5146

Department of Energy

Ohio Field Office
Fernald Environmental Management Project
P. O. Box 538705
Cincinnati, Ohio 45253-8705
(513) 648-3155

NOV 17 2003

Mr. Paul Pardi, RCRA Group Leader
and FFCA Project Manager
Ohio Environmental Protection Agency
Division of Hazardous Waste Management
401 East 5th Street
Dayton, Ohio 45402-2911

DOE-0042-04

SUBMITTAL OF CROSS-REFERENCE INDEX PURSUANT TO THE DIRECTOR'S FINAL FINDINGS AND ORDERS FILED JUNE 6, 1996: DRAFT PLANT 1 COMPLEX – PHASE II DECONTAMINATION AND DISMANTLEMENT PROJECT COMPLETION REPORT

Reference: Letter and Director's Final Findings and Orders (DF&O), T. E. Crepeau, OEPA to P. Hamric, U.S. DOE and J. Bradburne, FERMCO, dated June 6, 1996.

In accordance with Section V, Order #2 of the referenced Director's Final Findings and Orders (DF&O), enclosed is a cross-reference index of Hazardous Waste Management Unit (HWMU) closure components and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) documents for those HWMUs identified in Attachment A of the DF&O. The index links specific components of Ohio Environmental Protection Agency's (OEPA) Closure Plan Review Guidance for RCRA Facilities related to substantive closure requirements with the appropriate CERCLA document, which addresses those components. The list is cumulative and provides page numbers and sections for those CERCLA documents that have already been submitted.

Section V of the DF&O requires the FCP to provide an updated copy of the cross-reference table following the submittal of a referenced CERCLA document. The Draft Plant 1 Complex – Phase II Decontamination and Dismantlement Project Completion Report was submitted to the OEPA and United States Environmental Protection Agency (USEPA) on November 7, 2003. The specific reference to this document in the cross-reference table has been highlighted. Revisions to the table to reflect recent discussions with the OEPA regarding the process for completing certification of closure have also been made using redlines and strikeouts.

Recycled and Recyclable

If you have any questions regarding this matter, please contact Ed Skintik at (513) 648-3151.

Sincerely,

for William J. Taylor
Director

FCP:Skintik

Enclosure: As Stated

cc w/enclosure:
E. Skintik, OH/FCP
E. Brucken, Fluor Fernald, Inc./MS65-2
T. A. Poff, Fluor Fernald, Inc./MS65-2
RCRA, Fluor Fernald, Inc./MS65-2
AR Coordinator, Fluor Fernald, Inc./MS78

cc w/o enclosure:
K. Johnson, OH/FCP
ECDC, Fluor Fernald, Inc./MS52-7

CROSS-REFERENCE INDEX FOR FEMP HWMU CLOSURE PLAN COMPONENTS UNDER CERCLA

CLOSURE PLAN COMPONENT[1]	CERCLA DOCUMENT	CROSS-REFERENCE INDEX
1. Description/Detailed Drawing of Waste Management Unit(s) to be Closed (Closure Guidance Item 3.2 and 3.4)	OU1 FINAL Remedial Investigation Report, August1994	Waste Pit 4 (27): Description, pp. 1-23 to 1-24; History, pp. 1-35 to 1-36; Drawings, pp. 1-83, 1-88 Waste Pit 5 (42): Description, p. 1-24 to 1-27; History, pp. 1-36 to 1-37; Drawings, pp. 1-83, 1-89
	OU3 FINAL Integrated Remedial Design/Remedial Action Work Plan, May 1997	HWMU Component Number and Associated D&D complex: Table 3-10, p. 3-71 D&D Complex Locations: Figure 2-2, p. 2-17
	OU3 Implementation Plans for Above-Grade Decontamination and Dismantlement	Drawing of HWMU: To be submitted for Each D&D Complex
	FINAL Plant 1 Complex – Phase I Implementation Plan, March 1996	Plant 1 Storage Bldg. – Bldg. 67 (25): Figure D-11
	FINAL Thorium/Plant 9 Complex Implementation Plan, August 1997	Plant 9 Warehouse - Bldg. 81 (35): Figure D-10, D-11
	FINAL Misc. Small Structures Implementation Plan, October 1998	Waste Oil Decant Shelter (component of Trane Incinerator) (28): No drawing available for this unit KC-2 Warehouse – Bldg. 63 (34): Figure D-22, D-23 UNH Tanks – NFS Storage Area (46): Figure D-1
	FINAL Implementation Document for HWMUs #28 and #50, December 1998	Trane Incinerator (28): Attachment 1 UNH Tanks – Raffinate Bldg. (50): Attachment 2
	FINAL Plant 6/East Warehouse Complex Implementation Plan, July 1999	Plant 6 Warehouse – Bldg. 79 (37): Appendix D
	FINAL Multi-Complex Implementation Plan, October 2001	NAR System (10), Box Furnace (14), Oxidation Furnace #1 (15), Plant 8 Warehouse - Building 80 (29), UNH Tanks - North of Plant 2 (47), UNH Tanks - Southeast of Plant 2 (48), UNH Tanks - Digestion Area (49): Appendix D
	FINAL Laboratory Complex Implementation Plan, April 2002	Pilot Plant Warehouse - Bldg. 68 (33): Appendix D
	FINAL Plant 1 Complex - Phase II Implementation Plan, August 2002	CP Warehouse - Building 56 (19), TS-4, 5, and 6 (component of Plant 1 Pad) (20): Appendix D

