Science Applications International Corporation

PROJECT 1-246-02-539-01

TASK 1 - REPORT

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REVIEW OF TECHNICAL DATA AND CURRENT METHODOLOGY

July 28, 1987

Submitted to:

Westinghouse Hanford Company
Richland, Washington 99352

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1.0 OVERVIEW AND SUMMARY

Information contained in the Draft Phase I Installation Assessment of Inactive Waste Disposal Sites at Hanford, and the Hanford Site Waste Management Units Report were reviewed to provide a data base for performing the additional Tasks. The data were also reviewed to determine if there were conflicts between the methods used for remedial action, or those planned for remedial action, and appropriate actions for CERCLA or 3004(u) sites as required by federal or state laws or regulations. A total of 23 references provided to SAIC by Westinghouse Hanford Company were reviewed to develop the data base for the approximately 950 sites covered by this report. With the exception of a few sites currently classified as RCRA 3004(u) units, no information on the methods used for remedial action were identified. None of the 23 documents reviewed provided information on planned remedial action at either CERCLA sites or RCRA 3004(u) sites.

For the CERCLA sites, if the Administrator of EPA has been notified of the scores for sites as presented in the Phase I Installation Assessment Report, the methods and procedures used would satisfy requirements through the Preliminary Assessment/Site Inspection phase of the CERCLA Program.

The 3004(u) sites were evaluated against techniques used to satisfy 3004(u) requirements. Only in the case of exhumation is it possible to establish that an accepted technique was used. Other techniques are currently under evaluation. The comparison is presented in Table 3-2.

2.0 SUMMARY OF CERCLA SITES[1]

The Draft Phase I Installation Assessment of Inactive Waste-Disposal Sites at Hanford, July 1986, Volumes 1 and 2, was the primary source of information used in this task for the summary descriptions of the CERCLA sites. This information is presented in Tables 2-1 through 2-6. Table 2-3 combined sources of information from Volume 1, as referenced on the table itself, that described the 62 CERCLA sites to be considered, the subarea they are located in, the method of disposal (unit type) and the waste disposed of at each site. From Table 2-3, Tables 2-1 and 2-2 were derived. Table 2-1 breaks the 62 sites into the number of sites located in each area and subarea. Table 2-2 gives the number of each unit type used in a subarea. Tables 2-4, 2-5 and 2-6 are sorts of Table 2-3. Table 2-3 has the sites listed with the site numbers in ascending order. Table 2-4 orders the sites by subarea. Table 2-5 and 2-6 are ordered by unit type and waste disposed respectively.

On twelve occasions discrepancies were found in Volume 1 as to the unit type used for a particular CERCLA site, two distinctly different unit types were described for the same site. The source of the discrepancies are noted in Table 2-3. Tasks 4 through 8 can not proceed in full for these twelve sites until the conflict of unit types is settled.

Table 2-1 indicates that 71% of the CERCLA sites are located in the 200 area, 25% in the 100 area and 5% in the 300 area. Table 2-2 lists dry wells as a unit type while Volume 1 describes dry wells as monitoring measures of liquid releases in the vadose zone. Reverse wells are described in Volume 1 as being used at earlier sites but eventually discontinued when it was found that they released liquid wastes too close to the water table. It appears

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[1]Only 62 CERCLA sites are covered by this report. Nineteen additional sites have been identified for possible inclusion in this report; however, as of July 28, the SAIC proposal to incorporate the 19 sites in the Inactive Waste Site Study had not been accepted by Westinghouse.

that reverse wells were used at sites that were in operation before the 1950's and that dry wells replaced reverse wells at later sites.

TABLE 2-1. BREAKDOWN OF CERCLA SITES AT ROCKWELL HANFORD OPERATIONS BY AREA AND SUBAREA.

Area	Subarea	No. of CERCLA Sites
100	100-KE/KW	5
	100-B/C	2
	100-D/DR	2
	100-F	4
	100-H	2
	Total	15
200	200 East	24
	200 West	20
	Total	44
300	Total	3

TABLE 2-2. BREAKDOWN OF THE UNIT TYPE USED AT CERCLA SITES AT THE ROCKWELL HANFORD OPERATIONS BY SUBAREA OR AREA.

100-KE/KW Subarea
- 2 Dry Wells
- 1 Crib
- 2 Dry Wells or 2 French Drains (a)

100-B/C Subarea
- 1 French Drain
- 1 Crib

100-D/DR Subarea
- 1 Crib
- 1 Trench

100-F Subarea
- 4 Trenches

100-H Subarea
- 1 French Drain
- 1 Trench

200 East Subarea
- 1 French Drain
- 14 Cribs
- 2 Reverse Wells
- 7 Trenches or 7 Cribs (a)

200 West Subarea
- 1 Ditch
- 1 French Drain
- 10 Cribs
- 3 Reverse Wells
- 2 Crib and Tile Fields
- 3 French Drains or 3 Reverse Wells (a)

300 Area
- 1 Trench
- 2 Ponds

(a) There is a discrepancy among references as to which Unit Type was used here.

TABLE 2-3. HANFORD INACTIVE WASTE SITE SORTED BY SITE ID.

62 Priority Sites Recommended for Phase II Characterization.

Site No. (1)	Subarea (12)	Unit Type (12)	Waste Disposed
100 KE*1	100-KE/KW	Dry Well (11&12)	Misc. (2)
100 KE*2	100-KE/KW	Dry Well (11),French Drain (12) *	Misc. (2)
100 KW*1	100-KE/KW	Dry Well (11&12)	Misc. (2)
100 KW*2	100-KE/KW	Dry Well (11),French Drain (12) *	Misc. (2)
116-B-4	100-B/C	French Drain	Decontamination Waste (2)
116-C-2	100-B/C	Crib	Ruptured Fuel Effluent (2)
116-D-1B	100-D/DR	Trench	DW (2)
116-DR-7	100-D/DR	Crib	Misc. (2)
116-F-1	100-F	Trench	DW (2)
116-F-2	100-F	Trench	RFE (2)
116-F-3	100-F	Trench	RFE (2)
116-F-9	100-F	Trench	Misc (2)
116-H-1	100-H	Trench	RFE (2)
116-H-3	100-H	French Drain	DW (2)
116-KE-2	100-KE/KW	Crib	Misc. (2)
216-A-4	200 East	Crib (11&12)	Misc. Liquid Waste (3)
216-A-5	200 East	Crib (12)	Process Condensate (3)
216-A-6	200 East	Crib (12)	MLW (3)
216-A-7	200 East	Crib (12)	MLW (3)
216-A-9	200 East	Crib (12)	Process Waste (3)
216-A-21	200 East	Crib (11&12)	PW (3)
216-A-24	200 East	Crib (12)	Tank/Scavenged Waste (3)
216-A-27	200 East	Crib (11&12)	MLW (3)
216-A-28	200 East	French Drain	MLW (3)
216-A-36A	200 East	Crib	MLW (3)
216-B-5	200 East	Reverse Well	T/SW (4)
216-B-6	200 East	Reverse Well	PW (4)
216-B-7 A&B	200 East	Crib	T/SW (4)
216-B-10A	200 East	Crib	PW (4)
216-B-16	200 East	Trench (11),Crib (12) *	T/SW (4)
216-B-43	200 East	Crib	T/SW (4)
216-B-44	200 East	Trench (11),Crib (12) *	T/SW (4)
216-B-45	200 East	Trench (11),Crib (12) *	T/SW (4)
216-B-46	200 East	Trench (11),Crib (12) *	T/SW (4)
216-B-48	200 East	Trench (11),Crib (12) *	T/SW (4)
216-B-49	200 East	Trench (11),Crib (12) *	T/SW (4)
216-B-50	200 East	Trench (11),Crib (12) *	T/SW (4)
216-C-1	200 East	Crib	PC (5)
216-C-10	200 East	Crib	PC (5)
216-S-1&2	200 West	Crib	PC (6)
216-S-7	200 West	Crib	PC (6)
216-S-9	200 West	Crib	PC (6)
216-S-20	200 West	Crib	PW (6)
216-S-21	200 West	Crib	PC (6)
216-T-2	200 West	Reverse Well	PW (7)
216-T-3	200 West	Reverse Well	MLW (7)
216-T-7	200 West	Crib & Tile Field	T/SW (7)
216-T-8	200 West	Crib	PW (7)

TABLE 2-3. HANFORD INACTIVE WASTE SITE SORTED BY SITE ID. (continued)

62 Priority Sites Recommended for Phase II Characterization.

Site No. (1)	Subarea (12)	Unit Type (12)	Waste Disposed
216-T-19	200 West	Crib & Tile Field	PC (7)
216-T-28	200 West	Crib	PW (7)
216-U-1&2	200 West	Crib	MLW (8)
216-U-3	200 West	French Drain	T/SW (8)
216-U-4	200 West	French Drain (11),Reverse Well (11&12)*	PW (8)
216-U-4A	200 West	French Drain (11&12),Reverse Well (11)*	PW (8)
216-U-4B	200 West	French Drain (11&12),Reverse Well (11)*	PW (8)
216-U-11	200 West	Ditch	PW (8)
216-Z-1&2	200 West	Crib	PW (9)
216-Z-7	200 West	Crib	PW (9)
216-Z-10	200 West	Reverse Well	PW (9)
316-1	300 Area	Pond (11&12)	PW and Lab Wastes (10)
316-2	300 Area	Pond (11&12)	PW and Lab Wastes (10)
316-3	300 Area	Trench	PW and Lab Wastes (10)

* Indicates a conflict in unit type according to the references given

References used in columns one and two are given at the column headings. The reference used in column three, Unit Type, is given at the column heading unless additional, or different, sources are listed in parenthesis for a given site. References used for column four, Waste Disposed, are given in parenthesis for a site.

TABLE 2-4. HANFORD INACTIVE WASTE SITE SORTED BY AREA.

62 Priority Sites Recommended for Phase II Characterization.

Site No. (1)	Subarea (12)	Unit Type (12)	Waste Disposed
100 KE*1	100-KE/KW	Dry Well (11&12)	Misc. (2)
100 KE*2	100-KE/KW	Dry Well (11),French Drain (12) *	Misc. (2)
100 KW*1	100-KE/KW	Dry Well (11&12)	Misc. (2)
100 KW*2	100-KE/KW	Dry Well (11),French Drain (12) *	Misc. (2)
116-B-4	100-B/C	French Drain	Decontamination Waste (2)
116-C-2	100-B/C	Crib	Ruptured Fuel Effluent (2)
116-D-1B	100-D/DR	Trench	Decontamination Waste (2)
116-DR-7	100-D/DR	Crib	Misc. (2)
116-F-1	100-F	Trench	Decontamination Waste (2)
116-F-2	100-F	Trench	Ruptured Fuel Effluent (2)
116-F-3	100-F	Trench	Ruptured Fuel Effluent (2)
116-F-9	100-F	Trench	Misc (2)
116-H-1	100-H	Trench	Ruptured Fuel Effluent (2)
116-H-3	100-H	French Drain	Decontamination Waste (2)
116-KE-2	100-KE/KW	Crib	Misc. (2)
216-A-4	200 East	Crib (11&12)	Misc. Liquid Waste (3)
216-A-5	200 East	Crib (12)	Process Condensate (3)
216-A-6	200 East	Crib (12)	Misc. Liquid Waste (3)
216-A-7	200 East	Crib (12)	Misc. Liquid Waste (3)
216-A-9	200 East	Crib (12)	Process Waste (3)
216-A-21	200 East	Crib (11&12)	Process Waste (3)
216-A-24	200 East	Crib (12)	Tank/Scavenged Waste (3)
216-A-27	200 East	Crib (11&12)	Misc. Liquid Waste (3)
216-A-28	200 East	French Drain	Misc. Liquid Waste (3)
216-A-36A	200 East	Crib	Misc. Liquid Waste (3)
216-B-5	200 East	Reverse Well	Tank/Scavenged Waste (4)
216-B-6	200 East	Reverse Well	Process Waste (4)
216-B-7 A&B	200 East	Crib	Tank/Scavenged Waste (4)
216-B-10A	200 East	Crib	Process Waste (4)
216-B-16	200 East	Trench (11),Crib (12) *	Tank/Scavenged Waste (4)
216-B-43	200 East	Crib	Tank/Scavenged Waste (4)
216-B-44	200 East	Trench (11),Crib (12) *	Tank/Scavenged Waste (4)
216-B-45	200 East	Trench (11),Crib (12) *	Tank/Scavenged Waste (4)
216-B-46	200 East	Trench (11),Crib (12) *	Tank/Scavenged Waste (4)
216-B-48	200 East	Trench (11),Crib (12) *	Tank/Scavenged Waste (4)
216-B-49	200 East	Trench (11),Crib (12) *	Tank/Scavenged Waste (4)
216-B-50	200 East	Trench (11),Crib (12) *	Tank/Scavenged Waste (4)
216-C-1	200 East	Crib	Process Condensate (5)
216-C-10	200 East	Crib	Process Condensate (5)
216-S-1&2	200 West	Crib	Process Condensate (6)
216-S-7	200 West	Crib	Process Condensate (6)
216-S-9	200 West	Crib	Process Condensate (6)
216-S-20	200 West	Crib	Process Condensate (6)
216-S-21	200 West	Crib	Process Condensate (6)
216-T-2	200 West	Reverse Well	Process Waste (7)
216-T-3	200 West	Reverse Well	Misc. Liquid Waste (7)
216-T-7	200 West	Crib & Tile Field	Tank/Scavenged Waste (7)
216-T-8	200 West	Crib	Process Waste (7)

TABLE 2-4. HANFORD INACTIVE WASTE SITE SORTED BY AREA. (continued)

62 Priority Sites Recommended for Phase II Characterization.

Site No. (1)	Subarea (12)	Unit Type (12)	Waste Disposed
216-T-19	200 West	Crib & Tile Field	Process Condensate (7)
216-T-28	200 West	Crib	Process Waste (7)
216-U-1&2	200 West	Crib	Misc. Liquid Waste (8)
216-U-3	200 West	French Drain	Tank/Scavenged Waste (8)
216-U-4	200 West	French Drain (11),Reverse Well (11&12)*	Process Waste (8)
216-U-4A	200 West	French Drain (11&12),Reverse Well (11)*	Process Waste (8)
216-U-4B	200 West	French Drain (11&12),Reverse Well (11)*	Process Waste (8)
216-U-11	200 West	Ditch	Process Waste (8)
216-Z-1&2	200 West	Crib	Process Waste (9)
216-Z-7	200 West	Crib	Process Waste (9)
216-Z-10	200 West	Reverse Well	Process Waste (9)
316-1	300 Area	Pond (11&12)	PW and Lab Wastes (10)
316-2	300 Area	Pond (11&12)	PW and Lab Wastes (10)
316-3	300 Area	Trench	PW and Lab Wastes (10)

* Indicates a conflict in unit type according to the references given

References used in columns one and two are given at the column headings. The reference used in column three, Unit Type, is given at the column heading unless additional, or different, sources are listed in parenthesis for a given site. References used for column four, Waste Disposed, are given in parenthesis for a site.

