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RCRA PART B PERMIT APPLICATION SECTION E: GROUNDWATER MONITORING SECTION F: PROCEDURES TO PREVENT HAZARDS VOLUME 5 TO 13
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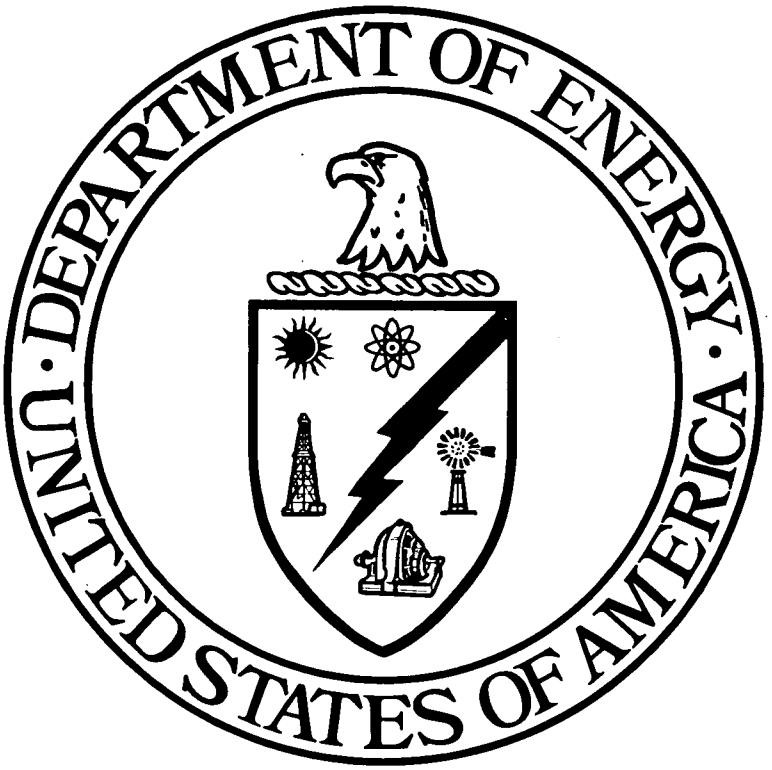
RCRA PART B PERMIT APPLICATION



October 31, 1991

SECTION E: GROUNDWATER MONITORING
SECTION F: PROCEDURES TO PREVENT HAZARDS

(Volume 5 of 13)

Fernald Environmental Management Project

U.S. EPA Identification No. 0H6890008976
Ohio EPA Permit No. 05-31-0681

SECTION E - GROUNDWATER MONITORING

RCRA Part B Permit Application
Fernald Environmental Management Project (FEMP)
Fernald, Ohio

Ohio Administrative Code (OAC) 3745-54-90 through 99, OAC 3745-50-44(B) and Title 40 of the Code of Federal Regulations (CFR) 270.14(c)(1) and 40 CFR 264 Subpart F require the FEMP to provide groundwater monitoring information on land based units. The FEMP is only seeking a permit for container storage. Therefore, groundwater requirements for land based units are not addressed in this section. Groundwater monitoring requirements for those land based units the FEMP will close are presented under a separate cover in accordance with Consent Decree and its proposed amendments as discussed in the cover letter to this permit application.

SECTION F - PROCEDURES TO PREVENT HAZARDS

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SECTION F - PROCEDURES TO PREVENT HAZARDS

RCRA Part B Permit Application
Fernald Environmental Management Project
Fernald, Ohio

The information provided in this section is submitted in accordance with the requirements of the Ohio Administrative Code (OAC) 3745-50-44(A)(4) and Title 40 of the Code of Federal Regulations (CFR) Part 270.14(b)(4). Other regulations addressed to complete this section include OAC 3745-54-14, 3745-54-15, 3745-54-17, 3745-54-32, 3745-54-35, 3745-55-74, and 3745-54-76 (40 CFR 264.14, 264.15, 264.17, 264.32, 264.35, 264.174, and 264.176).

F-1 SECURITY

F-1a Security Procedures and Equipment

General security at the Fernald Environmental Management Project (FEMP) is provided by fencing, gates, and security officers as discussed in Section F-1a(1). The following features also contribute to the safety and security of the hazardous waste storage buildings and the entire facility:

- Ample lighting is provided throughout the site.

- Two-way radios (which can be used to report abnormal conditions to the Communications Center immediately) are required for operations personnel when entering a RCRA storage unit to perform work or inspections. A telephone system is also available for both internal and external communications.

- Employees and contractors are required to show identification badges when reporting for work. Visitors must complete an

access request form when entering the site. The request form must be signed by a site employee.

F-1a(1) 24-Hour Surveillance System

The FEMP is under 24 hour surveillance by security officers on mobile and foot patrols. Entry into the facility is monitored through three controlled entry points, the main gate, turnstiles, and the administration building during normal working hours. Access is only permitted through the main gate during non-working hours.

F-1a(2) Barrier and Means to Control Entry

F-1a(2)(a) Barrier

The former FEMP production area which includes the active hazardous waste management areas is completely surrounded by a seven foot chain-link fence topped by barbed wire.

The facility's primary vehicular access to the former production area is through the main gate located at the southern end of the facility, as described in Section B-4 and shown on Figure B-14.

Personnel access is limited to the main gate, turnstiles, and administration building during normal working hours. The main gate is manned 24 hours a day to control access. The turnstile and administration entrances are manned during normal working hours and are locked during non-working hours.

F-1a(2)(b) Means to Control Entry

The primary vehicular entrance to the former production area of the facility is the main gate, as discussed in Section F-1a(2)(a). This entry is controlled by a guard 24 hours a day. Personnel access is controlled through the main gate, turnstiles, and administration building during normal working hours. Employees and contractors are required to present an identification badge when reporting to work. Visitors must sign an access sheet and obtain a visitor's pass. Visitors are permitted to enter only if escorted by facility personnel. Unauthorized visitors are restricted from entering the main facility and subsequently the active RCRA storage areas by these practices.

F-1a(3) Warning Signs

Signs which are legible from a distance of 25 feet are posted at the entrance(s) to the individual hazardous waste storage units within the facility.

The signs state:

"Danger -- Authorized Personnel Only"
and
"Danger -- No Smoking or Open Flame"

No languages other than English are necessary for the signs at this facility.

Additional signs are posted on the entrances and/or gates into the former production area of the facility.

F-1b Waiver

A waiver of the security procedures and equipment requirements is not requested by the FEMP at this time, therefore this section is not applicable.

F-2 INSPECTION SCHEDULE

The information provided in this section is submitted in accordance with the requirements of OAC 3745-50-44(A)(5) and 3745-54-14 and 40 CFR 270.14(b)(5) and 264.15.

The FEMP is not required to comply with Federal and Ohio hazardous waste laws and hazardous waste regulations, with regard to mixed waste, where compliance will increase the risk to human safety and health or the environment, as applied in the Consent Decree and its proposed amendments.

F-2a General Inspection Requirements

The FEMP conducts inspections of safety and emergency equipment, operating equipment, and general conditions of the structures. A copy of the current FEMP Inspection Schedule is provided as Attachment F-1. The Inspection Schedule is updated as needed and maintained at the facility.

Deteriorations or malfunctions revealed by the inspection are remedied as soon as possible. Where a hazard is imminent, or has already occurred, remedial action is taken immediately. If the hazard involving hazardous waste is declared to be an "Emergency", as defined in the Contingency Plan, Section G of this permit application, the contingency plan is implemented.

Inspections are documented by recording results on Inspection Log Forms. The Inspection Log Forms are maintained for a minimum of three years from the date of inspection. Examples of the Inspection Log Forms currently in use are provided in Attachments F-2 and F-3. The Inspection Log Forms are updated as needed and maintained at the facility.

F-2a(1) Types of Problems

Types of problems that may be encountered during inspections are listed on the Facility Inspection Schedule provided as Attachment F-1. Generally, the inspection verifies the adequacy of emergency equipment and the operating condition of the facility as identified on the inspection schedule.

F-2a(2) Frequency of Inspections

The frequency of inspections at the FEMP is based on the rate of possible deterioration of the equipment and the probability of an environmental or human health incident if deterioration goes undetected between inspections. The frequency of inspections at the FEMP conforms to accepted industry practices, RCRA guidance information and the Consent Decree and its proposed amendments. The frequency of inspection for each item can be found on the Facility Inspection Schedule (Attachment F-1).

The emergency and personnel protection equipment discussed in Section F-3 is inspected weekly. Inspection of the hazardous waste storage units takes place at least weekly.

Until the containers on Plant 1 Pad have been determined not to contain hazardous or mixed waste and/or the containers are placed in an covered/diked storage areas, the FEMP will perform daily leakage inspections on these containers on Plant 1 Pad, and will perform weekly inspections in accordance with OAC 3745-65-15 and 3745-66-74 and 40 CFR 265.15 and 265.174.

