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MAR 16 2000

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-0496-00

Dear Mr. Pardi:

REVISIONS TO SECTION D - PROCESS INFORMATION (REVISION 5.1) OF THE FERNALD ENVIRONMENTAL MANAGEMENT PROJECT'S RESOURCE CONSERVATION AND RECOVERY ACT PART B PERMIT APPLICATION

Reference: Letter, J. Craig to P. Pardi, "Proposed Strategy for Addressing Revisions to Fernald Environmental Management Project's Resource Conservation and Recovery Act Part A/B Permit Application," dated September 24, 1997

Enclosed are revisions to Section D - Process Information (Revision 5.1) of the Fernald Environmental Management Project's (FEMP) Resource Conservation and Recovery Act (RCRA) Part B Permit Application to address container management practices at the FEMP. These revisions were discussed during a January 25, 2000 meeting with Ohio Environmental Protection Agency (OEPA) and include the following:

- 1) In Subsections D1a(3)(a), Requirement for the Base to Contain Liquids, and D1a(3)(e), Removal of Liquids from Containment System, the time frame for pumping a release of hazardous waste out of the secondary containment area specified, has been changed from twenty-four hours to one working day following discovery of the release. This revision was required because, in addition to being inspected on weekdays, these areas are also inspected on weekends when personnel are not available to pump out the waste.

Note that infiltrated perched water is currently collecting in the sumps in Tension Support Structure (TSS) Numbers 4, 5, and 6, due to leaks in the sump systems. The FEMP is planning to initiate repairs to these systems by June 2000. Until these repairs have been completed, the FEMP will continue to pump perched water out of these sumps on a routine basis in all TSS, which

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are currently used for the storage of hazardous waste (TS-5 and TS-6). If there is a release of hazardous waste into one of these sump systems during this time period, all liquids in the sump will be pumped out within one working day after discovery. Note that the FEMP conducts daily inspections of all containers of hazardous waste stored in TS-5 and TS-6 to check for general container condition and for any evidence of a release.

- 2) Section D-1a(3)(e) has been revised to clarify that steps will be taken to mitigate releases of hazardous waste as soon as practicable.
- 3) Table D-2 has been updated to include additional container types used for hazardous waste storage at the FEMP. The format of the table has also been changed to specify minimum and maximum volumes for each container type rather than listing the individual container sizes.

The revisions to Section D have been prepared as replacements to pages 9, 10, and 17 of Section D (Revision 5.1) of the FEMP's RCRA Part B Permit Application. The changes are identified using redlines and strikeouts for easy identification with the exception of Table D-2. A new version of the entire table is provided due to the extent of the required revisions.

Note that these revisions are being provided at this time because they contain substantive information, which changes or clarifies container management practices. Additional revisions to the FEMP's RCRA Part B Permit Application will be provided as part of the Annual Update in accordance with the referenced letter.

If you have any questions, please contact Robert Danner at (513) 648-3167.

Sincerely,



Jack R. Craig
Director

FEMP:Danner

Enclosures

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Mr. Paul Pardi

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FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
FERNALD, OHIO
EPA ID NO. OH6890008976
SECTION D: PROCESS INFORMATION

RCRA PART B PERMIT APPLICATION
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CP Storage Warehouse (Building 56). The Warehouse is a pre-engineered building with ribbed metal siding and metal roofing. The upgrade project for the storage of wastes with free liquids in this storage unit was completed in January 1993. The upgrade project included the installation of six-inch by six-inch concrete dikes around the perimeter of the unit. A ramp allows access to the containment area. The secondary containment dimensions are detailed in Figure D-44. A drum layout is provided in Figure D-45. A photograph of the CP Storage Warehouse is provided in Figure D-46.

Pilot Plant Warehouse (Building 68). The Pilot Plant Warehouse is a pre-engineered metal fabricated building which is completely enclosed and covered by metal roofing. A photograph of the Pilot Plant Warehouse is provided in Figure D-47. The base of the warehouse is constructed of eight-inch thick concrete with wire mesh fabric reinforcement as indicated in Figure D-48.

The RCRA storage area is 69 feet X 7 feet located in the center of the building. The storage area consists of a U-shaped concrete dike with the end of the U-shaped dike enclosed by a smaller U-shaped temporary Herculite containment structure to form an impermeable barrier to contain spills of hazardous waste with and without free liquids. A layout drawing of the Pilot Plant Warehouse is provided as Figure D-49. The secondary containment dimensions are included in Figure D-50.

Plant 8 Warehouse (Building 80). The Plant 8 Warehouse is a steel-framed, enclosed, metal building. The base of the unit is constructed of eight inch thick concrete with number 4 reinforcement rods at twelve inch intervals as shown in Figure D-53. The secondary containment dike is constructed of a four inch by six inch steel angle iron frame dike. Steel ramps have been constructed to allow access to the containment area. The building is fully sprinklered using a dry pipe sprinkler system and meets the standards for storage of ignitable liquids. Figure D-55 provides the secondary containment dimensions. A drum layout is provided as Figure D-56. A photograph of the Plant 8 Warehouse is provided as Figure D-52.

D-1a(3)(a) Requirement for the Base to Contain Liquids

The concrete floors of the following storage units are inspected for cracks and gaps weekly. The inspector checks the building/pad for any structural failure of the pad surface and curbing. The

surrounding area is checked for signs of a release such as pooled liquids. The condition of the secondary containment is checked to ensure that all portions of the system are sealed, and free of any cracks or gaps. All drainage features including sumps, drains, and troughs are inspected to ensure there are no standing liquids. Standing liquids from a release of hazardous waste must be removed within 24 hours one working day from discovery and the area re-inspected to ensure compliance. Any cracks or gaps identified will be noted on the inspection checklist. A Maintenance Work Order is written for the repair of the crack or gap. The inspector will re-inspect the area and note the conditions until the gap or crack is repaired.

Plant 1 Pad. Under the approved Removal Action 7 Work Plan as explained in D-1a(3) above, the base, catch basins, and sumps in the covered structures of the Plant 1 Pad were covered with a chemically resistant coating. Coating of the three structures (TS-4, TS-5 and TS-6) has been completed. The coating applied to the base of each of the structures is a polyurethane called Auto-gard II. Attachment D-1 provides information on the coating. The coating is compatible with, and impervious to, the hazardous wastes stored at the Plant 1 Pad. A twelve (12) inch concrete curb has been constructed around the perimeter of each secondary containment area for TS-4 and TS-5 and the TS-6 secondary containment area. TS-4 and TS-5 have two secondary containment areas designated as North and South within each structure. TS-6 has one secondary containment area within the structure.

The secondary containment area in each of the hazardous waste storage lockers is coated with a chemically resistant epoxy sealant, Amershield, to provide an impermeable surface. Attachment D-1 provides information regarding the coating system, including chemical resistance data.

KC-2 Warehouse. The floor and curbs are coated with a chemically resistant coating to create an impermeable surface. The bases of Bays 1, 2, 3, 4, and 8 of the KC-2 Warehouse were re-coated as part of a RCRA Warehouse conversion project. The re-coating started in November 1992 and was completed in January 1993. The RCRA Warehouse re-coatings were part of a project to upgrade the KC-2 Warehouse for liquid RCRA ignitable waste storage capabilities. The coating, Vulkem, was used for Bays 1, 2, 3, 4, and 8. Bays 5, 6, and 7 were re-coated during October 1989 and January 1990 with Stonhard. The vendor's specifications for both Vulkem and Stonhard are provided in Attachment

Pilot Plant Warehouse (Building 68). The storage area is confined to the middle of an entirely covered and enclosed structure. The drummed containers are stored on pallets and the white metal box containers are stored on wooden beams. The topography around the building is sloped away from the building to prevent run-on.

Plant 8 Warehouse (Building 80). Precipitation is prevented from entering the Plant 8 Warehouse since this area is completely covered and enclosed on all sides. The area around the warehouse is sloped away from the building to further prevent run-on.

D-1a(3)(e) Removal of Liquids from Containment System

Spills and leaks are contained within the diked containment area. Spills and leaks are remediated as follows: ~~within 24 hours from discovery of the incident:~~

~~Steps will be taken to mitigate the release as soon as practicable.~~ Vermiculite, diatomaceous earth, sand, sorbent "pigs", or equivalent, are used to contain and/or absorb the spilled material within the immediate area. The characteristics of the spilled material are established from the container identification if possible. The spill may then be cleaned up by absorption. ~~A pumping system may be used to remove larger spills.~~ If an acid or a base, a neutralizing agent is used as necessary to reduce or eliminate the hazardous properties of the spill before absorption. Saturated sorbent material is placed in a compatible container for proper disposal. ~~A pumping system may be used to remove larger spills.~~ ~~Spilled material will be pumped out of the secondary containment system within one working day from discovery of the incident.~~

If spilled material is not identifiable, samples are analyzed for hazardous characteristics in accordance with the FEMP Waste Analysis Plan and the Waste Determination Plan. The container is properly labeled. Storage and disposal is performed in accordance with applicable regulatory requirements. Equipment and materials used are decontaminated or disposed of properly.

SECTION D - PROCESS INFORMATION
CONTAINER SPECIFICATIONS

TABLE D-2

CONTAINER TYPE	UN PERFORMANCE PACKAGING	VOLUME (MIN/MAX)	WASTE TYPE
Steel Drum, Closed Head	1A1	5 gallon/55 gallon	liquids
Steel Drum, Open Head	1A2	5 gallon/110 gallon	liquids and solids
Plastic Drum, Closed Head	1H1	30 gallon/55 gallon	liquids
Plastic Drum, Open Head	1H2	30 gallon/85 gallon	liquids and solids
Plastic Inner Container with Outer Steel Drum	6HA1	55 gallon	liquids
Wood Box	7A or Excepted Package	2/83 ft ³	solids
Metal Box	IP-1, IP-2, Type 7A or Excepted Package	35 ft ³ /82 ft ³	solids
SeaLand	Excepted Package	1135 ft ³	solids
Intermodal Container	IP-1	686 ft ³	solids
Portable Tank (steel or polyethylene)	Not applicable - for storage only	200 gallon/600 gallon	liquids

• All other packagings are approved on a case by case basis.