=4.02629E+00
(MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
36KR 85 0	9.32338E-04	7.65341E-04	5.69479E-04	4.71074E-06	2.76549E-04
53 I131 0	2.81825E-05	1.12759E-02	6.19992E-03	1.21154E-02	9.26307E-03
53 I132 0	3.34563E-08	1.13052E-03	1.75920E-03	6.98247E-03	4.46342E-03
54XE133 0	1.76059E-05	1.07069E-02	3.23332E-03	2.40675E-03	2.80530E-03
TOTAL GAS	2.23845E+03	2.34136E+07	2.06890E-03	4.08521E-03	6.15410E-03
	8.41127E+01	(RADIOACTIVE GAS DENSITY)			
TOTAL FP	1.44044E+04	9.70797E+08	1.75929E-01	1.88930E-01	3.64858E-01
TOTAL GAS FRACTIONS	1.55401E-01	2.41179E-02	1.17599E-02	2.16229E-02	1.68671E-02
	5.83940E-03	(RADIOACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS	1.48325E-01	1.17116E-02	3.90179E-03	2.52486E-03	3.14057E-03
	9.50791E-04	(NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-XLVII

TMI-2 IF OPERATED 26K HPS AT 2772. MW CONT. CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS
(EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 39
ELAPSED TIME=9.70916E+07 SEC
COOLING TIME=3.60000E+06 SEC
TOTAL ACTIVITY=2.62032E+19
CURIES IN ALL FP= 7.27113E+09

IN ALL GAS= 3.33139E+05
IN HALOGENS= 1.92093E+04

IN NOBLE GAS= 1.50156E+05
TOTAL BETA MEV/FISS=1.40310E-01
TOTAL GAMMA MEV/FISS=1.24610E-01
TOTAL BETA+GAMMA=2.64919E-01
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=2.29114E-03
GAMMA FRACTION=3.47842E-03
TOTAL FRACTION=2.84960E-03
FRACTIONAL DENSITY ALL GAS=1.55401E-01
DENSITY OF RADIOACTIVE GAS=5.80947E-03
FRACTIONAL GAS ACTIVITY=4.58166E-03

DECAY POWER IN MW FOR ALL FP IS
TOTAL BETA MW=1.54825E+00
TOTAL GAMMA MW=1.37510E+00
TOTAL BETA+GAMMA MW=2.92345E+00
(MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
36KR 85 0	9.28917E-04	1.01909E-03	7.10166E-04	7.11603E-06	3.79474E-04
53 I131 0	4.67782E-06	2.40892E-03	1.29031E-03	3.04894E-03	2.11751E-03
54XE133 0	1.14975E-04	9.33542E-04	2.64751E-04	2.38300E-04	2.52309E-04
TOTAL GAS	2.23844E+03	3.33139E+05	3.21470E-04	4.33444E-04	7.54914E-04
	9.36809E+01 (RADIOACTIVE GAS DENSITY)				
TOTAL FP	1.44042E+04	7.27113E+08	1.40310E-01	1.24610E-01	2.64919E-01
TOTAL GAS FRACTIONS	1.55401E-01	4.58166E-03	2.29114E-03	3.47842E-03	2.84960E-03
	5.80947E-03 (RADIOACTIVE FRACTION OF TOTAL FP)				
NOBLE GAS FRACTIONS	1.48331E-01	2.06510E-03	9.74918E-04	3.05013E-04	6.59816E-04
	9.30385E-04 (NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)				

TABLE C-XLVIII

TMI-2 IF OPERATED 26K HRS AT 2772. MW CONT. CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS
(EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 40
ELAPSED TIME=1.00422E+08 SEC
COOLING TIME=7.20000E+06 SEC
TOTAL ACTIVITY=1.87185E+19
CURIES IN ALL FP= 5.05206E+09
IN ALL GAS= 7.96522E+05

IN HALOGENS= 5.70404E+04
IN NOBLE GAS= 7.45462E+05

TOTAL BETA MEV/FISS=1.09384E-01
TOTAL GAMMA MEV/FISS=7.73990E-02
TOTAL BETA+GAMMA=1.86783E-01
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=9.51308E-04
GAMMA FRACTION=1.58441E-04
TOTAL FRACTION=6.22741E-04
FRACTIONAL DENSITY ALL GAS=1.55418E-01
DENSITY OF RADIOACTIVE GAS=5.91172E-03
FRACTIONAL GAS ACTIVITY=1.57445E-03

DECAY POWER IN MW FOR ALL FP IS
TOTAL BETA MW=1.20708E+10
TOTAL GAMMA MW=9.54114E-01
TOTAL BETA+GAMMA MW=2.25120E+00
(MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
36KR 85 0	9.22112E-04	1.45249E-03	9.04259E-04	1.13724E-05	5.34266E-04
TOTAL GAS	2.23864E+03	7.96522E+05	1.04058E-04	1.22632E-05	1.16321E-04
	9.37119E+01	(RADIOACTIVE GAS DENSITY)			
TOTAL FP	1.44040E+04	5.05906E+08	1.09384E-01	7.73990E-02	1.86783E-01
TOTAL GAS FRACTIONS	1.55418E-01	1.57445E-03	9.51308E-04	1.58441E-04	6.22741E-04
	5.91172E-03	(RADIOACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS	1.48330E-01	1.47549E-03	9.05704E-04	2.31793E-05	5.40005E-04
	9.22152E-04	(NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-XLIX

TMI-2 IF OPERATED 25K HRS AT 2772. MW CONT. CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 41
ELAPSED TIME=1.11422E+08 SEC
COOLING TIME=1.80000E+07 SEC
TOTAL ACTIVITY=9.94017E+18
CURIES IN ALL FP= 2.48453E+08
IN ALL GAS= 7.18767E+05
IN HALOGENS= 3.68343E+00
IN NOBLE GAS= 7.18763E+05
TOTAL BETA MEV/FISS=7.18403E-02

TOTAL GAMMA MEV/FISS=3.31937E-02
 TOTAL BETA+GAMMA=1.05034E-01

FRACTION OF TOTALS IN GAS PRODUCTS
 BETA FRACTION=1.34673E-03
 GAMMA FRACTION=2.59644E-05
 TOTAL FRACTION=2.29328E-04
 FRACTIONAL DENSITY ALL GAS=1.55427E-01
 DENSITY OF RADIOACTIVE GAS=5.90172E-03
 FRACTIONAL GAS ACTIVITY=2.67544E-03

DECAY POWER IN MW FOR ALL FP IS
 TOTAL BETA MW=7.92775E-01
 TOTAL GAMMA MW=3.56307E-01
 TOTAL BETA+GAMMA MW=1.15908E+00
 (MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
36KR 85 0	9.01991E-04	2.67540E-03	1.34672E-03	2.59377E-05	9.29318E-04
TOTAL GAS	2.23866E+03	7.19767E+05	9.67492E-05	8.61855E-07	9.76111E-05
	9.35641E+01	(RADIOACTIVE GAS DENSITY)			
TOTAL FP	1.44033E+04	2.68653E+08	7.19403E-02	3.31937E-02	1.05034E-01
TOTAL GAS FRACTIONS	1.55427E-01	2.67544E-03	1.34673E-03	2.59644E-05	9.29328E-04
	5.90172E-03	(RADIOACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS	1.48316E-01	2.67543E-03	1.34672E-03	2.59561E-05	9.29324E-04
	9.01992E-04	(NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-L

TMI-2 IF OPERATED 25K HRS AT 2772. MW CONT. CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS
 (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 42
 ELAPSED TIME=1.25029E+08 SEC
 COOLING TIME=3.15360E+07 SEC
 TOTAL ACTIVITY=6.47132E+19
 CURIES IN ALL FP=1.74901E+08
 IN ALL GAS= 5.99117E+05
 IN HALOGENS= 2.43716E+00
 IN NOBLE GAS= 5.99114E+05
 TOTAL BETA MEV/FISS=4.97484E-02
 TOTAL GAMMA MEV/FISS=1.95063E-02
 TOTAL BETA+GAMMA=6.92547E-02
 FRACTION OF TOTALS IN GAS PRODUCTS

BETA FRACTION=1.99095E-03
 GAMMA FRACTION=4.52534E-05

TOTAL FRACTION=1.39058E-03
 FRACTIONAL DENSITY ALL GAS=1.55417E-01
 DENSITY OF RADIOACTIVE GAS=5.77815E-03
 FRACTIONAL GAS ACTIVITY=3.99722E-03

DECAY POWER IN MW FOR ALL FP IS
 TOTAL BETA MW=5.49200E-01
 TOTAL GAMMA MW=2.04227E-01
 TOTAL BETA+GAMMA MW=7.53426E-01
 (MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
36KR 85 0	8.77387E-04	3.99721E-03	1.99095E-03	4.52504E-05	1.39058E-03
TOTAL GAS	2.23841E+03 8.32204E+01 (RADIOACTIVE GAS DENSITY)	5.99117E+05	9.41052E-05	8.37498E-07	9.49427E-05
TOTAL FP	1.44026E+04	1.74901E+09	4.97684E-02	1.85068E-02	6.82754E-02
TOTAL GAS FRACTIONS	1.55417E-01 5.77815E-03 (RADIOACTIVE FRACTION OF TOTAL FP)	3.99722E-03	1.99095E-03	4.52534E-05	1.39058E-03
NOBLE GAS FRACTIONS	1.48300E-01 8.77389E-04 (NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)	3.99721E-03	1.99095E-03	4.52504E-05	1.39058E-03

TABLE C-LI

TMI-2 IF OPERATED 25K WPS AT 2772. MW CONT. CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEPTING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 43
 ELAPSED TIME=1.29492E+08 SEC
 COOLING TIME=3.60000E+07 SEC
 TOTAL ACTIVITY=5.93253E+18
 CURIES IN ALL FP= 1.57536E+09
 IN ALL GAS= 6.92757E+05
 IN HALOGENS= 2.63717E+00
 IN NOBLE GAS= 6.92755E+05
 TOTAL BETA MEV/FISS=4.47003E-02
 TOTAL GAMMA MEV/FISS=1.65483E-02
 TOTAL BETA+GAMMA=6.12486E-02
 FRACTION OF TOTALS IN GAS PRODUCTS
 BETA FRACTION=2.08410E-03
 GAMMA FRACTION=5.01489E-05
 TOTAL FRACTION=1.53600E-03