F-2b Specific Process Inspection Requirements

F-2b(1) Container Inspection

Area Inspection

The container storage areas are inspected weekly for the items identified in the Facility Inspection Schedule (Attachment F-1). Each storage area is inspected for proper drum placement, stacking, pallet condition, evidence of leaks, or spills and condition of the floor and dikes. The inspector immediately reports to the supervisor if a hazardous waste release is observed.

Area Inspection Logs for the RCRA Storage Areas are maintained at the facility. An example of the Area Inspection Log is provided in Attachment F-3 and is subject to change. The example Inspection Logs provided contain items in addition to those specified on the Facility Inspection Schedule (Attachment F-1). These additional items are facility requirements and not RCRA requirements.

Container Inspection

The containers are inspected at least weekly for evidence of damage or deterioration, and container labels. An example of the RCRA Container Storage Inspection Form is provided as Attachment F-2 and is subject to change.

F-2b(2) Tank System Inspection

The FEMP is not seeking a RCRA permit to operate a hazardous waste tank.

F-2b(3) Waste Pile Inspection

The FEMP is not seeking a RCRA permit to operate a hazardous waste pile.

F-2b(4) Surface Impoundment Inspection

The FEMP is not seeking a RCRA permit to operate a hazardous waste surface impoundment.

F-2b(5) Incinerator Inspection

The FEMP is not seeking a RCRA permit to operate a hazardous waste incinerator.

F-2b(6) Landfill Inspection

The FEMP is not seeking a RCRA permit to operate a hazardous waste landfill.

F-2b(7) Land Treatment Facility Inspection

The FEMP is not seeking a RCRA permit to operate a hazardous waste land treatment facility.

F-2b(8) Miscellaneous Unit Inspection

The FEMP is not seeking a RCRA permit to operate a miscellaneous hazardous waste unit.

F-2b(9) Subpart AA Inspection

The FEMP has no process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction or air or steam stripping managing hazardous wastes with organic concentrations at least 10 parts per million (ppm) at this time.

F-2b(10) Subpart BB Inspection

The FEMP has no equipment that contains or contacts hazardous waste with organic concentrations of at least 10 percent by weight that are managed in:

- Units that are subject to the permitting requirements of 40 CFR Part 270, or
- Hazardous waste recycling units that are located on hazardous waste management facilities otherwise subject to the permitting requirements of 40 CFR Part 270.

Therefore the FEMP is not subject to this rule at this time.

F-2c Remedial Action

Repairs or other actions taken to remediate problems identified during an inspection are recorded on the inspection log forms. Deficiencies are reported to the supervisor and arrangements for prompt, appropriate remediation of the problem are made.

Repairs are made in a timely manner so that a situation does not lead to an environmental or human health hazard. Items identified as missing or present in insufficient quantities such as emergency

equipment are obtained promptly and placed in the proper location. The remedial response to deficiencies is to restore an item to proper working order, or to restock an item to ensure its availability in an emergency.

Leaking, damaged, or deteriorating containers identified during an inspection are overpacked or redrummed. Drums are overpacked by placing the leaking container into a larger-size container. Redrumming is accomplished by transferring the contents of the damaged drum into a different container.

F-2d Inspection Log

Attachment F-2 (RCRA Container Storage Inspection Form) and Attachment F-3 (Area Inspection Logs) provide examples of the current inspection logs. These examples are subject to change. The logs include spaces for the name of the inspector, observations, and remedial actions taken. The inspection logs have been designed to readily identify those areas routinely checked for acceptability and highlight conditions which potentially could cause problems.

Inspection Log Forms include the following information:

- Date of inspection
- Time of inspection
- Name of the inspector
- Notation of the observations made
- Work Request Number requesting remediation of the condition.
- Date corrected.

F-3 PREPAREDNESS AND PREVENTION REQUIREMENTS

The FEMP does not wish to request a waiver of the preparedness and prevention requirements under OAC 3745-54-30 (40 CFR 264 Subpart C). Requirements of this Subpart are also discussed in Section D, Process Information and Section G, Contingency Plan of this application.

F-3a Equipment Requirements

A detailed discussion of the FEMP emergency equipment and communications systems and the capabilities of each item is provided in Section G, Contingency Plan.

F-3a(1) Internal Communications

Communications within a Unit

Voice communication is used within any single RCRA storage unit. Voice communication is adequate to provide immediate emergency instruction to personnel within the building because of the sizes and open configurations of the storage units.

Communications to the Communications Center

Hand-held, two-way radios are immediately available and are required for personnel who work in the RCRA storage units. Additionally, internal telephones are immediately available to personnel working at the RCRA storage units. The two-way radios or internal telephones are used to:

1) contact the Communications Center, or

2) other personnel who, in turn, can contact the Communications Center, or

3) the area supervisor to report any emergency.

The Communications Center summons additional on-site and off-site assistance as needed.

Signals from manual fire alarm boxes, automatic fire monitoring, and/or suppression systems located within the operating units throughout the facility are automatically transmitted to the Communications Center.

On-site Emergency Warning System

The FEMP has an extensive on-site emergency alarm and communications system for notifying employees and on-site emergency response personnel. This system provides facility-wide, building, and off-site warning systems.

The facility alarm system is controlled in the Communications Center, which operates 24 hours daily. The facility alarm system which includes alarm bells or air horn signals can be activated from the Communications Center. A voice message, following the sounding of a warning signal, is broadcast throughout the facility to transmit appropriate instructions and other important information to FEMP personnel.

F-3a(2) External Communications

Communications Center

External communications are managed by the Communications Center which is staffed 24 hours per day. The Communications Center has the ability to summon additional emergency assistance from local police departments, fire departments, or state and local emergency response teams as needed.

The Communications Center has the following equipment for contacting off-site assistance organizations:

- Conventional and special phone systems capable of summoning off-site emergency assistance including a special phone connected to the National Warning System; portable cellular phones and wired phones connected to the local telephone company and a Mobile Radio telephone in the Site Security Truck.

- Two-way radios capable of internal communications and direct contact with the Hamilton and Butler County Dispatch Centers and the Ohio State Highway Patrol headquarters near Hamilton, Ohio.

- High-frequency single-sideband emergency radio capable of communication directly with Department of Energy Office in Oak Ridge, Tennessee.

- All-band short wave radio capable of contacting the Amateur Emergency Warning Network.

Off-site Emergency Warning System

The off-site emergency warning system warns citizens within a two-mile radius of the site, when emergencies may affect people outside facility boundaries. Activating the sirens alerts residents to seek shelter immediately and tune to a radio or TV station for an Emergency Broadcast System message for information.

F-3a(3) Emergency Equipment

Each of the FEMP hazardous waste container storage areas is equipped with supplies, materials, and equipment for responding to emergencies. The fire protection, spill control, and decontamination equipment in each storage unit is

inspected at least weekly. This information is discussed further in Section F-2.

The emergency equipment at the FEMP is described in detail in Section G, Contingency Plan.

Portable Fire Extinguishers

Portable fire extinguishers are located at the hazardous waste storage units.

Fire Control Equipment

Buildings storing ignitable hazardous wastes are protected with a sprinkler system, in addition to portable fire extinguishers. Fire hydrants are located outside of each storage unit. The FEMP also maintains on-site a fully equipped Emergency Response Team, described in Section G, Contingency Plan.

Spill Control Equipment

Protective clothing, boots, gloves, respirators, and face shields are stored in each storage unit for spill removal and cleanup. Spill clean-up equipment and material such as overpack drums, shovels, brooms, rags, and absorbent materials dedicated for hazardous spill cleanup are also stored in each unit.

Decontamination Equipment

A full complement of decontamination equipment is maintained by the site Emergency Response Team, in addition to the spill equipment. This equipment is described in detail in Section G, Contingency Plan. The Emergency Response Team can mobilize, as needed, with the Spill Response Vehicle - Unit 328. The Spill Response Vehicle can pull a trailer which carries supplies used in decontamination of personnel and

equipment. In addition, the trailer has equipment to contain the rinse water used in decontamination.

Alarm Systems

The facility alarm and communications horn system is tested weekly on a site-wide basis. The Emergency Message system is tested daily. Failure of any component of the system results in immediate remedial action or implementation of a back-up system.

F-3a(4) Water for Fire Control

Water for fire protection is available from the following sources:

Primary

Elevated Fire Water Tank	350,000 gallons
Ground Level Fire Water Tank	300,000 gallons

Backup

Domestic Raw Water Tank	700,000 gallons
Elevated Potable Water Tank	250,000 gallons
Production Wells	3 wells at 900 gallons per minute (GPM) for 2700 GPM

Water for fire control is distributed through two systems, described in the next sections.

High Pressure Distribution System

The High Pressure distribution system provides water to the high pressure hydrants, located outside each storage unit, and to building sprinkler systems. The locations of the high pressure hydrants are described in Section G, Contingency Plan. A static pressure of 114 pounds is maintained in the system by the elevated water tower. The fire pump system is

activated when the pressure in the system drops. The fire pump system consists of one electric and two diesel powered pumps, each rated at 2,000 Gallons Per Minute (GPM) (at 285 feet of head). The electric pump and the first diesel pump start automatically as the result of low water pressure. The second diesel pump is started manually by the equipment operator, if the system pressure continues to fall. The fire pumps initially obtain their water from the ground level tank, cutting off flow from the elevated water tank. This system is capable of providing sufficient water at sufficient volume and pressure for sprinkler systems.

