STA. 5
AUG 19 1999

ENGINEERING DATA TRANSMITTAL

Page 1 of 4
1. EDT 627486

2. To: (Receiving Organization) Distribution		3. From: (Originating Organization) PFP Process Engineering		4. Related EDT No.: NA	
5. Proj./Prog./Dept./Div.: THERMAL STABILIZATION		6. Design Authority/Design Agent/ Cog. Engr.: H. R. Risenmay		7. Purchase Order No.: NA	
8. Originator Remarks: HNF 4989, REV. 0, Blend Plan, lists items selected for processing by the thermal stabilization process at PFP.				9. Equip./Component No.: NA	
				10. System/Bldg./Facility: 73T/234-5Z/PFP	
11. Receiver Remarks: 11A. Design Baseline Document? ☐ Yes ☒ No				12. Major Assm. Dwg. No.: NA	
				13. Permit/Permit Application No.: NA	
				14. Required Response Date: NA	
15. DATA TRANSMITTED					
(A) Item No.	(B) Document/Drawing No.	(C) Sheet No.	(D) Rev. No.	(E) Title or Description of Data Transmitted	(F) Approval Designator
1	HNF-4989	NA	0	THERMAL STABILIZATION BLEND PLAN	1,2
16. KEY					
Approval Designator (F)		Reason for Transmittal (G)		Disposition (H) & (I)	
E, S, Q, D or N/A (see WHC-CM-3-5, Sec. 12.7)		1. Approval 2. Release 3. Information		4. Review 5. Post-Review 6. Dist. (Receipt Acknow. Required)	
				1. Approved 2. Approved w/comment 3. Disapproved w/comment	
				4. Reviewed no/comment 5. Reviewed w/comment 6. Receipt acknowledged	
17. SIGNATURE/DISTRIBUTION (See Approval Designator for required signatures)					
(G) Reason	(H) Disp	(J) Name	(K) Signature	(L) Date	(M) MSIN
		Design Authority			
		Design Agent			
1	1	Cog. Eng. H.R. Risenmay	<i>H. R. Risenmay</i>	8-18-99	TS-55
1	1	Cog. Mgr. P.E. Roege	<i>P. E. Roege</i>	8/18/99	TS-50
1	1	Transition Ops. M.T. Dicken	<i>M. T. Dicken</i>	8/18/99	
1	1	ADC W.F. Russel Jr.	<i>W. F. Russel Jr.</i>	8/18/99	
		Env.			
18.		19.		20.	
<i>H. R. Risenmay</i> H. R. Risenmay 8-18-99				<i>P. E. Roege</i> P. E. Roege 8/19/99	
Signature of EDT Date Originator		Authorized Representative Date for Receiving Organization		Design Authority/ Cognizant Manager Date	
21. DOE APPROVAL (if required) Ctrl. No. ☐ Approved ☐ Approved w/comments ☐ Disapproved w/comments					

**UNREVIEWED SAFETY QUESTION (USQ)
SCREENING AND EVALUATION**

1. Identification Number: HNF-4989/REV 0

USQ SCREENING

Page 1 of 3

2. Title: THERMAL STABILIZATION BLEND PLAN

INSTRUCTIONS:

Respond to each question and provide justification for each response. A restatement of the question does not constitute a satisfactory justification or basis. An adequate justification provides sufficient explanation such that an independent reviewer could reach the same conclusion based on the information provided [DOE 5480.21, 10.e.1].

DESCRIPTION:

This is a new blend plan for thermal stabilization processing of items located outside of 213MBA.

INTRODUCTION:

The Blend Plan was written to identify items stored outside of the 213 MBA that will be moved into the MBA for thermal stabilization processing. Product quality oxide items stored in our vaults are found in Appendix B. A table is included in Appendix B which details the isotopic values for the oxide items and calculates the amount of material of any specific run that can be placed in a product can and maintain the 15 watt limit to meet storage vault specifications. There is no chance of exceeding the 15 watt limit with items starting with the designations "LAO" or "PBO." All items starting with the designations "BO," "BLO," and "DZO" are at risk of exceeding the 15 watt specification if the can were to be filled.

AFFECTED SSC:

This Blend Plan specifies the items that are to be thermally stabilized at the PFP plant in HC-21C glovebox during the processing campaign.

AUTHORIZATION BASIS:

The authorization basis documents reviewed were HNF-SD-CP-SAR-021 Revision 1 (FSAR) and WHC-SD-CP-OSR-010, Revision 0-K (OSR); specifically section 6.4.1.1, Process Description - Reactive Material Stabilization and Solution Stabilization; section 6.4.1.2 Process Chemistry and Physical Chemistry Principles - Reactive Material Stabilization, which discuss the thermal stabilization process chemistry; section 6.4.1.4.5 Operating Limits - Reactive Material Stabilization and Plutonium-bearing Solution Stabilization and associated Table 6-5. Reactive Plutonium-Bearing Material Stabilization Operating Limits; section 9.1.3, Radioisotope-Bearing Powder Spills; section 9.1.4, Radioisotope-Bearing Pressurized Powder Container; section 9.1.8, Loss of Ventilation; section 9.1.9, Glovebox Glove Breach; section 9.1.11, Reactive Material Thermal Stabilization Process; section 9.2B.1, Accidents Postulated for the Thermal Stabilization of Plutonium Oxide Process; section 9.2B.2, Assessment of Thermal Stabilization of Plutonium Oxide Process Impacts on Original Accident Analyses; section 9.2.10.1, Hydrogen Deflagration in Glovebox HC-21A from Opening Pressurized Containers; section 9.2.10.2, Deflagration in Glovebox HC-21C; section 9.2.10.3, Seismically Induced Deflagration in Glovebox HC-21C; section 9.2.10.4, Glovebox HC-21C Fire; section 9.2.10.5, Seismic Induced Fire in Glovebox HC-21C; section 9.2.10.6, Changes to the RMC Line Fire Analysis from Glovebox HC-21A and HC-21C; and appendix 9F, PRELIMINARY HAZARDS ANALYSIS FOR PuO₂ THERMAL STABILIZATION; all found in the FSAR and the OSR.

CONCLUSION:

There is no need for a USQ evaluation and no change to the FSAR is needed.

REFERENCES:

**UNREVIEWED SAFETY QUESTION (USQ)
SCREENING AND EVALUATION**

1. Identification Number: HNF-4989/REV 0

USQ SCREENING

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2. Title: THERMAL STABILIZATION BLEND PLAN

None.

QUESTIONS:

1. Does the proposed change or occurrence represent a change to the facility or procedures as described in the Authorization Basis?