FRACTIONAL DENSITY ALL GAS=1.55413E-01
DENSITY OF RADIOACTIVE GAS=5.7029E-03

FRACTIONAL GAS ACTIVITY=4.3945E-03

DECAY POWER IN MW FOR ALL IS
TOTAL BETA MW=4.93279E-01
TOTAL GAMMA MW=1.02615E-01
TOTAL BETA+GAMMA MW=4.75993E-01
(MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABLE VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES
NUCLIDE DENSITY CURTES BETA MEV/F GAMMA MEV/F B+G MEV/F
36X 85 0 8.69421E-04 4.3945E-03 2.08410E-03 5.01454E-05 1.53602E-03
TOTAL GAS 2.23831E+03 4.92757E+05 3.32492E-05 8.29880E-07 9.40791E-05
TOTAL FP 1.44023E+04 1.57636E+08 4.47003E-02 1.65483E-02 6.12496E-02
TOTAL GAS FRACTIONS 1.55413E-01 4.3945E-03 2.08410E-03 5.01489E-05 1.53602E-03
5.77029E-03 (RADIOACTIVE FRACTION OF TOTAL FP)

NOBLE GAS FRACTIONS
1.48294E-01 4.3945E-03 2.08410E-03 5.01454E-05 1.53602E-03
8.69422E-04 (NUBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)

TABLE C-LII

IMI-2 IF OPERATED 26K WPS AT 2772. MW CONT. CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS
(EXCEPTING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 44
ELAPSED TIME=1.65402E+08 SEC
COOLING TIME=7.20000E+07 SEC
TOTAL ACTIVITY=3.12391E+19
CURTES IN ALL FP= 9.44272E+07
IN ALL GAS= 6.43543E+05
IN HALOGENS= 2.43719E+00
IN NOBLE GAS= 4.43540E+05
TOTAL BETA MEV/F=2.07245E-02
TOTAL GAMMA MEV/F=1.03742E-02
TOTAL BETA+GAMMA=3.11008E-02
FRACTION OF TOTALS IN GAS PRODUCTS
BETA FRACTION=4.17979E-03
GAMMA FRACTION=2.42979E-05
TOTAL FRACTION=2.91007E-03
FRACTIONAL DENSITY ALL GAS=1.553373E-01
DENSITY OF RADIOACTIVE GAS=5.7029E-03
FRACTIONAL GAS ACTIVITY=7.62245E-03

DECAY POWER IN MW FOR ALL FPTS
 TOTAL BETA MW=2.28701E-01
 TOTAL GAMMA MW=1.14504E-01
 TOTAL BETA+GAMMA MW=3.43205E-01
 (MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
36KR 85 0	8.07756E-04	7.62242E-03	4.17979E-03	7.42924E-05	2.81007E-03
TOTAL GAS	2.23746E+03	5.42547E+05	9.66245E-05	7.70928E-07	8.73955E-05
	8.22163E+01	(RADIOACTIVE GAS DENSITY)			
TOTAL FP	1.44006E+04	9.44272E+07	2.07245E-02	1.03762E-02	3.11008E-02
TOTAL GAS FRACTIONS	1.55373E-01	7.62245E-03	4.17979E-03	7.42979E-05	2.81007E-03
	5.70925E-02	(RADIOACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS	1.49251E-01	7.62242E-03	4.17979E-03	7.42924E-05	2.81007E-03
	8.07757E-04	(NOBLE RADIOACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-LIII

TMI-2 IF OPERATED 26K WRS AT 2772. MW CONT. CINDER-10(LASL)8/79

CONTENT OF NOBLE GASES AND HALOGENS (EXCEEDING 1.00000E-02 PERCENT OF TOTAL GAS)

TIME STEP 45
 ELAPSED TIME=2.73492E+08 SEC
 COOLING TIME=1.80000E+08 SEC
 TOTAL ACTIVITY=1.22457E+18
 CURIES IN ALL FPTS= 3.43205E+07
 IN ALL GAS= 5.15900E+05
 IN HALOGENS= 2.53718E+07
 IN NOBLE GAS= 5.15999E+05
 TOTAL BETA MEV/FISS=5.52277E-03
 TOTAL GAMMA MEV/FISS=4.92045E-03
 TOTAL BETA+GAMMA=1.04432E-02
 FRACTION OF TOTALS IN GAS PRODUCTS
 BETA FRACTION=1.25740E-02
 GAMMA FRACTION=1.25504E-04
 TOTAL FRACTION=6.70976E-03
 FRACTIONAL DENSITY ALL GAS=1.55259E-01
 DENSITY OF RADIOACTIVE GAS=5.55067E-03
 FRACTIONAL GAS ACTIVITY=1.47449E-02

DECAY POWER IN MW FOR ALL FPTS

TOTAL BETA MW=5.09451E-02
 TOTAL GAMMA MW=5.42993E-02

TOTAL BETA+GAMMA MW=1.15243E-01
 (MULTIPLY MEV/F BY 1.10352E+01 TO GET MW)

TABULAR VALUES ARE GIVEN AS FRACTIONS OF ALL NUCLIDES

NUCLIDE	DENSITY	CURIES	BETA MEV/F	GAMMA MEV/F	B+G MEV/F
Z A S					
36KR 85 0	6.47733E-04	1.47449E-02	1.25739E-02	1.25593E-04	6.70875E-03
TOTAL GAS	2.23515E+03	5.15900E+05	6.94431E-05	6.18030E-07	7.00611E-05
	7.99091E+01	(RADIIACTIVE GAS DENSITY)			
TOTAL FP	1.43963E+04	3.49993E+07	5.52277E-03	4.92045E-03	1.04432E-02
TOTAL GAS FRACTIONS	1.55259E-01	1.47449E-02	1.25740E-02	1.25604E-04	6.70876E-03
	5.55067E-03	(RADIIACTIVE FRACTION OF TOTAL FP)			
NOBLE GAS FRACTIONS	1.48134E-01	1.47449E-02	1.25739E-02	1.25593E-04	6.70875E-03
	6.47734E-04	(NOBLE RADIIACTIVE GAS FRACTION OF TOTAL FP)			

TABLE C-LTV

THI-2 IF OPERATED 26K HRS AT 2772. MW CONT. CINDER-10(LASL)8/79

SUMMARY OF PROGRAM OUTPUT

POWER, TOTAL CONTENT, FISS DENSITY, ACTIVITY

TS ELAPSED TIME (S)	BARNS/FISSION (LAST 4 GROUPS)				
1	4.2495E+06	4.9775E-02	2.3291E-01	1.7732E+01	6.6422E+02
2	8.4992E+06	5.1072E-02	2.4033E-01	1.8758E+01	3.7038E+02
3	1.2749E+07	5.1482E-02	2.4445E-01	1.9243E+01	2.7004E+02
4	1.6998E+07	5.2175E-02	2.4770E-01	1.9496E+01	2.1754E+02
5	2.1248E+07	5.2591E-02	2.5004E-01	1.9618E+01	1.8483E+02
6	2.5498E+07	5.2935E-02	2.5189E-01	1.9657E+01	1.6226E+02
7	2.9747E+07	5.3255E-02	2.5347E-01	1.9639E+01	1.4559E+02
8	3.3997E+07	5.3549E-02	2.5464E-01	1.9579E+01	1.3271E+02
9	3.8247E+07	5.3821E-02	2.5566E-01	1.9490E+01	1.2240E+02
10	4.2496E+07	5.4076E-02	2.5651E-01	1.9376E+01	1.1394E+02
11	4.6746E+07	5.4316E-02	2.5721E-01	1.9245E+01	1.0684E+02
12	5.0995E+07	5.4541E-02	2.5778E-01	1.9099E+01	1.0080E+02
13	5.5245E+07	5.4754E-02	2.5824E-01	1.8941E+01	9.5581E+01
14	5.9495E+07	5.4955E-02	2.5859E-01	1.8773E+01	9.1019E+01
15	6.3744E+07	5.5145E-02	2.5885E-01	1.8597E+01	8.6933E+01
16	6.7994E+07	5.5326E-02	2.5903E-01	1.8415E+01	8.3408E+01
17	7.2244E+07	5.5496E-02	2.5913E-01	1.8228E+01	8.0191E+01
18	7.6493E+07	5.5657E-02	2.5916E-01	1.8036E+01	7.7283E+01
19	8.0743E+07	5.5809E-02	2.5913E-01	1.7841E+01	7.4638E+01
20	8.4992E+07	5.5953E-02	2.5904E-01	1.7644E+01	7.2218E+01
21	8.9242E+07	5.6089E-02	2.5890E-01	1.7444E+01	6.9992E+01
22	9.3492E+07	5.6217E-02	2.5877E-01	1.7244E+01	6.7935E+01
23	9.3492E+07	5.6217E-02	2.5877E-01	1.7244E+01	6.7937E+01
24	9.3492E+07	5.6217E-02	2.5877E-01	1.7244E+01	6.7942E+01
25	9.3492E+07	5.6217E-02	2.5877E-01	1.7244E+01	6.7951E+01
26	9.3492E+07	5.6217E-02	2.5877E-01	1.7244E+01	6.7999E+01
27	9.3492E+07	5.6217E-02	2.5877E-01	1.7244E+01	6.8095E+01
28	9.3492E+07	5.6217E-02	2.5877E-01	1.7244E+01	6.8563E+01
29	9.3493E+07	5.6218E-02	2.5877E-01	1.7244E+01	6.9450E+01
30	9.3495E+07	5.6218E-02	2.5877E-01	1.7245E+01	7.2834E+01
31	9.3499E+07	5.6219E-02	2.5877E-01	1.7245E+01	7.6765E+01
32	9.3510E+07	5.6221E-02	2.5873E-01	1.7245E+01	8.3893E+01
33	9.3528E+07	5.6223E-02	2.5874E-01	1.7243E+01	8.6257E+01
34	9.3564E+07	5.6227E-02	2.5877E-01	1.7236E+01	7.7690E+01
35	9.3672E+07	5.6234E-02	2.5883E-01	1.7216E+01	5.7538E+01
36	9.3852E+07	5.6245E-02	2.5897E-01	1.7201E+01	5.4408E+01
37	9.4212E+07	5.6266E-02	2.5900E-01	1.7193E+01	5.5061E+01
38	9.5292E+07	5.6314E-02	2.5920E-01	1.7210E+01	5.5116E+01
39	9.7092E+07	5.6367E-02	2.5940E-01	1.7247E+01	5.4794E+01
40	1.0069E+08	5.6437E-02	2.5959E-01	1.7292E+01	5.4368E+01
41	1.1149E+08	5.6594E-02	2.5967E-01	1.7257E+01	5.3863E+01
42	1.2503E+08	5.6734E-02	2.5949E-01	1.7162E+01	5.3601E+01
43	1.2949E+08	5.6767E-02	2.5941E-01	1.7129E+01	5.3529E+01
44	1.6549E+08	5.6975E-02	2.5970E-01	1.6896E+01	5.3037E+01
45	2.7349E+09	5.4973E-02	2.5697E-01	1.6468E+01	5.2119E+01

TABLE C-LV

TMI-2 IF OPERATED 26K HRS AT 2772. MW CONT. CINDER-10(LASL)8/79

SUMMARY OF PROBLEM OUTPUT

POWER, TOTAL CONTENT, FISS DENSITY, ACTIVITY

TS	ELAPSED TIME (S)	COOLING TIME (S)	TOTAL NUC	FISS DENS	ACTIVITY	POWER
1	4.24962E+06	0.	7.25575E+02	3.62845E+02	4.74255E+20	2.77200E+09
2	8.49924E+06	0.	1.44979E+03	7.24666E+02	4.80327E+20	2.77200E+09
3	1.27489E+07	0.	2.16761E+03	1.09461E+03	4.81105E+20	2.77200E+09
4	1.69985E+07	0.	2.99191E+03	1.44759E+03	4.80203E+20	2.77200E+09
5	2.12481E+07	0.	3.59113E+03	1.73936E+03	4.78181E+20	2.77200E+09
6	2.54977E+07	0.	4.29453E+03	2.15155E+03	4.75314E+20	2.77200E+09
7	2.97473E+07	0.	4.99134E+03	2.50182E+03	4.71770E+20	2.77200E+09
8	3.39970E+07	0.	5.69081E+03	2.94879E+03	4.67672E+20	2.77200E+09
9	3.82466E+07	0.	6.36727E+03	3.19215E+03	4.63122E+20	2.77200E+09
10	4.24962E+07	0.	7.03519E+03	3.53165E+03	4.59214E+20	2.77200E+09
11	4.67458E+07	0.	7.69213E+03	3.86707E+03	4.53039E+20	2.77200E+09
12	5.09954E+07	0.	8.35399E+03	4.19927E+03	4.47684E+20	2.77200E+09
13	5.52451E+07	0.	9.09903E+03	4.52519E+03	4.42234E+20	2.77200E+09
14	5.94947E+07	0.	9.63677E+03	4.84780E+03	4.36766E+20	2.77200E+09
15	6.37443E+07	0.	1.02511E+04	5.15515E+03	4.31351E+20	2.77200E+09
16	6.79939E+07	0.	1.09782E+04	5.48032E+03	4.26050E+20	2.77200E+09
17	7.22435E+07	0.	1.14863E+04	5.79945E+03	4.20916E+20	2.77200E+09
18	7.64932E+07	0.	1.20357E+04	6.09669E+03	4.15991E+20	2.77200E+09
19	8.07428E+07	0.	1.26768E+04	6.39924E+03	4.11309E+20	2.77200E+09
20	8.49924E+07	0.	1.32599E+04	6.69929E+03	4.06895E+20	2.77200E+09
21	8.92420E+07	0.	1.38357E+04	6.99406E+03	4.02764E+20	2.77200E+09
22	9.34916E+07	0.	1.44045E+04	7.28678E+03	3.98926E+20	2.77200E+09
23	9.34916E+07	1.00000E+07	1.44045E+04	7.28678E+03	3.83448E+20	0.
24	9.34916E+07	4.00000E+07	1.44045E+04	7.28678E+03	3.61232E+20	0.
25	9.34917E+07	1.00000E+07	1.44045E+04	7.28678E+03	3.38753E+20	0.
26	9.34917E+07	4.00000E+07	1.44045E+04	7.28678E+03	2.95022E+20	0.
27	9.34917E+07	1.00000E+07	1.44045E+04	7.28678E+03	2.63663E+20	0.
28	9.34920E+07	4.00000E+07	1.44045E+04	7.28678E+03	2.19484E+20	0.
29	9.34926E+07	1.00000E+07	1.44045E+04	7.28678E+03	1.91487E+20	0.
30	9.34952E+07	3.60000E+03	1.44045E+04	7.28678E+03	1.52310E+20	0.
31	9.34988E+07	7.20000E+03	1.44045E+04	7.28678E+03	1.36000E+20	0.
32	9.35096E+07	1.80000E+04	1.44045E+04	7.28678E+03	1.17988E+20	0.
33	9.35276E+07	3.60000E+04	1.44045E+04	7.28678E+03	1.04429E+20	0.
34	9.35636E+07	7.20000E+04	1.44045E+04	7.28678E+03	9.03368E+19	0.
35	9.36716E+07	1.80000E+05	1.44045E+04	7.28678E+03	7.24149E+19	0.
36	9.38516E+07	3.60000E+05	1.44045E+04	7.28678E+03	6.03494E+19	0.
37	9.42116E+07	7.20000E+05	1.44045E+04	7.28678E+03	4.92032E+19	0.
38	9.52916E+07	1.80000E+06	1.44045E+04	7.28678E+03	3.59195E+19	0.
39	9.70916E+07	3.60000E+06	1.44045E+04	7.28678E+03	2.69032E+19	0.
40	1.00692E+08	7.20000E+06	1.44045E+04	7.28678E+03	1.87185E+19	0.
41	1.11492E+08	1.80000E+07	1.44033E+04	7.28678E+03	9.94017E+18	0.
42	1.25028E+08	3.15360E+07	1.44026E+04	7.28678E+03	6.47132E+18	0.
43	1.29492E+08	3.60000E+07	1.44023E+04	7.28678E+03	5.83253E+18	0.
44	1.65492E+08	7.20000E+07	1.44006E+04	7.28678E+03	3.12381E+18	0.
45	2.73492E+08	1.80000E+08	1.43963E+04	7.28678E+03	1.29457E+18	0.

TABLE C-LVI

TMI-2 IF OPERATED 25K WPS AT 2772. MW CONT. CINDER-10(LASL)8/79

SUMMARY OF PROBLEM OUTPUT

ENERGY DATA (MEV/F) ALL NUCLIDES

TS	COOLING TIME (S)	TOTAL DENS	ACTIVITY	BETA MEV/F	GAMMA MEV/F	TOTAL MEV/F
1 0.		7.25675E+02	4.74255E+20	5.33997E+00	6.04754E+00	1.23875E+01
2 0.		1.44879E+03	4.90327E+20	5.29382E+00	6.00736E+00	1.23012E+01
3 0.		2.16761E+03	4.91105E+20	5.24641E+00	5.96067E+00	1.22071E+01
4 0.		2.89131E+03	4.80203E+20	5.20564E+00	5.91871E+00	1.21244E+01
5 0.		3.59113E+03	4.79191E+20	5.17077E+00	5.88107E+00	1.20518E+01
6 0.		4.29453E+03	4.75314E+20	5.14082E+00	5.84718E+00	1.19980E+01
7 0.		4.99134E+03	4.71770E+20	5.11490E+00	5.81660E+00	1.19315E+01
8 0.		5.68091E+03	4.67572E+20	5.09226E+00	5.78899E+00	1.18911E+01
9 0.		6.36227E+03	4.63122E+20	5.07227E+00	5.76355E+00	1.18359E+01
10 0.		7.03513E+03	4.58214E+20	5.05443E+00	5.74051E+00	1.17949E+01
11 0.		7.69913E+03	4.53739E+20	5.03931E+00	5.71914E+00	1.17574E+01
12 0.		8.35397E+03	4.47584E+20	5.02359E+00	5.69926E+00	1.17229E+01
13 0.		8.99903E+03	4.42234E+20	5.01000E+00	5.68065E+00	1.16906E+01
14 0.		9.63477E+03	4.35756E+20	5.99731E+00	5.66311E+00	1.16604E+01
15 0.		1.02611E+04	4.31351E+20	5.98536E+00	5.64649E+00	1.16319E+01
16 0.		1.08793E+04	4.26750E+20	5.97403E+00	5.63068E+00	1.16047E+01
17 0.		1.14863E+04	4.20216E+20	5.96320E+00	5.61558E+00	1.15788E+01
18 0.		1.20857E+04	4.15391E+20	5.95282E+00	5.60114E+00	1.15540E+01
19 0.		1.26748E+04	4.11309E+20	5.94283E+00	5.58732E+00	1.15301E+01
20 0.		1.32600E+04	4.06995E+20	5.93320E+00	5.57407E+00	1.15073E+01
21 0.		1.38357E+04	4.02764E+20	5.92391E+00	5.56140E+00	1.14953E+01
22 0.		1.44045E+04	3.98226E+20	5.91497E+00	5.54930E+00	1.14643E+01
23 1.00000E+00		1.44045E+04	3.97448E+20	5.43328E+00	5.18148E+00	1.06148E+01
24 4.00000E+00		1.44045E+04	3.51237E+20	4.82381E+00	4.73208E+00	9.55589E+00
25 1.00000E+01		1.44045E+04	3.38753E+20	4.26569E+00	4.32948E+00	8.59516E+00
26 4.00000E+01		1.44045E+04	2.95727E+20	3.70206E+00	3.57894E+00	6.83089E+00
27 1.00000E+02		1.44045E+04	2.63663E+20	2.57754E+00	3.03673E+00	5.71427E+00
28 4.00000E+02		1.44045E+04	2.19484E+20	1.91025E+00	2.34765E+00	4.25790E+00
29 1.00000E+03		1.44045E+04	1.71487E+20	1.50728E+00	1.95046E+00	3.46074E+00
30 3.60000E+03		1.44045E+04	1.52310E+20	1.00974E+00	1.36256E+00	2.37130E+00
31 7.20000E+03		1.44045E+04	1.36700E+20	9.27019E-01	1.07844E+00	1.90546E+00
32 1.80000E+04		1.44045E+04	1.17988E+20	6.46073E-01	8.12071E-01	1.45914E+00
33 3.60000E+04		1.44045E+04	1.04429E+20	5.25728E-01	6.81521E-01	1.20725E+00
34 7.20000E+04		1.44045E+04	9.03368E+19	4.21101E-01	5.74840E-01	9.95941E-01
35 1.80000E+05		1.44045E+04	7.26149E+19	3.21794E-01	4.53279E-01	7.75073E-01
36 3.60000E+05		1.44045E+04	6.03494E+19	2.62963E-01	3.71922E-01	6.41885E-01
37 7.20000E+05		1.44044E+04	4.92232E+19	2.27463E-01	2.91198E-01	5.18661E-01
38 1.80000E+06		1.44044E+04	3.52195E+19	1.75928E-01	1.89930E-01	3.64858E-01
39 3.60000E+06		1.44042E+04	2.69732E+19	1.40310E-01	1.24610E-01	2.64919E-01
40 7.20000E+06		1.44047E+04	1.97195E+19	1.09384E-01	7.73990E-02	1.96783E-01
41 1.80000E+07		1.44033E+04	9.94017E+18	7.18403E-02	3.31937E-02	1.05034E-01
42 3.15360E+07		1.44026E+04	5.47133E+18	4.97636E-02	1.85068E-02	6.82754E-02
43 3.60000E+07		1.44023E+04	5.93253E+18	4.47003E-02	1.65493E-02	6.12486E-02
44 7.20000E+07		1.44014E+04	3.12391E+18	2.07246E-02	1.03762E-02	3.11008E-02
45 1.80000E+08		1.43963E+04	1.29457E+18	5.52277E-03	4.92045E-03	1.04432E-02

TABLE C-LVII

IMI-2 IF OPERATED 25K MPS AT 2772. MW CONT. CINDER-10(LASL)8/79

SUMMARY OF PROGRAM OUTPUT

TOTAL GAS FRACTIONS

GAS FRACTIONS OF TOTAL NUCLIDE VALUES

TS	COOLING TIME (S)	DENSITY	R-DENSITY	ACTIVITY	BETA	GAMMA	TOTAL
1 0.		1.5957E-01	1.445E-02	1.932E-01	1.9729E-01	2.4428E-01	2.2023E-01
2 0.		1.5773E-01	9.712E-03	1.966E-01	1.9230E-01	2.3977E-01	2.1548E-01
3 0.		1.5717E-01	8.201E-03	1.921E-01	1.8834E-01	2.3646E-01	2.1184E-01
4 0.		1.5691E-01	7.490E-03	1.789E-01	1.8507E-01	2.3384E-01	2.0888E-01
5 0.		1.5676E-01	7.087E-03	1.743E-01	1.8227E-01	2.3166E-01	2.0637E-01
6 0.		1.5666E-01	6.835E-03	1.742E-01	1.7978E-01	2.2979E-01	2.0417E-01
7 0.		1.5657E-01	6.666E-03	1.723E-01	1.7753E-01	2.2813E-01	2.0220E-01
8 0.		1.5650E-01	6.547E-03	1.706E-01	1.7545E-01	2.2662E-01	2.0038E-01
9 0.		1.5643E-01	6.461E-03	1.691E-01	1.7350E-01	2.2521E-01	1.9868E-01
10 0.		1.5637E-01	6.399E-03	1.676E-01	1.7166E-01	2.2388E-01	1.9707E-01
11 0.		1.5630E-01	6.350E-03	1.662E-01	1.6988E-01	2.2261E-01	1.9553E-01
12 0.		1.5624E-01	6.314E-03	1.649E-01	1.6818E-01	2.2137E-01	1.9404E-01
13 0.		1.5617E-01	6.286E-03	1.634E-01	1.6651E-01	2.2017E-01	1.9259E-01
14 0.		1.5610E-01	6.265E-03	1.624E-01	1.6490E-01	2.1899E-01	1.9117E-01
15 0.		1.5603E-01	6.250E-03	1.612E-01	1.6331E-01	2.1783E-01	1.8978E-01
16 0.		1.5596E-01	6.234E-03	1.600E-01	1.6175E-01	2.1669E-01	1.8841E-01
17 0.		1.5589E-01	6.230E-03	1.588E-01	1.6023E-01	2.1556E-01	1.8706E-01
18 0.		1.5581E-01	6.224E-03	1.577E-01	1.5873E-01	2.1444E-01	1.8574E-01
19 0.		1.5574E-01	6.220E-03	1.566E-01	1.5726E-01	2.1334E-01	1.8443E-01
20 0.		1.5567E-01	6.218E-03	1.555E-01	1.5581E-01	2.1225E-01	1.8315E-01
21 0.		1.5560E-01	6.218E-03	1.545E-01	1.5440E-01	2.1118E-01	1.8190E-01
22 0.		1.5553E-01	6.218E-03	1.535E-01	1.5303E-01	2.1013E-01	1.8067E-01
23 1.0000E+00		1.5553E-01	6.218E-03	1.549E-01	1.5640E-01	2.1524E-01	1.8512E-01
24 4.0000E+00		1.5553E-01	6.218E-03	1.543E-01	1.5816E-01	2.1980E-01	1.8868E-01
25 1.0000E+01		1.5553E-01	6.218E-03	1.578E-01	1.5907E-01	2.2352E-01	1.9153E-01
26 4.0000E+01		1.5553E-01	6.218E-03	1.588E-01	1.5501E-01	2.2892E-01	1.9345E-01
27 1.0000E+02		1.5553E-01	6.218E-03	1.584E-01	1.4638E-01	2.3381E-01	1.9284E-01
28 4.0000E+02		1.5553E-01	6.218E-03	1.600E-01	1.3163E-01	2.5308E-01	1.9859E-01
29 1.0000E+03		1.5553E-01	6.218E-03	1.654E-01	1.3073E-01	2.7646E-01	2.1328E-01
30 3.6000E+03		1.5553E-01	6.216E-03	1.803E-01	1.4988E-01	3.2558E-01	2.5084E-01
31 7.2000E+03		1.5553E-01	6.213E-03	1.813E-01	1.5074E-01	3.3591E-01	2.5554E-01
32 1.8000E+04		1.5552E-01	6.206E-03	1.745E-01	1.4250E-01	3.1106E-01	2.3637E-01
33 3.6000E+04		1.5552E-01	6.195E-03	1.700E-01	1.4462E-01	2.9165E-01	2.2762E-01
34 7.2000E+04		1.5551E-01	6.175E-03	1.599E-01	1.4020E-01	2.6523E-01	2.1236E-01
35 1.8000E+05		1.5550E-01	6.123E-03	1.351E-01	1.0951E-01	2.1712E-01	1.7244E-01
36 3.6000E+05		1.5548E-01	6.055E-03	1.119E-01	7.9514E-02	1.6557E-01	1.2938E-01
37 7.2000E+05		1.5544E-01	5.953E-03	7.734E-02	4.6985E-02	9.6810E-02	7.4959E-02
38 1.8000E+06		1.5540E-01	5.839E-03	2.412E-02	1.1760E-02	2.1623E-02	1.6867E-02
39 3.6000E+06		1.5540E-01	5.809E-03	4.582E-03	2.2911E-03	3.4784E-03	2.8496E-03
40 7.2000E+06		1.5542E-01	5.812E-03	1.574E-03	9.5131E-04	1.5944E-04	6.2276E-04
41 1.8000E+07		1.5543E-01	5.822E-03	2.675E-03	1.3467E-03	2.5964E-05	9.2933E-04
42 3.1536E+07		1.5542E-01	5.778E-03	3.997E-03	1.3909E-03	4.5253E-05	1.3906E-03
43 3.6000E+07		1.5541E-01	5.770E-03	4.395E-03	2.0861E-03	5.0149E-05	1.5360E-03
44 7.2000E+07		1.5537E-01	5.709E-03	7.622E-03	4.1798E-03	7.4298E-05	2.8101E-03
45 1.8000E+08		1.5524E-01	5.551E-03	1.474E-02	1.2574E-02	1.2560E-04	6.7088E-03

TABLE C-LVIII

TMI-2 IF OPERATED 24K HRS AT 2777. MW CONT. CINDER-10(LASL)8/79

SUMMARY OF PROGRAM OUTPUT

NITRILE GAS FRACTIONS

NITRILE GAS FRACTIONS OF TOTAL NUCLIDE VALUES

TS	COOLING TIME (S)	DENSITY	P-DENSITY	ACTIVITY	BETA	GAMMA	TOTAL
1 0.		1.5042E-01	6.855E-03	9.877E-02	9.6822E-02	9.2858E-02	9.4887E-02
2 0.		1.5042E-01	4.752E-03	9.474E-02	9.4276E-02	8.9993E-02	9.2180E-02
3 0.		1.5035E-01	3.092E-03	9.199E-02	9.2253E-02	8.7744E-02	9.0052E-02
4 0.		1.5026E-01	2.671E-03	8.991E-02	9.0531E-02	8.5912E-02	8.8302E-02
5 0.		1.5017E-01	2.298E-03	8.823E-02	8.9141E-02	8.4357E-02	8.6806E-02
6 0.		1.5007E-01	2.099E-03	8.687E-02	8.7863E-02	8.2994E-02	8.5493E-02
7 0.		1.4996E-01	1.934E-03	8.555E-02	8.6704E-02	8.1771E-02	8.4299E-02
8 0.		1.4986E-01	1.814E-03	8.441E-02	8.5632E-02	8.0649E-02	8.3204E-02
9 0.		1.4975E-01	1.719E-03	8.336E-02	8.4627E-02	7.9599E-02	8.2178E-02
10 0.		1.4964E-01	1.637E-03	8.237E-02	8.3672E-02	7.8606E-02	8.1206E-02
11 0.		1.4953E-01	1.562E-03	8.147E-02	8.2757E-02	7.7654E-02	8.0275E-02
12 0.		1.4942E-01	1.510E-03	8.052E-02	8.1873E-02	7.6733E-02	7.9374E-02
13 0.		1.4930E-01	1.458E-03	7.964E-02	8.1014E-02	7.5837E-02	7.8499E-02
14 0.		1.4919E-01	1.413E-03	7.872E-02	8.0176E-02	7.4960E-02	7.7643E-02
15 0.		1.4907E-01	1.371E-03	7.777E-02	7.9355E-02	7.4098E-02	7.6803E-02
16 0.		1.4896E-01	1.334E-03	7.715E-02	7.8549E-02	7.3249E-02	7.5977E-02
17 0.		1.4885E-01	1.300E-03	7.637E-02	7.7758E-02	7.2411E-02	7.5165E-02
18 0.		1.4873E-01	1.269E-03	7.567E-02	7.6980E-02	7.1595E-02	7.4365E-02
19 0.		1.4862E-01	1.240E-03	7.495E-02	7.6217E-02	7.0772E-02	7.3578E-02
20 0.		1.4851E-01	1.214E-03	7.411E-02	7.5469E-02	6.9971E-02	7.2806E-02
21 0.		1.4840E-01	1.192E-03	7.342E-02	7.4737E-02	6.9195E-02	7.2049E-02
22 0.		1.4830E-01	1.165E-03	7.270E-02	7.4023E-02	6.8414E-02	7.1308E-02
23 1.0000E+00		1.4830E-01	1.145E-03	7.288E-02	7.5448E-02	6.8526E-02	7.2069E-02
24 4.0000E+00		1.4830E-01	1.145E-03	7.293E-02	7.6268E-02	6.8209E-02	7.2277E-02
25 1.0000E+01		1.4830E-01	1.165E-03	7.317E-02	7.7323E-02	6.8201E-02	7.2723E-02
26 4.0000E+01		1.4830E-01	1.165E-03	7.296E-02	7.6312E-02	6.5819E-02	7.0855E-02
27 1.0000E+02		1.4830E-01	1.165E-03	7.213E-02	7.1783E-02	6.2979E-02	6.7104E-02
28 4.0000E+02		1.4830E-01	1.165E-03	6.994E-02	5.4051E-02	5.7636E-02	5.6028E-02
29 1.0000E+03		1.4830E-01	1.165E-03	6.951E-02	3.7697E-02	5.1160E-02	4.5324E-02
30 3.6000E+03		1.4830E-01	1.165E-03	6.124E-02	3.0395E-02	4.5702E-02	3.9191E-02
31 7.2000E+03		1.4830E-01	1.165E-03	6.387E-02	2.8930E-02	4.4852E-02	3.7941E-02
32 1.8000E+04		1.4831E-01	1.165E-03	6.704E-02	2.7971E-02	3.7335E-02	3.3186E-02
33 3.6000E+04		1.4831E-01	1.144E-03	6.941E-02	3.0150E-02	2.7847E-02	2.8850E-02
34 7.2000E+04		1.4832E-01	1.158E-03	6.944E-02	3.0622E-02	2.1087E-02	2.5110E-02
35 1.8000E+05		1.4833E-01	1.132E-03	6.367E-02	2.2600E-02	1.4070E-02	1.7611E-02
36 3.6000E+05		1.4833E-01	1.020E-03	5.725E-02	1.8640E-02	1.1530E-02	1.4521E-02
37 7.2000E+05		1.4833E-01	1.026E-03	4.113E-02	1.3185E-02	8.3697E-03	1.0481E-02
38 1.8000E+06		1.4832E-01	2.599E-04	1.171E-02	3.8018E-03	2.5249E-03	3.1406E-03
39 3.6000E+06		1.4833E-01	9.374E-04	2.065E-03	9.7492E-04	3.0501E-04	6.5980E-04
40 7.2000E+06		1.4833E-01	9.222E-04	1.475E-03	9.0570E-04	2.3179E-05	5.4000E-04
41 1.8000E+07		1.4832E-01	9.020E-04	2.675E-03	1.3467E-03	2.5956E-05	9.2932E-04
42 3.1535E+07		1.4830E-01	8.774E-04	3.997E-03	1.8909E-03	4.5250E-05	1.3906E-03
43 3.6000E+07		1.4829E-01	8.674E-04	4.395E-03	2.0861E-03	5.0145E-05	1.5360E-03
44 7.2000E+07		1.4825E-01	8.078E-04	7.622E-03	4.1799E-03	7.4292E-05	2.8101E-03
45 1.8000E+08		1.4813E-01	6.477E-04	1.474E-02	1.2574E-02	1.2559E-04	6.7088E-03