Low Pressure Distribution System

The low pressure distribution system provides water to low pressure hydrants. This water is provided by the potable water system. The water in this system can be drawn upon by responding fire departments for additional fire fighting needs. The location of the low pressure hydrants is described in Section G, Contingency Plan.

Fire Department Equipment

The facility maintains an Emergency Response Team capable of responding to emergency conditions. The Emergency Response Team can respond with a fully equipped fire engine, an ambulance, a spill response unit and a rescue truck as needed. The full capabilities of the Emergency Response Team are described in Section G, Contingency Plan.

F-3b Aisle Space Requirements

An aisle space of a minimum of 22 inches is maintained between rows of containers. A four foot main aisle is also provided in each area to allow the unobstructed movement of personnel, fire protection equipment, and spill control equipment.

The 22 inch minimum inspection aisle space is adequate because:

- the aisles are adequate for personnel to inspect drums for leaks and deterioration;

- a manually operated gantry crane can be used to remove and move drums. Motorized equipment is not required to move up and down the inspection aisles; and

- a main equipment aisle is provided in each area to allow for unobstructed movement of emergency equipment.

F-4 PREVENTIVE PROCEDURES, STRUCTURES, AND EQUIPMENT

F-4a Prevent Hazards in Unloading Operations

Within 72 hours after a Satellite Accumulation Container or newly generated hazardous waste container has been filled, labeled and closed, it is transferred to a storage area. Small containers can be moved by equipment such as, but not limited to, handcarts or handtrucks. Large containers may be moved by equipment such as, but not limited to, forklifts, trucks or trailers.

The containers can be unloaded and moved into storage using ramps and forklifts. Containers can be unloaded directly from tractor trailers using an adjustable dock and/or unloaded from small dolly trailers via fork lift equipment.

Plant 1 Pad and Plant 6 Warehouse - Building 79 have loading docks for receiving and shipping hazardous waste. Hazardous waste may be loaded onto or unloaded from transportation vehicles, using the loading docks. A mobile dock is also available for use in loading or unloading in other areas of the facility without a dock. Hazardous waste to be shipped off-site may be staged and loaded from any of the hazardous waste storage units. The Plant 1 Pad and Plant 6 Warehouse - Building 79 loading docks serve as the main areas for receipt of material from off-site.

Traffic information and sample traffic patterns for the FEMP are discussed in Section B, Facility Description. Facility personnel have been instructed to notify the area supervisor and/or Communications Center, in the event of an accidental spill of hazardous waste in transport or during loading/unloading operations. Section G, Contingency Plan provides specific emergency notification and response procedures.

F-4b Prevention of Run-Off to Other Areas

Hazardous Wastes With Free Liquids

Hazardous wastes with free liquids are stored in diked areas capable of holding a minimum of 10 percent of the maximum storage capacity of the unit. Storage areas for liquids are enclosed within structures or buildings preventing accumulation of precipitation in the dikes. In accordance with the provisions of the Consent Decree and its proposed amendments, and the FEMP Drum Management Plan, if storage space which meets RCRA and Ohio hazardous waste storage requirements is not available, the FEMP will store such wastes in a manner as protective of human health and the environment as possible, will perform daily leakage inspections on these containers that are not located under cover, and will, within sixty (60) days of a determination that sufficient RCRA storage space is not available, submit a plan and schedule for OEPA approval for short-term storage of such wastes.

Hazardous Wastes Without Free Liquids

Hazardous wastes without free liquids are stored inside structures or buildings or on the Plant 1 Pad. Indoor storage areas are not subject to precipitation and therefore do not produce precipitation runoff.

Precipitation run-off which contacts containers not located under cover on Plant 1 Pad is directed into the stormwater collection system. The storm water from Plant 1 Pad passes through a monitoring station which checks for acidity and alkalinity in the general facility stormwater system.

Stormwater can be diverted to the General Sump System if deemed necessary due to acidity or alkalinity levels or hazardous waste releases. The General Sump can process the storm water prior to discharge.

Prevention of Flooding

Flooding created by run-on from other areas is prevented from entering the structures, buildings and concrete pads by using concrete slabs and topography which slope away from these areas.

The hazardous waste storage units are in areas outside of the 100 year flood plains for the Great Miami River and Paddy's Run.

F-4c Prevent Contamination of Water Supplies

Contamination of water supplies by hazardous wastes or hazardous waste constituents is prevented by storing the hazardous waste in enclosed structures, in buildings, or on concrete pads and by controlling run-off as described in Section F-4b.

F-4d Equipment and Power Failure

Electrical power is used primarily for lighting in the storage units. Battery powered lights can be used if needed during a power failure. Powered equipment involved in handling materials includes fork lift trucks, barrel stackers and gantry cranes. Since this equipment is internally powered by electric battery or internal combustion engine, it is not subject to a sitewide power failure. A replacement is available, in the event of a mechanical failure of the fork lift and/or barrel stacker, as the facility maintains a large operating supply. The portable gantry crane is manually operated and not susceptible to power failure, but if mechanical failure occurs, the crane is repaired.

Operations at the RCRA storage units are suspended if there is a sitewide power outage. Portable generators are available in case of emergencies. Generators are not permitted within areas where ignitable hazardous wastes are stored, unless proper precautions are

taken. Precautions may include the use of an explosion-proof generator, or placement of the generator at a safe distance or location from the ignitable hazardous wastes.

F-4e Personnel Protection Equipment

Personnel exposure to hazardous waste is minimized through the use of protective equipment, stored in each warehouse, as well as by safe handling practices. The protective equipment appropriate for employees working in the storage building is specified by the area supervisor and health and safety personnel at the FEMP. Protective equipment can include coveralls, boots, gloves, face shields, and respirators.

Personnel involved in management of hazardous wastes receive training in the use of protective equipment and the proper handling of hazardous wastes. Annual fit-testing of respirators and RCRA refresher training are also provided, as described in Section H, Personnel Training.

F-4f Prevent Releases to Atmosphere

The FEMP is required to prevent release to the atmosphere from process vents and equipment leaks under Subpart AA and BB regulations (40 CFR Part 264). Currently, the FEMP has no equipment that is subject to these rules.

F-5 PREVENTION OF REACTION OF IGNITABLE, REACTIVE AND INCOMPATIBLE WASTES

F-5a Precautions to Prevent Ignition or Reaction of Ignitable or Reactive Wastes

Containers of hazardous waste are inspected for corrosion and other defects to minimize the possibility of ignition or reaction of ignitable or reactive hazardous wastes. Stored containers remain closed except during sampling, visual inspections as a part of waste characterization, or during addition or removal of hazardous waste. Some containers are equipped with filters to prevent the build-up of pressure within the container. An example of a RCRA Container Storage Form is provided as Attachment F-2 and is subject to change. This form serves to guide hazardous waste handlers in the proper acceptance and storage criteria for waste containers. Hazardous wastes are acceptable if placed in compatible drums meeting DOT specifications or their equivalent.

The hazardous waste container storage areas are inspected at least weekly as identified in the Facility Inspection Schedule (Attachment F-1). Any leaks or spills are cleaned up immediately, reducing the possibility of adverse reactions. Drums are overpacked to correct a leak or to improve the integrity of the container to preclude future leaks.

Prevention of Ignition

Ignitable hazardous waste containers are stored in areas protected from accidental ignition sources. Smoking is not permitted in these areas. "NO SMOKING" signs are conspicuously posted.

Waste characterization as described in Section C, Waste Characteristics, is performed to provide sufficient information to select the safest hazardous waste storage containers, appropriate

hazardous waste storage areas and to accurately characterize the hazardous physical and chemical properties of each waste stream. The following precautionary measures are enforced to prevent fires and/or the release of hazardous waste constituents:

- Hazardous waste containers are identified by Reactivity Group Code (RGC) to ensure that ignitable and reactive hazardous wastes are appropriately stored.

- Approved work permits are required before welding is performed.

- Surveys for combustible gases and vapors are performed by health and safety personnel before performing certain work involving ignition sources such as open flames, and heating elements.

- "NO SMOKING" and "NO OPEN FLAME" signs are conspicuously placed at the entrances to the hazardous waste storage areas.

- Non-sparking tools are used to open and close containers which contain ignitable hazardous waste.

- Hand-held, fire extinguishers are available to extinguish small fires. Sprinkler systems are installed in some areas to control the larger fires that cannot be extinguished by hand-held fire extinguishers.

Prevention of Reaction

Hazardous wastes are marked, separated and segregated according to the Reactivity Group Code (RGC) system maintained at the facility. Figure F-2 is the current RGC Hazardous Waste Compatibility Chart used to determine the segregation of incompatible hazardous waste.