☐ N/A ☒ No ☐ Yes/Maybe

BASIS: Handling of thermally stabilized material is considered normal operations. The new blend plan is discussed above in the introduction. This document does not represent any change to facility or procedures as described in the Authorization Basis.

2. Does the proposed change or occurrence represent conditions that have not been analyzed in the Authorization Basis?

☐ N/A ☒ No ☐ Yes/Maybe

BASIS: Thermal stabilization of Pu bearing material does not go beyond any conditions mentioned in FSAR. Section 9.1.3, Radioisotope-Bearing Powder Spills; section 9.1.4, Radioisotope-Bearing Pressurized Powder Container; section 9.1.8, Loss of Ventilation; section 9.1.9, Glovebox Glove Breach; section 9.1.11, Reactive Material Thermal Stabilization Process; section 9.2B.1, Accidents Postulated for the Thermal Stabilization of Plutonium Oxide Process; section 9.2B.2, Assessment of Thermal Stabilization of Plutonium Oxide Process Impacts on Original Accident Analyses; section 9.2.10.1, Hydrogen Deflagration in Glovebox HC-21A from Opening Pressurized Containers; section 9.2.10.2, Deflagration in Glovebox HC-21C; section 9.2.10.3, Seismically Induced Deflagration in Glovebox HC-21C; section 9.2.10.4, Glovebox HC-21C Fire; section 9.2.10.5, Seismic Induced Fire in Glovebox HC-21C; section 9.2.10.6, Changes to the RMC Line Fire Analysis from Glovebox HC-21A and HC-21C; and appendix 9F, PRELIMINARY HAZARDS ANALYSIS FOR PuO₂ THERMAL STABILIZATION; all found in the FSAR discuss all the accidents associated with the thermal stabilization process. No new accident could be caused by the issuance of the document as discussed in the introduction and do not represent a change to the Authorization Basis.

3. Does the proposed change represent a test or experiment NOT described in the Authorization Basis that may affect the safe operation of the facility?

☒ N/A ☐ No ☐ Yes/Maybe

BASIS: The issuance of the document does not comprise a test or experiment.

4. Does the proposed change or occurrence represent a change to the Technical Safety Requirements or a reduction in the margin of safety defined in the Technical Safety Requirements?

☐ N/A ☒ No ☐ Yes/Maybe

BASIS: No Safety Limits for PFP are specified in OSR, so a margin of safety cannot be affected. No OSR

UNREVIEWED SAFETY QUESTION (USQ) SCREENING AND EVALUATION

1. Identification Number: HNF-4989/REV 0

USQ SCREENING

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2. Title: THERMAL STABILIZATION BLEND PLAN

change is proposed.

USQE #1 H. R. Risenmay
(Print Name)

H. R. Risenmay
Signature

Date: August
16, 1999

USQE #2 J. P. King
(Print Name)

Jeffrey P. King
Signature

Date: 8/18/99

If there is a YES/MAYBE response to questions 1, 2, 3, or 4, then a USQ Evaluation must be completed.

The following guidance should be considered when completing this screening. This guidance should not be considered all-inclusive; additional factors may need to be considered depending on the nature of the proposed change.

Does the proposed change:

- 1) Modify, add, or delete a safety class function of a structure, system or component stated in the authorization basis?
- 2) Alter the design of a structure, system or component as described in the authorization basis?
- 3) Modify, add, or delete the description of operation, operating environment, or analyses of any system or component described in the authorization basis?
Modify, add, delete or conflict with any of the design bases stated in the authorization basis?
- 4) Conflict with the principle or general design criteria stated in the authorization basis?
- 5) Modify, add, or delete any plant design features described in the authorization basis?
- 6) Modify, add, or delete a flow diagram or facility drawing provided in the authorization basis?
- 7) Create the potential for new system or component interactions (e.g., seismic, electrical breaker coordination)?
- 8)

THERMAL STABILIZATION BLEND PLAN

H. R. Risenmay

B&W Hanford Company, Richland, WA 99352

U.S. Department of Energy Contract DE-AC06-96RL13200

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Key Words: Thermal, Stabilization, Plutonium, Oxide, HC-21A, HC-21C, HC-18BS, HC-18M, Furnace

Abstract: This document identifies the feed material for the thermal stabilization campaign.

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Barbara Luckety 8/19/99
Release Approval Date

Release Stamp

Approved for Public Release

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I. INTRODUCTION

This Blend Plan documents the feed material items for the thermal stabilization process that are located outside the 213 MBA. Items within the 213 MBA will be found in the classified Blend Plan, HNF-3425. This blend plan lists plutonium oxide stored in 2736-Z vaults that will be processed through the thermal stabilization furnaces.

The purpose of thermal stabilization is to heat the material to 1000 degrees Celsius to drive off all volatile materials and leave the plutonium and/or uranium as oxides. The stabilized material will be sampled to determine the Loss On Ignition (LOI). The stabilized material must meet LOI of less than 0.5% to be acceptable for storage under DOE-STD-3013-94 specifications. Out of specification material will be recycled through the furnaces until the LOI limits are met.

II. MATERIAL TO BE PROCESSED

Feed material and items were selected using the criteria in the Process Control Plan (Reference). The list in the appendix reflect the application of that criteria to the data available for each item. A classified database containing elemental weights and locations is separately available to assist operations and engineering in detailed selections.

A. OXIDES

This material is currently stored in the 2736-Z Vaults. Radiographs of some of the items indicates that some of the material is in a lead cup inside a slip lid can, a plastic bag, and two clean overpack cans. Others are in any combination of 2 to 4 overpacked cans. The material will be processed to meet DOE-STD-3013-94 specifications.

The batch limits imposed by the OSD on oxides are 2725 grams net weight per batch containing 2400 grams of Pu. The EIS and FSAR analysis for thermal stabilization have been revised in HNF-SD-CP-SAR-021, Rev. 1, and have been approved by DOE. The new limits are based on the criticality limits for both the individual boat/batch and the glovebox. The total Pu element weight allowed in the HC-21C glovebox by the criticality specification is 5000 grams. The total Pu element weight allowed in each individual boat/batch by the criticality specification is 2500 grams. This does not give any room for glovebox holdup. The typical glovebox holdup is about 50 grams Pu. The limit for each boat has been set at 2400 grams Pu per batch by the OSD which will allow 200 grams Pu for glovebox holdup when two boats are being processed. To simplify calculations needed during processing, the material is assumed to be 88% Pu (typical of product quality oxide) which resulted in the net weight batch size of 2725 grams specified in the OSD. The items selected for processing will meet these limits by splitting and combining items as needed during the furnace charge preparation process.