Fig. C-1.
TMI-2 gas fraction of total fission-product decay power.

Fig. C-2.
TMI-2 gas fractions of total fission-product density and curies

APPENDIX D

TMI-2 FUEL DECAY POWER SURVEY

In order to demonstrate the variation of decay power with irradiation and cooling times, a series of calculations have been performed to trace decay power of 2.96% enriched fuel over the cooling period $1 \text{ s} \leq t \leq 10^{13} \text{ s}$ following irradiation for periods in the range $1 \text{ s} \leq T \leq 3 \text{ years}$ at a power density of 33.8 kW/kg. The fuel specifications and power density are equivalent to those used in TMI-2 equilibrium core calculations described in Sec. VII B. of the text. The results of these calculations are given in Tables D-I through D-XI, which list actinide, fission-product and total decay power at 27 cooling times for each of the eleven irradiation cases. The total decay power values were summarized in Table VIII and Fig. 5 of the text. All decay power values are normalized to core power prior to shutdown. As in previous calculations, the EPRI-CINDER code was used to calculate actinide decay power values at all cooling times using exposure-dependent actinide cross sections and group flux ratios calculated with EPRI-CELL. The fission-product decay power values at cooling times $t \geq 10^5 \text{ s}$ were also calculated with this code.

Because of the absence of short-lived nuclides in the EPRI-CINDER fission-product library, decay power from fission products at short cooling times may be accurately calculated only with CINDER-10 or DKPOWR, which employs the pulse functions of ANS 5.1 STANDARD. The nuclide fission history of each EPRI-CINDER calculation was used in a companion DKPOWR calculation of fission-product decay power at cooling times $t \leq 4 \times 10^4 \text{ s}$. As previously described, the result of neutron absorption by fission-product nuclides during irradiation is a net increase in fission-product decay power. This increase is small at short cooling times for all realistic fuel irradiation histories; the effect is negligible if irradiation and cooling times are both brief. ANS 5.1 Standard offers an upper-bound absorption correction G_{max} , described in Appendix A, which may be used to account for the absorption effect in the absence of a specific, documented treatment. In the range of cooling times $1 \text{ s} \leq t \leq 4 \times 10^4 \text{ s}$, G_{max} monotonically increases fission-product decay power by 2% at $t = 1 \text{ s}$ to 9.8% at $t = 4 \times 10^4 \text{ s}$. Fission-product decay power values from DKPOWR tabulated here for irradiation times $T \leq 1 \text{ week}$ neglect the absorption effect; values tabulated for $T \geq 1 \text{ month}$

include the $G_{\max}$ absorption correction for cooling times $t \leq 4 \times 10^4$ s. The absorption effect is, of course, included in all fission-product decay power values from EPRI-CINDER for cooling times $t \geq 10^5$ s.

Examination of the data of Tables D-I through D-XI, as well as the summary data of Table VIII and Fig. 5 of the text, lead to several observations.

Total decay power diminishes rapidly following brief irradiation periods due to the absence of a substantial inventory of long-lived fission-product and actinide nuclides produced in the fuel. Conversely, total decay power decreases more slowly with cooling time for longer irradiations because of the buildup of long-lived nuclides. The fractional contribution of actinide nuclides to the total decay power immediately following shutdown increases with irradiation time. For shorter irradiation times this may be viewed in terms of the rapid saturation of some short-lived fission products relative to ^{239}U and ^{239}Np , which strongly dominate actinide decay power during the first few days of cooling. Actinide decay power following very long irradiations contributes a greater fraction of the total decay power due to a number of factors. Fission-products are produced at a rate proportional to the fission rate; actinide nuclides are produced at a rate approximately proportional to the flux level, though diminished by actinide cross-section self-shielding as inventories increase. During these constant-power calculations the flux level increases due to depletion and reduced macroscopic fission cross section. The fission rate, however, slowly decreases due to the growing fission contributions of ^{239}Pu and ^{241}Pu , which yield slightly larger amounts of recoverable energy per fission (Q). *Q values for a variety of fissionable nuclides and incident neutron energies, including the appropriate LWR values used in EPRI-CINDER, are listed in Table D-XII.* Also, the fission products of ^{239}Pu following extended irradiation yield considerably lower decay power at small cooling times, as described in Appendix A.

Of the 11 irradiation cases calculated, the 1-month irradiation results in the highest total decay power at cooling times $t \lesssim 60$ s. It is interesting to note from the tabulated data that actinide decay power at any cooling time increases with irradiation time (or exposure). It is the fission-product contribution to decay power that is responsible for the elevated heating rate at these cooling times. The description of nuclide fission rates as functions of irradiation time T could be used with the functional

heating rates $F(t,T)$, defined by Eq. (2) and Appendix A, to determine the irradiation time T for which the fission-product decay power is a maximum. Such an exercise has not been conducted here.

Total decay power at very long cooling times is dominated by actinide nuclides in all cases. The general relationship between actinide and fission-product contributions to decay power is examined for several LWR systems in Appendix E.

TABLE D-1
TMI-2 FUEL DECAY POWER SURVEY
DECAY POWER FRACTION OF OPERATIONAL POWER FOLLOWING
SUSTAINED POWER AT 33.8 kW/kg FOR 1 SECOND

Cooling Time(s)	Fraction of Operational Power		
	Actinides	Fission Products	Total
1.00+0	6.365-07	3.176-03	3.177-03
4.00+0	6.356-07	1.569-03	1.570-03
1.00+1	6.337-07	7.195-04	7.201-04
4.00+1	6.245-07	1.750-04	1.756-04
1.00+2	6.065-07	6.415-05	6.476-05
4.00+2	5.242-07	1.176-05	1.228-05
1.00+3	3.918-07	4.711-06	5.103-06
4.00+3	9.412-08	9.716-07	1.066-06
1.00+4	1.036-08	2.887-07	2.991-07
4.00+4	5.357-09	4.563-08	5.099-08
1.00+5	4.714-09	1.188-08	1.660-08
4.00+5	2.898-09	1.928-09	4.826-09
1.00+6	2.009-09	7.831-10	2.792-09
4.00+6	1.876-09	1.545-10	2.030-09
1.00+7	1.876-09	4.807-11	1.924-09
4.00+7	1.876-09	5.149-12	1.881-09
1.00+8	1.876-09	1.166-12	1.877-09
4.00+8	1.876-09	3.238-13	1.876-09
1.00+9	1.875-09	2.025-13	1.876-09
4.00+9	1.875-09	2.076-14	1.875-09
1.00+10	1.874-09	2.347-16	1.874-09
4.00+10	1.870-09	1.973-18	1.870-09
1.00+11	1.862-09	1.943-18	1.862-09
4.00+11	1.820-09	1.840-18	1.820-09
1.00+12	1.740-09	1.652-18	1.740-09
4.00+12	1.399-09	1.009-18	1.399-09
1.00+13	9.400-10	4.918-19	9.400-10

TABLE D-II

TMI-2 FUEL DECAY POWER SURVEY

DECAY POWER FRACTION OF OPERATIONAL POWER FOLLOWING
SUSTAINED POWER AT 33.8 kW/kg FOR 10 SECONDS

Cooling Time(s)	Fraction of Operational Power		
	Actinides	Fission Products	Total
1.00+0	6.334-06	1.493-02	1.493-02
4.00+0	6.325-06	9.239-03	9.245-03
1.00+1	6.306-06	5.187-03	5.193-03
4.00+1	6.215-06	1.576-03	1.583-03
1.00+2	6.035-06	6.090-04	6.150-04
4.00+2	5.213-06	1.162-04	1.214-04
1.00+3	3.892-06	4.690-05	5.079-05
4.00+3	9.224-07	9.702-06	1.062-05
1.00+4	8.657-08	2.885-06	2.972-06
4.00+4	3.669-08	4.563-07	4.930-07
1.00+5	3.026-08	1.188-07	1.491-07
4.00+5	1.210-08	1.928-08	3.137-08
1.00+6	3.209-09	7.831-09	1.104-08
4.00+6	1.876-09	1.545-09	3.421-09
1.00+7	1.876-09	4.807-10	2.356-09
4.00+7	1.876-09	5.149-11	1.927-09
1.00+8	1.876-09	1.166-11	1.887-09
4.00+8	1.876-09	3.238-12	1.879-09
1.00+9	1.876-09	2.025-12	1.878-09
4.00+9	1.875-09	2.076-13	1.875-09
1.00+10	1.874-09	2.347-15	1.874-09
4.00+10	1.870-09	1.973-17	1.870-09
1.00+11	1.862-09	1.943-17	1.862-09
4.00+11	1.820-09	1.840-17	1.820-09
1.00+12	1.740-09	1.652-17	1.740-09
4.00+12	1.399-09	1.009-17	1.399-09
1.00+13	9.400-10	4.918-18	9.400-10

TABLE D-III

TMI-2 FUEL DECAY POWER SURVEY

DECAY POWER FRACTION OF OPERATIONAL POWER FOLLOWING
SUSTAINED POWER AT 33.8 kW/kg FOR 100 SECONDS

<u>Cooling Time(s)</u>	<u>Fraction of Operational Power</u>		
	<u>Actinides</u>	<u>Fission Products</u>	<u>Total</u>
1.00+0	6.195-05	3.074-02	3.080-02
4.00+0	6.186-05	2.342-02	2.348-02
1.00+1	6.168-05	1.708-02	1.714-02
4.00+1	6.078-05	8.386-03	8.447-03
1.00+2	5.903-05	4.130-03	4.189-03
4.00+2	5.099-05	1.044-03	1.095-03
1.00+3	3.807-05	4.493-04	4.873-04
4.00+3	9.015-06	9.560-05	1.046-04
1.00+4	8.388-07	2.868-05	2.952-05
4.00+4	3.500-07	4.556-06	4.906-06
1.00+5	2.857-07	1.188-06	1.473-06
4.00+5	1.041-07	1.927-07	2.968-07
1.00+6	1.520-08	7.831-08	9.351-08
4.00+6	1.881-09	1.545-08	1.733-08
1.00+7	1.877-09	4.806-09	6.683-09
4.00+7	1.877-09	5.149-10	2.392-09
1.00+8	1.877-09	1.166-10	1.994-09
4.00+8	1.877-09	3.238-11	1.909-09
1.00+9	1.877-09	2.025-11	1.897-09
4.00+9	1.876-09	2.076-12	1.878-09
1.00+10	1.876-09	2.347-14	1.876-09
4.00+10	1.871-09	1.973-16	1.871-09
1.00+11	1.863-09	1.943-16	1.863-09
4.00+11	1.821-09	1.840-16	1.821-09
1.00+12	1.741-09	1.652-16	1.741-09
4.00+12	1.399-09	1.009-16	1.399-09
1.00+13	9.401-10	4.918-17	9.401-10

TABLE D-IV

TMI-2 FUEL DECAY POWER SURVEY

DECAY POWER FRACTION OF OPERATIONAL POWER FOLLOWING
SUSTAINED POWER AT 33.8 kW/kg FOR 1000 SECONDS

Cooling Time(s)	<u>Fraction of Operational Power</u>		
	<u>Actinides</u>	<u>Fission Products</u>	<u>Total</u>
1.00+0	5.023-04	4.258-02	4.308-02
4.00+0	5.016-04	3.509-02	3.559-02
1.00+1	5.001-04	2.841-02	2.891-02
4.00+1	4.928-04	1.838-02	1.887-02
1.00+2	4.786-04	1.235-02	1.283-02
4.00+2	4.135-04	5.877-03	6.290-03
1.00+3	3.089-04	3.242-03	3.551-03
4.00+3	7.371-05	8.361-04	9.098-04
1.00+4	7.505-06	2.710-04	2.785-04
4.00+4	3.478-06	4.490-05	4.838-05
1.00+5	2.835-06	1.181-05	1.464-05
4.00+5	1.022-06	1.925-06	2.948-06
1.00+6	1.349-07	7.827-07	9.177-07
4.00+6	1.932-09	1.545-07	1.564-07
1.00+7	1.889-09	4.806-08	4.995-08
4.00+7	1.889-09	5.149-09	7.038-09
1.00+8	1.889-09	1.166-09	3.055-09
4.00+8	1.889-09	3.238-10	2.213-09
1.00+9	1.889-09	2.025-10	1.840-09
4.00+9	1.888-09	2.076-11	1.909-09
1.00+10	1.887-09	2.347-13	1.888-09
4.00+10	1.883-09	1.973-15	1.883-09
1.00+11	1.874-09	1.943-15	1.874-09
4.00+11	1.829-09	1.839-15	1.829-09
1.00+12	1.745-09	1.652-15	1.745-09
4.00+12	1.400-09	1.009-15	1.400-09
1.00+13	9.401-10	4.915-16	9.401-10

TABLE D-V

TMI-2 FUEL DECAY POWER SURVEY

DECAY POWER FRACTION OF OPERATIONAL POWER FOLLOWING
SUSTAINED POWER AT 33.8 kW/kg FOR 1 HOUR

Cooling Time(s)	<u>Fraction of Operational Power</u>		
	<u>Actinides</u>	<u>Fission Products</u>	<u>Total</u>
1.00+0	1.078-03	4.836-02	4.944-02
4.00+0	1.077-03	4.086-02	4.193-02
1.00+1	1.074-03	3.416-02	3.524-02
4.00+1	1.059-03	2.402-02	2.508-02
1.00+2	1.028-03	1.779-02	1.882-02
4.00+2	8.892-04	1.050-02	1.138-02
1.00+3	6.657-04	6.734-03	7.400-03
4.00+3	1.632-04	2.246-03	2.409-03
1.00+4	2.161-05	8.440-04	8.656-04
4.00+4	1.246-05	1.552-04	1.677-04
1.00+5	1.016-05	4.182-05	5.198-05
4.00+5	3.660-06	6.907-06	1.057-05
1.00+6	4.788-07	2.814-06	3.293-06
4.00+6	2.077-09	5.558-07	5.579-07
1.00+7	1.924-09	1.730-07	1.749-07
4.00+7	1.923-09	1.854-08	2.046-08
1.00+8	1.923-09	4.199-09	6.122-09
4.00+8	1.923-09	1.166-09	3.089-09
1.00+9	1.923-09	7.289-10	2.652-09
4.00+9	1.923-09	7.474-11	1.997-09
1.00+10	1.922-09	8.451-13	1.922-09
4.00+10	1.916-09	7.096-15	1.916-09
1.00+11	1.905-09	6.989-15	1.905-09
4.00+11	1.853-09	6.617-15	1.853-09
1.00+12	1.759-09	5.942-15	1.759-09
4.00+12	1.400-09	3.626-15	1.400-09
1.00+13	9.401-10	1.765-15	9.401-10

TABLE D-VI

TMI-2 FUEL DECAY POWER SURVEY

DECAY POWER FRACTION OF OPERATIONAL POWER FOLLOWING
SUSTAINED POWER AT 33.8 kW/kg FOR 1 DAY

<u>Cooling Time(s)</u>	<u>Fraction of Operational Power</u>		
	<u>Actinides</u>	<u>Fission Products</u>	<u>Total</u>
1.00+0	1.582-03	5.622-02	5.780-02
4.00+0	1.580-03	4.872-02	5.030-02
1.00+1	1.577-03	4.202-02	4.360-02
4.00+1	1.558-03	3.186-02	3.341-02
1.00+2	1.521-03	2.557-02	2.709-02
4.00+2	1.353-03	1.797-02	1.932-02
1.00+3	1.083-03	1.369-02	1.477-02
4.00+3	4.744-04	7.534-03	8.008-03
1.00+4	2.981-04	4.546-03	4.844-03
4.00+4	2.606-04	1.698-03	1.958-03
1.00+5	2.124-04	6.550-04	8.675-04
4.00+5	7.653-05	1.504-04	2.269-04
1.00+6	9.988-06	6.477-05	7.476-05
4.00+6	6.534-09	1.315-05	1.315-05
1.00+7	3.026-09	4.129-06	4.132-06
4.00+7	3.023-09	4.439-07	4.469-07
1.00+8	3.023-09	1.006-07	1.037-07
4.00+8	3.023-09	2.796-08	3.099-08
1.00+9	3.022-09	1.748-08	2.051-08
4.00+9	3.019-09	1.793-09	4.811-09
1.00+10	3.011-09	2.026-11	3.032-09
4.00+10	2.976-09	1.626-13	2.977-09
1.00+11	2.909-09	1.600-13	2.909-09
4.00+11	2.616-09	1.511-13	2.616-09
1.00+12	2.200-09	1.350-13	2.200-09
4.00+12	1.429-09	7.362-14	1.429-09
1.00+13	9.402-10	3.538-14	9.402-10

TABLE D-VII

TMI-2 FUEL DECAY POWER SURVEY

DECAY POWER FRACTION OF OPERATIONAL POWER FOLLOWING
SUSTAINED POWER AT 33.8 kW/kg FOR 1 WEEK

Cooling Time(s)	Fraction of Operational Power		
	Actinides	Fission Products	Total
1.00+0	2.265-03	5.804-02	6.031-02
4.00+0	2.264-03	5.055-02	5.282-02
1.00+1	2.260-03	4.386-02	4.612-02
4.00+1	2.241-03	3.370-02	3.594-02
1.00+2	2.205-03	2.742-02	2.962-02
4.00+2	2.040-03	1.982-02	2.186-02
1.00+3	1.773-03	1.553-02	1.730-02
4.00+3	1.169-03	9.330-03	1.050-02
1.00+4	9.816-04	6.266-03	7.248-03
4.00+4	8.778-04	2.721-03	3.599-03
1.00+5	7.157-04	1.718-03	2.434-03
4.00+5	2.581-04	7.156-04	9.737-04
1.00+6	3.385-05	3.653-04	3.992-04
4.00+6	2.826-08	8.472-05	8.475-05
1.00+7	9.861-09	2.804-05	2.805-05
4.00+7	9.848-09	3.076-06	3.085-06
1.00+8	9.848-09	7.020-07	7.119-07
4.00+8	9.849-09	1.956-07	2.054-07
1.00+9	9.847-09	1.223-07	1.321-07
4.00+9	9.823-09	1.254-08	2.236-08
1.00+10	9.773-09	1.414-10	9.915-09
4.00+10	9.544-09	1.104-12	9.545-09
1.00+11	9.116-09	1.086-12	9.117-09
4.00+11	7.312-09	1.023-12	7.313-09
1.00+12	4.905-09	9.101-13	4.906-09
4.00+12	1.603-09	5.215-13	1.603-09
1.00+13	9.411-10	2.123-13	9.413-10

TABLE D-VIII

TMI-2 FUEL DECAY POWER SURVEY

DECAY POWER FRACTION OF OPERATIONAL POWER FOLLOWING
SUSTAINED POWER AT 33.8 kW/kg FOR 1 MONTH

Cooling Time(s)	Fraction of Operational Power		
	Actinides	Fission Products	Total
1.00+0	2.421-03	6.016-02	6.258-02
4.00+0	2.419-03	5.261-02	5.503-02
1.00+1	2.415-03	4.587-02	4.829-02
4.00+1	2.397-03	3.553-02	3.793-02
1.00+2	2.360-03	2.916-02	3.152-02
4.00+2	2.194-03	2.151-02	2.370-02
1.00+3	1.926-03	1.718-02	1.911-02
4.00+3	1.317-03	1.093-02	1.225-02
1.00+4	1.126-03	7.364-03	8.490-03
4.00+4	1.008-03	4.621-03	5.630-03
1.00+5	8.224-04	2.742-03	3.564-03
4.00+5	2.973-04	1.531-03	1.828-03
1.00+6	3.955-05	9.379-04	9.774-04
4.00+6	7.861-08	2.824-05	2.825-04
1.00+7	3.674-08	1.080-04	1.080-04
4.00+7	3.677-08	1.276-05	1.280-05
1.00+8	3.690-08	2.990-06	3.027-06
4.00+8	3.738-08	8.348-07	8.722-07
1.00+9	3.783-08	5.215-07	5.593-07
4.00+9	3.773-08	5.346-08	9.120-08
1.00+10	3.704-08	6.001-10	3.764-08
4.00+10	3.510-08	4.856-12	3.510-08
1.00+11	3.284-08	4.781-12	3.285-08
4.00+11	2.472-08	4.503-12	2.473-08
1.00+12	1.471-08	4.000-12	1.472-08
4.00+12	2.228-09	2.275-12	2.230-09
1.00+13	9.445-10	9.045-13	9.454-10

TABLE D-IX

TMI-2 FUEL DECAY POWER SURVEY

DECAY POWER FRACTION OF OPERATIONAL POWER FOLLOWING
SUSTAINED POWER AT 33.8 kW/kg FOR 1 YEAR

<u>Cooling Time(s)</u>	<u>Fraction of Operational Power</u>		
	<u>Actinides</u>	<u>Fission Products</u>	<u>Total</u>
1.00+0	2.660-03	5.758-02	6.024-02
4.00+0	2.658-03	5.070-02	5.336-02
1.00+1	2.654-03	4.457-02	4.723-02
4.00+1	2.634-03	3.509-02	3.772-02
1.00+2	2.594-03	2.915-02	3.174-02
4.00+2	2.413-03	2.191-02	2.432-02
1.00+3	2.122-03	1.771-02	1.983-02
4.00+3	1.460-03	1.162-02	1.308-02
1.00+4	1.252-03	8.712-03	9.964-03
4.00+4	1.122-03	5.254-03	6.376-03
1.00+5	9.171-04	3.886-03	4.803-03
4.00+5	3.382-04	2.604-03	2.942-03
1.00+6	5.113-05	1.887-03	1.938-03
4.00+6	2.708-06	9.274-04	9.301-04
1.00+7	2.046-06	4.926-04	4.946-04
4.00+7	1.019-06	1.135-04	1.145-04
1.00+8	8.070-07	3.351-05	3.431-05
4.00+8	1.127-06	9.540-06	1.067-05
1.00+9	1.452-06	5.854-06	7.306-06
4.00+9	1.468-06	5.999-07	2.068-06
1.00+10	1.147-06	6.670-09	1.153-06
4.00+10	5.232-07	7.644-11	5.233-07
1.00+11	3.299-07	7.545-11	3.300-07
4.00+11	1.986-07	7.095-11	1.987-07
1.00+12	9.629-08	6.279-11	9.635-08
4.00+12	7.210-09	3.484-11	7.245-09
1.00+13	1.077-09	1.272-11	1.089-09

TABLE D-X

TMI-2 FUEL DECAY POWER SURVEY

DECAY POWER FRACTION OF OPERATIONAL POWER FOLLOWING
SUSTAINED POWER AT 33.8 kW/kg FOR 2 YEARS

Cooling Time(s)	Fraction of Operational Power		
	Actinides	Fission Products	Total
1.00+0	3.006-03	5.548-02	5.848-02
4.00+0	3.003-03	4.895-02	5.196-02
1.00+1	2.999-03	4.316-02	4.616-02
4.00+1	2.976-03	3.414-02	3.711-02
1.00+2	2.933-03	2.844-02	3.137-02
4.00+2	2.732-03	2.146-02	2.419-02
1.00+3	2.409-03	1.736-02	1.976-02
4.00+3	1.675-03	1.139-02	1.307-02
1.00+4	1.442-03	8.586-03	1.003-02
4.00+4	1.293-03	5.786-03	7.079-03
1.00+5	1.061-03	4.012-03	5.073-03
4.00+5	4.074-04	2.731-03	3.138-03
1.00+6	8.149-05	2.006-03	2.087-03
4.00+6	2.128-05	1.043-03	1.070-03
1.00+7	1.627-05	6.118-04	6.281-04
4.00+7	5.800-06	1.881-04	1.946-04
1.00+8	3.036-06	6.335-05	6.638-05
4.00+8	3.612-06	1.822-05	2.184-05
1.00+9	4.257-06	1.096-05	1.521-05
4.00+9	3.885-06	1.120-06	5.005-06
1.00+10	2.811-06	1.255-08	2.824-06
4.00+10	1.048-06	1.731-10	1.048-06
1.00+11	5.436-07	1.709-10	5.438-07
4.00+11	2.930-07	1.606-10	2.932-07
1.00+12	1.272-07	1.419-10	1.274-07
4.00+12	9.330-09	7.793-11	9.408-09
1.00+13	1.587-09	2.735-11	1.614-09

TABLE D-XI

TMI-2 FUEL DECAY POWER SURVEY

DECAY POWER FRACTION OF OPERATIONAL POWER FOLLOWING
SUSTAINED POWER AT 33.8 kW/kg FOR 3 YEARS

Cooling Time(s)	Fraction of Operational Power		
	Actinides	Fission Products	Total
1.00+0	3.384-03	5.370-02	5.708-02
4.00+0	3.382-03	4.744-02	5.082-02
1.00+1	3.377-03	4.189-02	4.527-02
4.00+1	3.352-03	3.323-02	3.658-02
1.00+2	3.304-03	2.773-02	3.103-02
4.00+2	3.082-03	2.096-02	2.404-02
1.00+3	2.726-03	1.696-02	1.968-02
4.00+3	1.916-03	1.113-02	1.305-02
1.00+4	1.658-03	8.413-03	1.007-02
4.00+4	1.487-03	5.726-03	7.213-03
1.00+5	1.225-03	4.093-03	5.318-03
4.00+5	4.948-04	2.817-03	3.311-03
1.00+6	1.301-04	2.088-03	2.218-03
4.00+6	5.713-05	1.133-03	1.190-03
1.00+7	4.425-05	6.989-04	7.431-04
4.00+7	1.627-05	2.514-04	2.677-04
1.00+8	8.482-06	9.156-05	1.000-04
4.00+8	8.223-06	2.623-05	3.445-05
1.00+9	8.039-06	1.550-05	2.354-05
4.00+9	6.058-06	1.583-06	7.641-06
1.00+10	4.071-06	1.788-08	4.089-06
4.00+10	1.404-06	2.800-10	1.404-06
1.00+11	6.794-07	2.764-10	6.797-07
4.00+11	3.436-07	2.597-10	3.438-07
1.00+12	1.378-07	2.293-10	1.381-07
4.00+12	1.067-08	1.251-10	1.079-08
1.00+13	2.427-09	4.286-11	2.470-09

TABLE D-XII

CALCULATION OF RECOVERABLE ENERGY PER FISSION, Q

Nuclide	Q'_{tot}^a	E_v^a	E_{inc}^a	$\bar{Q}$	$\nu_T(E_{\text{inc}})^b$	E_c	Q
^{232}Th	196.05 $\pm$ 0.20	10.94 $\pm$ 0.11					
Fast			3.35 $\pm$ 0.10	188.46 $\pm$ 0.25	2.420 $\pm$ 0.121	8.52 $\pm$ 0.85	196.98 $\pm$ 0.89
14 MeV			14.00 $\pm$ 0.20	199.11 $\pm$ 0.30	3.922 $\pm$ 0.196	17.64 $\pm$ 1.49	216.75 $\pm$ 1.52
^{233}Pa	196.76 $\pm$ 1.28	9.41 $\pm$ 1.10					
Fast			3.00 $\pm$ 0.30	190.35 $\pm$ 1.71	2.650 $\pm$ 0.132 ^c	9.92 $\pm$ 0.95	200.27 $\pm$ 1.96
^{233}U	198.15 $\pm$ 0.12	6.84 $\pm$ 0.07					
Thermal			0.03 $\pm$ 0.01	191.34 $\pm$ 0.14	2.495 $\pm$ 0.125	8.98 $\pm$ 0.89	200.32 $\pm$ 0.90
Fast			0.50 $\pm$ 0.10	191.81 $\pm$ 0.17	2.515 $\pm$ 0.125	9.10 $\pm$ 0.89	200.91 $\pm$ 0.91
14 MeV			14.00 $\pm$ 0.20	205.31 $\pm$ 0.24	4.270 $\pm$ 0.214	19.75 $\pm$ 1.64	225.06 $\pm$ 1.66
^{234}U	197.88 $\pm$ 0.83	8.15 $\pm$ 1.10					
Fast			2.36 $\pm$ 0.10	192.09 $\pm$ 1.38	2.665 $\pm$ 0.133	10.01 $\pm$ 0.95	202.10 $\pm$ 1.68
^{235}U	202.69 $\pm$ 0.06	8.62 $\pm$ 0.09					
Thermal			0.03 $\pm$ 0.01	194.10 $\pm$ 0.11	2.422 $\pm$ 0.121	8.54 $\pm$ 0.85	202.64 $\pm$ 0.86
Fast			0.50 $\pm$ 0.10	194.57 $\pm$ 0.15	2.472 $\pm$ 0.124	8.84 $\pm$ 0.88	203.41 $\pm$ 0.89
14 MeV			14.00 $\pm$ 0.20	208.07 $\pm$ 0.23	4.377 $\pm$ 0.219	20.40 $\pm$ 1.68	228.47 $\pm$ 1.70
^{236}U	201.93 $\pm$ 0.23	9.87 $\pm$ 1.10					
Fast			2.37 $\pm$ 0.10	194.43 $\pm$ 1.13	2.781 $\pm$ 0.139	10.71 $\pm$ 1.00	205.14 $\pm$ 1.51
^{238}U	206.13 $\pm$ 0.26	11.04 $\pm$ 0.11					
Fast			3.10 $\pm$ 0.10	198.19 $\pm$ 0.30	2.790 $\pm$ 0.140	10.77 $\pm$ 1.01	208.96 $\pm$ 1.05
14 MeV			14.00 $\pm$ 0.20	209.09 $\pm$ 0.35	4.424 $\pm$ 0.221	20.68 $\pm$ 1.70	229.77 $\pm$ 1.74
^{237}Np	202.34 $\pm$ 0.86	8.36 $\pm$ 1.10					
Fast			2.37 $\pm$ 0.10	191.61 $\pm$ 1.40	3.046 $\pm$ 0.152	12.32 $\pm$ 1.12	203.93 $\pm$ 1.79
^{238}Pu	204.72 $\pm$ 0.28	7.28 $\pm$ 1.10					
Thermal			0.03 $\pm$ 0.01	197.47 $\pm$ 1.14	2.895 $\pm$ 0.145	11.41 $\pm$ 1.05	208.88 $\pm$ 1.55
^{239}Pu	207.20 $\pm$ 0.13	7.10 $\pm$ 0.07					
Thermal			0.03 $\pm$ 0.01	200.13 $\pm$ 0.15	2.880 $\pm$ 0.144	11.31 $\pm$ 1.05	211.44 $\pm$ 1.06
Fast			0.50 $\pm$ 0.10	200.60 $\pm$ 0.18	2.937 $\pm$ 0.147	11.66 $\pm$ 1.07	212.26 $\pm$ 1.09
14 MeV			14.00 $\pm$ 0.20	214.10 $\pm$ 0.25	4.899 $\pm$ 0.245	23.57 $\pm$ 1.91	237.67 $\pm$ 1.93
^{240}Pu	205.80 $\pm$ 0.24	8.64 $\pm$ 1.10					
Fast			2.39 $\pm$ 0.10	199.55 $\pm$ 1.13	2.937 $\pm$ 0.147	11.66 $\pm$ 1.07	211.21 $\pm$ 1.56
^{241}Pu	210.97 $\pm$ 0.22	8.80 $\pm$ 0.09					
Thermal			0.03 $\pm$ 0.01	202.20 $\pm$ 0.24	2.868 $\pm$ 0.143	11.24 $\pm$ 1.04	213.44 $\pm$ 1.07
Fast			0.50 $\pm$ 0.10	202.67 $\pm$ 0.26	2.945 $\pm$ 0.147	11.71 $\pm$ 1.07	214.38 $\pm$ 1.10
^{242}Pu	209.60 $\pm$ 1.40	10.34 $\pm$ 1.10					
Fast			2.32 $\pm$ 0.10	201.58 $\pm$ 1.78	3.309 $\pm$ 0.165	13.92 $\pm$ 1.23	215.50 $\pm$ 2.16
^{241}Am	209.64 $\pm$ 0.28	7.55 $\pm$ 1.10					
Thermal			0.03 $\pm$ 0.01	202.12 $\pm$ 1.14	2.910 $\pm$ 0.146	11.50 $\pm$ 1.06	213.62 $\pm$ 1.56
^{242m}Am	212.31 $\pm$ 1.06 ^b	10.02 $\pm$ 0.60 ^b					
Thermal			0.03 $\pm$ 0.01	202.32 $\pm$ 1.22	3.090 $\pm$ 0.155	12.59 $\pm$ 1.14	214.91 $\pm$ 1.67
^{243}Am	209.98 $\pm$ 1.64	8.81 $\pm$ 1.10					
Fast			3.00 $\pm$ 0.50	204.17 $\pm$ 2.04	3.831 $\pm$ 0.192	17.08 $\pm$ 1.45	221.25 $\pm$ 2.50
^{243}Cm	212.44 $\pm$ 1.06 ^b	8.47 $\pm$ 0.51 ^b					
Thermal			0.03 $\pm$ 0.01	204.00 $\pm$ 1.18	3.430 $\pm$ 0.172	14.65 $\pm$ 1.28	218.65 $\pm$ 1.74
^{244}Cm	211.67 $\pm$ 0.54	8.50 $\pm$ 1.10					
Thermal			0.03 $\pm$ 0.01	203.20 $\pm$ 1.23	3.460 $\pm$ 0.173	14.83 $\pm$ 1.29	218.03 $\pm$ 1.78