Waste characterization as described in Section C, Waste Characteristics, is performed to provide sufficient information to select the safest hazardous waste storage containers, appropriate hazardous waste storage areas and to accurately characterize the hazardous physical and chemical properties of each waste stream.

F-5b General Precautions for Handling Ignitable or Reactive Wastes and Mixing Incompatible Wastes

Hazardous waste containers stored at the FEMP remain closed during storage and may be opened when a sample must be obtained, for visual inspection as part of the waste characterization, or during addition or removal of hazardous waste. Some containers are equipped with filters to prevent the build-up of pressure in the container.

Accidental ignition or mixing of ignitable or incompatible hazardous waste types is unlikely. As discussed in the previous section the FEMP uses a Reactivity Group Code (RGC) marking system to segregate incompatible hazardous wastes. Incompatible hazardous wastes are separated by diked areas and/or stored in separate buildings. At the present time the FEMP is not seeking a permit for any treatment processes which may require mixing of hazardous wastes.

Some examples of mixing of hazardous wastes at the FEMP are listed below:

- Consolidation of the same or similar hazardous wastes into larger containers;
- Consolidation of lab samples into larger containers;
- Packaging of newly generated hazardous wastes.

These practices are only allowed for hazardous wastes which are compatible.

F-5c Management of Ignitable or Reactive Wastes in Containers

Ignitable and reactive hazardous wastes are stored at least 50 feet from the FEMP property line. Figure F-1 (Facility 50 Foot Boundary Line) shows the location of the FEMP hazardous waste storage areas relative to the property line.

The storage practices followed by the FEMP include the use of buildings, structures and pads with concrete bases. Storage areas for hazardous wastes with free liquids are designed with a secondary containment system capable of holding at least 10 percent of the maximum waste volume stored in the area. FEMP container management practices are discussed further in Section D, Process Information.

Inspections are performed at least weekly as identified in the Inspection Schedule (Attachment F-1), to ensure the proper management of hazardous wastes. Inspection procedures are discussed in Section F-2.

A Reactivity Group Coding system (Figure F-2), has been developed to ensure the compatibility of hazardous wastes stored in the same curbed area. The system incorporates "letter code signs" in storage areas. Only drums with Reactivity Group Codes matching the "letter code signs" are permitted to be stored in that area.

F-5d Management of Incompatible Wastes in Containers

Facility personnel responsible for the management, transfer and storage of hazardous waste at the FEMP are trained in proper hazardous waste handling procedures. Hazardous waste containers are approved for storage after confirmation that the containers are closed, properly labeled and are in good condition. Previously used containers are cleaned before reuse. Combining of wastes from

different sources into the same container is not allowed without review.

Individual storage areas are divided into separate curbed areas or bays. The types of hazardous waste to be stored in these areas are identified by RGC signs. These signs facilitate the weekly inspection process and eliminate storage of incompatible hazardous wastes within the same areas. Separation of the storage areas by curbs prevents mixing incompatible hazardous wastes when a leak or spill occurs.

F-5e Management of Ignitable or Reactive Wastes in Tank Systems

The FEMP is not seeking a RCRA permit to operate a hazardous waste tank system.

F-5f Management of Incompatible Wastes in Tank Systems

The FEMP is not seeking a RCRA permit to operate a hazardous waste tank system.

F-5g Management of Ignitable or Reactive Wastes Placed in Waste Piles

The FEMP is not seeking a RCRA permit to operate a hazardous waste pile.

F-5h Management of Incompatible Wastes Placed in Waste Piles

The FEMP is not seeking a RCRA permit to operate a hazardous waste pile.

F-5i Management of Ignitable or Reactive Wastes Placed in Surface Impoundments

The FEMP is not seeking a RCRA permit to operate a hazardous waste surface impoundment.

F-5j Management of Incompatible Wastes Placed in Surface Impoundments

The FEMP is not seeking a RCRA permit to operate a hazardous waste surface impoundment.

F-5k Management of Ignitable or Reactive Wastes Placed in Landfills

The FEMP is not seeking a RCRA permit to operate a hazardous waste landfill.

F-5l Management of Incompatible Wastes Placed in Landfills

The FEMP is not seeking a RCRA permit to operate a hazardous waste landfill.

F-5m Management of Ignitable or Reactive Wastes Placed in Land Treatment Units

The FEMP is not seeking a RCRA permit to operate a hazardous waste land treatment unit.

F-5n Management of Incompatible Wastes Placed in Land Treatment Units

The FEMP is not seeking a RCRA permit to operate a hazardous waste land treatment unit.

N

N 492,784.678
E 1,376,578.563

PADDY'S RUN

PADDY'S RUN ROAD

S.R. 126

NORTH ACCESS ROAD

CONSTRUCTION ACCESS ROAD

1720'-0"

BUTLER CO.
HAMILTON CO.

KC-2 WAREHOUSE (BLDG.63)

CP STORAGE WAREHOUSE (BLDG.56 BUTLER BLDG.)

PIT #5

PIT #6

PIT #4

PIT #3

PIT #2

PIT #1

CLEAR WELL

2763'-11"

SURGE LAGOON

PLANT 1 STORAGE AREA

PLANT 9 WAREHOUSE (BLDG.81)

PLANT 6 WHSE. (BLDG.79)

1302'-0"

PLANT 8 WHSE. (BLDG.80)

PILOT PLANT WHSE. (BLDG.68) STORAGE AREA

3485'-8"

