THERMAL STABILIZATION FY 1999 BLEND PLAN

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

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I. INTRODUCTION

This Blend Plan documents the alternate feed material items for the thermal stabilization process that will be used in place of the metal items that were originally planned to be processed. Problems with resolution of the safety basis for the metal items resulted in the decision to run material that already had an established safety basis. Various in process and scrap recovery items stored in gloveboxes, plutonium oxide and plutonium oxide mixed with uranium oxide stored in 2736-Z vaults will be processed through the stabilization furnaces until the safety basis for the metal items has been resolved.

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 lists in the appendices 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. IN-PROCESS RECOVERY MATERIAL

Various in-process materials are stored in HC-18BS and HA-23S gloveboxes. These include:

- Samples and Standards
- Analytical laboratories miscellaneous scrap
- 2736-ZB miscellaneous scrap
- Battelle Northwest uranium scrap
- Process heels
- Low fired oxide
- Furnace recycle material
- Plutonium miscellaneous scrap and residues
- Plutonium flouride residues
- Plutonium - depleted uranium residues
- Plutonium - natural uranium compounds

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Material cleaned out of the PRF gloveboxes has the potential to contain Tri-Butyl Phosphate (TBP) and is usually a moist sludge. This type of material has been run through the furnaces during a former thermal stabilization campaign.

There are furnace batch limits imposed by the FSAR Section 9.2.1C of 500 grams plutonium and 10 grams of organic for these items. The PFP plant Environmental Impact Statement (EIS) imposes a lower limit of 240 grams Pu per batch with total batch weight limit of 500 grams. The miscellaneous scrap items that do not contain organic must also meet these gram limits per batch. The items selected for processing will meet these limits by splitting if needed during the furnace batch preparation process.

The above items are stored in gloveboxes HC-18BS and HA-23S and will be transported via conveyors or sealout to glovebox HC-21A for charge makeup.

TOTAL ITEMS IN HA-23S (1/2 liter poly jars):	71
TOTAL Pu (grams):	3346
TOTAL Normal U (grams):	712

TOTAL ITEMS IN HC-18BS:	12
TOTAL Pu:	See classified database

B. MIXED OXIDES

The mixed oxide material that will be stabilized is currently stored in the 2736-Z Vaults. Radiographs of some of the items indicates that the material is in one can, a plastic bag, and a final can. The radiographs of the cans indicate that in some instances the inner can may have failed and the material needs to be processed to remove any corrosive properties for stable, long-term storage and to meet DOE-STD-3013-94 specifications. The available data on packaging weight was examined and all light weight packages were selected for processing where the material type matches the operating parameters.

The batch limits imposed by the EIS on oxides are 600 grams of Pu per batch with total batch weight of 1200 grams and a glovebox limit of 2000 grams Pu. The items selected for processing will meet these limits by splitting if needed during the furnace batch preparation process.

TOTAL ITEMS SELECTED (7" food pack cans):	373
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III. PROCESS ORDER

Items to be processed through thermal stabilization are found in appendices A and B. The exact order of processing will be specified in the Operating Instructions (OI). Operations and Process Engineering will concur/determine items to process and approve each OI. 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.

In the tables found in the appendices the columns headed, "LITE," "OLD," and "HEAVY" are marked for items that are most desirable to process first. The preferred order when possible is to process the "ZQM-*" items first, followed by items marked in the "OLD" column, followed by all items marked in the "LITE" column, followed by the items marked in the "HEAVY" column. Items that are marked in two or more of the columns would be highest priority.

IV. REFERENCES

Process Control Plan for FY 1999 Thermal Stabilization, HNF-3393, Rev. 0; B&W Hanford Company; Richland, Washington; September 17, 1998

Thermal Stabilization Glovebox HC-21C; OSD-Z-184-00006, Rev. D-0; B&W Hanford Company; Richland, Washington; September 12, 1998.

Thermal Stabilization Process Flowsheet; PFD-Z-190-00004, Rev D-0; B&W Hanford Company; Richland, Washington; September 12, 1998.

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

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APPENDIX A

In following tables:

- MAT: 50 = Pu
81 = Normal U
- CAT: 5 = Plutonium conversion other scrap weapons grade
19 = Plutonium rec. miscellaneous scrap weapons grade
25 = Plutonium rec. incinerator ash FG
30 = 2736-ZB miscellaneous scrap
41 = Analytical laboratories miscellaneous scrap weapons grade
52 = Ctl. miscellaneous scrap fuels grade
61 = Stabilized oxide
64 = Stabilized C-line scrap
77 = BNW uranium scrap fuels grade 04
444 = Plutonium - Depleted Uranium alloy, fuels grade
482 = Plutonium oxide FG
- COEI: 771 = Samples and standards
C00 = Plutonium nonconforming compounds
C01 = Oxides (low fired < 700°C, relatively pure)
C02 = Oxides (high fired)
C10 = PuF₃
C50 = Plutonium - Normal Uranium compounds
E00 = Nonconforming noncombustibles
G00 = Nonconforming residues
G01 = Process heels (residues left after leaching operations)

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IN-PROCESS FEED ITEMS LOCATED IN HC-18BS

HC-18BS				
ITEMID	MAT	ROWPED	CAT	COEI
25-96-04-159	50	NA	25	C00?
482-96-12-082	50	NA	482	C02?
482-96-12-604	50	NA	482	C02?
482-98-07-058	50	NA	482	C01?
482-98-07-635	50	NA	482	C01?
61-96-09-901	50	NA	61	C02?
61-96-09-944	50	NA	61	C02?
61-96-12-1168	50	NA	61	C02?
61-96-12-1170	50	NA	61	C02?
64-96-01-018	50	NA	64	C02?
64-96-01-019	50	NA	64	C02?
64-96-02-031	50	NA	64	C02?

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IN-PROCESS FEED ITEMS LOCATED IN HA-23S

HA-23S					
ITEMID	MAT	ROWPED	CAT	COEI	ELE. WT.
19-94-11-74	50	1	19	G00	10
19-94-11-78	50	1	19	G00	12
19-95-03-30	50	1	19	G00	12
5-91-02-05	50	1	5	E00	11
5-91-07-15	50	1	5	E00	4
5-91-07-13	50	2	5	E00	9
5-91-07-14	50	2	5	E00	8
B2940,47,51,61,63	50	2	5	E00	32
19-96-06-318	50	3	19	G00	10
5-92-08-14	50	3	5	G00	57
5-92-08-15	50	3	5	G00	24
5-89-10-92	50	4	5	E00	39
5-89-10-93	50	4	5	E00	39
5-89-10-95	50	4	5	E00	39
5-92-04-08	50	4	5	G00	9
30-92-07-03	50	5	30	C00	302
73-42-88-2-E64	50	5	77	C50	11
73-42-88-2-E64	50	5	77	C10	135
73-42-88-2-E64	81	5	77	C50	712
41-95-08-177	50	6	41	771	261
41-95-08-178	50	6	41	771	270
41-95-08-179	50	6	41	771	175
41-95-08-180	50	6	41	771	102
19-92-08-19-1	50	7	19	G00	24
19-94-08-23	50	7	19	G00	269
19-94-08-30	50	7	19	G00	48
19-96-07-462	50	7	19	G00	8
19-87-07-273	50	8	19	G00	84
19-92-08-18-1	50	8	19	G00	37
19-92-08-19-2	50	8	19	G00	11
19-87-07-274	50	9	19	G00	42
19-92-08-16	50	9	19	G00	41
19-92-08-16-1	50	9	19	G00	22
19-92-08-16-2	50	9	19	G00	47
19-92-08-20-1	50	9	19	G00	37

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HA-23S					
ITEMID	MAT	ROWPED	CAT	COEI	ELE. WT.
19-92-08-21-1	50	9	19	G00	21
19-92-08-22-1	50	9	19	G00	38
19-92-08-23	50	9	19	G00	83
5-96-10-1019	50	10	5	G01	20
5-96-11-1066	50	10	5	G01	23
5-96-11-1067	50	10	5	G01	10
5-96-11-1068	50	10	5	G01	35
5-96-11-1069	50	10	5	G01	32
5-96-11-1070	50	10	5	G01	31
5-96-11-1071	50	10	5	G01	21
5-96-11-1091	50	10	5	G01	11
19-96-09-960	50	11	19	G00	47
19-96-09-963	50	11	19	G00	44
19-96-09-966	50	11	19	G00	58
19-96-09-985	50	11	19	G00	21
19-96-09-986	50	11	19	G00	19
19-96-09-988	50	11	19	G00	20
5-96-11-1094	50	11	5	G01	12
5-96-11-1098	50	11	5	G01	33
19-96-09-832	50	12	19	G00	33
19-96-09-871	50	12	19	G00	54
19-96-09-962	50	12	19	G00	45
19-96-09-964	50	12	19	G00	37
19-96-09-965	50	12	19	G00	51
19-96-09-967	50	12	19	G00	45
52-87-03-81	50	19	52	C01	38
52-86-02-142-1	50	23	52	C01	21
52-86-02-142-2	50	23	52	C01	15
52-86-02-142-3	50	23	52	C01	25
52-86-02-142-4	50	25	52	C01	22
52-86-02-140-1	50	28	52	C01	25
52-86-02-140-2	50	28	52	C01	25
52-86-02-140-3	50	28	52	C01	28
52-86-02-141-1	50	35	52	C01	21
52-86-02-141-2	50	35	52	C01	21
52-86-02-141-3	50	35	52	C01	20

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APPENDIX B

MIXED OXIDE ITEMS LOCATED IN 2736-Z VAULTS

In following tables:

ROWPED: Indicates the location of the item in the vault

CAT: 35 = Oxide for polystyrene
41 = Analytical laboratories miscellaneous scrap weapons grade
43 = Analytical laboratories scrap with uranium FG
61 = Stabilized oxide
62 = Stabilized scrap
77 = BNW uranium scrap fuels grade 04
208 = Plutonium-Uranium oxide WG
404 = Plutonium-Uranium in mixed oxide gneo
411 = Plutonium-Depleted Uranium oxide WG
426 = Plutonium-Natural Uranium or Depleted uranium alloy FG
436 = Plutonium-Enriched Uranium oxide powder pellets FG
449 = Argonne scrap CZA
478 = Plutonium-Natural Uranium-Depleted Uranium Oxide FG
950 = Plutonium-Enriched Uranium scrap from 324 building
955 = Fuel Pins

COEI: 290 = In fuel element and target fabrication process
291 = Fabricated fuel elements and targets product
771 = Samples and standards
C00 = Plutonium nonconforming compounds
C01 = Oxides (low fired < 700°C, relatively pure)
C40 = Plutonium-Depleted Uranium compounds
C41 = Plutonium-Depleted Uranium oxides (low fired)
C43 = Plutonium-Depleted Uranium oxides (high fired)
C51 = Plutonium-Normal Uranium oxides (low fired)
C52 = Plutonium-Normal Uranium oxides (high fired)

LITE: Indicates that the food pack can configuration only has two or three cans

OLD: Indicates that the item was put into storage prior to 10/79

HVY: Indicates that this item contains more Pu than those not marked

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ITEMID	ROWPED	CAT	COEI	LITE	OLD	HVY
20563	AC01	950	290			
20564	AC03	950	290			
20565	AC05	950	290			
20566	AC07	950	290			
20569	AC13	950	290			
20752	AC15	950	290			Y
20766	AC17	950	290			
20912	AC18	950	290			Y
20041	AC23	950	290			
20044	AC24	950	290			Y
20092	AC25	950	290			
20093	AC26	950	290			
20913	AC28	950	290			
21461	AC30	950	290			
20500	AC33	950	290			
20501	AC35	950	290			
21528	AC36	950	290			
20502	AC37	950	290			
21817	AC38	950	290			
20503	AC39	950	290			
20504	AC41	950	290			
20561	AC43	950	290			
20562	AC45	950	290			
5531	AD01	950	290			
5530	AD03	950	290			Y
5529	AD05	950	290			Y
605433	AD06	950	C52			Y
5218	AD07	950	290			
603301	AD08	950	C52			Y

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VAULT 1

ITEMID	ROWPED	CAT	COEI	LITE	OLD	HVY
5209	AD09	950	290			Y
603293	AD10	950	290			
603021	AD12	950	C43			
603013	AD14	950	290			
58803	AD29	950	290			Y
43101	AD33	950	290			Y
25204	AD37	950	290			Y
3048	AD38	950	290			Y
23768	AD41	950	290			Y
25205	AE23	950	290			Y
25482	AE42	950	290			
25479	AE44	950	290			Y
3134	AF16	950	290			
3050	AF18	950	290			Y
20722	AF34	950	290			Y
20723	AF44	950	290			Y
24492	AG03	950	290			Y
24431	AG05	950	771			
23891	AG07	950	290			Y
23354	AG11	950	C72			
22964	AG13	950	C52			
1784	AG41	950	290			Y
25028	AH20	950	290			Y
24270	AH23	950	290			Y
23949	AH24	950	290			Y
32355	AH30	950	290			Y
11921	AH41	950	290			
43111	AI04	950	290			
43031	AI06	950	290			
24493	AI16	950	290			Y

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ITEMID	ROWPED	CAT	COEI	LITE	OLD	HVY
22954	AI17	950	C43			Y
103051	AI18	950	290			
21802	AI19	950	290			
21532	AI20	950	290			
22188	AI30	950	290			
22187	AI32	950	290			
24054	AI35	950	771			
5532	AI45	950	290			Y
603015	AJ02	950	290			
58801	AJ08	950	290			Y
18388	AJ13	950	C43			
18383	AJ15	950	C43			
24948	AJ16	950	290			Y
18382	AJ17	950	C43			
24905	AJ18	950	771			Y
603205	AJ25	950	C52			
16055	AJ28	950	C43			
23766	AJ39	950	290			Y
24109	BA01	950	290			
24108	BA03	950	290			
24107	BA05	950	290			
21483	BA25	950	290			
21482	BA26	950	290			Y
12028	BA29	950	290			
25048	BB19	950	771			
24752	BB20	950	771			
24551	BB21	950	290			Y
24309	BB22	950	771			
24950	BB31	950	290			Y
24949	BB33	950	290			Y

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VAULT 1						
ITEMID	ROWPED	CAT	COEI	LITE	OLD	HVY
118385	BB34	950	C43			
24483	BB35	950	290			Y
24482	BB37	950	290			Y
24121	BB39	950	290			
24120	BB41	950	290			
24111	BB43	950	290			Y
24110	BB45	950	290			Y
10826	BC04	950	771			
10405	BC06	950	771			Y
21147	BC19	950	290			Y
21144	BC21	950	C52			Y
21143	BC22	950	C52			
20726	BC23	950	290			Y
20725	BC24	950	290			Y
16868	BC26	950	771			
288	BC33	950	771			
21394	BC44	950	290			
21440	BD10	950	C52			Y
20506	BD18	950	290			
605431	BD20	950	C52			Y
38521	BD24	950	C52			
20505	BD29	950	290			
20747	BD32	950	C43			
20746	BD34	950	C43			
14693	BD38	950	771			
931	BD42	950	771			Y
21891	BE05	950	C52			Y
20776	BE16	950	C43			
21173	BE17	950	C43			
20750	BE18	950	C43			

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ITEMID	ROWPED	CAT	COEI	LITE	OLD	HVY
34971	BE23	950	C52			Y
20749	BE29	950	C43			
20083	BE30	950	290			
20748	BE31	950	C43			
24515	BF19	950	290			Y
24514	BF20	950	290			Y
24513	BF21	950	290			Y
20792	BF27	950	C43			
5061	BF35	950	C52			
41861	BF36	950	290			Y
24518	BF40	950	290			Y
24517	BF42	950	290			Y
24516	BF44	950	290			Y
16071	BG02	950	290			Y
13581	BG04	950	C43			
22055	BG15	950	C43			
19788	BG24	950	290			
18387	BG26	950	C43			
21432	BG34	950	C52			
23430	CD02	950	290			Y
23428	CD04	950	290			
24490	CD23	950	290			Y
24436	CD24	950	290			Y
24112	CD25	950	290			Y
23767	CD26	950	290			Y
22717	CD41	950	C72			
22716	CD43	950	290			Y
20568	CD45	950	290			
CZA-420-84-02-07	DB39	449	C43			Y
451-83-07-531	DF37	451	C41			Y

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ITEMID	ROWPED	CAT	COEI	LITE	OLD	HVY
451-83-07-520	DF39	451	C41			
451-83-07-509	DF41	451	C71			Y
451-83-07-522	DF45	451	C41			Y
26049	DH08	955	290			
26050	DH09	955	290			
26051	DH10	955	290			
26052	DH11	955	290			
26053	DH12	955	290			
26054	DH13	955	290			
26055	DH14	955	290			
26056	DH15	955	290			Y
26057	DH17	955	290			Y
26058	DH28	955	290			Y
26059	DH30	955	290			
26060	DH32	955	290			
43-84-10-430	EA23	41	C40	Y		
ZQM-78-06-51	FA02	404	C01	Y	Y	
ZQM-78-06-39	FA06	404	C43	Y	Y	
ZQM-78-06-42	FA10	404	C43	Y	Y	
ZQM-78-06-43	FA11	404	C43	Y	Y	
ZQM-78-06-41	FA13	404	C43	Y	Y	
ZQM-78-06-28	FA16	404	C43	Y	Y	
ZQM-78-06-88	FA18	404	C70	Y	Y	
ZQM-78-06-31	FA19	404	C43	Y	Y	
ZQM-78-06-48	FA22	404	C01	Y	Y	
ZQM-78-06-33	FA23	404	C43	Y	Y	
ZQM-78-06-30	FA26	404	C43	Y	Y	
ZQM-78-06-34	FA29	404	C43	Y	Y	
ZQM-78-06-35	FA32	404	C43	Y	Y	
ZQM-78-06-24	FA33	404	C43	Y	Y	

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ITEMID	ROWPED	CAT	COEI	LITE	OLD	HVY
ZQM-78-06-23	FA36	404	C43	Y	Y	
ZQM-78-06-22	FA37	404	C43	Y	Y	
ZQM-78-06-47	FA38	404	C43	Y	Y	
ZQM-78-06-19	FA39	404	C43	Y	Y	
ZQM-78-06-21	FA40	404	C43	Y	Y	
ZQM-78-06-20	FA41	404	C43	Y	Y	
ZQM-78-06-14	FA42	404	C43	Y	Y	
ZQM-78-06-25	FA44	404	C43	Y	Y	
ZQM-78-06-36	FA45	404	C43	Y	Y	
ZQM-78-06-37	FB01	404	C43	Y	Y	
ZQM-78-06-49	FB02	404	C43	Y	Y	
ZQM-78-06-15	FB03	404	C43	Y	Y	
ZQM-78-06-16	FB04	404	C43	Y	Y	
ZQM-78-06-45	FB05	404	C43	Y	Y	
ZQM-78-06-18	FB06	404	C43	Y	Y	
ZQM-78-06-44	FB07	404	C43	Y	Y	
ZQM-78-06-17	FB08	404	C43	Y	Y	
ZQM-78-06-26	FB12	404	C43	Y	Y	
ZQM-78-06-50	FB13	404	C43	Y	Y	
ZQM-78-06-38	FB23	404	C43	Y	Y	
62-82-12-569	FC07	62	C40			Y
43-84-06-157	FF08	43	C43			
43-84-06-154	FF15	43	C43			
43-84-06-155	FF19	43	C52			
451-83-07-510	FF20	451	C71			Y
43-84-10-304	FF37	43	C43			
62-82-09-87	FF43	62	C43	Y		
451-83-07-523	GD41	451	C41			Y
451-83-07-515	GD44	451	C71			Y
451-83-07-524	GD45	451	C41			Y

VAULT 1

ITEMID	ROWPED	CAT	COEI	LITE	OLD	HVY
62-86-02-95	GE17	62	C40			
62-86-02-106	GE26	62	C01			
451-83-07-525	GF14	451	C71			Y
77-81-02-01	GF16	77	C70			
77-81-02-02	GF17	77	C70			
62-83-03-150	GF19	62	C40			
43-79-02-1631	GF25	43	C52			
451-83-07-521	GF26	451	C71			Y
62-86-02-94	GF31	62	C40			Y
43-79-03-1660	GF33	43	C51	Y		
451-83-07-526	GH14	451	C41			Y
451-83-07-517	GH16	451	C71			Y
451-83-07-513	GH44	451	C71			Y
451-83-07-514	GH45	451	C41			Y
451-83-07-516	HG06	451	C41			Y
451-83-07-518	HG36	451	C41			Y
451-83-07-519	HG37	451	C71			Y
451-83-07-511	HG40	451	C41			Y
451-83-07-512	HG41	451	C71			Y

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VAULT 2						
ITEMID	ROWPED	CAT	COEI	LITE	OLD	HVY
56-75-09-748	C074	56	C40	Y	Y	
56-75-09-749	C075	56	C40	Y	Y	
56-75-09-745	C076	56	C40	Y	Y	
56-75-09-747	D110	56	C40	Y	Y	
HUA-4-101-9-1	O477	77	C50	Y		
HUA-4-25-682-1	O485	77	C40	Y		
HUA-4-25-682-3	O489	77	C40	Y		
197-XX-175-10	O493	850	771			
198-XX-219-10	O497	850	771			
199-XX-263-10	O505	850	771			
HUA-4-25-682-2	P513	77	C40	Y		
K-864	P528	78	C50	Y	Y	
WA-31-20	P531	77	C50	Y	Y	
WA-31-21	P532	77	C50	Y	Y	
ANL-112-19-516-2	Q544	478	C40	Y		
ANL-112-19-516-1	Q545	478	C40	Y		
HUA-4-101-12,13-1	Q546	77	C50	Y		
ANL-112-16-503	Q547	426	C52	Y		
HUA-4-101-9-2	Q549	77	C50	Y		
WA-31-19	Q558	77	C50			
HUA-4-102-102A-5	Q561	77	C50			
HUA-4-101-11	Q562	77	C50	Y		
HUA-4-101-12,13-2	Q563	77	C50			
HUA-4-102-102A-6-2	Q569	77	C50			
HUA-4-25-683-1	R575	77	C40	Y		
HUA-4-25-683-2	R584	77	C40	Y		
WA-31-18	R596	77	C50	Y	Y	
CZA-94-71-497	S633	411	C40	Y	Y	
CZA-461-74-225	T638	461	C43	Y	Y	

VAULT 2

ITEMID	ROWPED	CAT	COEI	LITE	OLD	HVY
CZA-461-74-226	T639	461	C43	Y	Y	
MAN-122-10-12-1	U675	436	C40			
MAN-122-21-17	U676	436	C70			
MAN-122-10-12-2	U678	436	C40	Y		
CZA-420-84-02-06	U679	449	C43			Y
88-83-06-348	V019	451	C51			
451-83-07-471	V022	451	C51			
WA-31-13	V023	77	C50			
451-83-07-459	V024	451	C51			
WA-31-9	V039	77	C50			
88-83-06-378	V044	451	C51			
451-83-07-494	V045	451	C41			
451-83-07-497	V046	451	C41			
451-83-07-466	X002	451	C51			
88-83-06-379	X010	451	C51			
88-83-06-420	X026	451	C51			
88-83-06-416	X027	451	C51			
451-83-07-485	X033	451	C41			
88-83-06-375	X036	451	C51			
88-83-06-376	X040	451	C51			
88-83-06-377	X042	451	C51			
88-83-06-417	X054	451	C51			
88-83-06-347	X055	451	C51			
88-83-06-380	Y001	451	C51			
88-83-06-350	Z001	451	C51			
451-83-07-463	Z003	451	C51			
451-83-07-462	Z004	451	C51			
451-83-07-460	Z005	451	C51			
451-83-07-461	Z006	451	C51			
451-83-07-469	Z014	451	C51			

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VAULT 2						
ITEMID	ROWPED	CAT	COEI	LITE	OLD	HVY
88-83-06-346	Z015	451	C51			
88-83-06-349	Z019	451	C51			
88-83-06-419	Z022	451	C51			
451-83-07-457	Z046	451	C51			
88-83-06-415	Z047	451	C51			
88-83-06-421	Z048	451	C51			

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VAULT 4						
ITEMID	ROWPED	CAT	COEI	LITE	OLD	HVY
43-85-01-07	CH15	43	C43			
43-84-05-135	DA24	43	C41			
24613	EG18	950	290			Y
24614	EG20	950	290			
24725	EG22	950	290			Y
25033	EG26	950	290			Y
25272	EG27	950	290			Y
25522	EG28	950	290			Y
25527	EH02	950	290			Y
3047	EH17	950	290			
324-2	EH27	950	771			
324-6	EH28	950	771	Y		
324-3	FA09	950	771			
29801	FA18	950	290			Y
2578	FA24	950	290			
23724	FA25	950	290	Y		
23929	FA26	950	290			Y
25517	FA27	950	290			Y
25519	FA28	950	290			Y
25523	FB03	950	290			Y
25533	FB04	950	290			Y
25784	FB09	950	291	Y		
23153	FB14	950	290			Y
23154	FB16	950	290			Y
23734	FB18	950	290			Y
23928	FB20	950	290			Y
24036	FB21	950	290			Y
24064	FB23	950	290			Y
24124	FB24	950	290			Y

VAULT 4						
ITEMID	ROWPED	CAT	COEI	LITE	OLD	HVY
24128	FB26	950	290			Y
24943	FB27	950	290			Y
24065	FC04	950	290			Y
24123	FC06	950	290			Y
24129	FC07	950	290			Y
24944	FC16	950	290			Y
25518	FC18	950	290			Y
25521	FC21	950	290			Y
25525	FC22	950	290			Y
25526	FC25	950	290			Y
25535	FC26	950	290			Y
25536	FC27	950	290			Y
25783	FD03	950	291			Y
23735	FD05	950	290			Y
24035	FD06	950	290			Y
25534	FD07	950	290			Y
23171	FD08	950	290			Y
22922	FD09	950	290			Y
23172	FD10	950	290			Y
23245	FD11	950	290			Y
25520	FD12	950	290			Y
23725	FD13	950	290			Y
25531	FD14	950	290			Y
24508	FD15	950	290			Y
25532	FD16	950	290			Y
24648	FD21	950	290			
25273	FE04	950	290			Y
23244	FE06	950	290			Y
25032	FE08	950	290			Y
25278	FE10	950	290			Y

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VAULT 4						
ITEMID	ROWPED	CAT	COEI	LITE	OLD	HVY
24066	FE11	950	290			Y
25107	FE12	950	290			Y
24067	FE13	950	290			Y
25398	FE14	950	290			
25260	FE15	950	290			Y
25489	FE16	950	290			Y
25528	FE17	950	290			Y
25529	FE18	950	290			Y
25516	FF08	950	290			Y
25530	FF11	950	290			Y
23726	FF14	950	290			Y
24724	FF15	950	290			Y
24771	FF17	950	290			
25106	FF18	950	290			
25274	FF20	950	290			Y
CZA-420-84-02-10	HI16	449	C40			
CZA-420-84-02-09	HI17	449	C40			
CZA-420-84-02-08	HI18	449	C40			
CZA-420-84-02-05	HI19	449	C40	Y		
CZA-421-84-02-04	HI20	449	C41			
CZA-472-84-02-03	HI21	449	C41			

DISTRIBUTION SHEET

To Distribution	From PFP Process Engineering	Page 1 of 1			
		Date September 23, 1998			
Project Title/Work Order THERMAL STABILIZATION FY 1999 BLEND PLAN		EDT No. 612489			
		ECN No. N/A			
Name	MSIN	Text With All Attach.	Text Only	Attach./ Appendix Only	EDT/ECN Only
T. A. Brown	T5-09	X			
E. P. Bonadie	T5-55	X			
B. F. Burton Jr.	T5-50	X			
E. L. Davis	T5-09	X			
M. W. Gibson	T5-55	X			
D. R. Hirzel	T5-55	X			
H. R. Risenmay	T5-55	X			
R. D. Redekopp	T5-15	X			
W. D. Seaborg	R3-79	X			
D. D. Scott	T4-40	X			
R. W. Szempruch	T5-55	X			
M. Thien	T5-09	X			
T. L. Welsh	T4-40	X			
Central Files	81-07	X			