TABLE 2-5. HANFORD INACTIVE WASTE SITE SORTED BY UNIT TYPE.

62 Priority Sites Recommended for Phase II Characterization.

Site No. (1)	Subarea (12)	Unit Type (12)	Waste Disposed
116-C-2	100-B/C	Crib	Ruptured Fuel Effluent (2)
116-DR-7	100-D/DR	Crib	Misc. (2)
116-KE-2	100-KE/KW	Crib	Misc. (2)
216-B-7 A&B	200 East	Crib	Tank/Scavenged Waste (4)
216-B-10A	200 East	Crib	Process Waste (4)
216-B-43	200 East	Crib	Tank/Scavenged Waste (4)
216-C-1	200 East	Crib	Process Condensate (5)
216-C-10	200 East	Crib	Process Condensate (5)
216-S-1&2	200 West	Crib	Process Condensate (6)
216-S-7	200 West	Crib	Process Condensate (6)
216-S-9	200 West	Crib	Process Condensate (6)
216-S-20	200 West	Crib	Process Condensate (6)
216-S-21	200 West	Crib	Process Condensate (6)
216-T-8	200 West	Crib	Process Waste (7)
216-T-28	200 West	Crib	Process Waste (7)
216-U-1&2	200 West	Crib	Misc. Liquid Waste (8)
216-Z-1&2	200 West	Crib	Process Waste (9)
216-Z-7	200 West	Crib	Process Waste (9)
216-A-4	200 East	Crib (11&12)	Misc. Liquid Waste (3)
216-A-5	200 East	Crib (12)	Process Condensate (3)
216-A-6	200 East	Crib (12)	Misc. Liquid Waste (3)
216-A-7	200 East	Crib (12)	Misc. Liquid Waste (3)
216-A-9	200 East	Crib (12)	Process Waste (3)
216-A-21	200 East	Crib (11&12)	Process Waste (3)
216-A-24	200 East	Crib (12)	Tank/Scavenged Waste (3)
216-A-27	200 East	Crib (11&12)	Misc. Liquid Waste (3)
216-A-36A	200 East	Crib	Misc. Liquid Waste (3)
216-T-19	200 West	Crib & Tile Field	Process Condensate (7)
216-T-7	200 West	Crib & Tile Field	Tank/Scavenged Waste (7)
216-U-11	200 West	Ditch	Process Waste (8)
100 KE*1	100-KE/KW	Dry Well (11&12)	Misc. (2)
100 KW*1	100-KE/KW	Dry Well (11&12)	Misc. (2)
100 KE*2	100-KE/KW	Dry Well (11),French Drain (12) *	Misc. (2)
100 KW*2	100-KE/KW	Dry Well (11),French Drain (12) *	Misc. (2)
116-B-4	100-B/C	French Drain	Decontamination Waste (2)
116-H-3	100-H	French Drain	Decontamination Waste (2)
216-A-28	200 East	French Drain	Misc. Liquid Waste (3)
216-U-3	200 West	French Drain	Tank/Scavenged Waste (8)
216-U-4	200 West	French Drain (11),Reverse Well (11&12)*	Process Waste (8)
216-U-4A	200 West	French Drain (11&12),Reverse Well (11)*	Process Waste (8)
216-U-4B	200 West	French Drain (11&12),Reverse Well (11)*	Process Waste (8)
316-1	300 Area	Pond (11&12)	PW and Lab Wastes (10)
316-2	300 Area	Pond (11&12)	PW and Lab Wastes (10)
216-B-5	200 East	Reverse Well	Tank/Scavenged Waste (4)
216-B-6	200 East	Reverse Well	Process Waste (4)
216-T-2	200 West	Reverse Well	Process Waste (7)
216-T-3	200 West	Reverse Well	Misc. Liquid Waste (7)
216-Z-10	200 West	Reverse Well	Process Waste (9)

TABLE 2-5. HANFORD INACTIVE WASTE SITE SORTED BY UNIT TYPE.

62 Priority Sites Recommended for Phase II Characterization.

Site No. (1)	Subarea (12)	Unit Type (12)	Waste Disposed
116-D-1B	100-D/DR	Trench	Decontamination Waste (2)
116-F-1	100-F	Trench	Decontamination Waste (2)
116-F-2	100-F	Trench	Ruptured Fuel Effluent (2)
116-F-3	100-F	Trench	Ruptured Fuel Effluent (2)
116-F-9	100-F	Trench	Misc (2)
116-H-1	100-H	Trench	Ruptured Fuel Effluent (2)
316-3	300 Area	Trench	PW and Lab Wastes (10)
216-B-16	200 East	Trench (11),Crib (12) *	Tank/Scavenged Waste (4)
216-B-44	200 East	Trench (11),Crib (12) *	Tank/Scavenged Waste (4)
216-B-45	200 East	Trench (11),Crib (12) *	Tank/Scavenged Waste (4)
216-B-46	200 East	Trench (11),Crib (12) *	Tank/Scavenged Waste (4)
216-B-48	200 East	Trench (11),Crib (12) *	Tank/Scavenged Waste (4)
216-B-49	200 East	Trench (11),Crib (12) *	Tank/Scavenged Waste (4)
216-B-50	200 East	Trench (11),Crib (12) *	Tank/Scavenged Waste (4)

* Indicates a conflict in unit type according to the references given

References used in columns one and two are given at the column headings. The reference used in column three, Unit Type, is given at the column heading unless additional, or different, sources are listed in parenthesis for a given site. References used for column four, Waste Disposed, are given in parenthesis for a site.

TABLE 2-6. HANFORD INACTIVE WASTE SITE SORTED BY WASTE DISPOSED.

62 Priority Sites Recommended for Phase II Characterization.

Site No. (1)	Subarea (12)	Unit Type (12)	Waste Disposed
116-B-4	100-B/C	French Drain	Decontamination Waste (2)
116-D-1B	100-D/DR	Trench	Decontamination Waste (2)
116-F-1	100-F	Trench	Decontamination Waste (2)
116-H-3	100-H	French Drain	Decontamination Waste (2)
116-F-9	100-F	Trench	Misc (2)
216-A-4	200 East	Crib (11&12)	Misc. Liquid Waste (3)
216-A-6	200 East	Crib (12)	Misc. Liquid Waste (3)
216-A-7	200 East	Crib (12)	Misc. Liquid Waste (3)
216-A-27	200 East	Crib (11&12)	Misc. Liquid Waste (3)
216-A-28	200 East	French Drain	Misc. Liquid Waste (3)
216-A-36A	200 East	Crib	Misc. Liquid Waste (3)
216-T-3	200 West	Reverse Well	Misc. Liquid Waste (7)
216-U-1&2	200 West	Crib	Misc. Liquid Waste (8)
100 KE*1	100-KE/KW	Dry Well (11&12)	Misc. (2)
100 KE*2	100-KE/KW	Dry Well (11),French Drain (12) *	Misc. (2)
100 KW*1	100-KE/KW	Dry Well (11&12)	Misc. (2)
100 KW*2	100-KE/KW	Dry Well (11),French Drain (12) *	Misc. (2)
116-DR-7	100-D/DR	Crib	Misc. (2)
116-KE-2	100-KE/KW	Crib	Misc. (2)
216-A-5	200 East	Crib (12)	Process Condensate (3)
216-C-1	200 East	Crib	Process Condensate (5)
216-C-10	200 East	Crib	Process Condensate (5)
216-S-1&2	200 West	Crib	Process Condensate (6)
216-S-7	200 West	Crib	Process Condensate (6)
216-S-9	200 West	Crib	Process Condensate (6)
216-S-20	200 West	Crib	Process Condensate (6)
216-S-21	200 West	Crib	Process Condensate (6)
216-T-19	200 West	Crib & Tile Field	Process Condensate (7)
216-A-9	200 East	Crib (12)	Process Waste (3)
216-A-21	200 East	Crib (11&12)	Process Waste (3)
216-B-6	200 East	Reverse Well	Process Waste (4)
216-B-10A	200 East	Crib	Process Waste (4)
216-T-2	200 West	Reverse Well	Process Waste (7)
216-T-8	200 West	Crib	Process Waste (7)
216-T-28	200 West	Crib	Process Waste (7)
216-U-4	200 West	French Drain (11),Reverse Well (11&12)*	Process Waste (8)
216-U-4A	200 West	French Drain (11&12),Reverse Well (11)*	Process Waste (8)
216-U-4B	200 West	French Drain (11&12),Reverse Well (11)*	Process Waste (8)
216-U-11	200 West	Ditch	Process Waste (8)
216-Z-1&2	200 West	Crib	Process Waste (9)
216-Z-7	200 West	Crib	Process Waste (9)
216-Z-10	200 West	Reverse Well	Process Waste (9)
316-1	300 Area	Pond (11&12)	PW and Lab Wastes (10)
316-2	300 Area	Pond (11&12)	PW and Lab Wastes (10)
316-3	300 Area	Trench	PW and Lab Wastes (10)
116-C-2	100-B/C	Crib	Ruptured Fuel Effluent (2)
116-F-2	100-F	Trench	Ruptured Fuel Effluent (2)
116-F-3	100-F	Trench	Ruptured Fuel Effluent (2)

TABLE 2-6. HANFORD INACTIVE WASTE SITE SORTED BY WASTE DISPOSED. (continued)

62 Priority Sites Recommended for Phase II Characterization.

Site No. (1)	Subarea (12)	Unit Type (12)	Waste Disposed
116-H-1	100-H	Trench	Ruptured Fuel Effluent (2)
216-A-24	200 East	Crib (12)	Tank/Scavenged Waste (3)
216-B-5	200 East	Reverse Well	Tank/Scavenged Waste (4)
216-B-7 A&B	200 East	Crib	Tank/Scavenged Waste (4)
216-B-16	200 East	Trench (11),Crib (12) *	Tank/Scavenged Waste (4)
216-B-43	200 East	Crib	Tank/Scavenged Waste (4)
216-B-44	200 East	Trench (11),Crib (12) *	Tank/Scavenged Waste (4)
216-B-45	200 East	Trench (11),Crib (12) *	Tank/Scavenged Waste (4)
216-B-46	200 East	Trench (11),Crib (12) *	Tank/Scavenged Waste (4)
216-B-48	200 East	Trench (11),Crib (12) *	Tank/Scavenged Waste (4)
216-B-49	200 East	Trench (11),Crib (12) *	Tank/Scavenged Waste (4)
216-B-50	200 East	Trench (11),Crib (12) *	Tank/Scavenged Waste (4)
216-T-7	200 West	Crib & Tile Field	Tank/Scavenged Waste (7)
216-U-3	200 West	French Drain	Tank/Scavenged Waste (8)

* Indicates a conflict in unit type according to the references given

References used in columns one and two are given at the column headings. The reference used in column three, Unit Type, is given at the column heading unless additional, or different, sources are listed in parenthesis for a given site. References used for column four, Waste Disposed, are given in parenthesis for a site.

3.0 SUMMARY OF RCRA 3004(u) SITES

SAIC has reviewed the provided materials on inactive waste sites at the Hanford Reservation to determine the applicability of RCRA 3004(u) corrective action requirements to those sites. The provided information concerned both waste management units and waste spills. These units and activities were evaluated to determine whether the unit was used to manage solid waste. Figure 3-1 presents an overview of the evaluation process. This evaluation relies on the definition of solid waste as presented in 40 CFR 261.2. Solid waste includes any discarded material that is abandoned, recycled, or inherently waste-like. Certain exclusions apply to various waste materials as defined under 40 CFR 261.4. It should be noted that units containing mixtures of low level byproduct materials and hazardous waste are considered to be units used to manage solid wastes.

Another factor considered in the evaluation is whether the unit is any discernible waste management unit from which hazardous constitutents might migrate. This includes containers, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, underground injection wells, recycling units, wastewater treatment units, other treatment units, etc.

Under certain circumstances, process units, waste lines, and other facility activities or materials management units/systems may be subject to RCRA 3004(u). Spills and/or releases from process units and production areas not associated with regulated discharges or waste management units are potential candidates. In general, spills or releases from process/production areas and units which are routine, systematic, and deliberate may be considered further. This evaluation relies on engineering judgment and the "pattern" and history of materials management or spill remediation evident at the facility. Criteria used in the evaluation include the frequency of occurance, the period of time overwhich the practice occurred, the immediacy of remedial action taken (e.g., in repairing active leaks), and the alternative management or mitigation measures applied to prevent environmental contamination. Some examples of routine, systematic, and deliberate spills are: discharging residual wastes from tank cars or

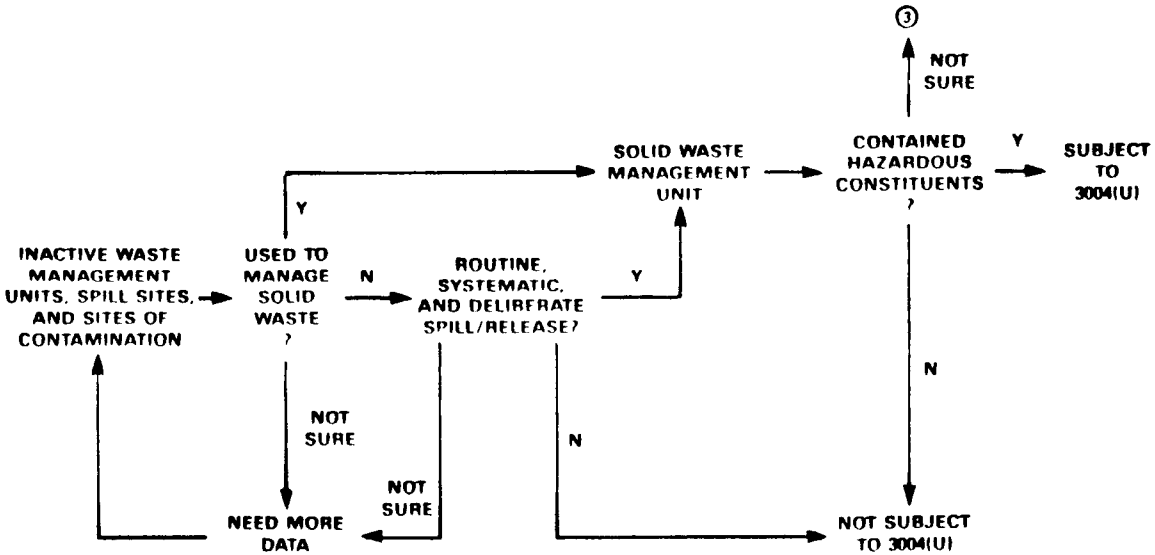


FIGURE 3-1. RCRA 3004(u) Decision Process

railroad cars after the bulk of the waste volume has been transferred, discharging residual product chemicals (e.g., solvents, acids) after unloading the products into process storage from tank cars or railroad cars, spreading solvents or waste oils for weed control, allowing line leakage to occur over an extended period of time (months or years) without repairs, allowing line leakage to occur over an extended period of time (months or years) while collecting some of the leakage but not repairing the line. In such cases, the concern is with continued releases to the environment which subsequently provide a "source" for further hazardous constituent release to the environment; if the discharges occured into a containment structure (such as a concrete trench), then such discharges would not be subject to corrective action although the trench could be so considered. As a whole, this category of "units" excludes accidental spills from process/production areas and excludes one-time or short term (days) spills which would generally be addressed under best management practices or the National Contingency Plan.

The Hanford sites and spills identified as 3004(u) sites are listed in Appendix A. Appendix A presents the sites/spills identified as neither CERCLA nor 3004(u); some of the sites are excluded from consideration because they are active, are part of a unit seeking a Dangerous Waste or Closure Permit, or are out of the scope of this project as identified in the original Request for Proposal (buildings and reactors). Appendix A provides an additional list of sites that have been excluded from consideration and the basis for the exclusion. The following analyses are based on the 3004(u) site list.

Table 3-1 presents the numbers and types of inactive 3004(u) sites determined to be present at the Hanford Reservation. This is an initial compilation of the data and further refinement will be necessary. For example, there are a large number of site types identified in the table that can be grouped together because they are synonymous or very similar in function (e.g., ponds and surface impoundments, or ditches and trenches). In interpreting Table 3-1, it is important to note that the numbers represent the number of 3004(u) sites at Hanford and not the number of

TABLE 3-1. SUMMARY OF 3004(u) INACTIVE WASTE SITES.

	HANFORD AREAS														
UNIT NAME	100 B/C	100 D/DR	100 F	100 H	100 KE/KW	100 N	200 E	200 N	200 W	300	400	600	700	1100	TOTAL
ACCESS AREA										1					1
BASIN									2						2
BASIN TRENCH		2													2
BOX							1		1						2
BURIAL GROUND	8	6	6	4	1		10		10	1		3			49
BURIAL TUNNEL							1								1
BURIAL VAULT			1				2								3
BURNING PIT	1	1	1	2	1	1	1								8
COMPARTMENT									1						1
CRIB	6	4	2	2	2		23		21	1		3			64
CRIB & TRENCH						1									1
CRIB SANDFILTER	1														1
CRIB/T. FIELD							1								1
CRIB/TRENCH							1								1
DITCH							3		8						11
DITCH & POND							1								1
DIVERSION BOX							26		21						47
DIVERTER STATION							2								2
DRAIN FIELD							1			3					4
DRY WELL	1								2						3
EVAPORATOR							1			1					2
FILTER MONITOR									1						1
FRENCH DRAIN	1	3	4		2	2	14		3		2				31
GROUND CONTAM.									1						1
GROUND DISPOSAL														1	1
GROUND SPILL									2						2
INCINERATOR									1						1
LANDFILL												9			9
LEACHING PIT							1								1
LINE LEAK						2									2
PIPE TRENCH-SYSTEM										1					1
PIT	1			2		1	2		3	1		1		2	13
POND								3	5	1	1	1			11
PROCESS TANK - VENT LINES									1						1
PUMPING STATION		2	1	1											4
RECEIVING VAULT							2								2
RETENTION BASIN	2	2	1	1	2										8
REVERSE WELL							2								2
SEWER									1						1
SEWER PIPE										1					1
SPILL SITE							3								3
STORAGE PAD		1													1
SUMP	1														1
SURFACE IMPOUNDMENT									1						1
TANK	1	1			14		22		23	2	1	4	1	1	70
TANK/DRAINFIELD						5									5
TANK/TILEFIELD	4	2	5	3											14
TILE FIELD									1						1
TRANSFER LINE										1					1
TRENCH	1						32	4	27	2	1	8			75
TRENCH & PITS												1			1

[redacted]ABL[redacted]1 ([redacted].) [redacted]MMA[redacted]F 3[redacted](u)[redacted]CTI[redacted]WAST[redacted]ITE[redacted]

UNIT NAME	HANFORD AREAS														
	100 B/C	100 D/DR	100 F	100 H	100 KE/KW	100 N	200 E	200 N	200 W	300	400	600	700	1200	TOTAL
UNDERGROUND TANKS										3					3
VAULT							1		5						6
WASTE LINE							2		2						4
WASTE PILE												1			1
WEIR BOX									3						3
TOTAL	28	24	21	15	22	12	155	7	146	19	5	31	1	4	490

individual units. For instance, a tank farm composed of 16 individual tanks is represented as 1 site and not 16 individual units.

The data provided in Table 3-1 indicate that approximately 60 percent of the 3004(u) sites are located in the 200 East and 200 West areas, with approximately equal numbers of sites in each area. The data compilation also shows that trenches are the most prevalent waste unit followed by cribs, tanks, diversion boxes, burial grounds, and french drains. These six types of sites represent 54 percent of the total number of sites (490).

The data provided on the RCRA 3004(u) sites indicates that various remediation techniques have been applied. Table 3-2 summarizes the different types of remedial action conducted (where identified) for each type of unit. These remediations are compared to accepted methods for addressing 3004(u) sites. Five methods have been identified: three methods of remediation and two methods of verifying no need for further action. Little supporting documentation is present in the data reviewed to verify that remediations performed (such as exhumation) removed all the contamination. This information will affect characterization and remediation strategies and decisions to be made in Tasks 8 and 9. As noted in the table, the meaning of certain terms was not clear and as a result, the particular status of remediation conducted cannot be explicitly determined. For example, the term "stabilized" can refer to physical stabilization (to prevent erosion) or to chemical fixation (to prevent chemical constituent leaching or migration); chemical fixation would represent an acceptable 3004(u) corrective action whereas erosion prevention (without additional action) would not.

It should be noted that current RCRA legislation and EPA policy guidance focus on long term measures such as exhumation and treatment (to destroy mobility, toxicity, etc.) as the remediation of choice over in place closure using "temporary" measures such as capping. However, in many instances, the hazard associated with many of the radioactive materials may result in closure in place being the preferable remediation.

TABLE 3-2. COMPARISON OF REMEDIATION CONDUCTED WITH ACCEPTED REMEDIATION TECHNIQUES FOR RCRA 3004(u) SITES.

Unit Type	Remediation Conducted	ACCEPTED RCRA 3004(u) REMEDIATION TECHNIQUES			VERIFICATION OF ACTION UNDER	NEED FOR NO FURTHER RCRA 3004(u)
		Exhumation	In Place Treatment	Closed In Place*	Verified No Hazardous Constituents	Verified No Past, Present, or Future Releases
basin	applied clean soil cover					
basin trench	applied soil cover					
burial ground	applied clean soil cover					
	exhumed	X				
	backfilled					
	backfilled and possible stabilization		?	?		
	backfilled, retired, and stabilized		?	?		
	retired and stabilized		?	?		
	removed waste, retired, and stabilized	X	?			
	removed from radiation zone status and retired					
	applied cover, stabilized, and retired		?	?		
	retired, stabilized, and warning signs posted		?	?		
	retired					
	retired, stabilized, pipes sealed with concrete, and covered contamination area with dirt		?	?		
burial vault	retired and stabilized		?	?		
	retired and vegetated					
burning pit	applied soil cover					

TABLE 3-2. COMPARISON OF REMEDIATION CONDUCTED WITH ACCEPTED REMEDIATION TECHNIQUES FOR RCRA 3004(u) SITES. (continued)

Unit Type	Remediation Conducted	ACCEPTED RCRA 3004(u) REMEDIATION TECHNIQUES: Exhumation	In Place Treatment	Closed In Place*	VERIFICATION OF ACTION UNDER: Verified No Hazardous Constituents	NEED FOR NO FURTHER RCRA 3004(u): Verified No Past, Present, or Future Releases
crib	backfilled with soil					
	exhumed	X				
	closed off inlet piping					
	"deactivated"					
	covered with soil and retired					
	covered with soil					
	retired					
	retired and backfilled					
	retired and covered with large cobbles					
ditch	backfilled					
	applied soil cover					
	exhumed	X				
	retired and backfilled					
	sludge removed and placed around ditch, covered with soil, and removed from radiation zone status					
	retired, backfilled, possibly exhumed	X				
diversion boxes	isolated and weather covered					
diverter station	isolated and weather covered					
drain field	none					

TABLE 3-2. COMPARISON OF REMEDIATION CONDUCTED WITH ACCEPTED REMEDIATION TECHNIQUES FOR RCRA 3004(u) SITES. (continued)

Unit Type	Remediation Conducted	ACCEPTED RCRA 3004(u) REMEDIATION TECHNIQUES			VERIFICATION OF ACTION UNDER	NEED FOR NO FURTHER RCRA 3004(u)
		Exhumation	In Place Treatment	Closed In Place*	Verified No Hazardous Constituents	Verified No Past, Present, or Future Releases
dry well	none					
evaporator	none					
french drains	applied soil cover					
	removed contaminated soil and gravel and removed from radiation zone status	X				
	"deactivated"					
	retired					
	waste rerouted					
gravel pit	none					
incinerator	none					
landfill	applied soil cover					
	backfilled and covered with soil					
	backfilled					
line leak	isolated, excavated, and contaminated groundwater pumped	X	X			
	excavated and contaminated groundwater pumped	X	X			
	contaminated soil removed	X				
	grouted and sealed off drain and weir					

TABLE 3-2. COMPARISON OF REMEDIATION CONDUCTED WITH ACCEPTED REMEDIATION TECHNIQUES FOR RCRA 3004(u) SITES. (continued)

Unit Type	Remediation Conducted	ACCEPTED RCRA 3004(u) REMEDIATION TECHNIQUES			VERIFICATION OF ACTION UNDER	NEED FOR NO FURTHER RCRA 3004(u)
		Exhumation	In Place Treatment	Closed In Place*	Verified No Hazardous Constituents	Verified No Past, Present, or Future Releases
	spare line placed in service					
	covered with soil and gravel					
	exhumation and backfilled	X				
	applied lead shielding					
	covered with gravel					
	exhumed and removed site from radiation zone status	X				
	contaminated soil removed and warning signs posted	?				
pits	inactivated and backfilled					
	backfilled and retired					
	area zoned off and excavation started					
	contaminated sand removed periodically					
pond	decommissioned					
	removed sludge and applied clean soil cover	X				
	backfilled with ash					
	inflow diverted, stabilized, and inactive					
pumping station	demolished in place					
receiving vault	isolated and weather covered					
retention basin	backfilled					

TABLE 3-2. COMPARISON OF REMEDIATION CONDUCTED WITH ACCEPTED REMEDIATION TECHNIQUES FOR RCRA 3004(u) SITES. (continued)

Unit Type	Remediation Conducted	ACCEPTED RCRA 3004(u) REMEDIATION TECHNIQUES			VERIFICATION OF ACTION UNDER	NEED FOR NO FURTHER RCRA 3004(u)
		Exhumation	In Place Treatment	Closed In Place*	Verified No Hazardous Constituents	Verified No Past, Present, or Future Releases
reverse well	retired					
sewer	applied clean soil cover					
sewer pipe	none					
spill	barricaded					
	physically fixed/stabilized with Turco fabri-film, barricaded, and posted					
	bladed free of vegetation cover and posted warning signs					
	removed contaminated soil and backfilled	X				
	bladed free of vegetation					
	released from radiation zone status					
	radiation zone established					
	decontamination attempted and area backfilled	?				
	contamination area sealed and covered with earth			?		
storage pad	none					
sump	cleaned and neutralized		X			

TABLE 3-2. COMPARISON OF REMEDIATION CONDUCTED WITH ACCEPTED REMEDIATION TECHNIQUES FOR RCRA 3004(u) SITES. (continued)

Unit Type	Remediation Conducted	ACCEPTED RCRA 3004(u) REMEDIATION TECHNIQUES: Exhumation	In Place Treatment	Closed In Place*	VERIFICATION OF ACTION UNDER: Verified No Hazardous Constituents	NEED FOR NO FURTHER RCRA 3004(u): Verified No Past, Present, or Future Releases
surface impoundment	backfilled, treated with herbicides and covered with gravel drained and neutralized					
	tank emptied and moved	X				
	soil neutralized		X			
	tank filled with water					
	tank emptied and triple rinsed			X		
	decommissioned					
	removed from radiation zone status					
	neutralized soil with 60 gal 50% NaOH		X			
	removed from service					
	stabilized by adding diatomaceous earth		?			
	removed from service, classified as interim stabilized, and two dry wells added		?			
	contents removed	X				
	retired					
	isolated and weather covered					
tank drain/tile field	none					
testing unit	removed contaminated soil and equipment					
transfer box	decontaminated to background	?				