50' INSIDE BOUNDARY LINE

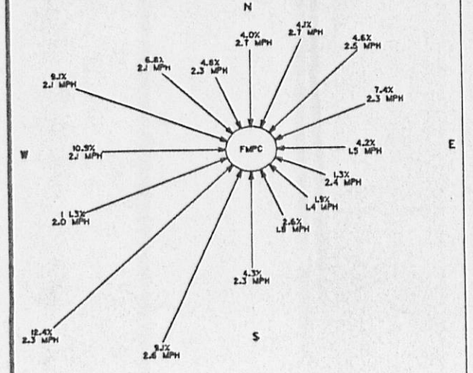
SOUTH ACCESS ROAD

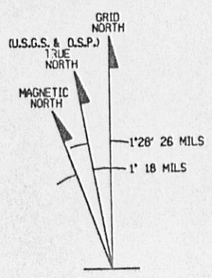
WILLEY ROAD

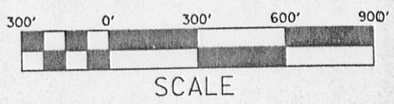
WIND DIRECTION AND SPEED OCCURRENCES

DATE: 7/25/91
REVISION NOW

BASED ON 10 METER WIND OBSERVATIONS FOR 1987-1990 AT THE FEED MATERIALS PRODUCTION CENTER







U.S. DEPARTMENT OF ENERGY

FIGURE F-1

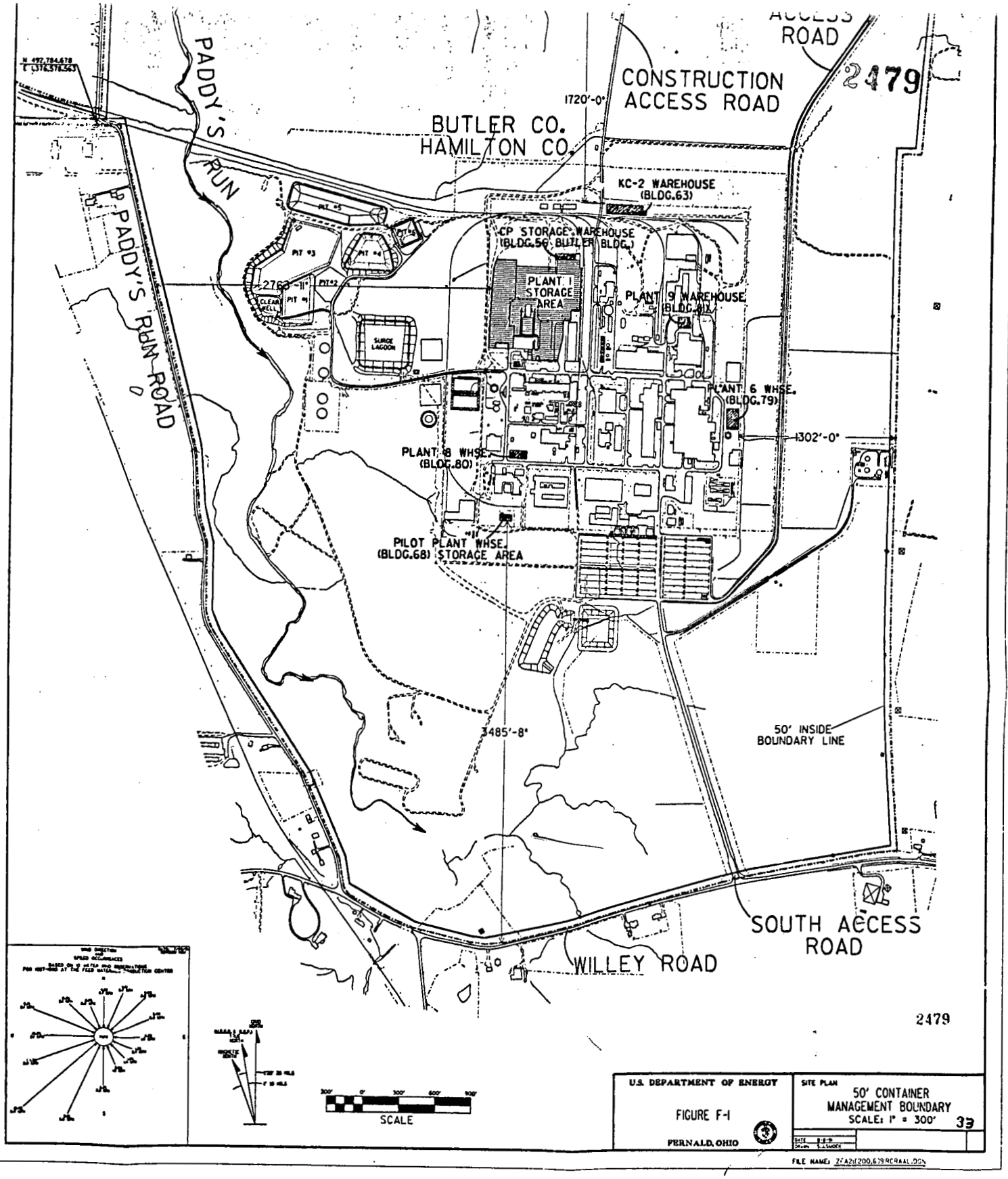
FERNALD, OHIO

SITE PLAN
50' CONTAINER MANAGEMENT BOUNDARY
SCALE: 1" = 300'

DATE	8-8-91
DRAWN	S.J.SMOCK

2479

FILE NAME: ZFA2:[200,6]91RCRAAL.DGN


PADDY'S RUN
PADDY'S RUN ROAD
CONSTRUCTION ACCESS ROAD
ACCESS ROAD
2479
1720'-0"
BUTLER CO.
HAMILTON CO.
KC-2 WAREHOUSE (BLDG.63)
CP STORAGE WAREHOUSE (BLDG.50, BUTLER BLDG.)
PLANT 1 STORAGE AREA
PLANT 9 WAREHOUSE (BLDG.81)
PLANT 6 WHSE. (BLDG.79)
1302'-0"
PLANT 8 WHSE. (BLDG.80)
PILOT PLANT WHSE. (BLDG.68) STORAGE AREA
3485'-8"
50' INSIDE BOUNDARY LINE
SOUTH ACCESS ROAD
WILLEY ROAD
PIT #1
PIT #2
PIT #3
PIT #4
PIT #5
PIT #6
CLEAR WELL
SURGE LAGOON
SCALE
U.S. DEPARTMENT OF ENERGY
FIGURE F-1
FERNALD, OHIO
SITE PLAN
50' CONTAINER MANAGEMENT BOUNDARY
SCALE: 1" = 300'
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SECTION F - PROCEDURES TO PREVENT HAZARDS

FIGURE F-2

HAZARDOUS WASTE COMPATIBILITY CHART

REACTIVITY GROUP DESCRIPTION	REACTIVITY GROUP CODE (RGC)	A	B	C	D	E	F	G	H	I	J	K
Nitriles, Halogenated Organics	A	X	X	O	O	X	X	X	O	O	X	X
Combustibles (hydrocarbons)	B	X	X	O	X	X	X	X	X	O	O	X
Mineral acids and other corrosive mixtures	C	O	O	X	O	O	O	O	O	O	O	O
Caustics	D	O	X	O	X	O	X	X	X	O	O	X
Toxic Metals and Metal Compounds	E	X	X	O	O	X	X	X	X	O	X	X
Fluorides (inorganic)	F	X	X	O	X	X	X	X	X	O	X	X
Water-containing Mixtures	G	X	X	O	X	X	X	X	X	O	O	X
Cyanide Solutions and Compounds	H	O	X	O	X	X	X	X	X	O	O	X
Strong Oxidizers	I	O	O	O	O	O	O	O	O	X	O	O
Free Metals	J	X	O	O	O	X	X	O	O	O	X	O
Ignitable (Alcohols, D001)	K	X	X	O	X	X	X	X	X	O	O	X

X = Compatible
O = Not Compatible

SECTION F - PROCEDURES TO PREVENT HAZARDS

ATTACHMENT F-1

INSPECTION SCHEDULE
for
Fire Protection Equipment
Located within a Hazardous Waste Management Unit

EQUIPMENT	FREQUENCY	TYPE OF PROBLEMS
Portable Fire Extinguisher	Weekly	Missing, Obvious Damage
	Monthly	Operating Condition (e.g.,gauge pressure, hose condition)
	Annual (Multi-Years)	Weight and condition of agent (e.g., powder), Hydrostatic Testing
Sprinklers (if installed)	Weekly	Obvious Damage, Operating Pressure
	Annual	System Operation Test

SECTION F - PROCEDURES TO PREVENT HAZARDS

ATTACHMENT F-1

INSPECTION SCHEDULE
for
Spill Response and Cleanup Equipment
Located within a Hazardous Waste Management Unit

EQUIPMENT	FREQUENCY	TYPE OF PROBLEMS
Recovery (Overpak) Drums	Weekly	Quantity, Condition
Absorbent Pads	Weekly	Quantity, Condition
"PIG" Absorbent/ Containment Boom	Weekly	Quantity, Condition
Shovel	Weekly	Quantity, Condition
Broom	Weekly	Quantity, Condition
Bagged Absorbent	Weekly	Quantity, Condition

SECTION F - PROCEDURES TO PREVENT HAZARDS

ATTACHMENT F-1

INSPECTION SCHEDULE
for
Emergency Personal Protective Equipment
Located within a Hazardous Waste Management Unit

EQUIPMENT	FREQUENCY	TYPE OF PROBLEMS
Respirators and Cartridges	Weekly	Quantity, Condition
Rubber Boots	Weekly	Quantity, Condition
Rubber Gloves	Weekly	Quantity, Condition
Disposable Coveralls	Weekly	Quantity, Condition
Leather Palm Gloves	Weekly	Quantity, Condition
Emergency Eye Wash and Safety Shower	Weekly	Condition, Green light.
	Semi-annual	Operating Test

SECTION F - PROCEDURES TO PREVENT HAZARDS

ATTACHMENT F-1

INSPECTION SCHEDULE
for
Operation Equipment
Located within a Hazardous Waste Management Unit

EQUIPMENT	FREQUENCY	TYPE OF PROBLEMS
Electrical Power	Weekly	Power of Lights
Lighting	Weekly	Operating Condition
Labeling Supplies	Weekly	Sufficient Quantity
Warning Signs (Interior/Exterior)	Weekly	Present and Legible
Two-Way Radio	Daily (When in Use), minimum once Weekly	Operating Condition
Building Audible Warning Alarms	Weekly	Operations Test
Automatic Signal Devices	Every other month	Operations Test
Fire Alarm Manual Pull-Stations	every 6 months	Operations Test

SECTION F - PROCEDURES TO PREVENT HAZARDS

ATTACHMENT F-1

SPECIFIC INSPECTION SCHEDULE
for a
RCRA LIQUID CONTAINER STORAGE UNIT

EQUIPMENT	FREQUENCY	TYPE OF PROBLEMS
Containment Diking (Curbs)	Weekly	Damage, cracks, breaks and operating condition.
Ramps	Weekly	Damage, and operating condition.
Containment Floor Condition	Weekly	Free Liquid, Damage, cracks (sealant), breaks, and operating condition.
Sumps and Trenches within Containment	Weekly	Free liquids, damage, cracks, breaks and operating condition.
Aisle Spacing	Weekly	Adequate aisle spacing, proper container placement and stacking.
Housekeeping	Weekly	Clutter, general condition
Container Condition	Weekly	Container Labels; Dates; Closure; Compatibility; Damage or deterioration (e.g., hole, dent, bulge, corrosion/paint/rust)

SECTION F - PROCEDURES TO PREVENT HAZARDS

ATTACHMENT F-1

SPECIFIC INSPECTION SCHEDULE
for a
RCRA SOLID CONTAINER STORAGE UNIT

EQUIPMENT	FREQUENCY	TYPE OF PROBLEMS
Floor Condition	Weekly	Cracks, operating condition, liquids (water) from run-on
Aisle Spacing	Weekly	Adequate aisle spacing, proper container placement and stacking .
Housekeeping	Weekly	Clutter, evidence of spills.
Container Condition	Weekly	Container Labels; Dates; Closure; Compatibility; Damage or deterioration (e.g., hole, dent, bulge, corrosion/paint/rust)