a = R. Sher and C. Beck, private communication, b = ENDF/B-V, c = ENDF/B-IV

APPENDIX E

ACTINIDE DECAY POWER IN LWR SYSTEMS

Following the development and approval of the new ANS 5.1 Standard for decay power, a series of calculations were performed to investigate the temporal magnitude of actinide decay power. The standard, described in the text and in Appendix A, incorporated the results of experiments and summation calculations into useful pulse functions for $^{235}\text{U}/^{238}\text{U}$ fuels. However, the standard provides little information on actinide decay power, limiting discussion to ^{239}U and ^{239}Np . The graphical results of these calculations, presented in part in Ref. 15 of the text, are included here to demonstrate the importance of actinide decay power in general and individual nuclides in particular.

The fuel cases examined, described in Table E-I, consist of 4 LWR systems. As in previous calculations, the EPRI-CINDER code was used in calculating temporal fission histories, flux levels, and actinide decay power values using exposure-dependent, self-shielded actinide cross-sections calculated with EPRI-CELL. The nuclide fission histories for case 1A, for example, are shown in Fig. E-1. The EPRI-CINDER code was also used to provide fission-product decay power values for cooling times $t \geq 10^5$ s. Fission-product decay power values at cooling times $t \leq 4 \times 10^4$ s were obtained with DKPOWR using the nuclide fission history from EPRI-CINDER and the G_{max} absorption correction. The fission-product decay power for case 1A, using the nuclide fission history of Fig. E-1, is shown in Fig. E-2. In the cooling-time range 10^5 s $\leq t \leq 10^9$ s within which both solutions of fission-product decay power are valid, the absorption effect accurately included in the EPRI-CINDER calculation is seen to be considerably less than the G_{max} correction to the fission-product decay power calculated with DKPOWR, using the standard.

The actinide nuclide library of EPRI-CINDER includes all actinide nuclides from ^{208}Tl to ^{246}Cm important to a variety of actinide calculations. Those nuclides important to decay power in $^{235}\text{U}/^{238}\text{U}$ fuel, ranging from ^{234}U to ^{244}Cm , are shown in Fig. E-3. Because of the high density of ^{238}U , most of the higher-mass actinide production stems from ^{238}U radiative capture. The temporal fractional contribution of each actinide nuclide for case 1A

is shown in Fig. E-4, and the aggregate fission-product and actinide decay power values are compared in Fig. E-5. The fractional contribution of actinides to decay power in this case is shown in Fig. E-6.

Early calculations performed to estimate TMI-2 decay power assumed an 88-day constant-power history. Actinide-nuclides important to decay power following this brief power history are fewer in number, as shown in Fig. E-7. Actinide and fission-product contributions to total decay power, compared in Fig. E-8, decay more rapidly following the first day of cooling. The slight increase in actinide decay power at cooling times $t > 10^7$ s is due to the buildup of ^{241}Am via ^{241}Pu decay. The case 1 actinide fraction of total decay power following four irradiation histories are compared in Fig. E-9.

Actinide nuclides important to BWR fuel decay power are examined in Fig. E-10. In these calculations, self-shielded actinide cross sections were obtained with EPRI-CELL assuming 40% void in the coolant water. Complexities of BWR design, including void fraction variation with height from 0% to ~70%, inhibit the modeling of total core properties using core-averaged parameters.

The actinide fraction of total decay power for the three cases of $^{235}\text{U}/^{238}\text{U}$ fuel following 34 Gwd/t exposure are compared in Fig. E-11. With reference to Fig. E-9, the temporal actinide fraction of total decay power appears to be more strongly related to exposure than initial enrichment, suggesting a functional approximation to account for actinide decay power equivalent to G of the standard accounting for fission-product neutron absorption. The envelope of actinide fractions of all $^{235}\text{U}/^{238}\text{U}$ fuel cases is used to form an "actinide correction factor" and compared to the similar G_{max} of the standard in Fig. E-12. Here the importance of actinide decay power during early cooling times important to LOCA is clearly much more significant than the effect of neutron absorption in fission products.

The nuclides important to actinide decay power in $^{232}\text{Th}/^{233}\text{U}$ fuel range from ^{208}Tl and other ^{232}U decay products to ^{238}Pu , as shown in Fig. E-13. The temporal contributions of each of these nuclides to actinide decay power are shown in Fig. E-14 for the case 4 fuel. Fission-product decay power was calculated as before with DKPOWER for $t \leq 4 \times 10^4$ s using the ^{235}U pulse function to represent ^{233}U . This substitution is not specifically sanctioned by the standard and is used here simply to form an approximate basis for the comparison with actinide decay power shown in Fig. E-15. The increase in actinide decay

at cooling times $t > 10^7$ s is due to the transient buildup and decay of ^{232}U following shutdown. The temporal fractional contribution of actinide nuclides in this $^{232}\text{Th}/^{233}\text{U}$ system is shown in Fig. E-16.

It is shown in the figures below that, at any cooling time, very few nuclides are responsible for actinide decay power in $^{235}\text{U}/^{238}\text{U}$ fuel. This has been emphasized in the comparison with the number of significant fission-product decay power contributors in Fig. B-1 of Appendix B.

TABLE E-I

SUMMARY OF FUEL CASES STUDIED

1. PWR, 2.56 % U235/U238, 273W/cc
 - A. 34 GWD/MT (1082 days)
 - B. 15 GWD/MT (477 days)
 - C. 2.765 GWD/MT (88 days)
 - D. 0.1 GWD/MT (3.18 days)
2. PWR, 3.1% U235/U238, 273W/cc
34 GWD/MT (1082 days)
3. BWR, 2.95% U235/U238, 158W/cc
40% Void
34 GWD/MT (1909 days)
4. PWR, 2.95% U233/TH232, 328W/cc
C.E. System 80
34 GWD/MT (835 days)

Fig. E-1.
Nuclide fission history, case 1A,
PWR, 2.56% U235/U238 fuel, 34 GWD/MT, 1082 days.

Fig. E-2.
Fission-product decay power, case 1A,
PWR, 2.56% U235/U238 fuel, 34 GWD/MT, 1082 days.

Fig. E-3.
Actinide nuclides important to decay power
in U235/U238-fueled light water reactors.

Fig. E-4.
Nuclide contributors to actinide decay power, case 1A,
PWR, 2.56% U235/U238 fuel, 34 GWD/MT, 1062 days.

Fig. E-5.
Fission-product and actinide decay power, case 1A,
PWR, 2.56% U235/U238 fuel, 34 GWD/MT, 1082 days.

Fig. E-6.
Actinide fraction of total decay power, case 1A,
PWR, 2.56% U235/U238 fuel, 34 GWD/MT, 1082 days.

Fig. E-7.

Nuclide contributors to actinide decay power, case 1C,
PWR, 2.56% U235/U238 fuel, 2.765 GWD/MT, 88 days.

Fig. E-8.
Fission-product and actinide decay power, case 1C,
PWR, 2.56% U235/U238 fuel, 2.765 GWD/MT, 88 days.

Fig. E-9.
Actinide fraction of total decay power,
cases 1A, 1B, 1C, and 1D,
PWR, 2.56% U235/U238 fuel, 0.1-34 GWD/MT.

Fig. E-10.
Nuclide contributors to actinide decay power, case 3
BWR, 2.95% U235/U238 fuel, 34 GWD/MT, 1909 days.

Fig. E-11.
Actinide fraction of total decay power, cases 1A, 2 and 3,
low-enrichment U235/U238-fueled LWRs, 34 GWD/MT.

Fig. E-12.
 Conceptual upper-bound actinide decay power
 correction factor for U235/U238-fueled LWRs.

Fig. E-13.
Actinide nuclides important to decay power
in $\text{U} 233/\text{Th} 232$ -fueled light water reactors.

Fig. E-14.
Nuclide contributors to actinide decay power, case 4,
PWR, 2.95% U233/Th232 fuel, 34 GWD/MT, 835 days.

Fig. E-15.
Fission-product and actinide decay power, case 4,
PWR, 2.95% U233/Th232 fuel, 34 GWD/MT, 835 days.

Fig. E-16.

Actinide fraction of total decay power, case 4,
PWR, 2.95% U233/Th232 fuel, 34 GWD/MT, 835 days.