5146

CROSS-REFERENCE INDEX FOR FEMP HWMU CLOSURE PLAN COMPONENTS UNDER CERCLA

CLOSURE PLAN COMPONENT[1]	CERCLA DOCUMENT	CROSS-REFERENCE INDEX
1. Description/Detailed Drawing of Waste Management Unit(s) to be Closed (Closure Guidance Item 3.2 and 3.4) - Continued	OU5 FINAL Remedial Investigation Report, March 1995	General Location Map of HWMUs to be Closed Under CERCLA: Figure 4-112 Size and Dimensions of HWMUs: Table 1-12 FEMP Topographic Map: Figure 3-1 General HWMU Information and Locations Within OU5 Areas, Appendix D: Plant 1 Storage Pad (20): Plant 1 Area, Section D.2.1, p. D.2-2 UNH Tanks (46-50), NAR System (10), Trane Incinerator (28): Plant 2/3 Area, Section D.2.2, p. D.2-19 Storage Pad N of Plant 6 (36): Plant 6 Area, Section D.2.4, p. D.2-28 Plant 8 East and West Drum Storage Pads (17, 18), Box Furnace (14), Oxidation Furnace #1 (15): Plant 8 Area, Section D.2.5, p. D.2-33 Sludge Drying Beds (41): Sewage Treatment Plant Area, Section D.2.7, p. D.2-41 Abandoned Sump West of Pilot Plant (22), Tank T-2 (54): Pilot Plant Area Section D.2.8, p. D.2-45 Drum Storage Area Near Lab Loading Dock (4), Drum Storage Area S of W-26 (5): Laboratory Area, Section D.2.9, p. D.2-51 Tank Farm Sump (11): Tank Farm and Boiler House Area, Section D.2.13, p. D.2-69 Fire Training Facility (1): Fire Training Area, Section D.2.18, p. D.2-86
2. List of Hazardous Waste(s) Managed in Unit(s) (Closure Guidance Item 3.5)	OU1 FINAL Remedial Investigation Report, August 1994 OU3 FINAL Remedial Investigation/Feasibility Study Report OU3 Implementation Plans for Above-Grade Decontamination and Dismantlement FINAL Plant 1 Complex – Phase I Implementation Plan, March 1996 FINAL Thorium/Plant 9 Complex Implementation Plan, August 1997 FINAL Misc. Small Structures Implementation Plan, October 1998	Waste Managed in Unit: Waste Pit 4 (27): pp. 4-60 to 4-70, pp. 1-35 to 1-36 Waste Pit 5 (42): pp. 4-70 to 4-77, pp. 1-36 to 1-37 Waste Managed in HWMU: Table K-1 Waste Managed in HWMU: To be Submitted for Each D&D Complex Plant 1 Storage Bldg. – Bldg. 67 (25): Section 3.7, p. 42 Plant 9 Warehouse – Bldg. 81 (35) Section 3.13, pp. 39 to 40 Waste Oil Decant Shelter (component of Trane Incinerator) (28): Section 3.17, p. 36 KC-2 Warehouse – Bldg. 63 (34) Section 3.23, pp. 41 to 43 UNH Tanks – NFS Storage Area (46): Section 3.1, p. 23

5146

4

CLOSURE PLAN COMPONENT[1]	CERCLA DOCUMENT	CROSS-REFERENCE INDEX
2. List of Hazardous Waste(s) Managed in Unit(s) (Closure Guidance Item 3.5) - Continued	FINAL Implementation Document for HWMUs #28 and #50, December 1998	Trane Incinerator (28): HWMU Decontamination UNH Tanks – Raffinate Bldg. (50): HWMU Decontamination
	FINAL Plant 6/East Warehouse Complex Implementation Plan, July 1999	Plant 6 Warehouse – Bldg. 79 (37): Section 3.9, p 37
	FINAL Multi-Complex Implementation Plan, October 2001	NAR System (10): Section 3.1, pp. 40 to 41 Box Furnace (14): Section 3.16, p. 76 Oxidation Furnace #1 (15): Section 3.16, p. 77 Plant 8 Warehouse - Bldg. 80 (29): Section 3.38, p. 108 UNH Tanks - North of Plant 2 (47): Section 3.1, p. 42 UNH Tanks - Southeast of Plant 2 (48): Section 3.23, p. 88 UNH Tanks - Digestion Area (49): Section 3.1, p. 44
	FINAL Laboratory Complex Implementation Plan, April 2002	Pilot Plant Warehouse - Bldg. 68 (33): Section 3.4, pp. 36 to 37
	FINAL Plant 1 Complex - Phase II Implementation Plan, August 2002	CP Warehouse - Building 56 (19): Section 3.3, p. 35 Plant 1 Pad Components (20): TS-4: Section 3.5, p. 39 TS-5: Section 3.6, p. 40 TS-6: Section 3.7, p. 42
	OU5 FINAL Integrated Remedial Investigation Report, March 1995	HWMUs with Potential Soil Contamination: Tables 4-68 and 4-69
	OU5 FINAL Feasibility Study Report, June 1995	HWMU Constituents of Concern (COCs) for Soil: Tables 4-4, 4-5 and 4-6
	OU5 FINAL Sitewide Excavation Plan, July 1998	HWMU COCs: Table 2-1