SECTION F - PROCEDURES TO PREVENT HAZARDS

ATTACHMENT F-1

INSPECTION SCHEDULE
for
FACILITY FIRE PROTECTION EQUIPMENT

EQUIPMENT	FREQUENCY	TYPE OF PROBLEMS
Fire Engine/Pumper	Daily (In service unit only)	Inventory of Equipment, operating condition.
	Annual	Pump Capacity Test
Ambulance	Daily (In service unit only)	Inventory of Equipment, operating condition.
Haz-Mat Response Truck	Daily	Inventory of Equipment, operating condition.
Utility/Supply Vehicle	Daily (In service unit(s) only)	Inventory of Equipment, operating condition.
Fire Pumps	Weekly	Start-up and operation test of pump and system. Diesel Fuel Level.
	Annual	Pump Capacity Test
Elevated High-Pressure Hydrant Fire Water Tank	Weekly	Water Level, operating condition.
Ground Level Fire Pump Water Tank	Weekly	Water Level, operating condition.
Fire Hydrants	Annual	Operating Condition, annual flushing, pressure.
Fire Alarm System	Monthly	Visual inspection of Call Boxes and system.
	Yearly	Operations Test

SECTION F - PROCEDURES TO PREVENT HAZARDS

ATTACHMENT F-2

CONTAINER INSPECTION LOG FORM

2479

Fernald Site

RCRA CONTAINER STORAGE INSPECTION

INSPECTOR'S NAME:	INSPECTOR'S BADGE NUMBER:	
LOCATION:	DATE:	TIME:

MC&A INVENTORY NUMBER	OBSERVATIONS MADE *	NATURE OF ANY REPAIRS OR OTHER REMEDIAL ACTIONS TAKEN	DATE CORRECTED
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

INSPECTOR'S SIGNATURE:	DATE:
SUPERVISOR'S SIGNATURE:	DATE:

COMMENTS: _____

_____

_____

_____

_____

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* *Observations for container inspection include visually inspecting the following items: damage or deterioration (eg. hole, dent, bulge, corrosion/paint/rust); labels, dates, closed (eg.loose bungs, rings); compatibility.*

Fernald Site

RCRA CONTAINER STORAGE INSPECTION

INSPECTOR'S NAME:	INSPECTOR'S BADGE NUMBER:

LOCATION:	DATE:	TIME:

MC&A INVENTORY NUMBER	OBSERVATIONS MADE *	NATURE OF ANY REPAIRS OR OTHER REMEDIAL ACTIONS TAKEN	DATE CORRECTED
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

INSPECTOR'S SIGNATURE:	DATE:
SUPERVISOR'S SIGNATURE:	DATE:

COMMENTS: _____

** Observations for container inspection include visually inspecting the following items: damage or deterioration (eg. hole, dent, bulge, corrosion/paint/rust); labels, dates, closed (eg.loose bungs, rings); compatibility.*

SECTION F - PROCEDURES TO PREVENT HAZARDS

ATTACHMENT F-3

Inspection Logs

1. Plant 6 Warehouse (Building 79)
   RCRA Building Exterior Inspection Log and Building Diagram
   RCRA Building Interior Inspection Log and Building Diagram

2. KC-2 Warehouse (Building 63)
   RCRA Building Exterior Inspection Log (Bays 5, 6, 7)
   RCRA Building Interior Inspection Log (Interior - Bay 5)
   RCRA Building Interior Inspection Log (Interior - Bay 6)
   RCRA Building Interior Inspection Log (Interior - Bay 7)

3. Plant 8 Warehouse (Building 80)
   RCRA Building Exterior Inspection Log
   RCRA Building Interior Inspection Log

4. Pilot Plant Warehouse (Building 68)
   RCRA Building Exterior Inspection Log
   RCRA Building Interior Inspection Log

5. Plant 9 Warehouse (Building 81)
   RCRA Building Exterior Inspection Log
   RCRA Building Interior Inspection Log

6. Plant 1 Pad Storage Area
   RCRA Storage Area Inspection Log

Fernald Site

BUILDING 79 - RCRA BUILDING INTERIOR INSPECTION LOG AND BUILDING DIAGRAM

SPECTOR ME:	BADGE NUMBER:	DATE:	TIME:
PERVISOR ME:	BADGE NUMBER:	DATE:	TIME:

ITEM NO.	INTERIOR INSPECTION ITEM	STATUS: ACCEPTABLE	STATUS: UNACCEPTABLE	DESCRIBE UNSATISFACTORY CONDITION	WORK REQUEST NUMBER	DATE CORRECTED
1	Electrical Power					
	Southwest Personnel Door					
2	Fire Extinguishers (2)					
3	Exit Sign					
4	No Smoking Sign					
5	Communication Device					
	Spill Response Equipment:					
6	Recovery Drums (3)					
7	Absorbent Pad (6)					
8	Hazardous Material PIG (6)					
9	Leather Palm Gloves (3)					
10	Rubber Gloves (3)					
11	Rubber Boots (3)					
12	Disposable Coveralls (3)					
13	Respirators & Cartridges (3)					
14	Shovels (2)					
15	Brooms (1)					
16	Granular Absorbent (3 bags)					
17	Emergency Eyewash & Shower					
	enter-West Wall)					
18	Emergency Eyewash & Shower Sign					
19	Green Light (for Eyewash/Shower)					
20	Emergency Call Sign					
	Northwest Personnel Door					
21	Fire Extinguishers (2)					
22	Exit Sign					
23	No Smoking Sign					
	Supplies:					
24	Hazardous Waste Labels (10)					
25	65 Cards (10)					
26	Paint					
27	Certified Torque Wrench					
28	Stencil Set					
29	DOT Labels					
30	68/69 Cards (10)					
31	PCB Labels (10)					
	North Personnel Door					
32	Fire Extinguishers (2)					
33	Exit Sign					
34	No Smoking Sign					
	Containment Area:					
35	Curb Condition					
36	Floor Condition					
37	Aisle Spacing					
	eneral:					
38	Roof Condition					

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SUPERVISOR SIGNATURE:	DATE:

Fernald Site

BUILDING 79 - RCRA BUILDING EXTERIOR INSPECTION LOG AND BUILDING DIAGRAM

2479

;PECTOR NAME:	BADGE NUMBER:	DATE:	TIME:
PERVISOR NAME:	BADGE NUMBER:	DATE:	TIME:

:M O.	EXTERIOR INSPECTION ITEM	STATUS		DESCRIBE UNSATISFACTORY CONDITION	WORK REQUEST NUMBER	DATE CORRECTED
		ACCEP-TABLE	UNACCEP-TABLE			
	Personnel Door (Southwest)					
1	Locks (2)					
	Signs:					
2	Authorized Personnel					
3	No Smoking					
4	MC&A/Two-Way Radio					
5	Emergency Call					
	Rollup Door (Southwest)					
6	Authorized Personnel Sign					
7	Building 79 Warehouse Sign					
8	Hazardous Waste Storage Sign					
	Personnel Door (Northwest)					
10	Door (One Way Out)					
	Signs:					
11	Authorized Personnel					
12	No Smoking					
13	MC&A/Two-Way Radio					
14	Emergency Call					
	Rollup (Northwest)					
15	Authorized Personnel Sign					
	Personnel Door (North)					
16	Door (One Way Out)					
	Signs:					
17	Authorized Personnel					
18	No Smoking					
19	MC&A/Two-Way Radio					
20	Emergency Call					
	Rollup Door (North)					
21	Authorized Personnel Sign					
	East Wall Exterior Signs:					
22	Authorized Personnel (Northeast)					
23	Authorized Personnel (Southeast)					
	Sprinkler Room					
24	Personnel Door					
25	Light On					
26	Water Pressure (110 PSI)					
27	Heater Operational					
28	Fire Extinguisher					

:OMMENTS: _____

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SUPERVISOR SIGNATURE:	DATE:

Fernald Site

2479

KC-2 WAREHOUSE - RCRA BUILDING INTERIOR INSPECTION LOG
(INTERIOR - BAY 7)

SPECTOR NAME:	BADGE NUMBER:	DATE:	TIME:
PERVISOR NAME:	BADGE NUMBER:	DATE:	TIME:

EM O.	INTERIOR INSPECTION ITEM	STATUS		DESCRIBE UNSATISFACTORY CONDITION	WORK REQUEST NUMBER	DATE CORRECTED
		ACCEP-TABLE	UNACCEP-TABLE			
	Bay 7					
1	Emergency Eyewash & Shower					
2	Green Light for Eyewash/Shower					
	Spill Response Equipment (Southeast Corner)					
3	Recovery Drums (3)					
4	Absorbent Pad (6)					
5	Hazardous Material PIG (6)					
6	Leather Palm Gloves (3)					
7	Rubber Gloves (3)					
8	Rubber Boots (3)					
9	Disposable Coveralls (3)					
10	Respirators & Cartridges (3)					
11	Shovel (1)					
12	Broom (1)					
	Supplies: (Southeast Corner)					
13	Hazardous Waste Labels					
14	65 Cards (10)					
15	Paint					
16	Certified Torque Wrench					
17	Stencil Set					
18	DOT Labels					
19	68/69 Cards (10)					
	Containment Area:					
20	Curb Condition					
21	Floor Condition					
22	Aisle Spacing					
	General:					
23	Roof Condition					
24	Electrical Power					
25	No Smoking Sign					
26	Communication Device					
27	Exit Sign (2)					
28	Other (list)					