Some of the items in Appendix ^A~~B~~ can be loaded into the PUREX slip lid can to exceed the

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vault storage specification of 15 watts/item for thermal loading. Appendix ^AB includes a table to be used with the Process Traveler to specify the maximum material that can be combined into one item when processing the oxide items. However, all the information on isotopic analysis was not available for all the items included in Appendix B. The isotopic analysis will need to be determined as items are prepared for transfer to 234-5Z for thermal stabilization. As the missing data in the table at the front of Appendix B becomes available the table will be recalculated and the table will be reprinted as a separate spreadsheet that can be used for determining allowable loading of the stabilized material in the product cans. The table in Appendix ^AB will be used to determine which items need to have isotopic analysis performed before transfer to 234-5Z for processing.

TOTAL ITEMS SELECTED: 580

III. PROCESS ORDER

Items to be processed through thermal stabilization are found in appendix A. The exact order of processing will be specified in the approved Process Traveler Sheets referred to in the Operating Instructions (OI) and will be based on guidance provided in this document and document HNF-3425. Operations and Process Engineering will concur/determine items to process and approve each OI. The Process Travelers and the daily OI should take into consideration good ALARA practices to keep radiation dose and handling of items to a minimum. This would include processing of items from the same vault location at the same time. Other criteria in the Process Control Plan will also be adhered to during the selection of items each day.

IV. REFERENCES

Process Control Plan for FY 1999 Thermal Stabilization, HNF-3393, Rev. 1; B&W Hanford Company; Richland, Washington; December 2, 1998

Thermal Stabilization Glovebox HC-21C; OSD-Z-184-00006, Rev. D-3; B&W Hanford Company; Richland, Washington; August 19, 1999.

Thermal Stabilization Process Flowsheet; PFD-Z-190-00004, Rev D-1; B&W Hanford Company; Richland, Washington; February 9, 1999.

Plutonium Finishing Plant Stabilization Final Environmental Impact Statement, DOE/EIS-0244-F; Department of Energy, Richland Operations Office, Richland, Washington; May, 1996.

PFP Final Safety Analysis Report, HNF-SD-CP-SAR-021, Rev. 1, B&W Hanford Company, Richland, Washington, January 11, 1999.

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APPENDIX A

OXIDE ITEMS LOCATED IN 2736-Z VAULTS

In following tables:

CAT: 112 = HEDL oxide for storage
114 = Oxide fuels grade A line
145 = Miscellaneous fuels grade samples
150 = Burned button oxide
173 = Oxide fuels grade
175 = Oxide fuels grade other

COEI: 454 = Dioxides product
771 = Samples and standards

Use the following table to determine acceptable mass limits for individual items produced during thermal stabilization of oxide items. The last column on the right contains the amount of material from any run that will give 15 watts/item, which is the storage vault specification limit. If the data is missing then request isotopic analysis of the items be performed before the items are transferred to 234-5Z for processing. The STA or Cog. Engineer will then enter the isotopic information into a spreadsheet and will provide the information needed for product can loading.

Isotope	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Am-241		
Watts/gram	0.56757	0.0019288	0.0070824	0.1142	0.0001159	0.1142		
Run No.	%Pu-238	%Pu-239	%Pu-240	%Pu-241	%Pu-242	%Am-241	Watts/kg.	grams/pkg.
BLO-38-11-004								
BLO-38-11-010								
BLO-39-10-15	0.332	78.200	16.935	3.420	1.113	1.760	10.5	1427.4
BLO-39-10-16	0.392	73.132	21.025	3.833	1.618	2.100	11.9	1260.3
BLO-39-10-17	0.391	73.013	21.106	3.848	1.642	2.080	11.9	1261.1
BLO-39-10-18	0.383	73.583	20.685	3.771	1.578	2.460	12.2	1232.0
BLO-39-10-19	0.459	73.295	20.421	4.164	1.661	2.280	12.8	1169.5
BLO-39-10-20	0.687	75.333	17.202	5.234	1.544	2.150	15.0	999.7
BLO-39-10-021	0.769	76.047	15.954	5.670	1.560	3.160	17.0	879.9
BLO-39-11-01	0.675	76.341	16.149	5.287	1.548	3.160	16.1	931.9
BLO-39-11-02	0.702	76.057	16.160	5.482	1.599	3.190	16.5	909.0
BLO-39-11-03	0.780	76.199	15.723	5.716	1.582	3.240	17.2	870.1
BLO-39-11-04	0.837	76.417	15.301	5.907	1.538	3.280	17.8	842.6
BLO-39-11-05	0.807	76.458	15.244	5.954	1.537	3.220	17.6	851.6
BLO-39-11-06	0.862	76.431	15.155	6.015	1.537	3.330	18.1	828.1
BLO-39-11-07	0.868	76.385	15.142	6.071	1.534	3.310	18.2	824.8
BLO-39-11-08	0.954	74.624	16.128	6.452	1.842	3.060	18.9	795.3

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BLO-39-11-09	1.034	74.330	16.163	6.563	1.910	3.190	19.6	765.8
BLO-39-11-10	1.005	74.594	16.056	6.470	1.875	3.120	19.2	779.9
BLO-39-11-11	1.024	74.242	16.274	6.552	1.908	2.770	19.0	787.6
BLO-39-11-12	1.009	74.064	16.433	6.562	1.932	3.120	19.4	774.1
BLO-39-11-13	1.010	73.887	16.569	6.563	1.971	2.800	19.0	788.4
BLO-39-11-14	0.990	74.004	16.534	6.525	1.947	3.200	19.3	776.2
BLO-39-11-15	0.966	74.349	16.422	6.373	1.890	3.170	19.0	790.3
BLO-39-11-16	0.410	51.878	36.453	7.181	4.078	4.020	18.7	801.9
BLO-39-11-17	0.285	47.395	40.540	7.306	4.474	4.050	18.4	816.3
BO-28-01-001-04								
BO-28-01-001-05								
BO-28-01-001-06								
BO-28-01-001-07								
BO-28-01-002-04								
BO-29-02-S63-30								
BO-29-03-058-B	0.093	76.410	21.400	1.991	0.106	2.365	8.5	1766.4
BO-30-10-001-A	0.359	77.005	18.418	3.255	0.963	3.790	12.9	1165.1
BO-30-10-001-B								
BO-30-10-002-B	0.359	81.530	14.447	3.249	0.415	4.320	13.3	1129.6
BO-30-10-003-A								
BO-30-10-003-B	0.364	81.310	14.680	3.203	0.443	4.321	13.3	1130.8
BO-30-10-004-B	0.368	77.168	18.480	3.892	0.092	3.577	13.4	1117.9
BO-30-10-005-1	0.386	80.210	15.400	3.490	0.514	4.094	13.5	1112.1
BO-30-10-005-2	0.354	79.440	17.234	1.999	0.975	5.569	13.4	1119.0
BO-30-10-006-1	0.371	79.450	16.550	2.968	0.661	4.463	13.3	1128.0
BO-30-10-006-2	0.354	79.700	16.989	1.992	0.960	5.559	13.4	1121.4
BO-30-10-007-1	0.388	80.370	15.190	3.558	0.494	4.047	13.5	1110.0
BO-30-10-007-2	0.371	79.160	16.953	2.534	0.983	5.001	13.4	1115.9
BO-30-10-008-1	0.357	78.010	17.960	3.576	0.097	3.768	13.2	1137.4
BO-30-10-008-2	0.384	79.880	15.910	3.755	0.072	3.839	13.5	1109.7
BO-30-11-012-1								
BO-30-11-012-2	0.595	77.113	16.408	4.381	1.503	3.797	15.4	976.0
BO-30-11-013-1	0.506	79.210	16.020	4.183	0.082	4.297	15.2	985.7
BO-30-11-013-2	0.491	77.910	17.420	4.097	0.082	4.108	14.9	1007.2
BO-30-11-014								
BO-30-11-043-1	0.227	82.120	14.990	2.207	0.456	2.698	9.5	1573.2
BO-30-11-043-2	0.218	81.040	16.330	1.753	0.660	3.314	9.7	1539.8
BO-30-11-044-1	0.439	79.480	16.250	3.208	0.623	4.602	14.1	1064.0
BO-30-11-044-2	0.473	79.510	15.860	3.576	0.581	4.173	14.2	1056.9
BO-30-11-045-1	0.453	80.180	15.400	3.447	0.521	3.950	13.7	1098.6
BO-30-11-045-2	0.426	78.820	16.690	3.384	0.680	3.889	13.4	1117.4
BO-30-11-046-1	0.490	80.910	14.550	3.582	0.428	4.685	14.8	1012.7
BO-30-11-046-2	0.505	78.630	16.350	3.865	0.650	4.506	15.1	993.1
BO-30-11-047-1	0.585	77.095	16.982	3.744	1.593	4.681	15.6	959.4

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BO-30-11-047-2								
BO-30-11-047-3								
BO-30-11-048-1	0.468	78.140	17.370	3.934	0.088	3.814	14.2	1053.1
BO-30-11-048-2	0.471	78.650	16.810	3.977	0.092	3.745	14.2	1056.4
BO-30-11-049	0.455	76.180	19.260	4.011	0.094	4.059	14.6	1025.2
BO-30-11-11-1								
BO-30-11-11-2	0.967	71.041	21.906	4.183	1.903	4.595	18.4	813.6
BO-30-11-11-3								
DZO-35-09-002	0.419	73.590	22.640	3.236	0.115	1.841	11.2	1339.3
DZO-35-09-003								
DZO-35-09-004								
DZO-35-09-005								
DZO-35-09-006	0.434	72.820	23.180	3.449	0.117	1.808	11.5	1302.8
DZO-35-09-007	0.444	72.878	21.868	3.011	1.800	2.034	11.2	1334.9
DZO-35-09-008								
DZO-35-09-009								
DZO-35-09-010								
DZO-35-09-011								
DZO-35-09-013								
DZO-35-09-015								
DZO-35-09-016								
DZO-35-09-019								
DZO-35-09-020	0.440	73.048	21.675	3.093	1.744	2.345	11.7	1287.2
DZO-35-09-021	0.425	74.386	20.742	2.972	1.474	2.498	11.6	1296.8
DZO-35-09-022								
DZO-35-09-023	0.427	74.055	21.871	3.538	0.109	1.994	11.7	1280.0
DZO-35-09-024								
DZO-35-09-025								
DZO-35-09-026	0.398	74.402	21.731	3.357	0.112	1.974	11.3	1324.8
DZO-35-09-027								
DZO-35-09-028								
DZO-35-09-029								
DZO-35-09-030								
DZO-35-09-031								
DZO-35-09-032	0.409	75.120	21.090	3.270	0.112	2.107	11.4	1315.6
DZO-35-09-033								
DZO-35-09-034								
DZO-35-09-035								
DZO-35-09-036	0.384	74.110	22.240	3.162	0.104	2.155	11.3	1332.9
DZO-35-09-037								
DZO-35-09-038								
DZO-35-09-039								
DZO-35-09-040								
DZO-35-09-041								

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DZO-35-09-042								
DZO-35-09-043								
DZO-35-09-044	0.412	73.091	22.990	3.394	0.113	2.021	11.6	1297.5
DZO-35-09-045								
DZO-35-09-046								
DZO-35-09-047								
DZO-35-09-048	0.400	74.631	21.420	3.435	0.113	1.964	11.4	1316.9
DZO-35-09-049								
DZO-35-09-050								
DZO-35-09-051								
DZO-35-09-052	0.372	75.260	20.960	3.298	0.110	1.978	11.1	1354.7
DZO-35-09-053								
DZO-35-09-054	0.365	74.861	21.540	3.132	0.101	2.082	11.0	1364.3
DZO-35-09-055								
DZO-35-09-056	0.373	74.441	21.800	3.280	0.106	1.964	11.1	1353.3
DZO-35-09-057								
DZO-35-09-058	0.373	74.341	21.950	3.231	0.105	1.915	11.0	1365.8
DZO-35-09-059	0.371	75.571	20.690	3.270	0.098	2.032	11.1	1353.1
DZO-35-09-060	0.381	72.878	22.152	2.717	1.871	2.337	10.9	1374.6
DZO-35-09-061	0.390	73.716	21.394	2.853	1.647	2.285	11.0	1360.9
DZO-35-09-062	0.386	73.950	22.440	1.930	1.297	3.331	11.2	1337.1
DZO-35-09-063								
DZO-35-09-064								
DZO-35-09-065								
DZO-35-09-066								
DZO-35-09-067								
DZO-35-09-068	0.389	74.530	21.590	3.385	0.106	1.968	11.3	1328.8
DZO-35-09-069								
DZO-35-09-070								
DZO-35-09-071								
DZO-35-09-072								
DZO-35-09-073								
DZO-35-09-074	0.364	74.500	22.226	1.657	1.255	3.553	11.0	1360.3
DZO-35-09-075								
DZO-35-09-076								
DZO-35-09-077	0.368	75.490	20.770	3.276	0.096	1.973	11.0	1362.4
DZO-35-09-078	0.392	73.561	22.540	3.392	0.115	1.876	11.3	1332.7
DZO-35-09-079								
DZO-35-09-080	0.387	73.900	22.310	3.295	0.108	2.003	11.3	1333.1
DZO-35-09-081								
DZO-35-09-082								
DZO-35-09-287-A	0.483	69.504	24.088	3.280	2.645	4.160	14.3	1050.0
DZO-35-09-287-B	0.459	74.190	21.600	3.639	0.112	4.283	14.6	1026.4
DZO-35-09-294-A	0.846	81.730	12.800	4.342	0.282	5.921	19.0	789.2

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DZO-35-09-294-B	0.835	74.671	19.320	5.080	0.094	4.358	18.3	818.6
DZO-35-09-295-A	0.693	80.840	14.180	4.221	0.066	4.574	16.5	906.9
DZO-35-09-295-B								
DZO-35-09-301-A	0.750	78.874	15.751	4.552	0.073	4.649	17.4	862.2
DZO-35-09-301-B	0.802	78.520	16.150	3.902	0.627	5.631	18.1	829.0
DZO-35-09-302-A	0.869	78.914	15.355	4.330	0.531	5.274	18.5	810.3
DZO-35-09-302-B								
DZO-35-09-303-A	0.797	79.241	15.200	4.685	0.077	4.752	17.9	837.8
DZO-35-09-303-B	0.824	77.630	16.940	4.523	0.083	4.973	18.2	823.3
DZO-35-10-025-A	0.279	76.780	19.700	2.057	1.184	1.844	8.9	1682.5
DZO-35-10-026-A	0.188	85.280	12.880	1.386	0.266	1.218	6.6	2273.2
DZO-35-10-027-A	0.307	73.530	22.180	2.140	1.843	2.032	9.5	1579.6
DZO-35-10-028-A	0.154	80.870	16.900	1.400	67.610	1.180	6.7	2254.0
DZO-35-10-043-A	0.226	85.190	12.470	1.869	0.245	3.172	9.6	1567.8
DZO-35-10-053-A								
DZO-35-10-053-B	0.277	85.410	11.890	2.356	0.067	3.130	10.3	1452.8
DZO-35-10-054-B	0.392	80.649	15.990	2.884	0.085	3.691	12.4	1207.3
DZO-35-10-289-A	0.656	77.670	17.490	4.104	0.081	4.790	16.6	902.7
DZO-35-10-289-B	0.705	73.878	20.239	3.790	1.388	4.864	16.7	895.8
DZO-35-10-291-A								
DZO-35-10-291-B								
DZO-35-10-296-A	0.712	76.370	18.560	4.267	0.090	4.393	16.7	897.1
DZO-35-10-297-A	0.732	76.910	17.660	4.617	0.082	4.237	17.0	882.3
DZO-35-10-297-B	0.732	81.200	13.890	3.806	0.372	5.375	17.2	872.5
DZO-35-10-298-A	0.693	79.330	15.470	4.430	0.077	4.554	16.8	891.8
DZO-35-10-298-B	0.698	80.531	14.200	4.507	0.063	4.716	17.1	879.4
DZO-35-10-300-A	0.743	77.430	17.220	4.512	0.094	4.817	17.6	853.1
DZO-35-10-300-B	0.734	57.670	30.210	3.812	7.574	4.020	16.4	916.3
LAO-C**-226	0.062	81.586	16.590	1.410	0.352	0.100	4.8	3108.5
LAO-C**-227	0.070	81.809	16.400	1.370	0.351	0.106	4.8	3110.0
LAO-C**-228	0.058	82.254	16.000	1.360	0.328	0.095	4.7	3184.2
LAO-C**-229	0.058	82.033	16.200	1.370	0.339	0.081	4.7	3180.4
LAO-C**-230	0.056	82.109	16.160	1.320	0.355	0.061	4.6	3243.9
LAO-C**-231	0.060	81.656	16.490	1.430	0.364	0.068	4.8	3128.8
LAO-C**-232	0.055	82.009	16.210	1.380	0.346	0.086	4.7	3180.2
LAO-C**-233	0.058	81.984	16.240	1.380	0.338	0.071	4.7	3179.4
LAO-C**-234	0.067	81.980	16.250	1.360	0.343	0.085	4.8	3149.6
LAO-C**-242	0.060	82.072	16.190	1.340	0.338	0.136	4.8	3153.9
LAO-C**-245	0.062	81.876	16.360	1.350	0.352	0.144	4.8	3127.4
LAO-C**-247	0.059	81.940	16.360	1.300	0.335	0.128	4.7	3187.8
LAO-C**-259	0.061	81.898	16.360	1.340	0.341	0.112	4.7	3162.7
PBO-45-10-025	0.059	88.866	10.044	0.850	0.181	0.047	3.8	3962.8
PBO-45-11-032	0.112	84.129	13.397	2.086	0.276	0.006	5.6	2680.2
PBO-45-11-032C	0.105	84.770	12.928	1.923	0.275	0.133	5.5	2729.0

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PBO-45-12-037	0.095	84.991	12.839	1.825	0.250	0.017	5.2	2889.0
PBO-45-12-038	0.115	84.824	12.687	2.114	0.260	0.009	5.6	2672.7
PBO-47-09-011	0.094	86.143	12.104	1.452	0.207	0.010	4.7	3176.8
PBO-47-09-011C	0.086	85.789	12.439	1.447	0.239	0.001	4.7	3208.6
PBO-47-09-012	0.091	86.137	12.107	1.458	0.207	0.008	4.7	3184.6
PBO-47-09-013	0.089	86.149	12.091	1.462	0.209	0.010	4.7	3188.8
** = 01 through 13								

Note: Because Pu transforms to Am the Wattage/gram value for Am-241 is used in place of the value for Pu-241.

VAULT 1		
ITEMID	CAT	COEI
BLO-38-11-004	145	771
BLO-38-11-010	145	771
BLO-39-10-15-001	114	454
BLO-39-10-15-002	114	454
BLO-39-10-15-003	114	454
BLO-39-10-15-004	114	454
BLO-39-10-15-005	114	454
BLO-39-10-15-006	114	454
BLO-39-10-15-007	114	454
BLO-39-10-15-008	114	454
BLO-39-10-15-009	114	454
BLO-39-10-15-010	114	454
BLO-39-10-15-011	114	454
BLO-39-10-15-012	114	454
BLO-39-10-15-013	114	454
BLO-39-10-15-014	114	454
BLO-39-10-17-002	114	454
BLO-39-10-17-003	114	454
BLO-39-10-17-004	114	454
BLO-39-10-17-005	114	454
BLO-39-10-17-006	114	454
BLO-39-10-17-007	114	454
BLO-39-10-17-008	114	454

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VAULT 1		
ITEMID	CAT	COEI
BLO-39-10-17-009	114	454
BLO-39-10-17-010	114	454
BLO-39-10-17-011	114	454
BLO-39-10-17-012	114	454
BLO-39-10-17-013	114	454
BLO-39-10-021-013	114	454
BLO-39-11-05-004	114	454
DZO-35-10-043-A	175	454
LAO-C10-234	112	454
LAO-C10-242	112	454
LAO-C10-245	112	454
LAO-C10-247	112	454
LAO-C10-259	112	454
PBO-45-10-025-001	173	454
PBO-45-11-032-001	173	454
PBO-45-11-032-002	173	454
PBO-45-11-032-003	173	454
PBO-45-11-032-004	173	454
PBO-45-11-032-006	173	454
PBO-45-11-032-008	173	454
PBO-45-11-032-009	173	454
PBO-45-11-032-010	173	454
PBO-45-11-032-011	173	454
PBO-45-11-032-016	173	454
PBO-45-11-032-021	173	454
PBO-45-12-037-019	173	454
PBO-45-12-037-020	173	454
PBO-45-12-038-019	173	454
PBO-47-09-011-001	173	454
PBO-47-09-011-002	173	454

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VAULT 1		
ITEMID	CAT	COEI
PBO-47-09-011-003	173	454
PBO-47-09-011-004	173	454
PBO-47-09-011-005	173	454
PBO-47-09-011-006	173	454
PBO-47-09-011-007	173	454
PBO-47-09-011-008	173	454
PBO-47-09-011-009	173	454
PBO-47-09-011-010	173	454
PBO-47-09-011-011	173	454
PBO-47-09-011-012	173	454
PBO-47-09-011-013	173	454
PBO-47-09-011-014	173	454
PBO-47-09-011-015	173	454
PBO-47-09-011-016	173	454
PBO-47-09-011-017	173	454
PBO-47-09-011-018	173	454
PBO-47-09-011-019	173	454
PBO-47-09-011-021	173	454
PBO-47-09-011-028	173	454
PBO-47-09-012-001	173	454
PBO-47-09-012-002	173	454
PBO-47-09-012-021	173	454
PBO-47-09-012-022	173	454
PBO-47-09-012-024	173	454
PBO-47-09-012-025	173	454
PBO-47-09-012-026	173	454
PBO-47-09-013-004	173	454
PBO-47-09-013-006	173	454
PBO-47-09-013-007	173	454
PBO-47-09-013-008	173	454

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VAULT 2		
ITEMID	CAT	COEI
LAO-C01-227	112	454
LAO-C01-228	112	454
LAO-C01-229	112	454
LAO-C01-230	112	454
LAO-C01-231	112	454
LAO-C01-232	112	454
LAO-C01-233	112	454
LAO-C02-227	112	454
LAO-C02-228	112	454
LAO-C02-229	112	454
LAO-C02-230	112	454
LAO-C02-231	112	454
LAO-C02-232	112	454
LAO-C02-233	112	454
LAO-C03-227	112	454
LAO-C03-228	112	454
LAO-C03-229	112	454
LAO-C03-230	112	454
LAO-C03-231	112	454
LAO-C03-232	112	454
LAO-C03-233	112	454
LAO-C04-227	112	454
LAO-C04-228	112	454
LAO-C04-229	112	454
LAO-C04-230	112	454
LAO-C04-231	112	454
LAO-C04-232	112	454
LAO-C04-233	112	454
LAO-C05-227	112	454

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VAULT 2		
ITEMID	CAT	COEI
LAO-C05-228	112	454
LAO-C05-229	112	454
LAO-C05-230	112	454
LAO-C05-231	112	454
LAO-C05-232	112	454
LAO-C05-233	112	454
LAO-C06-227	112	454
LAO-C06-228	112	454
LAO-C06-229	112	454
LAO-C06-230	112	454
LAO-C06-231	112	454
LAO-C06-232	112	454
LAO-C06-233	112	454
LAO-C07-227	112	454
LAO-C07-228	112	454
LAO-C07-229	112	454
LAO-C07-230	112	454
LAO-C07-231	112	454
LAO-C07-232	112	454
LAO-C08-226	112	454
LAO-C08-227	112	454
LAO-C08-228	112	454
LAO-C08-229	112	454
LAO-C08-230	112	454
LAO-C08-231	112	454
LAO-C09-226	112	454
LAO-C09-227	112	454
LAO-C09-228	112	454
LAO-C09-230	112	454
LAO-C09-231	112	454

VAULT 2

ITEMID	CAT	COEI
LAO-C10-226	112	454
LAO-C10-227	112	454
LAO-C10-228	112	454
LAO-C10-229	112	454
LAO-C10-230	112	454
LAO-C10-231	112	454
LAO-C10-232	112	454
LAO-C11-226	112	454
LAO-C11-227	112	454
LAO-C11-228	112	454
LAO-C11-231	112	454
LAO-C12-227	112	454
LAO-C12-228	112	454
LAO-C12-231	112	454
LAO-C13-228	112	454
LAO-C13-231	112	454

VAULT 4

ITEMID	CAT	COEI
BLO-39-10-021-001	114	454
BLO-39-10-021-002	114	454
BLO-39-10-021-003	114	454
BLO-39-10-021-004	114	454
BLO-39-10-021-005	114	454
BLO-39-10-021-006	114	454
BLO-39-10-021-007	114	454
BLO-39-10-021-008	114	454
BLO-39-10-021-009	114	454
BLO-39-10-021-010	114	454
BLO-39-10-021-011	114	454

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VAULT 4		
ITEMID	CAT	COEI
BLO-39-10-021-012	114	454
BLO-39-10-021-014	114	454
BLO-39-10-16-001	114	454
BLO-39-10-16-002	114	454
BLO-39-10-16-003	114	454
BLO-39-10-16-004	114	454
BLO-39-10-16-005	114	454
BLO-39-10-16-006	114	454
BLO-39-10-16-007	114	454
BLO-39-10-16-008	114	454
BLO-39-10-16-009	114	454
BLO-39-10-16-010	114	454
BLO-39-10-16-011	114	454
BLO-39-10-16-012	114	454
BLO-39-10-18-001	114	454
BLO-39-10-18-002	114	454
BLO-39-10-18-003	114	454
BLO-39-10-18-004	114	454
BLO-39-10-18-005	114	454
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BLO-39-10-18-007	114	454
BLO-39-10-18-008	114	454
BLO-39-10-18-009	114	454
BLO-39-10-19-001	114	454
BLO-39-10-19-003	114	454
BLO-39-10-19-005	114	454
BLO-39-10-19-008	114	454
BLO-39-10-19-009	114	454
BLO-39-10-19-010	114	454
BLO-39-10-19-011	114	454

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VAULT 4		
ITEMID	CAT	COEI
BLO-39-10-19-012	114	454
BLO-39-10-20-001	114	454
BLO-39-10-20-002	114	454
BLO-39-10-20-003	114	454
BLO-39-10-20-004	114	454
BLO-39-10-20-005	114	454
BLO-39-10-20-006	114	454
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BLO-39-11-01-001	114	454
BLO-39-11-01-002	114	454
BLO-39-11-01-003	114	454
BLO-39-11-01-004	114	454
BLO-39-11-01-005	114	454
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BLO-39-11-01-012	114	454
BLO-39-11-01-013	114	454
BLO-39-11-01-014	114	454
BLO-39-11-02-001	114	454
BLO-39-11-02-002	114	454
BLO-39-11-02-003	114	454

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VAULT 4		
ITEMID	CAT	COEI
BLO-39-11-02-004	114	454
BLO-39-11-02-005	114	454
BLO-39-11-02-006	114	454
BLO-39-11-02-007	114	454
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BLO-39-11-03-012	114	454
BLO-39-11-03-013	114	454
BLO-39-11-03-014	114	454
BLO-39-11-04-001	114	454
BLO-39-11-04-002	114	454
BLO-39-11-04-003	114	454
BLO-39-11-04-004	114	454
BLO-39-11-04-005	114	454

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VAULT 4		
ITEMID	CAT	COEI
BLO-39-11-04-006	114	454
BLO-39-11-04-007	114	454
BLO-39-11-04-008	114	454
BLO-39-11-04-009	114	454
BLO-39-11-04-010	114	454
BLO-39-11-04-011	114	454
BLO-39-11-04-012	114	454
BLO-39-11-04-013	114	454
BLO-39-11-04-014	114	454
BLO-39-11-05-001	114	454
BLO-39-11-05-002	114	454
BLO-39-11-05-003	114	454
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BLO-39-11-05-009	114	454
BLO-39-11-05-010	114	454
BLO-39-11-05-011	114	454
BLO-39-11-05-012	114	454
BLO-39-11-05-013	114	454
BLO-39-11-06-001	114	454
BLO-39-11-06-002	114	454
BLO-39-11-06-003	114	454
BLO-39-11-06-004	114	454
BLO-39-11-06-005	114	454
BLO-39-11-06-006	114	454
BLO-39-11-06-007	114	454
BLO-39-11-06-008	114	454

PFP THERMAL STABILIZATION	BLEND PLAN	HNF-4989 REV. 0 PAGE 20 OF 29
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VAULT 4		
ITEMID	CAT	COEI
BLO-39-11-06-009	114	454
BLO-39-11-06-010	114	454
BLO-39-11-06-011	114	454
BLO-39-11-06-012	114	454
BLO-39-11-06-013	114	454
BLO-39-11-06-014	114	454
BLO-39-11-07-001	114	454
BLO-39-11-07-002	114	454
BLO-39-11-07-003	114	454
BLO-39-11-07-004	114	454
BLO-39-11-07-005	114	454
BLO-39-11-07-006	114	454
BLO-39-11-07-007	114	454
BLO-39-11-07-008	114	454
BLO-39-11-07-009	114	454
BLO-39-11-07-010	114	454
BLO-39-11-08-001	114	454
BLO-39-11-08-002	114	454
BLO-39-11-08-003	114	454
BLO-39-11-08-004	114	454
BLO-39-11-08-005	114	454
BLO-39-11-08-006	114	454
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BLO-39-11-08-008	114	454
BLO-39-11-08-009	114	454
BLO-39-11-08-010	114	454
BLO-39-11-08-011	114	454
BLO-39-11-08-012	114	454
BLO-39-11-08-013	114	454
BLO-39-11-08-014	114	454

PFP THERMAL STABILIZATION	BLEND PLAN	HNF-4989 REV. 0 PAGE 21 OF 29
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VAULT 4		
ITEMID	CAT	COEI
BLO-39-11-09-001	114	454
BLO-39-11-09-002	114	454
BLO-39-11-09-003	114	454
BLO-39-11-09-004	114	454
BLO-39-11-09-005	114	454
BLO-39-11-09-006	114	454
BLO-39-11-09-007	114	454
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BLO-39-11-09-009	114	454
BLO-39-11-09-010	114	454
BLO-39-11-09-011	114	454
BLO-39-11-09-012	114	454
BLO-39-11-09-013	114	454
BLO-39-11-10-001	114	454
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BLO-39-11-10-003	114	454
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BLO-39-11-10-011	114	454
BLO-39-11-10-012	114	454
BLO-39-11-11-001	114	454
BLO-39-11-11-002	114	454
BLO-39-11-11-003	114	454
BLO-39-11-11-004	114	454
BLO-39-11-11-005	114	454

PFP THERMAL STABILIZATION	BLEND PLAN	HNF-4989 REV. 0 PAGE 22 OF 29
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VAULT 4		
ITEMID	CAT	COEI
BLO-39-11-11-006	114	454
BLO-39-11-11-007	114	454
BLO-39-11-11-008	114	454
BLO-39-11-11-009	114	454
BLO-39-11-11-010	114	454
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BLO-39-11-11-012	114	454
BLO-39-11-11-013	114	454
BLO-39-11-11-014	114	454
BLO-39-11-12-001	114	454
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BLO-39-11-13-002	114	454
BLO-39-11-13-003	114	454
BLO-39-11-13-004	114	454
BLO-39-11-13-005	114	454
BLO-39-11-13-006	114	454
BLO-39-11-13-007	114	454
BLO-39-11-13-008	114	454

PFP THERMAL STABILIZATION	BLEND PLAN	HNF-4989 REV. 0 PAGE 23 OF 29
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VAULT 4		
ITEMID	CAT	COEI
BLO-39-11-13-009	114	454
BLO-39-11-13-010	114	454
BLO-39-11-13-011	114	454
BLO-39-11-13-012	114	454
BLO-39-11-13-013	114	454
BLO-39-11-14-001	114	454
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BLO-39-11-16-002	114	454
BLO-39-11-16-003	114	454
BLO-39-11-16-007	114	454
BLO-39-11-16-008	114	454
BLO-39-11-16-010	114	454
BLO-39-11-17-001	114	454
BLO-39-11-17-002	114	454

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VAULT 4		
ITEMID	CAT	COEI
BLO-39-11-17-003	114	454
BLO-39-11-17-004	114	454
BLO-39-11-17-005	114	454
BLO-39-11-17-006	114	454
BLO-39-11-17-007	114	454
BLO-39-11-17-008	114	454
BLO-39-11-17-009	114	454
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BLO-39-11-17-014	114	454
BLO-39-11-17-015	114	454
BO-28-01-001-04	150	454
BO-28-01-001-05	150	454
BO-28-01-001-06	150	454
BO-28-01-001-07	150	454
BO-28-01-002-04	150	454
BO-29-02-S63-30	150	454
BO-29-03-058-B	150	454
BO-30-10-001-A	150	454
BO-30-10-001-B	150	454
BO-30-10-002-B	150	454
BO-30-10-003-A	150	454
BO-30-10-003-B	150	454
BO-30-10-004-B	150	454
BO-30-10-005-1	150	454
BO-30-10-005-2	150	454
BO-30-10-006-1	150	454
BO-30-10-006-2	150	454

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VAULT 4		
ITEMID	CAT	COEI
BO-30-10-007-1	150	454
BO-30-10-007-2	150	454
BO-30-10-008-1	150	454
BO-30-10-008-2	150	454
BO-30-11-012-1	150	454
BO-30-11-012-2	150	454
BO-30-11-013-1	150	454
BO-30-11-013-2	150	454
BO-30-11-014	150	454
BO-30-11-043-1	150	454
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BO-30-11-047-1	150	454
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BO-30-11-047-3	150	454
BO-30-11-048-1	150	454
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BO-30-11-049	150	454
BO-30-11-11-1	150	454
BO-30-11-11-2	150	454
BO-30-11-11-3	150	454
DZO-35-09-002	175	454
DZO-35-09-003	175	454
DZO-35-09-004	175	454
DZO-35-09-005	175	454

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VAULT 4		
ITEMID	CAT	COEI
DZO-35-09-006	175	454
DZO-35-09-007	175	454
DZO-35-09-008	175	454
DZO-35-09-009	175	454
DZO-35-09-010	175	454
DZO-35-09-011	175	454
DZO-35-09-013	175	454
DZO-35-09-015	175	454
DZO-35-09-016	175	454
DZO-35-09-019	175	454
DZO-35-09-020	175	454
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DZO-35-09-028	175	454
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DZO-35-09-030	175	454
DZO-35-09-031	175	454
DZO-35-09-032	175	454
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DZO-35-09-034	175	454
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DZO-35-09-036	175	454
DZO-35-09-037	175	454
DZO-35-09-038	175	454
DZO-35-09-039	175	454

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VAULT 4		
ITEMID	CAT	COEI
DZO-35-09-040	175	454
DZO-35-09-041	175	454
DZO-35-09-042	175	454
DZO-35-09-043	175	454
DZO-35-09-044	175	454
DZO-35-09-045	175	454
DZO-35-09-046	175	454
DZO-35-09-047	175	454
DZO-35-09-048	175	454
DZO-35-09-049	175	454
DZO-35-09-050	175	454
DZO-35-09-051	175	454
DZO-35-09-052	175	454
DZO-35-09-053	175	454
DZO-35-09-054	175	454
DZO-35-09-055	175	454
DZO-35-09-056	175	454
DZO-35-09-057	175	454
DZO-35-09-058	175	454
DZO-35-09-059	175	454
DZO-35-09-060	175	454
DZO-35-09-061	175	454
DZO-35-09-062	175	454
DZO-35-09-063	175	454
DZO-35-09-064	175	454
DZO-35-09-065	175	454
DZO-35-09-066	175	454
DZO-35-09-067	175	454
DZO-35-09-068	175	454
DZO-35-09-069	175	454

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VAULT 4		
ITEMID	CAT	COEI
DZO-35-09-070	175	454
DZO-35-09-071	175	454
DZO-35-09-072	175	454
DZO-35-09-073	175	454
DZO-35-09-074	175	454
DZO-35-09-075	175	454
DZO-35-09-076	175	454
DZO-35-09-077	175	454
DZO-35-09-078	175	454
DZO-35-09-079	175	454
DZO-35-09-080	175	454
DZO-35-09-081	175	454
DZO-35-09-082	175	454
DZO-35-09-287-A	150	454
DZO-35-09-287-B	150	454
DZO-35-09-294-A	150	454
DZO-35-09-294-B	150	454
DZO-35-09-295-A	150	454
DZO-35-09-295-B	150	454
DZO-35-09-301-A	150	454
DZO-35-09-301-B	150	454
DZO-35-09-302-A	150	454
DZO-35-09-302-B	150	454
DZO-35-09-303-A	150	454
DZO-35-09-303-B	150	454
DZO-35-10-025-A	175	454
DZO-35-10-026-A	175	454
DZO-35-10-027-A	175	454
DZO-35-10-028-A	175	454
DZO-35-10-053-A	175	454

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VAULT 4		
ITEMID	CAT	COEI
DZO-35-10-053-B	175	454
DZO-35-10-054-B	175	454
DZO-35-10-289-A	150	454
DZO-35-10-289-B	150	454
DZO-35-10-291-A	150	454
DZO-35-10-291-B	150	454
DZO-35-10-296-A	150	454
DZO-35-10-297-A	150	454
DZO-35-10-297-B	150	454
DZO-35-10-298-A	150	454
DZO-35-10-298-B	150	454
DZO-35-10-300-A	150	454
LAO-C02-251	112	454
LAO-C03-245	112	454
LAO-C04-253	112	454
LAO-C05-246	112	454
LAO-C06-253	112	454
LAO-C08-248	112	454
PBO-45-12-038-021	173	454
PBO-45-12-038-027	173	454

GLOVEBOX 636		
ITEMID	CAT	COEI
DZO-35-10-300-B	150	454

DISTRIBUTION SHEET

To	From	Page 1 of 1
Distribution	PFP Process Engineering	Date August 19, 1999
Project Title/Work Order		EDT No. 627486
THERMAL STABILIZATION BLEND PLAN		ECN No. N/A

Name	MSIN	Text With All Attach.	Text Only	Attach./ Appendix Only	EDT/E CN Only
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T. M. Dicken	T5-15	X			
J. F. Durnil	T5-55	X			
K. A. Larkin	T5-55	X			
A. L. Ramble	T5-53	X			
H. R. Risenmay	T5-55	X			
R. D. Redekopp	T5-15	X			
R. J. Robinson	T5-09	X			
P. E. Roege	T5-15	X			
W. F. Russell Jr.	T5-51	X			
D. R. Speer	T5-50	X			
A. M. Stubbs	T5-55	X			
R. W. Szempruch	T5-55	X			
Central Files	B1-07	X			