TABLE 3-2. COMPARISON OF REMEDIATION CONDUCTED WITH ACCEPTED REMEDIATION TECHNIQUES FOR RCRA 3004(u) SITES. (continued)

Unit Type	Remediation Conducted	ACCEPTED RCRA 3004(u) REMEDIATION TECHNIQUES			VERIFICATION OF ACTION UNDER	NEED FOR NO FURTHER RCRA 3004(u)
		Exhumation	In Place Treatment	Closed In Place*	Verified No Hazardous Constituents	Verified No Past, Present, or Future Releases
trench	backfilled and retired					
	backfilled					
	retired					
	retired and stabilized		?	?		
	covered with soil					
	released from radiation zone					
	sludge removed and unit "deactivated"	X				
	exhumed, backfilled, deactivated, and released from radiation zone status	X				
	deactivated					
	retired and released from radiation zone status					
	exhumed and released from radiation zone status	X				
	exhumed and deactivated	X				
	retired and mining operation conducted		?			
	removed from service, backfilled, stabilized, and posted		?	?		
underground tank	none					

TABLE 3-2. COMPARISON OF REMEDIATION CONDUCTED WITH ACCEPTED REMEDIATION TECHNIQUES FOR RCRA 3004(u) SITES. (continued)

Unit Type	Remediation Conducted	ACCEPTED RCRA 3004(u) REMEDIATION TECHNIQUES			VERIFICATION OF ACTION UNDER	NEED FOR NO FURTHER RCRA 3004(u)
		Exhumation	In Place Treatment	Closed In Place*	Verified No Hazardous Constituents	Verified No Past, Present, or Future Releases
vault	applied soil cover					
	retired and "locked out from future use"			?		
	removed disposal chutes, sink holes filled in, and retired			?		
waste pile	applied dirt cover and posted as radiation zone					
weir box	none					

NOTES:

* closed in place refers to the use of engineered covers, groundwater monitoring systems, runoff control structures etc.

The terms retired, deactivated, decommissioned, and stabilized have have been encountered in association with several remedial actions without explicit designation of the meaning for each unit where identified. As a result, it cannot be determined whether the remediation performed satisfies the RCRA 3004(u) requirements from the available information.

4.0 IDENTIFIED CONFLICTS BETWEEN REGULATIONS, PROCEDURES AND OTHER REQUIREMENTS

4.1 OVERVIEW OF THE REGULATIONS, PROCEDURES AND REQUIREMENTS

4.1.1 CERCLA

The Superfund Amendments and Reauthorization Act (SARA) of 1986 adds Sections 120 and 121 to CERCLA, clarifying the applicability of CERCLA regulations by EPA and the states to cleanup at federal facilities. As a result of SARA, EPA is given final authority for approving remedial action at federal facilities. Section 120 of CERCLA however, does not apply to certain Department of Energy sites which had a response plan or remedial action under development on the date of enactment of SARA. SARA also sets out a schedule for EPA, and federal agencies with cleanup sites, to follow in considering those sites for the NPL and pursuing the required studies and cleanups.

The SARA requires that CERCLA actions, including cleanup at federal facilities on the NPL, must achieve "applicable or relevant and appropriate federal and state requirements" (ARAR's). Previously, as a matter of policy, EPA required CERCLA cleanups to meet ARAR's except under certain conditions. SARA formalizes that policy as a legislated requirement with specific conditions under which the requirement can be waived. This subjects hazardous waste cleanups at all federal facilities to the requirements of the Clean Air Act, the Clean Water Act, the Toxic Substances Control Act, and the Resource Conservation and Recovery Act, and to the requirements of the state in which the DOE facility is located.

The National Oil and Hazardous Substance Contingency Plan (NCP) (40 CFR Part 300) provides the regulatory framework for selecting and carrying out remedial responses under CERCLA. Selection of a response is based on factors such as health and environmental protection, technology, cost, institutional considerations, and site-specific factors. The NCP provides limited guidance regarding the standards to be applied to CERCLA cleanups, but directs that remedial actions must be protective of human health and the

environment and attain legally applicable or relevant and appropriate Federal and State regulations (ARAR's).

The Superfund Amendments and Reauthorization Act of 1986 (SARA) incorporated several of these factors into the statute and added a new mandate with regard to standards for cleanup remedies. Remedial actions at CERCLA sites must be:

- Protective of human health and the environment (including meeting Federal and State ARARs);
- Cost effective in achieving goals; and
- Utilize permanent remedies and alternative treatment technologies or resource recovery technologies to the maximum extent practicable.

The strong preference for "permanent" remedies is a significant new direction for the CERCLA program and will receive major emphasis at RCRA cleanups as well.

Application of RCRA requirements to CERCLA actions has recently been clarified by a working draft guidance that EPA has released for review and, as previously mentioned, by Section 121 of SARA which addresses ARAR's. The draft guidance is not to be cited or quoted, but it is very similar to the requirements in the SARA. SARA requirements indicate that all Superfund remedial actions are to attain ARAR's (except for permits for onsite actions), unless the Administrator waives the ARAR's. SARA lists six reasons for waiving applicable or relevant and appropriate requirements. These are:

- The remedial action is an interim measure where the final remedy will attain the ARAR upon completion
- Compliance will result in greater risk to human health and the environment than other options

- Compliance is technically impracticable

- An alternative remedial action will attain the equivalent of the ARAR

- For state requirements,the state has not consistently applied the state requirement in similar circumstances

- For Section 104 remedial actions, compliance with the ARAR will not provide a balance between protecting public health, welfare, and the environment at the facility with the availability of Fund money for response at other facilities (Fund-balancing).

The result of SARA Section 121 will be increased application of RCRA procedures and standards to CERCLA actions, especially for discreet disposal units that clearly meet the traditional sense of a solid waste management unit. Waivers will require additional efforts by the responsible parties to construct supporting arguments that the Administrator will need to incorporate with the consent decrees or records of decision.

4.1.2 RCRA

The RCRA corrective action authority is a redundant authority that EPA could use at DOE facilities. The RCRA authorities are broader than the CERCLA authorities because the standard that must be met in order to invoke the authority is as low as (for Section 3008(h)) the mere existence of a release,whether or not any person or any part of the environment is threatened by the release. EPA is not required by Sections 3004(u), 3004(v), or 3008(h) to show an "imminent and substantial endangerment", as required under CERCLA.

Sections 3004(u) and (v) and 3008(h) of RCRA were added by the Hazardous and Solid Waste Amendments of 1984 (HSWA). These "corrective action" provisions of RCRA authorize the EPA to require corrective action to be undertaken to address releases of hazardous constituents at sites located at either interim status facilities or facilities that will require a RCRA permit.

Consequently, for any federal facility that will require a RCRA permit for one or more treatment, storage, or disposal units, releases from even pre-RCRA solid waste management units (SWMU's) at that facility can be addressed by EPA under RCRA authorities.

The corrective action programs already in place under CERCLA and RCRA Part 264 Subpart F are the foundation for the 3004 (u) program. Sections 104 and 106 of the Comprehensive Environmental Response Compensation and Liability Act authorize EPA to take response actions, including removal or remedial measures, when a release or threat of release of a hazardous substance is discovered which may effect health or welfare. Generally, these authorities are used in situations where contamination has occurred at abandoned sites. Where contamination is related to activities at hazardous waste management facilities that are operating or have operated at any time since November 1980, both RCRA and CERCLA potentially apply. EPA has chosen, as a matter of policy, to initiate action under RCRA rather than CERCLA at most facilities.

The RCRA program will utilize, where feasible, remedial approaches that provide for treatment of wastes and control of the source as opposed to limited solutions such as capping, where the contaminating material is allowed to remain in place.

The Hazardous Solid Waste Act (HSWA) corrective action regulations, when they become available, will represent the most important set of RCRA standards (ARARs) for CERCLA remedial actions. As such, a <u>primary</u> goal in development of the RCRA regulations will be to establish, to the maximum extent possible, a consistent approach between the RCRA and CERCLA programs to remediating environmental problems.

Existing RCRA regulations for ground water corrective action (40 CFR Part 264, Subpart F) prescribe a specific approach for detection, characterization, and cleanup of contaminated ground water from permitted land disposal units that received waste after July 26, 1982. Subpart F requires that ground water be removed or treated in-place within a reasonable period of time when a pre-determined performance standard has been exceeded at a point

of compliance (unit boundary). The performance standard may be defined as background, a generic drinking water standard applicable to all facilities (maximum concentration limits or MCLs) or a health-based standard calculated on the basis of actual facility conditions (alternate concentration limits or ACLs).

RCRA standards for closure of operating hazardous waste management units are also related to establishing cleanup remedy standards for 3004(u) corrective action. Many corrective actions are likely to involve measures designed to control sources of contamination. RCRA closure regulations specify how wastes in units may be removed or decontaminated or otherwise subjected to post-closure care requirements. Although the concept of RCRA "closure" of operating units is in some ways different from cleanup of old, abandoned waste management units or contaminated areas, the approach to regulating corrective action should be consistent with the principles of RCRA closure.

4.2 CONFLICTS IDENTIFIED FOR THE CERCLA SITES

The DOE ORDER 5480.14, Comprehensive Environmental Response, Compensation and Liability Program, describes the decision process used by DOE in determining whether or not a site requires further action beyond phase 1. Sites posing no threat of release are eliminated from further consideration. Sites qualifying for the NPL are recommended for further action to quantify migration potential. Sites not qualifying for the NPL, but exceeding other applicable DOE remedial action criteria or guidance or posing potential regulatory concern under other environmental acts, are proposed for further action.

As a result of SARA, DOE facilities will be required to carry out the same activities as previously required of private facilities. The new law also requires that the Remedial Investigation/Feasibility Study (RI/FS) be a mandatory requirement for sites on the NPL. This will require the revision of DOE Order 5480.14 to require the initiation of the RI/FS process within 12 months of the site being listed on the NPL.

A comparison of the differences between the EPA CERCLA process and the DOE process is given in Table 4-1. As may be noted, the processes are similar, although the feasibility study in the EPA program is replaced by the Engineering Assessment in the DOE program. The schedule for Federal Facility Site Evaluation and Clean-up is presented in Figure 4-1.

Certain guidelines are specified by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Contingency Plan (40 CFR 300) for preliminary assessment of sites potentially containing hazardous substances that might adversely affect human health or welfare. The Superfund Ammendments and Reauthorization Act of 1986 (SARA) modifies CERCLA but these changes will not apply to any response action or remedial action for which a plan is under development by the DOE at the Hanford Site. The Draft Phase I Installation Assessment of Inactive Waste-Disposal Sites at Hanford, June 1986, Volumes 1 and 2, meets the requirements of 40 CFR 300 for the preliminary assessment. The preliminary site investigation has compiled available literature, interviews of knowledegable sources, monitoring data, records and photographs of all sites currently in question into a comprehensive report. Volume 1 also describes the methods and data used as input to EPA's Hazard Ranking System (HRS) and the resulting scores. Some questions were raised as to the validity of some of the HRS scores. Particularly the handling of radioactive materials and the scores resulting from hazardous substances that may have been released in small quantities. An additional ranking was performed which was called mHRS. This reevaluation of sites resulted in the changing of some of the final HRS scores. The approach has been documented in Volume 1. With the notification of the Administrator of the EPA, the Hanford Site has fulfilled all requirements for the preliminary assessment as required by 40 CFR 300.

4.3 CONFLICTS IDENTIFIED FOR RCRA 3004(u) SITES

EPA has not resolved how it will apply the CERCLA and RCRA corrective action authorities. Many situations, at least over the short-term, can be addressed by orders under either authority, thus leaving EPA with a choice of tools. But, over the long-term, for active sites that will eventually

require a permit, the Administrator of EPA is required by Section 3004(u) of RCRA to put conditions in the permit that require corrective actions to address releases from SWMU's. Thus, even if all SWMU's that score above 28.5 on the HRS (or the required score on the new replacement for the HRS which SARA requires) are addressed by DOE under CERCLA, DOE could later be required under RCRA to address releases from any sites that did not qualify for the NPL. Therefore, it is unclear for the present whether CERCLA or RCRA will apply at uncontrolled DOE waste sites.

4.4 RELATIONSHIP BETWEEN DOE ORDERS, EPA AND WASHINGTON DEPARTMENT OF ECOLOGY REGULATIONS

CERCLA

The Operative DOE Order is No. 5480.14. As noted in the previous section, the SARA requires that the Federal facilities respond to the same requirements as private facilities. Furthermore, the Environmental Protection Agency has just amended 40 CFR 300 to add several new Federal Facility Sites. In the explanation of the rule, EPA has indicated they may choose not to use CERCLA to respond to certain releases because other authorities can be used to achieve these cleaups (52 FR 27625, July 22, 1987). In most cases, Federal Facility cleanups can be conducted under the corrective action provisions of RCRA.

Therefore, Federal RCRA regulations may be used for CERCLA sites. EPA can delegate the authority for RCRA to the states; and in the case of Washington State, the State program has been accepted by EPA. In this situation, EPA retains oversight for the implementation of the regulations. Recent guidance from EPA indicates that the agency is moving in the direction of making corrective action guidance under CERCLA and the corrective action under RCRA equivalent.

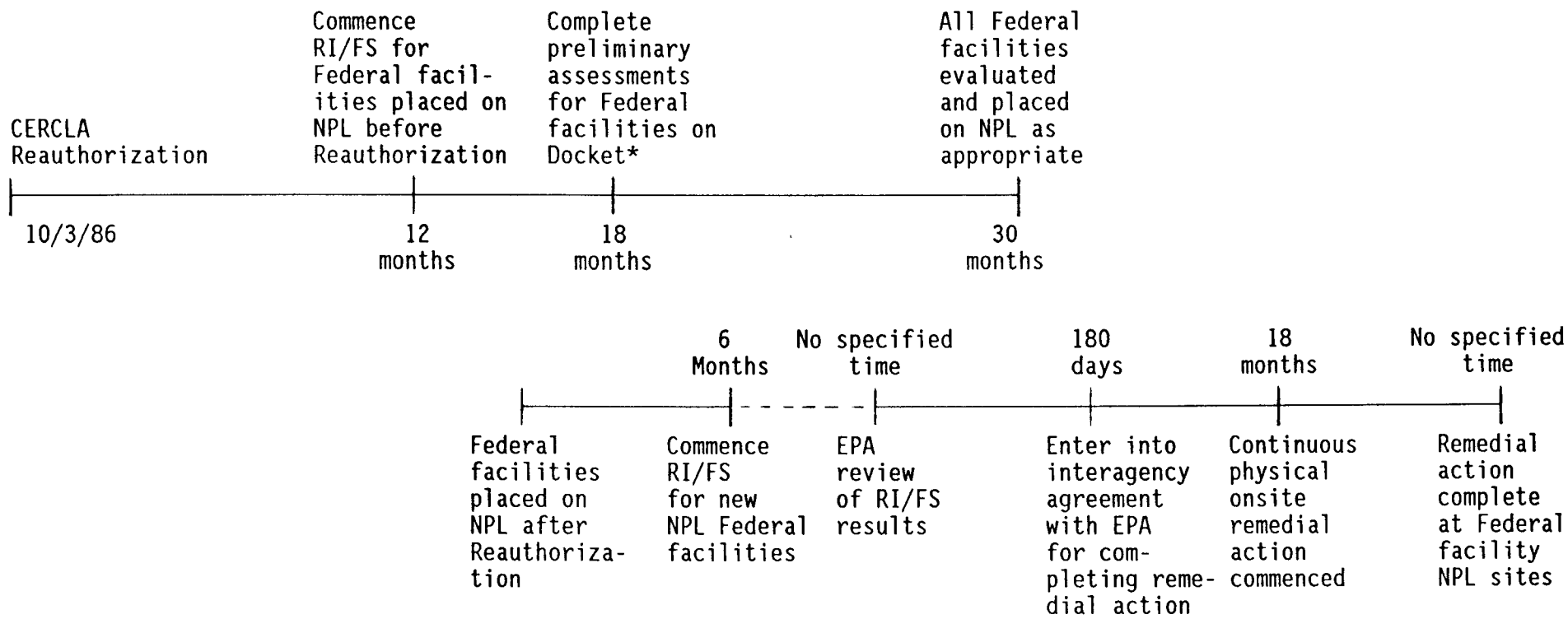
RCRA

The Washington State Regulations for Dangerous Waste (173-303 WAC) will apply to all dangerous waste interim status waste management units,

dangerous waste permitted waste management units, and units seeking a closure/post-closure permit as a dangerous waste management unit. The corrective action provisions under this regulation include groundwater monitoring corrective action (interim and final status land disposal units) and closure requirements (clean up contamination to background or close as a "RCRA" landfill). These regulations are equivalent to 40 CFR 264.100, 264.112, 264.117, 265.93, 265.112, 265.117, and 265.118.

Corrective action of solid waste management units can be mandated by EPA under RCRA 3004(u). Any facility seeking a dangerous waste permit (final status or closure/post-closure) will be subject to the corrective action provisions of the 1984 RCRA amendments. EPA currently has sole authority for the 3004(u) corrective action program. No states have been delegated this authority. Under the EPA 3004(u) corrective action program, special conditions will be included in the permit specifying remediation or verification sampling to be performed and a schedule for meeting these requirements.

FIGURE 4-1. FEDERAL FACILITY SITE EVALUATION AND CLEAN-UP TIMELINE



*The Federal facilities provision does not provide a deadline for EPA's establishing the Docket

ABBREVIATIONS

Docket - Federal Agency Hazardous Waste Docket
NPL - National Priorities List
RI/FS - Remedial Investigation and Feasibility Study

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APPENDIX A

RCRA 3004(u) SITES

RCRA 3004(u) SITES
(identified from Hanford Waste Management
Units Report, May 1987)

RCRA 3004(u) SITE	AREA
105-B Battery Acid Sump	100 B/C
184-B Powerhouse Ash Pit	100 B/C
1607-B1 Septic Tank	100 B/C
1607-B3 Septic Tank	100 B/C
1607-B7 Septic Tank	100 B/C
1607-B8 Septic Tank	100 B/C
1608-D Waste Water Pumping Station	100-D/DR
100-D Cask Storage Pad	100-D/DR
1706-D Gasoline Storage Tank	100 D/DR
1608-DR Waste Water Pumping Station	100 D/DR
1607-D1 Septic Tank	100 D/DR
1607-D4 Septic Tank	100 D/DR
1608-F Waste Water Pumping Station	100-F
184-F Powerhouse Ash Pit	100-F
1607-F1 Septic Tank	100-F
1607-F3 Septic Tank	100-F
1607-F4 Septic Tank	100-F
1607-F5 Septic Tank	100 F
1607-F6 Septic Tank	100 F
1608-H Waste Water Pumping Station	100 H
184-H Powerhouse Ash Pit	100 H
100-H2 Burning Pit	100 H
1607-H2 Septic Tank	100 H
1607-H3 Septic Tank	100 H
1607-H4 Septic Tank	100 H
105-KE Emergency Diesel Fuel Tank	100 KE/KW
166-KE Oil Storage Tank	100 KE/KW
183-KE1 Sulfuric Acid Storage Tank	100 KE/KW
183-KE2 Sulfuric Acid Storage Tank	100 KE/KW
183-KE Liquid Alum Storage Tank No. 2	100 KE/KW
183-KE Sodium Dichromate Storage Tank	100 KE/KW

RCRA 3004(u) SITES
(identified from Hanford Waste Management
Units Report, May 1987) (continued)

RCRA 3004(u) SITE	AREA
105-KW Emergency Diesel Fuel Tank	100 KE/KW
166 KW Oil Storage Tank	100 KE/KW
183-KW1 Sulfuric Acid Storage Tank	100 KE/KW
183-KW2 Sulfuric Acid Storage Tank	100 KE/KW
183-KW Sodium Dichromate Storage Tank	100 KE/KW
1717-K Gasoline Storage Tank	100 KE/KW
1717-K Waste Oil Storage Tank	100 KE/KW
182-K Emergency Cooling Flow-Diesel Pump Oil Supply	100 KE/KW
100-N Burning Pit (128-N-1)	100 N
124-N-4 Septic Tank	100 N
124-N-5 Septic Tank	100 N
124-N-6 Septic Tank	100 N
124-N-7 Septic Tank	100 N
124-N-8 Septic Tank	100 N
Acid Unloading Facility French Drains (120-N-7)	100 N
108-N Acid Tank Vent French Drains (120-N-6)	100 N
163-N Neutralization Pit and French Drain (120-N-3)	100 N
Sanitary Waste Drain Field	200 East
207-S Retention Basin	200 West
242-T Evaporator incl. UPR-200-W-12	200 West
242-B Evaporator	200 East
Diversion Boxes, Catch Tanks, and Receiving Vaults	200 East
25 diversion boxes - include UN-216-E-68, UPR-200-E-4, 6, 45, 73, 74, 75, 77	
2 receiving vaults	
2 diverter stations	
1 unidentified unit	
10 catch tanks	

RCRA 3004(u) SITES
(identified from Hanford Waste Management
Units Report, May 1987) (continued)

RCRA 3004(u) SITE	AREA
Diversion Boxes, Catch Tanks, and Receiving Vaults	200 West
22 boxes includes UPR-200-W-7,20, 51, 52, 80, 81, 99, 114, 126	
8 catch tanks (incl. 240-S-302)	
Tanks 276-S-141 and 276-S-142	200 West
241-A Tank Farm (single shell) (6 tanks) includes UPR-200-E-125, 48, 126, 47	200 East
241-AX Tank Farm (single shell) (4 tanks) UPR-200-E-115, 119	200 East
241-B Tank Farm (single shell) (16 tanks) includes UPR-200-E-127, 128, 129, 130, 108, 109	200 East
241-BX Tank Farm (single shell) (12 tanks) includes UPR-200-E-131, 132, 133, 3, 5, 78, 89	200 East
241-BY Tank Farm (single shell) (12 tanks) includes UPR-200-E-134, 135, 110	200 East
241-C Tank Farm (single shell) (12 tanks) includes UN-216-E-91, UPR-200-E-136, 137, 16, 50, 91	200 East
241-S Tank Farm (single shell) (12 tanks) includes upr-200-W-80, 81	200 West
241-SX Tank Farm (single shell) (15 tanks) includes UPR-200-W-49, 50, 114, 80, 81	200 West
241-T Tank Farm (single shell) (16 tanks) includes UPR-200-W-148	200 West
241-TX Tank Farm (single shell) (18 tanks) includes UPR-200-W-149, 100	200 West
241-TY Tank Farm (single shell) (6 tanks) includes UPR-200-W-150, 153, 151, 152	200 West

RCRA 3004(u) SITES
(identified from Hanford Waste Management
Units Report, May 1987) (continued)

RCRA 3004(u) SITE	AREA
241-U Tank Farm (single shell) (16 tanks) includes UPR-200-W-154, 155, 156, 157	200 West
241-B-361 Settling Tank	200 East
270-E Condensate Neutralization Tank	200 East
241-T-361 Settling Tank	200 West
241-U-361 Settling Tank	200 West
241-Z-361 Settling Tank	200 West
241-CX-70 Tank	200 East
241-CX-72 Vault and Tank	200 East
216-A-524 Control Structure	200 East
2904-S-160 Control Structure	200 West
2904-S-170 Weir Box	200 West
2904-S-171 Weir Box	200 West
216-S-172 Weir Box and Control Structure	200 West
244-UR Vault includes UPR-200-W-24	200 West
241-WR Vault	200 West
224-B Concentration Facility	200 East
2718-S Sand Filter Monitor	200 West
276-U Solvent Handling Facility	200 West
241-SX-401 Condenser Shielding Building tanks, dry well (+ equip)	200 West
241-SX-402 Condenser Shielding Building tanks, dry well (+ equip)	200 West
232-Z Waste Incineration Facility (building & equip)	200 West
203-S, 205-S Uranium Nitrate Hexahydrate Processing Facility - 203-S basin, 204-S basin, 205-S Vault, sewer	200 West
218-W-02A Burial Ground	200 West
216-S-19 Pond	200 West
216-A-3 Crib	200 East

RCRA 3004(u) SITES
(identified from Hanford Waste Management
Units Report, May 1987) (continued)

RCRA 3004(u) SITE	AREA
UPR-200-W-34	200 West
216-U-10 Pond includes 200-W-107	200 West
216-Z-19 Ditch	200 West
216-A-10 Crib	200 East
216-U-10 Crib	200 West
216-B-59 Trench	200 East
R-3 Waste Line (UPR-200-E-80) includes UPR 200-E-1	200 East
UPR-200-W-2 (failed waste line)	200 West
UPR-200-W-110 (trench)	200 West
UPR-200-W-111 (sludge trench)	200 West
UPR-200-W-112 (sludge trench)	200 West
UPR-200-W-113 (failed waste line)	200 West
221-U Railroad Cut (UPR-200-W-117)	200 West
UPR-200-W-139 (ditch)	200 West
205-A Silica Gel Facility	200 East
276-S Solvent Handling Facility	200 West
UPR-200-W-30 (pit)	200 West
331 Life Sciences Laboratory Drainfield	300
311 Tank Farm Underground Methanol Storage Tanks	300
313 Building Underground Methanol Storage Tank	300
331 Life Sciences Laboratory Sanitary Waste Trench (1966-1969)	300
331 Life Sciences Laboratory Waste Trench (1964-1974)	300
323 Tanks (4)	300
309 TW Tanks	300
Retired Radioactive Liquid Waste Sewer System	300
Retired 315 Sanitary Drain Field	300
Retired 335/336 Sanitary Drain Field	300
300 Area Retired Filter Backwash Pond	300

RCRA 3004(u) SITES
(identified from Hanford Waste Management
Units Report, May 1987) (continued)

RCRA 3004(u) SITE	AREA
Solvent Evaporator	300
334 Tank Farm Waste Acid Storage Tank	300
In Situ Vitrification Test Site	300
300 Area Interim Filter Backwash Disposal Pit	300
400 Area Retired Sanitary Pond	400
400 Area Retired French Drains	400
Retired Septic Tanks	400
French Drain (South of 4722-C)	400
400 Area Retired Sand Bottom Trench	400
6652-G ALE Field Storage Building Septic Tank	600
6652-C Space Science Laboratory Septic Tank	600
Army Bunkers Septic Tank (3)	600
Army Munitions Burial Site	600
Underground Waste Solvent Tank	700
184-N Diesel Oil Supply Line Leak (UN-116-N-22)	100N
184-N Diesel Oil Supply Line Leak (UN-116-N-23)	100N
Railroad Car Flush Water Spill (UN-216-E-69)	200 East
Radioactive Contamination from Uncovered Buried Waste (UN-216-E-72)	200 East
Battery Acid Sand Pit (UPR-1100-1)	1100 Area
Paint Disposal Area (UPR-1100-2)	1100 Area
Antifreeze/Degreaser Sand Pit (UPR-1100-3)	1100 Area
Antifreeze Tank (UPR-1100-4)	1100 Area
Uranium-Bearing Acid Waste Tech Acid Spill (313 bldg.)	300
UPR-200-E-7	200 East
UPR-200-E-44 (BCS crib line, R-17 change house) and UPR-200-E-103, -123	200 East
UPR-200-E-124 (R-13 pit) and UPR-200-E-85	200 East
UPR-200-W-69	200 West
UPR-200-W-102 (process tanks vent lines)	200 West

RCRA 3004(u) SITES
(identified from Hanford Waste Management
Units Report, May 1987) (continued)

UPR-200-W-135 (cave-in and runoff path)	200 West
UPR-200-W-137 (location)	200 West
UPR-300-1 (transfer line leak)	300
UPR-300-31 (pipe trench system 311 tank farm) and UPR-300-40	300
100 B/C Burning Pit	100 B/C
118-D-1 (100-D) Burial Ground No. 1	100 D/DR
118-D-2 (100-D) Burial Ground No. 2	100 D/DR
118-D-3 (100-D) Burial Ground No. 3	100 D/DR
100-D/DR Burning Pit	100 D/DR
100-F Burning Pits-2	100 F
118-F-7 (100-F) Miscellaneous Hardware Storage Vault	100 F
118-H-1 (100-H) Burial Ground No. 1	100 H
100-H Burning Pit	100 H
107-H (100-H) Retention Basin	100 H
118 K (100-K) Burial Ground	100 K
100-K Burning Pit	100 K
116-B-9 (104-B-2) French Drain	100 B/C
118-B-1 (105-B) Burial Ground	100 B/C
116-B-3 (105-B) Pluto Crib	100 B/C
118-B-4 (105-B) Spacer Burial Ground	100 B/C
116-B-2 (105-B) Storage Basin Trench	100 B/C
118-C-2 (105-C) Ball Storage Tank	100 B/C
118-C-1 (105-C) Burial Ground	100 B/C
116-C-2-2 (105-C) Pluto Crib Sandfiller	100 B/C
116-D-6 (105-D) Cushion Corridor French Drain	100 D/DR
116-D-2 (105-D) Pluto Crib	100 D/DR
116-D-1A (105-D) Storage Basin Trench No. 1	100 D/DR
118-DR-1 (105-DR) Gas Loop Burial Ground	100 D/DR
116-DR-4 (105-DR) Pluto Crib	100 D/DR
116-DR-3 (105-DR) Storage Basin Trench	100 D/DR
116-F-11 (105-F) Cushion Corridor French Drain	100 F

RCRA 3004(u) SITES
(identified from Hanford Waste Management
Units Report, May 1987) (continued)

116-F-4 (105-F) Pluto Crib	100 F
116-H-4 (105-H) Pluto Crib	100 H
118-H-5 (105-H) Thimble Pit	100 H
116-KE-3 (105-KE) Storage Basin French Drain	100 KE/KW
116-KW-2 (105-KW) Storage Basin French Drain	100 KE/KW
107-B Retention Basin	100 B/C
107-C Retention Basin	100 B/C
107-D Retention Basin	100 D/DR
107-DR Retention Basin	100 D/DR
107-F Retention Basin	100 F
107-KE Retention Basin	100 KE/KW
107-KW Retention Basin (3)	100 KE/KW
116-B-5 (108-B) Crib	100 B/C
116-B-10 (108-B) Dry Well	100 B/C
118-B-6 (108-B) Solid Waste Burial Ground	100 B/C
116-D-3 (108-D) Crib No. 1	100 D/DR
116-D-4 (108-D) Crib No. 2	100 D/DR
116-B-6-1 (111-B) Crib No. 1	100 B/C
116-B-6-2 (111-B) Crib No. 2	100 B/C
118-B-7 (111-B) Solid Waste Burial Site	100 B/C
118-F-4 (115-F) Pit	100 F
116-KE-1 (115-KE) Condensate Crib	100 KE/KW
116-KW-1 (115-KW) Condensate Crib	100 KE/KW
P-11 Crib	600
117-B Crib	100 B/C
117-C Crib	100 B/C
117-D Crib	100 D/DR
116-DR-8 (117-DR) Crib	100 D/DR
116-F-7 (117-F) French Drain	100 F
117-H Crib	100 H
116-F-12 (148-F) French Drain	100 F
216-T-20 (155-TX) Trench (216-T-20)	200 West

(identified from Hanford Waste Management Units Report, May 1987) (continued)

116-F-13 (1705-F) Experimental Garden French Drain	100 F
100-KE*3 (183-KE) Filter Water Facility KE*3	100 KE/KW
200 Area Construction Waste Site	200 East
200 East Burning Pit	200 East
218-E-8 200 East Construction Burial Ground	200 East
218-E-1 200 East Dry Waste Burial Ground	200 East
218-E-12A 200 East Dry Waste No. 12A; Burial Ground	200 East
218-E-2 200 East Industrial Waste No. 2; Burial Ground	200 East
218-E-5A 200 East Industrial Waste No. 5A; Burial Ground	200 East
218-E-9 200 East Regulated Equipment Storage Site No.9	200 East
218-E-4 200 East/Minor Construction No. 4; Burial Ground	200 East
218-E-7 200 East/22-B Vaults; Burial Vaults (3)	200 East
200 West Burning Pit	200 West
216-C-3 (201-C) Leaching Pit	200 East
216-S-11 (202-S) Chemical Sump No. 2; Pond (2)	200 West
216-A-1 Crib	200 East
216-A-11 French Drain	200 East
216-A-12 French Drain	200 East
216-A-13 French Drain	200 East
216-A-14 French Drain	200 East
216-A-15 French Drain	200 East
216-A-16 French Drain	200 East
216-A-17 French Drain	200 East
216-A-18 Trench	200 East
216-A-19 Trench	200 East
216-A-2 Crib	200 East
216-A-20 Trench	200 East
216-A-22 Crib	200 East

RCRA 3004(u) SITES
(identified from Hanford Waste Management
Units Report, May 1987) (continued)

216-A-23A French Drain	200 East
216-A-23B French Drain	200 East
216-A-26A French Drain	200 East
216-A-31 Crib	200 East
216-A-32 Crib	200 East
216-A-33 French Drain	200 East
216-A-34 Crib	200 East
216-A-35 French Drain	200 East
216-A-39 Crib	200 East
216-A-41 Crib	200 East
216-B-3-2 Ditch	200 East
216-B-10B Crib	200 East
216-B-11A and B Reverse Well	200 East
216-B-2-1 Ditch	200 East
216-B-3-1 Ditch	200 East
216-B-22 Trench	200 East
216-B-23 Trench	200 East
216-B-24 Trench	200 East
216-B-25 Trench	200 East
216-B-26 Trench	200 East
216-B-27 Trench	200 East
216-B-28 Trench	200 East
216-B-30 Trench	200 East
216-B-31 Trench	200 East
216-B-32 Trench	200 East
216-B-33 Trench	200 East
216-B-9 Crib	200 East
216-B-4 Reverse Well	200 East
216-B-52 Trench	200 East
216-B-53B Trench	200 East
216-B-53A Trench	200 East
216-B-54 Trench	200 East
216-B-57 Crib	200 East

RCRA 3004(u) SITES
(identified from Hanford Waste Management
Units Report, May 1987) (continued)

216-B-58 Trench	200 East
216-B-60 Crib	200 East
216-B-13 French Drain	200 East
216-B-14 Crib	200 East
216-B-29 Trench	200 East
216-B-15 Crib	200 East
216-B-34 Trench	200 East
216-B-17 Crib	200 East
216-B-18 Crib	200 East
216-B-19 Crib	200 East
216-B-20 Trench	200 East
216-B-21 Trench	200 East
216-B-35 Trench	200 East
216-B-36 Trench	200 East
216-B-37 Trench	200 East
216-B-38 Trench	200 East
216-B-39 Trench	200 East
216-B-40 Trench	200 East
216-B-41 Trench	200 East
216-B-42 Trench	200 East
216-B-47 Crib	200 East
216-B-51 Crib	200 East
216-C-4 Crib	200 East
216-C-5 Crib	200 East
216-C-8 Crib	200 East
216-B-12 Crib	200 East
216-N-1 Covered Pond	200 North
216-N-3 Trench	200 North
216-N-2 Trench	200 North
216-N-4 Pond	200 North
216-N-5 Trench	200 North
216-N-6 Pond	200 North
216-N-7 Trench	200 North

RCRA 3004(u) SITES
(identified from Hanford Waste Management
Units Report, May 1987) (continued)

216-S-22 Crib	200 West
216-S-23 Crib	200 West
216-S-26 Crib	200 West
Z-Plant Burn Pit	200 West
216-S-13 Crib	200 West
216-T-12 Trench	200 West
216-T-13 Trench	200 West
216-T-5 Trench	200 West
216-T-14 Trench	200 West
216-T-15 Trench	200 West
216-T-16 Trench	200 West
216-T-17 Trench	200 West
216-T-18 Crib	200 West
216-T-31 French Drain	200 West
216-T-33 Crib	200 West
216-T-34 Crib	200 West
216-T-35 Crib	200 West
216-T-36 Crib	200 West
216-T-4-1 Ditch	200 West
216-T-4A Pond	200 West
216-T-4-2 Ditch	200 West
216-T-6 (216-T-5) Crib (2)	200 West
216-T-32 (216-T-6) Crib	200 West
216-T-26 (216-TX-1) Crib	200 West
216-T-27 (216-TX-2) Crib	200 West
216-T-22 (216-TX-2) Trench	200 West
216-T-21 (216-TX-3) Trench	200 West
216-T-24 (216-TX-4) Trench	200 West
216-T-23 (216-TX-5) Trench	200 West
216-U-6 Cold Trench No.1	200 West
216-U-13 Trench (2)	200 West
216-U-5 (216-U-4) Trench	200 West
216-U-9 (216-U-6) Ditch	200 West

RCRA 3004(u) SITES
(identified from Hanford Waste Management
Units Report, May 1987) (continued)

216-Z-6 (216-W-4) Crib	200 West
216-U-8 (216-WR-1) Crib	200 West
216-Z-11 Ditch	200 West
216-Z-9 (216-Z-10) Ditch	200 West
216-Z-1D (216-Z-11) Ditch	200 West
216-Z-16 Crib	200 West
216-Z-17 Trench	200 West
216-Z-18 Crib (5)	200 West
216-Z-3 Crib	200 West
216-Z-1A (216-Z-7) Tile Field	200 West
216-Z-8 French Drain	200 West
218-E-3 Burial Ground	200 East
218-E-5 Burial Ground	200 East
218-E-6 Burial Ground	200 East
216-U-7 (221-U) Vessel Blower Pit French Drain	200 West
218-W-7 (222-S) Vault	200 West
218-W-8 (222-T) Vault	200 West
216-Z-5 (231-W) Sumps	200 West
216-Z-4 (231-W-3) Trench	200 West
216-B-8 (241-B-3) Crib	200 East
216-C-6 (241-CX-4) Crib	200 East
216-S-18 (241-SX) Steam Cleaning Pit	200 West
216-T-25 (241-TX-5) Trench	200 West
216-Z-12 Crib	200 West
216-U-15 (388-U) Tank Dumping Trench	200 West
216-S-12 (288-U) Stack Wash Sump; Trench	200 West
216-T-29 (291-T Sand Filter Sewer; Crib	200 West
316-4 300 North Crib	300
618-10 300 North Solid Waste Burial Ground and UPR-600-1, 2, 3	600
618-9 300 West Burial Ground	600
618-11 300 Wye Burial Ground and UPR-600-4, 5, 6, 7, 8, 9, 10	600

RCRA 3004(u) SITES
(identified from Hanford Waste Management
Units Report, May 1987) (continued)

618-13 303 Area Contaminated Soil Burial Site	600
118-B-5 Ball 3X Burial Ground	100 B/C
118-D-5 Ball 3X Burial Ground	100 D/DR
118-H-4 Ball 3X Burial Ground	100 H
116-F-5 Ball Washer Crib	100 F
118-F-1 Burial Ground No. 1	100 F
118-F-2 Burial Ground No. 2	100 F
118-F-3 Burial Ground No. 3	100 F
618-3 Burial Ground No. 3	600
618-4 Burial Ground No. 4	600
618-5 Burial Ground No. 5	600
618-6 Burial Ground No. 6	600
618-7 Burial Ground No. 7	600
City of Hanford Landfill	600
216-S-8 Cold Aqueous Trench	200 West
216-S-14 Cold Organic Trench	200 West
118-D-4 Construction Burial Ground	100 D/DR
118-H-3 Construction Burial Ground	100 H
118-B-2 Construction Burial Ground No. 1	100 B/C
118-B-3 Construction Burial Ground No. 2	100 B/C
216-T-10 Decontamination Trenches	200 West
216-T-9 Decontamination Trenches	200 West
218-W-2 Dry Waste Burial Ground No. 2	200 West
218-W-3 Dry Waste Burial Ground No. 3	200 West
218-W-4A Dry Waste Burial Ground No. 4A; includes UPR-200-W-72	200 West
218-W-9 Dry Waste Burial Ground No. 9	200 West
218-W-1 Dry Waste No. 1; Burial Ground	200 West
618-8 Early Waste Burial Ground	600
East White Bluffs City Landfill	600
216-T-11 Equipment Decontamination Trenches	200 West
213 J and K Gable Mountain Plutonium Cribs	600

RCRA 3004(u) SITES
(identified from Hanford Waste Management
Units Report, May 1987) (continued)

218-W-1A Industrial Burial Ground No.1	
118-H-2 H-1 Loop Burial Area, 100-H Burial Ground No. 2	100 H
Hanford Trailer Camp	600
Horn Rapids Landfill	600
218-W-1A Industrial Waste Burial Ground No. 1	200 West
J.A. Jones No. 1; Construction Pit	600
J.A. Jones No. 2; Burial Ground	600
Midway Landfill No. 1	600
Midway Landfill No. 2	600
Nonradioactive Burial Ground	200 West
618-12 North Process Pond Scraping Disposal Area	600
Original Central Landfill	600
Pickling Acid Crib	600
118-F-5 PNL Sawdust Repository	100 F
118-F-6 PNL Solid Waste Burial Ground	100 F
218-E-14 Purex Tunnel No. 1; Burial Tunnel	200 East
218-E-2A Regulated Equipment Storage Site No. 2A; Trench	200 East
Sodium Dichromate Barrell Disposal; Landfill	600
218-W-11 Solid Waste Burial and Regulated Storage	200 West
618-1 Solid Waste Burial Ground No. 1	600
618-2 Solid Waste Burial Ground No. 2	600
218-E 13 Burial Ground	200 East
White Bluffs City Landfill	600
USBR-2, 4-D Burial Ground	600

APPENDIX B

OTHER INACTIVE WASTE SITES

OTHER INACTIVE WASTE SITES

Site Type	Area	Official Number	Site Name/ Description	Comments
building	100 B/C		105-B Reactor Building	building, fuel storage basin; not in scope per SOW
storage unit	100 B/C		104-B2 Storage	
building	100 B/C		105-C Reactor Building	reactor, basin; not in scope per SOW
building	105-D		105-D Reactor Building	reactor; not in scope per SOW
building	100-D/DR		105-DR Reactor Building	reactor; not in scope per SOW
building	100-F		105-F Reactor Building	reactor; not in scope per SOW
building	100-H		105-H Reactor Building	reactor; not in scope per SOW
building	105-KE/KW		105-KE Horizontal Control Roc Storage Cave	
building	105-KE/KW		105-KE Reactor Building	reactor; not in scope per SOW
station	107-KE Basin		105-KE Recovery Station	
building	105-KE/KW		105-KW Reactor Building	reactor; not in scope per SOW
station	107-KE Basin		105-KW Heat Recovery Station	
tank	100-KE/KW		1607-K3 Septic Tank	
storage unit	100 H		183-H Solar Evaporation Basins	seeking RCRA closure permit; permit will address cleanup.
storage	200 North		212-N Building	
building/tanks	200 west		233-S Plutonium Concentration Facility	
stack	200 west		296-S-7 Stacks	
building/tanks	200 East		201-C Process Building	
building/equip	200 East		215-C Gas Preparation Building	
building	200 west		202-S REDOX	contains solid rad waste

OTHER INACTIVE WASTE SITES

Site Type	Area	Official Number	Site Name/ Description	Comments
building	200 west		292-S Jet Pit House	contam surfaces
storage unit	100 B/C		105-C Horizontal Control Rod Storage Cave	active?
storage unit	100 KE/KW		105-KW Horizontal Control Rod Storage Cave	active?
building	200 west		293-S Offgas Treatment Facility	rad contam struct/equip
stack	200 west		296-S-1 Stack	
stack	200 west		296-S-2 Stack	
stack	200 west		296-S-4 Stack	
stack	200 west		296-S-6 stack	
building	200 west		2904-SA Sample Building	
stack	200 west		296-U-10 Stack	
building/equip	200 East		241-A-431 tank farm vent bldg	
building	200 west		2711-S stack monitoring bldg	
building	200 East		241-C-801 Cesium Loadout Facility	
building/equip	200 west		221-U Canyon Bldg	
spill	100 North	UN-116-N-19	184-N Day Tank Fuel Oil Spill	
spill	100 North	UN-116-N-20	156-N North Diesel Oil Return Line Leak	
spill	100 North	UN-116-N-21	184-N Diesel Oil Day Tank Overflow	
spill	100 North	UN-116-N-15	108-N Neutralization Sump Spill	
spill	100 North	UN-116-N-33	108-N Acid Transfer Spill	
spill	200 East	UN-216-E-61	Radioactive Contamination From Railroad Burial Cars	
spill	200 East	UN-216-E-60	Radioactively Contaminated	

OTHER INACTIVE WASTE SITES

Site Type	Area	Official Number	Site Name/ Description	Comments
			Dirt Spill	
spill	200 East	UN-216-E-62	Radioactive Liquid Spill	
spill	200 East	UN-216-E-63	Radioactively Contaminated Tumbleweeds	
spill	200 East	UN-216-E-64	Radioactive Contamination From 270-E-1 Acid Neutralization Tank	
spill	100 N	UN-116-N-6	Chemical Decontamination Drain Line Leak	
spill	100 N	UN-116-N-7	Ten-Inch Radioactive Drain Return Line Leak	
spill	200 East	UN-216-E-67	Radioactively Contaminated Pipe Encasement	
spill	200 West	UN-216-W-82	Radioactive Spill Near 204-S Radiation Zone	
spill	200 East	UN-216-E-70	Radioactive Contamination From Jumper Removal	
spill	200 East	UN-216-E-88	Radioactive Contamination at TC-4 Railroad Spur	
spill	200 East	UN-216-E-90	Radioactive Spill Near 221-B Building	
spill	200 West	UN-216-W-85	Radioactive Spill from Multi-Purpose Transfer Box	
spill	200 West	UN-216-W-86	Radioactively Contaminated Pigeon Feces	
spill	200 West	UN-216-W-87	Radioactive Spill From Filter Housing	
spill	200 West	UN-216-W-88	Radioactive Spill From UNH Trailer	
spill	200 West	UN-216-W-89	Radioactive Contamination Southwest of 236-Z Building	
spill	200 West	UN-216-W-90	Radioactive Contamination South of 236-Z Building	

OTHER INACTIVE WASTE SITES

Site Type	Area	Official Number	Site Name/ Description	Comments
spill	200 west	UN-216-W-91	Radioactive Contamination Near 234-5Z Building	
spill	200 East		Anhydrous Ammonia Release to Air at B Plant	
spill	200 west		Caustic Spill at Plutonium Finishing Plant	
spill	200 East		Oil Spill at 211-B Bulk Storage Area	
spill	200 East		Uranyl Nitrate Spill to Ground Near 2718-E Building	
spill	200		Diesel Fuel Spill - 202-A	
spill	300		Phosphoric Acid Spill	
spill	300		Fuel Oil Spill	
spill	300		Solvent Refined Coal Spill	
spill	300		Uranium-Bearing Acid Spill - 303 F Building	
spill	400		Coolant Spill	
spill	600		Gasoline Spill at Patrol Boat Refueling Area	
spill	600		Tank Truck Gasoline Spill	
spill	100-F	UPR-100-F-1	Sewer lines	
spill	100-N	UPR-100-N-1	Line Leak near 1304-N Emergency Dump Tank	
spill	100-N	UPR-100-N-2	Line Leak from FLV858 Valve	
spill	100-N	UPR-100-N-3	Line Leak from 100-N Fuel Storage Basin	
spill	100-N	UPR-100-N-5	Radioactive Chemical Waste Handling Facility	excluded; part of active unit
spill	100-N	UPR-100-N-8 & UPR-100-N-4	1322-A Sump	two UPRs

OTHER INACTIVE WASTE SITES

Site Type	Area	Official Number	Site Name/ Description	Comments
spill	100-N	UPR-100-N-9	Drain line rupture	
spill	100-N	UPR-100-N-10	105-N Building Lift Station	
spill	100-N	UPR-100-N-11	Contaminated valve Bonnet	
spill	100-N	UPR-100-N-13	1314-N Loading Station Railroad waste Tank	
spill	100-N	UPR-100-N-14	113-N Drain System	
spill	100-N	UPR-100-N-17	166-N Diesel Oil Supply Line	
spill	100-N	UPR-100-N-18	165-N Tank Farm and 184-N Diesel Oil Day Tank	
spill	100-N	UPR-100-N-25	1310-N Tank	
spill	100-N	UPR-100-N-26	1314-N Radioactive Liquid waste Load Out Facility	
spill	100-N	UPR-100-N-29	1304-N Emergency Dump Tank	
spill	100-N	UPR-100-N-30	1304-N Emergency Dump Tank	
spill	100-N	UPR-100-N-31	1301-N Liquid waste Disposal Facility	
spill	100-N	UPR-100-N-32	Emergency Dump Tank Bypass Line	
chute	100-KE/KW	UPR-100-N-1	105-KE pickup chute/fuel basin	
spill	100-N	UPR-100-N-34	WPPSS Trestle Vicinity Line	
contam	200-E	UPR-200-E-1	Contamination near B and T Plant Stacks	
spill	100-N	UPR-100-N-12	Spacer transport line leak	
spill	200-E	UPR-200-E-9	216-BY-5 flush tank	
spill	200-E	UPR-200-E-10	PUREX Tube Bundles	
spill	200-E	UPR-200-E-11	PUREX Tunnel Railroad Tracks	
spill	200-E	UPR-200-E-12	Burial Box	
spill	200-E	UPR-200-E-18	A-8 Proportional Sampler Pit	

OTHER INACTIVE WASTE SITES

Site Type	Area	Official Number	Site Name/ Description	Comments
			vent Pipe Bonnet	
spill	200-E	UPR-200-E-19	A-6 Proportional Sampler Pit vent Pipe Bonnet	
spill	200-E	UPR-200-E-20	PUREX Tube Bundles	
contam	200-E	UPR-200-E-22	Ground Contamination from 291-A Stack	
spill	200-E	UPR-200-E-27	244-CR Vault	
coil	200-E	UPR-200-E-28	Process Vessel Steam Coil	
spill	200-E	UPR-200-E-33	Leaking Box	
spill	200-E	UPR-200-E-34	F-15 PUREX tank	excluded; active unit; not in scope
pump	200-E	UPR-200-E-35	218-E-13	
spill	200-E	UPR-200-E-36 & UPR-200-E-37	Semiworks Pumps	two UPRs
spill	200-E	UPR-200-E-39 & UPR-200-E-40	216-A-36B Crib Sampling Shack	two UPRs
bldg spill	200-E	UPR-200-E-41	271-B Building Waste Line	
spill	200-E	UPR-200-E-42	244-AR Diverter Tank	
spill	200-E	UPR-200-E-43	102-BY Pump	
spill	200-E	UPR-200-E-49	241-AY Tank Farm	see also 102-BY pump
spill	200-E	UPR-200-E-52	E-5-2 Strontium Concentrator	
spill	200-E	UPR-200-E-54	225-B Building	
spill	200-E	UPR-200-E-55	212-B Building	
spill	200-E	UPR-200-E-56	241-AN Tanks	
contam	200-E	UPR-200-E-58	roadway to 218-E-1 dry waste burial ground	
spill	200-E	UPR-200-E-59	244-AX Vault (nest)	
spill	200-E	UPR-200-E-76	9-2 Tank Transfer Line 216-E-4	

OTHER INACTIVE WASTE SITES

Site Type	Area	Official Number	Site Name/ Description	Comments
soill	200-E	UPR-200-E-82	B Plant Transfer Line 216-E-10	group with 241-C-152 diversion box (RCRA)
trench	200-E	UPR-200-E-83	feces	
soill	200-E	UPR-200-E-81	transfer line from PUREX	group with 241-CR-151 diversion box (RCRA)
soill	200-E	UPR-200-E-86	No. 812 Transfer Line 216-E-14	
soill	200-E	UPR-200-E-87	Plutonium Contamination near 224-B Building 216-E-15	
soill	200-E	UPR-200-E-92	contam thistles near 200 East Area Burial Ground 216-E-20	
soill	200-E	UPR-200-E-93	200 East Area Burial Ground 216-E-21 (contam thistles)	
discharge	200-E	UPR-200-E-94	241-C Tank Farm Gravel Pit 216-E-22	
soill	200-E	UPR-200-E-95	B-Plant Railroad Cars 216-E-23	
contam	200-E	UPR-200-E-96	area between 291-A stack and diversion box 216-E-24	
soill	200-E	UPR-200-E-97	ground contamination 216-E-25	
contam	200-E	UPR-200-E-98	area near 291-C Stack 216-E-26	
soill	200-E	UPR-200-E-99	244-CR Vault (near 241-C) 216-E-27	
soill	200-E	UPR-200-E-105	107-BY Tank Farm	??????
soill	200-E	UPR-200-E-106	Burning Ground	??????
soill	200-E	UPR-200-E-107	100-CR Tank	??????
soill	200-E	UPR-200-E-112	Cesium Ion Exchange Column	

OTHER INACTIVE WASTE SITES

Site Type	Area	Official Number	Site Name/ Description	Comments
pit	200-E	UPR-200-E-114	202-A Building Valve Pit	
spill	200-E	UPR-200-E-116	112-BY Pump	
spill	200-E	UPR-200-E-117	200 East/PUREX Area	
tank	200-E	UPR-200-E-118	107-C Effluent Tank	
spill	200-E	UPR-200-E-120 & UPR-200-W-57	Plutonium Extraction Column Fire	two UPRs
spill	200-E	UPR-200-E-121	Plutonium Extraction Column Release	
spill	200-W	UPR-200-W-3	T Plant Railroad	
spill	200-W	UPR-200-W-4	Burial Box	
diversion box	200-W	UPR-200-W-5	241-TX-155 Diversion Box	???????
leak	200-W	UPR-200-W-13	REDOX H-4 Oxidizer Coil	
leak	200-W	UPR-200-W-15	REDOX D-12 Waste Concentrator Steam Coil	
trench	200-W	UPR-200-W-16	Dry Waste Burial Ground	???????
spill	200-W	UPR-200-W-17	pump transfer leak	
leak	200-W	UPR-200-W-14	waste line from 242-T bldg	
leak	200-W	UPR-200-W-19	leak at 216-UR crib	
spill	200-W	UPR-200-W-22	UNH Solution	
spill	200-W	UPR-200-W-23	Waste Box	
spill	200-W	UPR-200-W-27	T-Plant First-Cycle Waste Line	
diversion box	200-W	UPR-200-W-28	241-TX-155 Diversion Box	??????
diversion box	200-W	UPR-200-W-29	line leak	group with 241-TX-153 diversion box
coil	200-W	UPR-200-W-31	202-S Building Coil Leaks	
spill	200-W	UPR-200-W-32	REDOX UNH Transfer Line	
spill	200-W	UPR-200-W-33	C-5 Condensate Line	

OTHER INACTIVE WASTE SITES

Site Type	Area	Official Number	Site Name/ Description	Comments
spill	200-W	UPR-200-W-38	process line near 241-TX-154 Diversion Box	
spill	200-W	UPR-200-W-39	224-U Building	
diversion box	200-W	UPR-200-W-40	224-U Building	?????
spill	200-W	UPR-200-W-41	S-Plant Burial Box	
spill	200-W	UPR-200-W-42	S-Plant Railroad Shack	
spill	200-W	UPR-200-W-43	S-Plant	
spill	200-W	UPR-200-W-45	200 West Area Burial Ground	?????
spill	200-W	UPR-200-W-46	REDOX H-2 Centrifuge	
spill	200-W	UPR-200-W-47	REDOX Pond	??????
spill	200-W	UPR-200-W-48	221-U Railroad Crossing	
spill	200-W	UPR-200-W-53	200 West Area Burial Ground	??????
spill	200-W	UPR-200-W-55	224-U Loading Ramp	
spill	200-W	UPR-200-W-56	202-S Column Carrier Trench	
spill	200-W	UPR-200-W-58	221-T Canyon Cell Blocks	
spill	200-W	UPR-200-W-59	202-S F-1 Process Vessel Coil	
spill	200-W	UPR-200-W-60	221-U Railroad Cut	
spill	200-W	UPR-200-W-61	241-SX Transfer Line	
spill	200-W	UPR-200-W-62	23rd St and Camden Ave	
contam	200-W	UPR-200-W-63	area near 241-TX-153 Diversion Box	
spill	200-W	UPR-200-W-64	23rd St and Camden Ave	
spill	200-W	UPR-200-W-65	T Plant Railroad Cut	
spill	200-W	UPR-200-W-67	2706-T Building	
spill	200-W	UPR-200-W-68	13th St and Dayton Ave	
trench	200-W	UPR-200-W-70	200 West Area Burning Ground	????????

OTHER INACTIVE WASTE SITES

Site Type	Area	Official Number	Site Name/ Description	Comments
spill	200-W	UPR-200-W-71	102-U Tank	
spill	200-W	UPR-200-W-66	line leak	group with 216-B-3 (RCRA) and 216-B-2-2 (CERCLA)
spill	200-W	UPR-200-W-73	221-T Tunnel Railroad Right-of-way	
spill	200-W	UPR-200-W-74	241-Z Effluent Header D-3	
spill	200-W	UPR-200-W-75	241-Z D-7 Sample Cabinet	
spill	200-W	UPR-200-W-76	241-TX Diversion Box	
spill	200-W	UPR-200-W-77	200 West Area	
spill	200-W	UPR-200-W-78	UCB Storage Area	
spill	200-W	UPR-200-W-97	failed waste line	
spill	200-W	UPR-200-W-79	241-Z sump	
spill	200-W	UPR-200-W-82	process line leak 302-S Catch Tank	group with 241-S-151 (RCRA) and 302-S catch tank (RCRA)
spill	200-W	UPR-200-W-84	200 West Area Burial Ground	??? which one????
spill	200-W	UPR-200-W-86	200 West Area	
spill	200-W	UPR-200-W-95	202-S Building Coil Leaks 216-W-2	
spill	200-W	UPR-200-W-96	233-S Filter House Drain Line 216-W-4	
spill	200-W	UPR-200-W-98	R-19, 222-T Building Transfer Line 216-W-6	
spill	200-W	UPR-200-W-130	waste line at 231-Z bldg	
spill	200-W	UPR-200-W-101	221-U Building 216-W-9	
spill	200-W	UPR-200-W-116	204-S Waste Storage Tank 216-W-26	
	200-W	UPR-200-W-123	204-S Unloading Facility Area	

OTHER INACTIVE WASTE SITES

Site Type	Area	Official Number	Site Name/ Description	Comments
spill	200-W	UPR-200-W-124	REDOX Pond	
spill	200-W	UPR-200-W-125	transfer line 288-U tank	
spill	200-W	UPR-200-W-127	242-S Building	
spill	200-W	UPR-200-W-128	U-103 Tank	
spill	200-W	UPR-200-W-129	Pump Pit at TX-113 Tank	
leak	200-W	UPR-200-W-130	leaking waste line flange	
spill	200-W	UPR-200-W-131	155-TX Diversion Box	???????
spill	200-W	UPR-200-W-132	241-UR-151 Diversion Box	??????
spill	200-W	UPR-200-W-133	vacuum pump	
spill	200-W	UPR-200-W-138	221-U Building Vessel Vent Blower Pit	
spill	300	UPR-300-4	REDOX and Purex Equipment	
spill	300	UPR-300-5	309 Storage Basin Fill Line	?????????
spill	300	UPR-300-7	384 Building	
spill	300	UPR-300-8	311 Tank Farm Caustic Storage Tank	
spill	300	UPR-300-9	306-N Building	
spill	300	UPR-300-2	Decontamination waste near 340 building	
spill	300	UPR-300-11	Radioactive Liquid Waste Line	
spill	300	UPR-300-12	325 Building	
spill	300	UPR-300-13	tank leak	
spill	300	UPR-300-14	Fill Tank No. 32	
spill	300	UPR-300-15	Acid Storage Tanks Nos. 3 and 4	
fire	300	UPR-300-17	Burial Box	
spill	300	UPR-300-18	Drain Hole	

OTHER INACTIVE WASTE SITES

Site Type	Area	Official Number	Site Name/ Description	Comments
spill	300	UPR-300-19	313 Building - Chemical Storage Area	
spill	300	UPR-300-20	313 Building - Uranium Recovery Area	
spill	300	UPR-300-21	333 Building - Chemical Bay Area	
spill	300	UPR-300-22	333 Building - Chemical Bay Area	
spill	300	UPR-300-23	333 Building - Trench Piping System	
spill	300	UPR-300-24	333 Building - Waste Acid System	
spill	300	UPR-300-25	333 Building - Uranium Mill Tank	
spill	300	UPR-300-26	311 Tank Farm - Caustic Storage Tank	
spill	300	UPR-300-27	333 Building - Uranium Bearing Acid Storage Tank	
spill	300	UPR-300-28	334A Building - Spent Waste Acid Storage Tanks	
spill	300	UPR-300-29	333 Building- Waste Acid System	
spill	300	UPR-300-30	333 Building- Waste Acid System	
spill	300	UPR-300-32	333 Building - Uranium Bearing Acid System	
spill	300	UPR-300-33	333 Building- Waste Acid System	
spill	300	UPR-300-34	333 Building- Waste Acid System	
spill	300	UPR-300-35	333 Building - Uranium Bearing Acid Facility	
spill	300	UPR-300-35	333 Building - Uranium Bearing	
spill	300	UPR-300-36	333 Building- Waste Acid System	
spill	300	UPR-300-37	333 Building- Waste Acid System	

OTHER INACTIVE WASTE SITES

Site Type	Area	Official Number	Site Name/ Description	Comments
spill	300	UPR-300-38	313 Building - Uranium Recovery Area	
spill	300	UPR-300-39	311 Tank Farm Caustic Storage Tank	
spill	300	UPR-300-41	311 Tank Farm Pipe Trench	
contam	600	UPR-600-11	berm material	
spill	600	UPR-600-12	200 East Hill	
spill	600	UPR-600-14	Propane Gas Tank	
dump	600	UPR-600-15	618-4 Burial Ground	???????
fire	600	UPR-600-16	120 Building (P-11 Facility)	
spill	1100	UPR-1100-5	1171 Building	
spill	3000	UPR-3000-1	Richland City Sewer System	
leak	200-W	UPR-200-W-35	UNH line leak	
leak	200-W	UPR-200-W-118	leakage from 211-U tank farm	
disposal	200-W	UPR-200-W-134	improperly disposed drum	
spill	200-W	UPR-200-W-34	ditch overflow to chem sewer	
contamination	200-E	UPR-200-E-111	soil contamination in pit	
contamination	200-E	UN-216-E-90	unknown contamination	
leak	100-N	UPR-100-N-12	spacer transport line leak	

APPENDIX C

SITES EXCLUDED FROM INACTIVE WASTE DISPOSAL SITE STUDY

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Site	Basis for Exclusion
2727-S Nonradioactive Dangerous Waste Storage Facility	included in Part B permit application
241-A-151 Diversion Box Radioactive Contamination (UN-216-E-65) and UPR-200-E-25, -26, and -31	spill associated with active waste management unit
216-A-42 Diversion Box	spill associated with active waste management unit
1607-K3 Septic Tank	active unit
166-N Fuel Oil Leak (UN-116-N-24)	active unit
100-N Fuel Basin Leak (UN-116-N-35)	active unit
UPR-200-E-14	part of 216-B-3 pond which is an active unit
UPR-200-E-13	associated with CERCLA site
UPR-200-E-15	associated with CERCLA site
UPR-200-E-21	associated with CERCLA site
UPR-200-E-29	associated with CERCLA site
UPR-200-E-34	associated with active waste management unit
UPR-200-E-51	associated with active waste management unit
UPR-200-E-79	associated with active waste management unit
UPR-200-E-84	associated with active waste management unit
UPR-200-W-6	associated with active waste management unit

UPR-200-W-21	associated with active waste management unit
UPR-200-W-36	associated with CERCLA site
UPR-200-W-66	associated with CERCLA site

NOTES ON SPILLS ASSOCIATED WITH UNITS

UPR-600-1 UPR-600-2 UPR-600-3	GOES WITH	618-10
UPR-600-4 UPR-600-5 UPR-600-6 UPR-600-7 UPR-600-8 UPR-600-9 UPR-600-10	GOES WITH	618-11
UPR-200-W-8 UPR-200-W-37	GOES WITH	200 West Burning Ground

?? is this the same as the burning pit ??

UPR-200-W-66	GOES WITH	216-B-3 pond (active) and 216-B-2-2 (CERCLA)
UPR-200-W-72	GOES WITH	218-W-4A (Dry Waste Burial Ground 4A)
UPR-200-W-8 (coord: N42500/W73350)	GOES WITH	200 West Burn Pit (p. 612 missing - which burn pit - check coord)

?? which burn pit ??

UPR-200-W-11 (coord: N40160/W77009)	GOES WITH	200 West burial ground

?? which one ??

UPR-200-W-18	GOES WITH	216-U-9 ditch
UPR-200-W-16 (coord: N42700/W77600)	GOES WITH	dry waste burial ground

?? which one ??