COMMENTS: _____

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SUPERVISOR SIGNATURE:	DATE:

FS-SS-3169 (8/30/91)

Fernald Site

KC-2 WAREHOUSE - RCRA BUILDING INTERIOR INSPECTION LOG (INTERIOR-BAY 6)

INSPECTOR NAME:	BADGE NUMBER:	DATE:	TIME:
SUPERVISOR NAME:	BADGE NUMBER:	DATE:	TIME:

ITEM NO.	INTERIOR INSPECTION ITEM	STATUS		DESCRIBE UNSATISFACTORY CONDITION	WORK REQUEST NUMBER	DATE CORRECTED
		ACCEP-TABLE	UNACCEP-TABLE			
	Bay 6					
1	Emergency Eyewash & Shower					
2	Green Light for Eyewash/Shower					
	Spill Response Equipment:					
	(Southwest Corner)					
3	Recovery Drums (3)					
4	Absorbent Pad (6)					
5	Hazardous Material PIG (6)					
6	Leather Palm Gloves (3)					
7	Rubber Gloves (3)					
8	Rubber Boots (3)					
9	Disposable Coveralls (3)					
10	Respirators & Cartridges (3)					
11	Shovel (1)					
12	Broom (1)					
	Supplies:					
	(Southwest Corner)					
	Hazardous Waste Labels					
14	65 Cards (10)					
15	Paint					
16	Certified Torque Wrench					
17	Stencil Set					
18	DOT Labels					
19	68/69 Cards (10)					
	Containment Area:					
20	Curb Condition					
21	Floor Condition					
22	Aisle Spacing					
	General:					
23	Roof Condition					
24	Electrical Power					
25	No Smoking Sign					
26	Communication Device					
27	Exit Sign (2)					
28	Other (list)					

COMMENTS: _____

SUPERVISOR SIGNATURE:	DATE:

2479

Fernald Site

KC-2 WAREHOUSE - RCRA BUILDING INTERIOR INSPECTION LOG
(INTERIOR - BAY 5)

INSPECTOR NAME:	BADGE NUMBER:	DATE:	TIME:
SUPERVISOR NAME:	BADGE NUMBER:	DATE:	TIME:

ITEM NO.	INTERIOR INSPECTION ITEM	STATUS		DESCRIBE UNSATISFACTORY CONDITION	WORK REQUEST NUMBER	DATE CORRECTED
		ACCEPTABLE	UNACCEPTABLE			
	Bay 5					
1	Emergency Eyewash & Shower					
2	Green Light for Eyewash/Shower					
	Spill Response Equipment:					
	(Southwest Corner)					
3	Recovery Drums (3)					
4	Absorbent Pad					
5	Hazardous Material PIG (6)					
6	Leather Palm Gloves (3)					
7	Rubber Gloves (3)					
8	Rubber Boots (3)					
9	Disposable Coveralls (3)					
10	Respirators & Cartridges (3)					
11	Shovel (1)					
12	Broom (1)					
	Supplies:					
	(Southwest Corner)					
14	Hazardous Waste Labels					
15	65 Cards (10)					
16	Paint					
17	Certified Torque Wrench					
18	Stencil Set					
19	DOT Labels					
	68/69 Cards (10)					
	Containment Area:					
20	Curb Condition					
21	Floor Condition					
22	Aisle Spacing					
	General:					
23	Roof Condition					
24	Electrical Power					
25	No Smoking Sign					
26	Communication Device					
27	Exit Sign (2)					
28	Other: (List)					

COMMENTS: _____

SUPERVISOR SIGNATURE:	DATE: 50

FS-SS-2167 (8/30/91)

Fernald Site

KC-2 WAREHOUSE - RCRA BUILDING EXTERIOR INSPECTION LOG

INSPECTOR NAME:	BADGE NUMBER:	DATE:	TIME:
SUPERVISOR NAME:	BADGE NUMBER:	DATE:	TIME:

ITEM NO.	EXTERIOR INSPECTION ITEM	STATUS		DESCRIBE UNSATISFACTORY CONDITION	WORK REQUEST NUMBER	DATE CORRECTED
		ACCEP-TABLE	UNACCEP-TABLE			
	Bay 5 (North Fence)					
1	Authorized Personnel Sign					
2	No Smoking Sign					
3	Fence Condition					
4	Entrance Gate					
	Bay 6 (North Fence)					
5	Authorized Personnel Sign					
6	No Smoking Sign					
7	Fence Condition					
8	Entrance Gate					
	Bay 7 (North Fence)					
9	Authorized Personnel Sign					
10	No Smoking Sign					
11	Fence Condition					
12	Entrance Gate					
	Exposed North East Wall					
13	Authorized Personnel Sign					
14	No Smoking Sign					
	Bay 7 (South Fence)					
15	Authorized Personnel Sign					
16	No Smoking Sign					
17	MC&A/Two-Way Radio Sign					
18	Emergency Call Sign					
19	PCB Sign					
20	Locks (2)					
21	Fence Condition					
22	Fire Extinguisher (1)					
	Bay 6 (South Fence)					
23	Authorized Personnel Sign					
24	No Smoking Sign					
25	MC&A/Two-Way Radio Sign					
26	Locks (2)					
27	Fence Condition					
28	Fire Extinguisher (1)					
	Bay 5 (South Fence)					
29	Authorized Personnel Sign					
30	No Smoking Sign					
31	MC&A/Two-Way Radio Sign					
32	Locks (2)					
33	Fence Condition					
34	Fire Extinguisher					
35	Emergency Call Sign					
36	Communication Device (Phone or Radio)					

COMMENTS: _____

SUPERVISOR SIGNATURE:	DATE:
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Fernald Site

BUILDING 80 - RCRA BUILDING INTERIOR INSPECTION LOG AND BUILDING DIAGRAM

NS[redacted]TOR NA[redacted]	BADGE NUMBER:	DATE:	TIME:
SUPERVISOR NAME:	BADGE NUMBER:	DATE:	TIME:

ITEM NO.	INTERIOR INSPECTION ITEM	STATUS		DESCRIBE UNSATISFACTORY CONDITION	WORK REQUEST NUMBER	DATE CORRECTED
		ACCEP-TABLE	UNACCEP-TABLE			
	Personnel Door (West)					
1	Electrical Power					
2	Fire Extinguisher (1)					
3	Exit Sign					
4	No Smoking Sign					
	Spill Response Equipment: (Southwest Corner)					
5	Recovery Drums (3)					
6	Absorbent Pad (6)					
7	Hazardous Material PIG (6)					
8	Leather Palm Gloves (3)					
9	Rubber Gloves (3)					
10	Rubber Boots (3)					
11	Disposable Coveralls (3)					
12	Respirators & Cartridges (3)					
13	Shovel (1)					
14	Broom (1)					
	Supplies: (Southwest Corner)					
[redacted]	Hazardous Waste Labels					
16	65 Cards (10)					
17	Paint					
18	Certified Torque Wrench					
19	Stencil Set					
20	DOT Labels					
21	68/69 Cards (10)					
	Personnel Door (East)					
22	Fire Extinguisher (1)					
23	Exit Sign					
24	No Smoking Sign					
	General:					
25	Floor Condition					
26	Aisle Spacing					
27	Roof Condition					
28	Communication Device					
29	Other (List)					

COMMENTS: _____

SUPERVISOR SIGNATURE:	DATE:
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Fernald Site

BUILDING 80 - RCRA BUILDING EXTERIOR INSPECTION LOG

INSPECTOR NAME:	BADGE NUMBER:	DATE:	TIME:
SUPERVISOR NAME:	BADGE NUMBER:	DATE:	TIME:

ITEM NO.	EXTERIOR INSPECTION ITEM	STATUS		DESCRIBE UNSATISFACTORY CONDITION	WORK REQUEST NUMBER	DATE CORRECTED
		ACCEPTABLE	UNACCEPTABLE			
1	Personnel Door (West) Locks (2)					
2	Authorized Personnel Sign					
3	No Smoking Sign					
4	MC&A/Two-Way Radio Sign					
5	Restricted Area Sign					
6	Emergency Call Sign					
7	Rollup Door (West) Authorized Personnel Sign					
8	North Wall Exterior (Northwest) Authorized Personnel Sign					
9	North Wall Exterior (Northeast) Authorized Personnel Sign					
10	Personnel Door (East) Door (One Way Out)					
11	Authorized Personnel Sign					
12	No Smoking Sign					
13	MC&A/Two-Way Radio Sign					
14	Restricted Area Sign					
15	Emergency Call Sign					
16	Rollup Door (East) Authorized Personnel Sign					
17	South Wall Exterior (Southeast) Authorized Personnel Sign					
18	South Wall Exterior (Southwest) Authorized Personnel Sign					
19	Hazardous Waste Storage Solid Waste Only Sign					
20	Sprinkler Room Personnel Door					
21	Light On					
22	Water Pressure (110 PSI)					
23	Heater Operational					
24	Fire Extinguisher					
25	Other (list)					