5146

5

CLOSURE PLAN COMPONENT[1]	CERCLA DOCUMENT	CROSS-REFERENCE INDEX
2. List of Hazardous Waste(s) Managed in Unit(s) (Closure Guidance Item 3.5) - Continued	OU5 Integrated Remedial Design Packages for Individual Remediation Areas Area 1, Phase II Supplemental Characterization Package, April 1999 FINAL Implementation Plan for Area 3A/4A, May 2001 FINAL Implementation Plan for Area 6 - Solid Waste Landfill and Fire Training Facility, March 2003 DRAFT Implementation Plan for Area 3B/4B/5, March 2003	HWMU COCs: Sludge Drying Beds (41): Section 3.0, Disposition of Sludge Cake and Associated Debris, p. 3-1 Storage Pad North of Plant 6 (36): Section 2.3.2.3, Location of HWMUs and USTs, p. 2-12 Fire Training Facility (1): Section 3.5, Identification of Area-Specific Constituents of Concern, pp. 3-9 to 3-10; Table 3-1, Preliminary Area-Specific Constituents of Concern Drum Storage Area Near Lab Loading Dock (4), Drum Storage Area South of W-26 (5), Nitric Acid (NAR) Recovery System (10), Tank Farm Sump (11), Box Furnace (14), Plant 8 East Pad (17), Plant 8 West Pad (18), Plant 1 Storage Pad (20), Abandoned Sump West of Pilot Plant (22): Table 2-4, p. 2-32
3. Removal of Waste and Contaminated Media (Closure Guidance Item 3.6)	OU1 FINAL Remedial Design Documents Package, August 1998 OU3 FINAL Integrated Remedial Design/Remedial Action Work Plan May 1997 OU3 Implementation Plans for Above-Grade Decontamination and Dismantlement FINAL Plant 1 Complex – Phase Implementation Plan, March 1996 FINAL Thorium/Plant 9 Complex Implementation Plan, August 1997 FINAL Misc. Small Structures Implementation Plan, October 1998 FINAL Implementation Document for HWMUs #28 and #50, December 1998	Removal of Waste – Waste Pit 4 (27), Waste Pit 5 (42): Volume 2, Excavation Plan General Methods for Removing and Storing Waste: HWMU Decontamination, Section 3.2.3, p. 3-13; Materials Management, Section 3.3, pp. 3-30 to 3-63; HWMU Remediation (use of Safe Shutdown, D&D of complexes), Section 3.5.3, pp. 3-69 to 3-73 Removing Waste from HWMU Storage, Treatment, and Disposition of Waste: To be Submitted for Each D&D Complex Plant 1 Storage Bldg. – Bldg. 67 (25): Section 3.7, p. 42 Plant 9 Warehouse – Bldg. 81 (35): Section 3.13, pp. 39 to 40 Waste Oil Decant Shelter (component of Trane Incinerator) (28): Section 3.17, pp. 36 to 37 KC-2 Warehouse – Bldg. 63 (34) Section 3.23, p. 42 UNH Tanks – NFS Storage Area (46): Section 3.1, pp. 23 to 24 Trane Incinerator (28): Remedial Tasks UNH Tanks – Raffinate Bldg. (50): Remedial Tasks, HWMU Decontamination

5146

6

CROSS-REFERENCE INDEX FOR FEMP HWMU CLOSURE PLAN COMPONENTS UNDER CERCLA

CLOSURE PLAN COMPONENT[1]	CERCLA DOCUMENT	CROSS-REFERENCE INDEX
3. Removal of Waste and Contaminated Media (Closure Guidance Item 3.6) - Continued	FINAL Plant 6/East Warehouse Complex Implementation Plan, July 1999	Plant 6 Warehouse – Bldg. 79 (37): Section 3.9, p. 37
	FINAL Multi-Complex Implementation Plan, October 2001	NAR System (10): Section 3.1, pp. 41 to 42 Box Furnace (14): Section 3.16, p. 76 Oxidation Furnace #1 (15): Section 3.16, pp. 77 to 78 Plant 8 Warehouse - Bldg. 80 (29): Section 3.38, pp. 108 to 109 UNH Tanks - North of Plant 2 (47): Section 3.1, pp. 42 to 43 UNH Tanks - Southeast of Plant 2 (48): Section 3.23, p. 88 UNH Tanks - Digestion Area (49): Section 3.1, pp. 44 to 45
	FINAL Laboratory Complex Implementation Plan, April 2002	Pilot Plant Warehouse - Bldg. 68 (33): Section 3.4, pp. 37 to 38
	FINAL Plant 1 Complex - Phase II Implementation Plan, August 2002	CP Warehouse - Building 56 (19): Section 3.3, pp. 35 to 37 Plant 1 Pad Components (20): TS-4: Section 3.5, pp. 39 to 40 TS-5: Section 3.6, pp. 41 to 42 TS-6: Section 3.7, pp. 42 to 43
	OU5 FINAL Sitewide Excavation Plan, July 1998	Excavation, Loading, Staging, Storage, Treatment and/or Disposition of Impacted Material: Section 2.0, Remediation Issues and General Strategies; Section 3.0, General Implementation Approach; Section 4.0, Location Specific Excavation Approaches; Appendix B, Sitewide Sequencing Plan; Appendix F.3 to F.5, Implementation of Construction; Appendix I, Sitewide Excavation of Contamination by Constituent
	OU5 Integrated Remedial Design Packages for Individual Remediation Areas	Area/Phase-Specific Excavation, Loading, Staging, Storage, Treatment and/or Disposition of Impacted Material:
	Area 1, Phase II Supplemental Characterization Package, April 1999	Sludge Drying Beds (41): Removal of Sludge: Section 3.3, Material Disposition Sampling Plan, pp. 3-3 to 3-4; Excavation of Soil: Section 5.0, Excavation, pp. 5-1 to 5-4

5146

7

CLOSURE PLAN COMPONENT[1]	CERCLA DOCUMENT	CROSS-REFERENCE INDEX
3. Removal of Waste and Contaminated Media (Closure Guidance Item 3.6) - Continued	FINAL Implementation Plan for Area 3A/4A, May 2001	Storage Pad North of Plant 6 (36): Section 3.2.2, Concrete, Asphalt Pads, Roadways and Floors, pp. 3-9 to 3-10; Section 3.3.3, HWMUs and USTs, p. 3-17; Section 3.3.4, General Excavation, pp. 3-17 to 3-19
	FINAL Implementation Plan for Area 6 - Solid Waste Landfill and Fire Training Facility, March 2003	Fire Training Facility (1): Section 4.2, At- and Below-Grade Structure Demolition, pp. 4-5 to 4-6; Section 4.3, Soil Excavation, Monitoring and Segregation, pp. 4-6 to 4-10; Section 4.4, Impacted Material Management, pp. 4-10 to 4-12
	DRAFT Implementation Plan for Area 3B/4B/5, March 2003	Drum Storage Area Near Lab Loading Dock (4), Drum Storage Area South of W-26 (5), Nitric Acid (NAR) Recovery System (10), Tank Farm Sump (11), Box Furnace (14), Plant 8 East Pad (17), Plant 8 West Pad (18), Plant 1 Storage Pad (20), Abandoned Sump West of Pilot Plant (22): Section 3.6.2, HWMUs and USTs, pp. 3-21 to 3-23; Section 3.7, Impacted Material Management, pp. 3-27 to 3-29
4. Schedule for Closure (Closure Guidance Item 3.7)	OU1 FINAL Remedial Action Work Plan, January 1997	Schedule Summary for Remedial Design/Remedial Action Packages; Closure of Waste Pit 4 (27), Waste Pit 5 (42): Table 2-1, p. 2-16
	OU3 FINAL Integrated Remedial Design/Remedial Action Work Plan, May 1997	Accelerated Schedule for Conducting Safe Shutdown Activities at D&D Complexes: Figure 6-1, p. 6-3 Schedule for Submitting D&D Packages: Table 6-1, p. 6-7
	OU3 Implementation Plans for Above-Grade Decontamination and Dismantlement	Schedule for Removing & Decontaminating Above-Grade Unit Structures and Equipment: To be Submitted for Each D&D Complex
	FINAL Plant 1 Complex – Phase I Implementation Plan, March 1996	Plant 1 Storage Bldg. – Bldg. 67 (25) Figure 4-1, p. 48
	FINAL Thorium/Plant 9 Complex Implementation Plan, August 1997	Plant 9 Warehouse – Bldg. 81 (35) Figure 4-1, p. 43
	FINAL Misc. Small Structures Implementation Plan, October 1998	Waste Oil Decant Shelter (component of Trane Incinerator) (28); KC-2 Warehouse – Bldg. 63 (34); UNH Tanks – NFS Storage Area (46): Section 4.0, pp. 45 to 46
	FINAL Implementation Document for HWMUs #28 and #50, December 1998	Trane Incinerator (28); UNH Tanks – Raffinate Bldg. (50): Letter, J Reising to G. Jablonowski and T. Schneider, "Transmittal of RCRA/CERCLA Integrated Closure Implementation Document for the Trane Incinerator (HWMU No. 28) and UNH Tanks, Hot Raffinate Building (HWMU No. 50)," dated December 22, 1998
	FINAL Plant 6/East Warehouse Complex Implementation Plan, July 1999	Plant 6 Warehouse – Bldg. 79 (37): Figure 4-1, p. 42

5146

8

CLOSURE PLAN COMPONENT[1]	CERCLA DOCUMENT	CROSS-REFERENCE INDEX
4. Schedule for Closure (Closure Guidance Item 3.7) - Continued	FINAL Multi-Complex Implementation Plan, October 2001	NAR System (10), Box Furnace (14), Oxidation Furnace #1 (15), Plant 8 Warehouse - Building 80 (29), UNH Tanks - North of Plant 2 (47), UNH Tanks - Southeast of Plant 2 (48), UNH Tanks - Digestion Area (49): Figure 4-1, p. 112
	FINAL Laboratory Complex Implementation Plan, April 2002	Pilot Plant Warehouse - Bldg. 68 (33): Section 4.0, p. 41
	FINAL Plant 1 Complex - Phase II Implementation Plan, August 2002	CP Warehouse - Building 56 (19), TS-4, 5, and 6 (component of Plant 1 Pad) (20): Figure 4-1, p. 46
	OU5 FINAL Remedial Design Work Plan, August 1996	Schedule for Submitting Remedial Design Documents for Soil: Table 4-1, p. 4-6
	OU5 FINAL Sitewide Excavation Plan, July 1998	Schedule for Submitting Remedial Design Documents: Table 1-5
	OU5 Integrated Remedial Design Packages for Individual Remediation Areas	Area/Project-Specific Schedules:
	Area 1, Phase II Supplemental Characterization Package, April 1999	Sludge Drying Beds (41) — Sector 3D: Table 7-3
	FINAL Implementation Plan for Area 3A/4A, May 2001	Storage Pad North of Plant 6 (36) – Area 4A: Table 6-3
	FINAL Implementation Plan for Area 6 - Solid Waste Landfill and Fire Training Facility, March 2003	Fire Training Facility (1): Table 7-3
	DRAFT Implementation Plan for Area 3B/4B/5, March 2003	Drum Storage Area Near Lab Loading Dock (4), Drum Storage Area South of W-26 (5), Nitric Acid (NAR) Recovery System (10), Tank Farm Sump (11), Box Furnace (14), Plant 8 East Pad (17), Plant 8 West Pad (18), Plant 1 Storage Pad (20), Abandoned Sump West of Pilot Plant (22): Table 6-3
5. Health and Safety Issues (Closure Guidance Item 3.9)	OU1 FINAL Remedial Action Documents Package, April 1999	Health and Safety Plan
	OU3 FINAL Integrated Remedial Design/Remedial Action Work Plan, May 1997	Health and Safety Plan: Appendix E
	OU5 FINAL Sitewide Excavation Plan, July 1998	Health and Safety Plan: Section 6.0, Project Health and Safety; Table 6-1, Occupational Monitoring and Action Levels
	OU5 Integrated Remedial Design Packages for Individual Remediation Areas	Area/Phase-Specific Health and Safety Requirements:

5146

9

CLOSURE PLAN COMPONENT[1]	CERCLA DOCUMENT	CROSS-REFERENCE INDEX
5. Health and Safety Issues (Closure Guidance Item 3.9) - Continued	Area 1, Phase II Integrated Remedial Design Package, September 1998 FINAL Implementation Plan for Area 3A/4A, May 2001 FINAL Implementation Plan for Area 6 - Solid Waste Landfill and Fire Training Facility, March 2003 DRAFT Implementation Plan for Area 3B/4B/5, March 2003	Sludge Drying Beds (41): Section 5.0, Project Specific Health and Safety Storage Pad North of Plant 6 (36): Section 5.0, Project Specific Health and Safety Fire Training Facility (1): Section 6.0, Project-Specific Health and Safety Drum Storage Area Near Lab Loading Dock (4), Drum Storage Area South of W-26 (5), Nitric Acid (NAR) Recovery System (10), Tank Farm Sump (11), Box Furnace (14), Plant 8 East Pad (17), Plant 8 West Pad (18), Plant 1 Storage Pad (20), Abandoned Sump West of Pilot Plant (22): Section 5.0, Project-Specific Health and Safety
6. Decontamination Efforts (Closure Guidance Item 3.10)	OU1 OU1 Complex D&D Implementation Plan OU3 FINAL Integrated Remedial Design/Remedial Action Work Plan, May 1997 OU3 Implementation Plans for Above-Grade Decontamination and Dismantlement FINAL Plant 1 Complex – Phase I Implementation Plan, March 1996 FINAL Misc. Small Structure Implementation Plan, October 1998 FINAL Implementation Document for HWMUs #28 and #50, December 1998 FINAL Plant 6/East Warehouse Complex Implementation Plan, July 1999	Decontamination of Equipment To be Submitted HWMU Decontamination: Section 3.2.3, p. 3-13 HWMU Remediation: Section 3.5.3, pp. 3-69 to 3-73 (use of Safe Shutdown, D&D of Complexes) Decontamination of Above-Grade Unit Structures and Equipment; To be Submitted for Each D&D Complex Plant 1 Storage Bldg. – Bldg. 67 (25): HWMU Decontamination: Section 3.7, pp. 42 to 45 Materials Management: Table 2-1, p. 12 Waste Oil Decant Shelter (component of Trane Incinerator) (28): Section 3.17, pp. 36 to 37 KC-2 Warehouse – Bldg. 63 (34) Section 3.23, pp. 42 to 43 UNH Tanks – NFS Storage Area (46): Section 3.1, pp. 23 to 24 Trane Incinerator (28): HWMU Decontamination UNH Tanks – Raffinate Bldg. (50): HWMU Decontamination Plant 6 Warehouse – Bldg. 79 (37): Section 3.9, p. 37

5146

10

CROSS-REFERENCE INDEX FOR FEMP HWMU CLOSURE PLAN COMPONENTS UNDER CERCLA

CLOSURE PLAN COMPONENT[1]	CERCLA DOCUMENT	CROSS-REFERENCE INDEX
6. Decontamination Efforts (Closure Guidance Item 3.10) - Continued	FINAL Multi-Complex Implementation Plan, October 2001	NAR System (10): Section 3.1, pp. 40 to 41 Box Furnace (14): Section 3.16, p. 76 Oxidation Furnace #1 (15): Section 3.16, pp. 77 to 78 Plant 8 Warehouse - Bldg. 80 (29): Section 3.38, p. 108 UNH Tanks - North of Plant 2 (47): Section 3.1, pp. 42 to 43 UNH Tanks - Southeast of Plant 2 (48): Section 3.23, pp. 87 to 88 UNH Tanks - Digestion Area (49): Section 3.1, pp. 44 to 45
	FINAL Laboratory Complex Implementation Plan, April 2002	Pilot Plant Warehouse - Bldg.68 (33): Section 3.4, pp. 37 to 38
	FINAL Plant 1 Complex - Phase II Implementation Plan, August 2002	CP Warehouse - Building 56 (19): Section 3.3, p. 36 Plant 1 Pad Components (20): TS-4: Section 3.5, p. 39 TS-5: Section 3.6, p. 41 TS-6: Section 3.7, pp. 42 to 43
	OU5 FINAL Sitewide Excavation Plan, July 1998	Decontamination of Excavation Equipment: Section F.2.3, Installation of Decontamination and Wash Facilities
	OU5 Integrated Remedial Design Packages for Individual Remediation Areas	Area/Phase-Specific Requirements for Decontamination of Excavation Equipment:
	Area 1, Phase II Supplemental Characterization Package, April 1999	Sludge Drying Beds (41): Equipment Decontamination: Section 5.2, Loading and Hauling, pp. 5-2 to 5-3
	Area 1, Phase II Integrated Remedial Design Package, September 1998	Sludge Drying Beds (41): Remediation-Generated Water Management: Section 3.4.4, Remediation-Generated Wastewater Management, pp. 3-33 to 3-35
	FINAL Implementation Plan for Area 3A/4A, May 2001	Storage Pad North of Plant 6 (36): Appendix A, Section 5.6, Equipment and Personnel Monitoring Decontamination, pp. 13 to 14

5146

CLOSURE PLAN COMPONENT[1]	CERCLA DOCUMENT	CROSS-REFERENCE INDEX
6. Decontamination Efforts (Closure Guidance Item 3.10) - Continued	FINAL Implementation Plan for Area 6 - Solid Waste Landfill and Fire Training Facility, March 2003	Fire Training Facility (1): Section 4.1.4, Support Facilities, pp. 4-2 to 4-3
	Draft Implementation Plan for Area 3B/4B/5, March 2003	Drum Storage Area Near Lab Loading Dock (4), Drum Storage Area South of W-26 (5), Nitric Acid (NAR) Recovery System (10), Tank Farm Sump (11), Box Furnace (14), Plant 8 East Pad (17), Plant 8 West Pad (18), Plant 1 Storage Pad (20), Abandoned Sump West of Pilot Plant (22): Section 3.4.3.4, Haul Routes, p. 3-15; Appendix A, Section 5.7, Equipment and Personnel Monitoring Decontamination, p. 14
7. Remediation Standards for Soils and Groundwater[2] (Closure Guidance Items 3.11, 3.11.1, 3.11.2, and 3.13)	OU1 FINAL Record of Decision, January 1995	Waste Pit (27, 42) Area: pp. 9-1 to 9-11 Tables B-5 to B-16
	OU1 Remedial Design Pre-Final Design Package II, March 1996	Waste Pit (27, 42) Area: pp. A-3 to A-7
	OU5 FINAL Record of Decision, January 1996	Final Remediation Levels (FRLs) for Soil and Groundwater: Table 9-3, p. 9-23 Table 9-4, p. 9-26
	OU5 FINAL Sitewide Excavation Plan, July 1998	Summary of Contaminant Levels Pertinent to Soil Remediation at the FEMP: Table 1-4; Final Remediation Levels: Section 2.1.3, p. 2-10 Constituents of Ecological Concern: Section 2.1.4, p. 2-13 Preliminary Identification of Primary, Secondary COCs and Ecological COCs Assigned to Remediation Areas: Table 2-7
	OU5 Integrated Remedial Design Packages for Individual Remediation Areas	Area/Phase-Specific FRLs:
	Area 1, Phase II Supplemental Characterization Package, April 1999	Sludge Drying Beds (41): Section 3.3, Material Disposition Sampling Plan, pp. 3-3 to 3-4; Section 5.1, Excavation and Monitoring, pp. 5-1 to 5-2
	FINAL Implementation Plan for Area 3A/4A, May 2001	Storage Pad North of Plant 6 (36): Soil Final Remediation Levels for HWMUs and USTs, Table 2-6
	FINAL Implementation Plan for Area 6 - Solid Waste Landfill and Fire Training Facility, March 2003	Fire Training Facility (1): Soil Final Remediation Levels, Table 3-3
	DRAFT Implementation Plan for Area 3B/4B/5, March 2003	Drum Storage Area Near Lab Loading Dock (4), Drum Storage Area South of W-26 (5), Nitric Acid (NAR) Recovery System (10), Tank Farm Sump (11), Box Furnace (14), Plant 8 East Pad (17), Plant 8 West Pad (18), Plant 1 Storage Pad (20), Abandoned Sump West of Pilot Plant (22): Soil Final Remediation Levels, Table 2-3

5146

12

CROSS-REFERENCE INDEX FOR FEMP HWMU CLOSURE PLAN COMPONENTS UNDER CERCLA

CLOSURE PLAN COMPONENT[1]	CERCLA DOCUMENT	CROSS-REFERENCE INDEX
8. Sampling Plan and Analytical Procedures (Closure Guidance Item 3.14) – Includes Sampling to Define the Extent of Contamination and Sampling to Verify the Unit is Clean	OU1 FINAL Remedial Investigation Report, August 1994	Procedures for Determining Nature and Extent of Contamination at Waste Pit Area: Waste Pit 4 (27), Waste Pit 5 (42): Chapter 2, pp. 2-1 to 2-161
	OU1 FINAL Remedial Action Documents Package, April 1999	Procedures for Sampling and Analysis of Waste Pit Area; Certification of Waste Pit Area Cleanup: Sampling and Analysis Plan
	OU5 FINAL Remedial Investigation Report, March 1995	Procedures for Determining Nature and Extent of Soil Contamination: Chapter 2, pp. 2-1 to 2-83
	OU5 FINAL Sitewide Excavation Plan, July 1998	Procedures for Certifying Attainment of Soil Cleanup: Section 2.2.2, p. 2-18 to 2-19; Section 2.2.5, p. 2-22 to 2-23; Section 3.4, p.3-22 to 3-23; Appendix G, Certification Design Rationale
	OU5 Integrated Remedial Design Packages (IRDPs) for Individual Remediation Areas	Area/Phase-Specific Procedures for Certifying FRL Attainment:
	Area 1, Phase II Supplemental Characterization Package, August 1998	Sludge Drying Beds (41): Section 3.3, Material Disposition Sampling Plan, p. 3-3; Section 5.0, Excavation Monitoring, pp. 5-1 to 5-2
	FINAL Implementation Plan for Area 3A/4A, May 2001	Storage Pad North of Plant 6 (36): Section 2.3.2.3, Location of HWMUs and USTs, p. 2-12; Section 3.3.3, HWMUs and USTs, p. 3-17; Section 3.3.4, General Excavation, pp. 3-17 to 3-19
	FINAL Implementation Plan for Area 6 - Solid Waste Landfill and Fire Training Facility, March 2003	Fire Training Facility (1): Section 3.6, Excavation Boundaries, p. 3-10; Section 4.6, Precertification and Interim Grading, p. 4-13
	DRAFT Implementation Plan for Area 3B/4B/5, March 2003	Drum Storage Area Near Lab Loading Dock (4), Drum Storage Area South of W-26 (5), Nitric Acid (NAR) Recovery System (10), Tank Farm Sump (11), Box Furnace (14), Plant 8 East Pad (17), Plant 8 West Pad (18), Plant 1 Storage Pad (20), Abandoned Sump West of Pilot Plant (22): Section 2.6, Excavation Boundaries, pp. 2-21 to 2-28; Section 3.9, Precertification And Interim Grading, pp. 3-30 to 3-31
	OU5 Certification Design Letters for Individual Remediation Areas	Area/Phase-Specific Procedures for Certifying FRL Attainment:
	FINAL Certification Design Letter for Area 1, Phase II, October 1999	Sludge Drying Beds (41): Section 4.1, Certification Design, pp. 4-1 to 4-5; Section 4.3, Sampling, pp. 4-6 to 4-7
	FINAL Certification Design Letter for Area 6, Phase I, May 2003	Fire Training Facility (1): Section 4.0, Certification Approach, pp. 4-1 to 4-3

5146

13

CROSS-REFERENCE INDEX FOR FEMP HWMU CLOSURE PLAN COMPONENTS UNDER CERCLA

CLOSURE PLAN COMPONENT[1]	CERCLA DOCUMENT	CROSS-REFERENCE INDEX
9. Description of Removal Efforts and Treatment Processes (Closure Guidance Item 3.15)	OU1 FINAL Remedial Design Documents Package, August 1998	Removal and Handling of Waste Pit Waste – Waste Pit 4 (27), Waste Pit 5 (42): Volume 2, Excavation Plan
	OU1 FINAL Remedial Action Documents Package, April 1999	Processing of Waste Pit Waste – Waste Pit 4 (27), Waste Pit 5 (42): Operations and Maintenance (O & M) Plan for Remediation Facilities
	OU3 Implementation Plans for Above-Grade Decontamination and Dismantlement	Removal and Treatment of Waste in HWMU: To be Submitted for Each D&D Complex (where applicable)
	OU5 FINAL Feasibility Study Report, June 1995	Evaluation of Technologies and Process Options: Section 3.3, p. 3-5
	OU5 FINAL Sitewide Excavation Plan, July 1998	Excavation, Loading, Staging, Storage, Treatment, and/or Disposition of Impacted Material: Section 2.0, Remediation Issues and General Strategies; Section 3.0, General Implementation Approach; Section 4.0, Location Specific Excavation Approaches; Appendix B, Sitewide Sequencing Plan; Appendix F, Implementation of Construction; Appendix I, Sitewide Extent of Contamination by Constituent
	OU5 Integrated Remedial Design Packages (IRDPs) for Individual Remediation Areas	Area/Phase-Specific Excavation, Loading, Staging, Storage, Treatment, and/or Disposition of Impacted Material:
	Area 1, Phase II Supplemental Characterization Package, April 1999	Sludge Drying Beds (41): Management of Sludge: Section 3.3, Material Disposition Sampling Plan, p. 3-3; Management of Soil: Section 5.0, Excavation, pp. 5-1 to 5-4
	FINAL Implementation Plan for Area 3A/4A, May 2001	Storage Pad North of Plant 6 (36): Section 3.2.2, Concrete, Asphalt Pads, Roadways and Floors, pp. 3-9 to 3-10; Section 3.3.3, HWMUs and USTs, p. 3-17; Section 3.3.4, General Excavation, pp. 3-17 to 3-19
	FINAL Implementation Plan for Area 6 - Solid Waste Landfill and Fire Training Facility, March 2003	Fire Training Facility (1): Section 4.2, At- and Below-Grade Structure Demolition, pp. 4-5 to 4-6; Section 4.3, Soil Excavation, Monitoring and Segregation, pp. 4-6 to 4-10; Section 4.4, Impacted Material Management, pp. 4-10 to 4-12
	DRAFT Implementation Plan for Area 3B/4B/5, March 2003	Drum Storage Area Near Lab Loading Dock (4), Drum Storage Area South of W-26 (5), Nitric Acid (NAR) Recovery System (10), Tank Farm Sump (11), Box Furnace (14), Plant 8 East Pad (17), Plant 8 West Pad (18), Plant 1 Storage Pad (20), Abandoned Sump West of Pilot Plant (22): Section 3.6.2, HWMUs and USTs, pp. 3-21 to 3-23; Section 3.7, Impacted Material Management, pp. 3-27 to 3-29
10. Landfill Closure Requirements – (if applicable)[3] - (Closure Guidance Item 3.16)	OU1 FINAL Record of Decision, January 1995	ARARs: Relevant and Appropriate as some remedial alternatives may require closure to these standards Tables B-28 and B-29
	OU1 FINAL Remedial Design Work Plan, June 1995	Revised ARARs: Tables A-24 and A-25

5146

14

CLOSURE PLAN COMPONENT[1]	CERCLA DOCUMENT	CROSS-REFERENCE INDEX
10. Landfill Closure Requirements – (if applicable)[3] - (Closure Guidance Item 3.16) - Continued	OU5 FINAL Record of Decision, January 1996	Not Applicable, if Remediation Levels for Soil and Groundwater are Sufficient for a Clean Hazardous Waste Management Unit Closure[1]: ARARs: Table B-3, p. B.3-10
	OU5 Integrated Remedial Design Packages for Individual Remediation Areas	Area/Phase-Specific Landfill Closure Requirements:
	Area 1, Phase II Integrated Remedial Design Package, September 1998	Sludge Drying Beds (41): Included within Appendix A, Design Criteria Package, Table A-2, p. A-32, but not anticipated to be applicable since HWMU to be clean (risk-based) closed by removal.
	FINAL Implementation Plan for Area 3A/4A, May 2001	Storage Pad North of Plant 6 (36): Included within Appendix A, Design Criteria Package, Table A-2, pp. A-69 to A-74, but not anticipated to be applicable since HWMU to be clean (risk-based) closed by removal.
	FINAL Implementation Plan for Area 6 - Solid Waste Landfill and Fire Training Facility, March 2003	Fire Training Facility (1): Included within Appendix A, Design Criteria Package, Table A-2, pp. A-69 to A-74, But not anticipated to be applicable since HWMU to be clean (risk-based) closed by Removal
	DRAFT Implementation Plan for Area 3B/4B/5, March 2003	Drum Storage Area Near Lab Loading Dock (4), Drum Storage Area South of W-26 (5), Nitric Acid (NAR) Recovery System (10), Tank Farm Sump (11), Box Furnace (14), Plant 8 East Pad (17), Plant 8 West Pad (18), Plant 1 Storage Pad (20), Abandoned Sump West of Pilot Plant (22): Included within Appendix A, Design Criteria Package, Table A-2, pp. A-69 to A-74, But not anticipated to be applicable since HWMUs are to be clean (risk-based) closed by Removal
11. Certification (Closure Guidance Item 3.18)	OU1 Remedial Action Report	Summary of HWMU Remediation Activities/Certification Sampling Results: To be Submitted
	OU3 Project Completion Reports	Summary of HWMU Remediation Activities/~~Statement of Conformance with Requirements and Performance Standards:~~ To be Submitted for Each D&D Complex
	FINAL Plant 1 Complex – Phase 1 Project Completion Report, December 1997	Plant 1 Storage Bldg. – Bldg. 67 (25): Section 2.1.3, pp. 7 to 8
	FINAL Thorium/Plant 9 Complex Project Completion Report, April 1999	Plant 9 Warehouse – Bldg. 81 (35): Section 2.2.11, pp. 12 to 14
	FINAL Miscellaneous Small Structures Decontamination and Dismantlement Project, Task Order #432 Completion Report, October 1999	Waste Oil Decant Shelter (component of Trane Incinerator) (28): Section 2.3, pp. 3 to 5 KC-2 Warehouse – Bldg. 63 (34) Section 2.4, pp. 5 to 6

5146

15

CLOSURE PLAN COMPONENT[1]	CERCLA DOCUMENT	CROSS-REFERENCE INDEX
11. Certification (Closure Guidance Item 3.18) - Continued	FINAL Miscellaneous Small Structures Decontamination and Dismantlement Project, Task Order #464 Completion Report, December 2000	UNH Tanks - NFS Storage Area (46): Section 2.0, p. 1, Component-Specific Remediation Summary; Section 2.5, HWMU No. 46 Decontamination, p. 4
	DRAFT Plant 1 Complex - Phase II Decontamination and Dismantlement Project Completion Report, November 2003	CP Warehouse - Building 56 (19): Section 2.2.4, pp. 5 to 6 Plant 1 Pad Components (20): TS-4: Section 2.2.6, pp. 6 to 7 TS-5: Section 2.2.7, p. 7 TS-6: Section 2.2.8, pp. 7 to 8 Section 3.0, Material Management, pp. 8 to 9
	OU3 Remedial Action Report	Certification of Conformance with Requirements and Standards: To be Submitted
	OU5 Certification Reports for Individual Remediation Areas:	Area/Phase-Specific Certification Reports (Summary of Remedial Activities/Certification Sampling Results):
	FINAL Certification Report for Area 1, Phase II, October 2000	Sludge Drying Beds (41): Section 2.1.5,3, Sector 3 Certification Units, pp. 2-9 to 2-11; Section 2.3, Statistical Analysis, pp. 2-12 to 2-13; Section 3.1, Excavation Activities, p. 3-1; Section 3.2, Changes to Scope of Work, pp. 3-3 to 3-5; Section 5.2, Sludge Drying Bed HWMU Closure, p. 5-3
	OU5 Interim Remedial Action Report	~~Summary of Remedial Activities and Statement~~ Certification of Conformance with Requirements and Standards: To be Submitted
12. Status of Facility (or Unit) After Closure (Closure Guidance Item 3.19)	OU1 FINAL Record of Decision, January 1995	Status of Waste Pits After OU1 Remedial Action: pp. 10-1 to 10-9
	OU3 FINAL Record of Decision for Interim Remedial Action, June 1994	Status of Production Area HWMUs After OU3 Remedial Action: Section 5.4, p. 11
	OU3 Final Record of Decision for Final Remedial Action, September 1996	Integration of the Interim and Final Remedial Actions, Section 2.1, p. 9
	OU5 FINAL Record of Decision, January 1996	Status of FEMP After Soil and Groundwater Remediation: Section 4.0, p. 4-1
	OU5 FINAL Sitewide Excavation Plan, July 1998	Certification Reports: Section 7.4, pp. 7-10 to 7-14
	OU5 Certification Reports for Individual Remediation Areas	Status of those HWMUs That Had Soil Contamination After Soil Remedial Action: To be Submitted (if required)

5146

16

CROSS-REFERENCE INDEX FOR FEMP HWMU CLOSURE PLAN COMPONENTS UNDER CERCLA

[1] Closure Guidance Items are from the Closure Plan Review Guidance for RCRA Facilities, Ohio EPA, March 1999.

[2] The perched water contamination has many sources, only some of which are the HWMUs. Because of this, it is difficult or impossible to identify the degree to which a HWMU may have contributed to perched water contamination. Therefore, the nature and extent of contamination in the perched water, and the most appropriate remedial action method and objectives, are best achieved under the CERCLA process alone.

[3] Ohio EPA has two options for clean closure where there are no more RCRA requirements (i.e., no post-closure requirements) for the existing HWMUs: (1) complete removal of waste and impacted environmental media, and (2) complete removal of waste and impacted environmental media to health-based standards (known at the FEMP as Final Remediation Levels, FRLs). Post closure requirements will, however, be applicable to the CERCLA on-property disposal cell as it will take some soil and debris contaminated with RCRA-hazardous waste [see Post Closure Care and Inspection Plan, On-Site Disposal Facility (20100-PL-010, Rev. 1, July 1997)].

5146

17