COMMENTS:

SUPERVISOR SIGNATURE:	DATE:
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Fernald Site

BUILDING 68 WAREHOUSE - RCRA BUILDING EXTERIOR INSPECTION LOG AND BUILDING DIAGRAM

SPECTOR NAME:	BADGE NUMBER:	DATE:	TIME:
PERVISOR NAME:	BADGE NUMBER:	DATE:	TIME:

EM O.	EXTERIOR INSPECTION ITEM	STATUS		DESCRIBE UNSATISFACTORY CONDITION	WORK REQUEST NUMBER	DATE CORRECTED
		ACCEP-TABLE	UNACCEP-TABLE			
1	East Wall Exterior Signs: (Northeast) Authorized Personnel					
2	(Southeast) Authorized Personnel					
3	South Wall Exterior Sign: (Southeast) Authorized Personnel					
4	(Southwest) Authorized Personnel					
5	West Wall Exterior Sign: (Southwest) Authorized Personnel					
6	(Northwest) Authorized Personnel					
7	Fence (North) Signs: Authorized Personnel					
8	No Smoking					
9	MC&A/Two-Way Radio					
10	Emergency Call					
11	Hazardous Waste Storage Area Sign					
12	North Personnel Door Door (Condition)					
13	Locks (2)					
14	Fire Extinguisher (1)					
15	Signs: Authorized Personnel					
16	Emergency Call					

OMMENTS:

SUPERVISOR SIGNATURE:	DATE:

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S-SS-3172 (8/30/91)

Fernald Site

BUILDING 68 WAREHOUSE - RCRA BUILDING INTERIOR INSPECTION LOG AND BUILDING DIAGRAM

ISPECTOR NAME:	BADGE NUMBER:	DATE:	TIME:
UPERVISOR NAME:	BADGE NUMBER:	DATE:	TIME:

TEM NO.	INTERIOR INSPECTION ITEM	STATUS		DESCRIBE UNSATISFACTORY CONDITION	WORK REQUEST NUMBER	DATE CORRECTED
		ACCEP-TABLE	UNACCEP-TABLE			
	Personnel Door (North)					
1	Electrical Power					
2	Exit Sign					
3	No Smoking Sign					
	Spill Response Equipment: (North-Center)					
4	Recovery Drums (3)					
5	Absorbent Pad (6)					
6	Hazardous Material PIG (6)					
7	Leather Palm Gloves (3)					
8	Rubber Gloves (3)					
9	Rubber Boots (3)					
10	Disposable Coveralls (3)					
11	Shovel (1)					
12	Broom (1)					
	Supplies (North-Center):					
13	Hazardous Waste Labels (10)					
14	65 Cards (10)					
15	Paint					
16	Certified Torque Wrench					
17	Stencil Set					
18	DOT Labels					
19	68/69 Cards (10)					
	General:					
20	Floor Condition					
21	Aisle Spacing					
22	Roof Condition					
23	Communication Device					
24	Other (list)					

COMMENTS:

SUPERVISOR SIGNATURE:	DATE:

Fernald Site

BUILDING 81 - RCRA BUILDING EXTERIOR INSPECTION LOG AND BUILDING DIAGRAM

INSPECTOR NAME:	BADGE NUMBER:	DATE:	TIME:
SUPERVISOR NAME:	BADGE NUMBER:	DATE:	TIME:

ITEM NO.	EXTERIOR INSPECTION ITEM	STATUS		DESCRIBE UNSATISFACTORY CONDITION	WORK REQUEST NUMBER	DATE CORRECTED
		ACCEP-TABLE	UNACCEP-TABLE			
	Personnel Door (East)					
1	Locks (2)					
	Signs:					
2	Authorized Personnel					
3	No Smoking					
4	MC&A/Two-Way Radio					
5	Emergency Call					
	Rollup Door (West)					
6	Authorized Personnel Sign					
7	Building 81 Warehouse Sign					
8	Hazardous Waste Storage Sign					
	Rollup Door (East)					
9	Authorized Personnel Sign					
	Personnel Door (West)					
	Door (One Way Out)					
	Signs:					
11	Authorized Personnel					
12	No Smoking					
13	MC&A/Two-Way Radio					
14	Emergency Call					
	Wall Exterior Signs (Northsouth):					
15	Authorized Personnel					
16	Authorized Personnel					
	Sprinkler Room					
17	Personnel Door					
18	Light On					
19	Water Pressure (110 PSI)					
20	Heater Operational					
21	Fire Extinguisher					

COMMENTS:

SUPERVISOR SIGNATURE:	DATE:

FS-SS-3267 (8/30/91)

Fernald Site

BUILDING 81 - RCRA BUILDING INTERIOR INSPECTION LOG AND BUILDING DIAGRAM

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INSPECTOR NAME:	BADGE NUMBER:	DATE:	TIME:
SUPERVISOR NAME:	BADGE NUMBER:	DATE:	TIME:

ITEM NO.	INTERIOR INSPECTION ITEM	STATUS		DESCRIBE UNSATISFACTORY CONDITION	WORK REQUEST NUMBER	DATE CORRECTED
		ACCEP-TABLE	UNACCEP-TABLE			
1	Electrical Power					
	West Personnel Door					
2	Fire Extinguisher (1)					
3	Exit Sign					
4	No Smoking Sign					
5	Communication Device					
	Spill Response Equipment:					
6	Recovery Drums (3)					
7	Absorbent Pad (6)					
8	Hazardous Material PIG (6)					
9	Leather Palm Gloves (3)					
10	Rubber Gloves (3)					
11	Rubber Boots (3)					
12	Disposable Coveralls (3)					
13	Respirators & Cartridges (3)					
14	Shovels (2)					
15	Brooms (1)					
16	Granular Absorbent (3 bags)					
17	Emergency Eyewash & Shower					
	Emergency Eyewash & Shower Sign					
	Green Light (for Eyewash/Shower)					
20	Emergency Call Sign					
	East Personnel Door					
21	Fire Extinguisher (1)					
22	Exit Sign					
23	No Smoking Sign					
	Supplies:					
24	Hazardous Waste Labels (10)					
25	65 Cards (10)					
26	Paint					
27	Certified Torque Wrench					
28	Stencil Set					
29	DOT Labels					
30	68/69 Cards (10)					
31	PCB Labels (10)					
	Containment Area:					
32	Curb Condition					
33	Floor Condition					
34	Aisle Spacing					
	General:					
35	Roof Condition					

COMMENTS: _____

SUPERVISOR SIGNATURE:	DATE:
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FS-SS-3266 (8/30/91)

Fernald Site

RCRA INSPECTION LOG SHEET FOR PLANT 1 PAD

INSPECTOR'S NAME: *(PLEASE PRINT)*	INSPECTOR BADGE NO.:	DATE:	TIME:

ITEM NO.	INSPECTION ITEM	STATUS		COMMENTS FROM OBSERVATIONS/ CORRECTIVE ACTIONS	WORK REQUEST NUMBER	DATE CORRECTED
		ACCEP-TABLE	UNACCEP-TABLE			
1	**COMMUNICATIONS DEVICE (Supervisor's Office)**					
2	**SPILL RESPONSE EQUIPMENT (on pad)**					
a.	Recovery Drums (10)					
b.	Absorbent Pads (6)					
c.	Hazardous Material Pigs (6)					
d.	Leather Palm Gloves (3 pairs)					
e.	Rubber Boots (3 pairs)					
f.	Disposable Coveralls (3)					
g.	Shovels (2)					
h.	Broom (1)					
i.	Granular Absorbent (3 bags)					
3	**RESPIRATORS AND CARTRIDGES (3) (Building 66 and Plant 1)**					
4	**EMERGENCY EYEWASH (outside Building 66/Plant 1)**					
5	**GREEN LIGHT FOR EYEWASH STATIONS**					
6	**SIGNS (Pad perimeter)**					
a.	"Danger—Authorized Personnel Only" (12)					
b.	"Danger—No Smoking" (12)					
c.	HWMU "Emergency Call" (12)					
7	**FIRE EXTINGUISHER (outside Plant 1/Building 66/Building 71)**					
8	**CONTAINMENT AREA**					
a.	Curb condition					
b.	Liner condition					
c.	Free liquids					
9	**SECURITY MAINTAINED BY FMPC SECURITY SYSTEM**					
10	**CONTAINER INSPECTIONS—REFERENCE DAILY LEAKAGE INSPECTION FORMS**					
11	**PAD INSPECTION—NOT APPLICABLE PAD INTEGRITY TO BE ADDRESSED DURING OPERATIONS IMPROVEMENT PROJECT**					

INSPECTOR'S SIGNATURE:	DATE:	SUPERVISOR'S SIGNATURE:	DATE: