ENVIRONMENTAL RESTORATION PROGRAM

MOUND PLANT UNDERGROUND STORAGE TANK PROGRAM PLAN AND REGULATORY STATUS REVIEW

MOUND PLANT

MIAMISBURG, OHIO

NOVEMBER 1992

DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE

ENVIRONMENTAL RESTORATION PROGRAM
EG&G MOUND APPLIED TECHNOLOGIES

FINAL (REVISION 0)

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ACRONYMS

AEA	Atomic Energy Act of 1954
ALARA	as low as reasonably achievable
ARARs	applicable or relevant and appropriate requirements
BUSTR	Bureau of Underground Storage Tank Regulation
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
D&D	Decontamination and Decommissioning
DERR	Division of Emergency and Remedial Response
DOE	U.S. Department of Energy
EMSOC	Energetic Materials Safety and Overview Committee
EPA	U.S. Environmental Protection Agency
ER	Environmental Restoration
FFA	Federal Facility Agreement
FR	Federal Register
FRP	fiberglass reinforced plastic
NPDES	National Pollutant Discharge Elimination System
O.A.C.	Ohio Administrative Code
OEPA	Ohio Environmental Protection Agency
PVC	polyvinyl chloride
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Assessment
RI/FS	remedial investigation/feasibility study
SWMU	solid waste management unit
TESOC	Tritium Environmental Safety and Overview Committee
TRUESOC	Transuranic Environmental Safety and Overview Committee
U.S.C.	United States Code
UST	underground storage tank
VSI	visual site inspection

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ACKNOWLEDGEMENTS

This program plan was prepared by Roy F. Weston, Inc., Albuquerque, New Mexico, under subcontracts 9-XS8-0146R-1 and 9-XS1-Q7181-1 to the University of California, Los Alamos National Laboratory, Los Alamos, New Mexico.

The principal author of this document was Kris L. Andersen. Members of the report team included Steve D. Kitzke, Forest D. Arnold, Deborah L. Bizzigotti, Merlin Wheeler, and Susan Wilson-Longley. Senior review was provided by John Price. Graphics, technical edit, and word processing support were provided by both the Denver and Albuquerque offices. Special acknowledgement is given to the many Mound Plant personnel who contributed information regarding underground tanks and the tank-related activities of plant organizations. Key Mound Plant contributors included Richard E. Burdg, Kathy G. Koehler, and Dan Carfagno.

EXECUTIVE SUMMARY

The Environmental Restoration (ER) Program at the U.S. Department of Energy (DOE) Mound Plant is being conducted in accordance with the Federal Facility Agreement (FFA) between the DOE and the U.S. Environmental Protection Agency (EPA). The FFA includes compliance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA) sections 3004(u) and 3008(h). Under these Acts, the identification of potential release sites and solid waste management units is an important part of the scoping process for developing remedial investigations. For underground storage tanks (USTs), the scoping process includes both identifying and listing tank systems, and determining the regulations that govern each system.

This program plan identifies 106 tank systems that can be divided into three categories on the basis of usage: 1) active tanks containing radionuclide-bearing wastewater; 2) other active tanks containing petroleum products, sanitary wastewater, explosives wastewater, or metal plating rinse water; and 3) inactive tanks and former tank sites. The total number of tanks in each category is 30, 40, and 38, respectively. For the purpose of the UST Program at the Mound Plant, a broad definition of tanks and USTs is being used. The definition used in this report is more extensive than that used by Subtitle I of RCRA. "Tank" or "USTs" is defined to include any tank-like unit having some portion below grade.

The tanks in this Program Plan are located near or within 28 Mound Plant Buildings. Fifty-three of these tanks were found at 3 locations: 19 at T Building, 21 at WD Building, and 13 at Building 57.

The tank systems identified at Mound Plant have also been divided on the basis of governing regulations. A flow chart showing the decision process for assigning tanks is provided in Figure ES.1. Active tanks, inactive tanks that are not surplus, and inactive surplus tanks that have not been closed will be managed, monitored, and closed in accordance with regulations applicable to the tank systems. On the basis of this division, 14 of the tanks are to be included in ER Program (FFA) remedial investigations. A summary of tank descriptions and regulatory assignments is provided in Appendix A.

The ER Program at Mound Plant has been divided into nine operable units. Operable Unit 8, (Inactive USTs) was established to address six of the tanks included in this Program Plan. One of the primary purposes of this document is to divide the tanks that will be included in remedial investigations among Operable Units 2, 5, and 6 on the basis of their geographical location. Instead of addressing tanks as

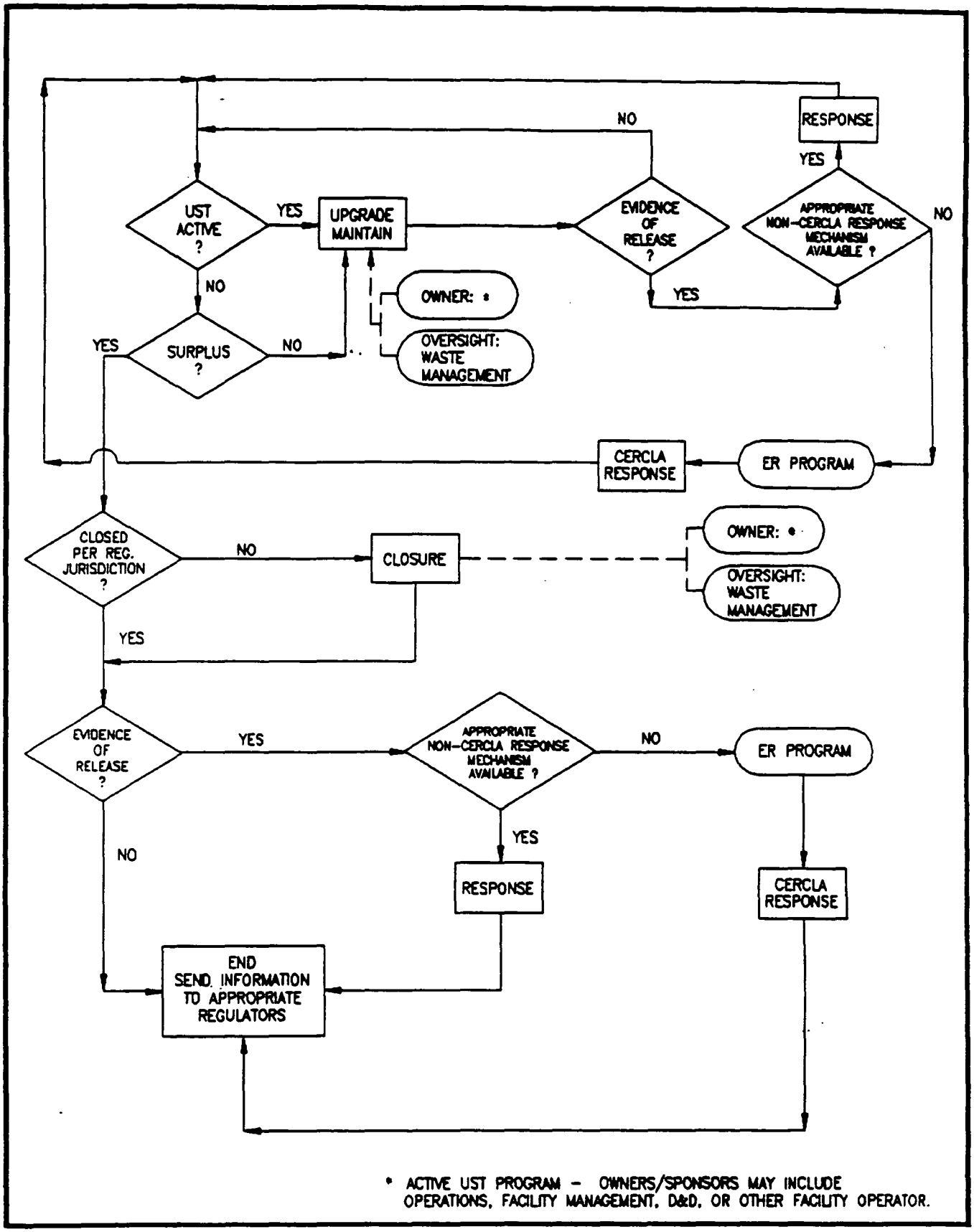

Figure ES-1 **Flow diagram illustrating ER Program UST assignment process**

a separate operable unit (e.g., Operable Unit 8), it is logical, cost-effective, and minimizes redundancy to address each tank identified as a potential release site within the geographical area of a surrounding operable unit.

When the allocation of USTs is completed, Operable Unit 8 will not be needed and a request for termination will be sent to the EPA; termination of the operable unit will occur upon acceptance by EPA. Because the termination of the operable unit does not include a decision about remedial alternatives (including the no action alternative), a CERCLA Record of Decision will not be required. Some tanks are part of a building structure (e.g., installed in the basement floor of a building). When there is no evidence of a release from these tanks, they do not present an apparent risk to human health and the environment, and tank removal and closure can be incorporated into the building demolition and decontamination rather than incorporating it into a remedial investigation or remedial action. The absence of a release will be determined from a review of past waste management practices, as well as records of tank related activities such as integrity tests and inspections, spills, and response actions.

The tanks that have not been assigned to an operable unit under the ER Program (FFA) will be addressed by the Mound Plant "Active UST Program." This program will be developed to maintain regulatory oversight of tanks from operation through removal and closure and will include:

- Maintaining data on current regulatory jurisdiction.
- Maintaining data on required upgrades.
- Scheduling and funding maintenance and testing.
- Scheduling and funding closure.
- Maintaining data on compliance deadlines.
- Preparing compliance documents including closure reports.
- Implementing regulatory compliance, including interaction with Ohio Bureau of Underground Storage Tank Regulation, Ohio Environmental Protection Agency [Ohio EPA (RCRA)], and EPA (RCRA).
- Coordinating with the ER Program and providing support in interaction with EPA (CERCLA) and Ohio EPA Division of Emergency and Remedial Response.
- Ensure that responses to releases of hazardous substances are conducted in accordance with applicable regulatory programs.

This "Active UST Program" will have a designated Project Manager. The Waste Management Program will provide regulatory compliance oversight. A summary of UST sponsors and the primary regulatory

jurisdiction for each tank that will be used by the Mount Plant "Active UST Program" is provided in Appendix A. In general, nearly all of the USTs at Mound Plant contain or have contained hazardous substances as defined by the FFA. However, due to the overlap between different regulatory programs, corrective action for Mound Plant USTs should be taken under whatever authority allows for the most expeditious or economical cleanup while maintaining effective coordination and consistency (e.g., cleanup standards) among the different authorities.

1. INTRODUCTION

1.1. ENVIRONMENTAL RESTORATION PROGRAM DESCRIPTION

Mound Plant was placed on the National Priorities List in November 1989. Pursuant to that status, the U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency (EPA) signed a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 120 Federal Facility Agreement (FFA), Administrative Docket Number V-W-90-C-075, that became effective October 12, 1990. As a result of this agreement, the remedial investigation/feasibility study (RI/FS) process at Mound Plant follows the methodology that the National Contingency Plan (i.e., Superfund) program has established for characterizing the nature and extent of risks posed by uncontrolled hazardous waste sites and evaluating potential remedial options. This approach is a flexible process that is tailored to specific circumstances of individual sites and can be adjusted as additional information becomes available.

The goal of the Environmental Restoration (ER) Program at Mound Plant is to reduce adverse impacts on public health and the environment by reducing releases of hazardous or radioactive materials, and then bring all inactive wastes sites requiring remediation into compliance with existing state and federal regulations and requirements [applicable or relevant and appropriate requirements (ARARs)]. These goals will be accomplished, in part, by the following activities stemming from the RI/FS process:

- Investigating the nature and extent of contamination.
- Performing risk assessment(s) to identify and evaluate potential threats to human health and the environment.
- Developing and evaluating remedial action alternatives to reduce these threats to acceptable levels.
- Implementing the selected remedial actions.

The FFA contains both the procedural and substantive requirements for RI/FS work.

The FFA defines the Mound Plant Site as follows:

> "Site" shall mean any area where hazardous substances, pollutants or contaminants have come to be located, due to the activities at the Mound Plant (hereafter referred to as the Site). The EPA, after consulting with OEPA and U.S. DOE, may change the Site designation on the basis of additional investigations to more accurately reflect the areas contaminated by hazardous substances, pollutants or contaminants, related in whole or in part to the Mound Plant. The work to be performed in this Agreement will conform to the definition of the Site as established by EPA.

Consistent with this definition, the DOE is proposing RI/FS activities for a broad geographic area including the area within the Mound Plant as well as areas beyond the Mound Plant boundaries. Because of the size and the complexity of the RI/FS, the Mound Plant has been divided into nine operable units to facilitate management of the RI/FS. Underground storage tanks (UST) have been allocated to various operable units, as appropriate, according to their location and relationship to activities within the units.

1.2. PURPOSE AND SCOPE

Potential release sites at Mound Plant have been identified through a variety of mechanisms, including historical environmental monitoring, a radiological site survey, a CERCLA preliminary assessment (DOE, 1986), a RCRA Facility Assessment (RFA) (EPA, 1988). After considering the results of this process, the ER Program (FFA) determined that since there had been insufficient review and evaluation of USTs as potential release sites, USTs should be tabulated and assigned to the ER Program (FFA) or the Active UST Program at the Mound Plant. Accordingly, this report was conceived to address the following:

- List and describe known USTs at Mound Plant and determine the environmental regulatory program most applicable to each UST system.
- Establish a Mound Plant UST Program Plan that will allocate USTs and tank sites to the Active UST Program or the ER Program (FFA).
- Divide the tanks and tank sites that will be included in ER Program remedial investigation among Operable Units 2, 5, and 6 on the basis of their geographical location.

This effort relied heavily on the "Mound Plant Underground Storage Tank Management Plan and Preliminary Cost Estimate," hereinafter referred to as the Mound Plant UST Plan (NUS, 1989), as well as on communications with Mound Plant employees. Additional information sources included "Project Specifications for Underground Storage Tank Program" (EG&G, 1990a), "Response to Review Comments on the Mound Application to Ship Waste to the Nevada Test Site, Issue 1, March 1990" (EG&G, 1990b), and "Limited Field Investigation Work Plan, Mound Plant, Miscellaneous Sites, Operable Unit 3" (DOE, 1991a). To avoid duplication of efforts, information contained in the Mound Plant UST Plan was assumed to be accurate and comprehensive, except when conflicting information was found in the preparation of this document in which case the newer information was used. Some limited additional site survey work was performed in conjunction with the development of this document.

A total of 54 tanks are documented in the Mound Plant UST Plan (NUS, 1989). Fifty-two additional tanks are included in this review document, 16 of which have been previously documented (EPA, 1988); a total of 106 tanks are located at 28 separate buildings. In this review document the tanks are divided into three categories: active radionuclide-bearing wastewater tanks, other active tanks, and inactive tanks and former tank sites. To facilitate cross-referencing, tank numbers applied in this Program Plan are provided for each tank and are listed in Appendix A correlated with the tank numbers used in the Mound Plant UST Plan (NUS, 1989).

USTs and tank sites are identified and described in Section 2 of this document. The tanks identified in the program plan are located at or within 28 Mound Plant Buildings. Fifty-three of these tanks were found at 3 locations: 19 at T Building, 21 at WD Building, and 13 at Building 57.

Subsection 2.1. of this document discusses the 29 active radionuclide-bearing wastewater tanks. The specific nature of the wastewater varies from tank to tank. The capacity of these tanks ranges from 100 to 30,000 gallons, and the age of the tanks varies from 3 to 42 years.

Subsection 2.2. discusses the 36 active tanks that contain petroleum products, sanitary wastewater, or metal-plating rinse water, and 2 aboveground propane tanks incorrectly described by NUS (1989) as USTs. The tanks discussed in this subsection range in capacity from 250 to 60,000 gallons and vary in age from 4 to 42 years.

Subsection 2.3. describes the 27 inactive tanks and 14 former tank sites historically containing petroleum, radionuclide-bearing wastewater, sanitary wastewater, and other wastes. The tanks in this subsection vary in capacity from 60 to 30,000 gallons and vary in age from 21 to over 40 years. The former tanks were removed or closed in place by the Mound Decontamination and Decommissioning (D&D) Program (or an historic equivalent) or were removed in compliance with applicable regulations, such as the State of Ohio Bureau of Underground Storage Tank Regulation (BUSTR) Program.

Section 3 describes the Mound Plant UST Program Plan. The goal of the plan is to ensure that USTs at Mound Plant are dealt with in a manner that is both environmentally sound and effective relative to operational needs either by the ER Program (FFA) or by the Active UST Program.

1.3. Elimination of Operable Unit 8

Operable Unit 8 (Inactive USTs) was created after the prior designation of seven other operable units when six USTs in the vicinity of the WD Building were assigned to the ER program (FFA). A new operable unit was created for the tanks because they did not fit into the then existing definition of the

operable units, and because all of the tanks were associated with a discrete locality — the WD Building.

Since the creation of Operable Unit 8, additional USTs have been assigned to the ER Program (FFA), and those tanks are distributed across Mound Plant beyond the vicinity of the WD Building. Also, since the creation of Operable Unit 8, there has been a redefinition of operable units at Mound Plant in an attempt to simplify their definition and associate them with geographical areas. For example, the WD Building now lies within the geographical area of Operable Unit 2.

It is desirable to "close out" Operable Unit 8 by reassigning the tanks to other operable units for the following reasons:

- The alignment of operable units with geographical areas can be maintained by assigning tanks to the existing operable unit within which boundaries they are located.
- The assignment of tanks to a geographically defined operable unit facilitates the concurrent investigation of all potential release sites in that area.
- The deletion of an operable unit simplifies the RI/FS and reduces paperwork and effort by removing a series of documents that would be required for that operable unit.

The ER Program at Mound Plant has been divided into nine operable units. One of the primary purposes of this document is to divide tanks and tank sites among Operable Units 2, 5, and 6 on the basis of their geographical location. Instead of addressing tanks as a separate operable unit (Operable Unit 8), it is logical, cost-effective, and minimizes redundancy to address each tank as a potential release site within the geographical area of a surrounding operable unit.

When the division of USTs is completed, Operable Unit 8 will not be needed and it will be terminated when the DOE sends a letter to EPA and the EPA finds that termination is acceptable. Because the termination of the operable unit does not include a decision about remedy selection (including the no action alternative), a CERCLA Record of Decision will not be required.

1.4. REGULATORY PROGRAMS

This document addresses USTs as identified in the Mound Plant UST Plan, including any tank-like unit having some portion below grade as well as some previously identified tanks that do not qualify as USTs. While the term UST may be used loosely in this plan, it does have a specific meaning in RCRA Subtitle I, discussed in Subsection 1.5.3. An intent of this review document is to define the environmental regulatory program that is applicable to each tank, if any, and to assign each tank to

either the ER Program (FFA) or the Active UST Program. The rationale for assignment of tanks to Mound Plant programs is provided in Section 3.1.

The following subsections generally describe each of the regulatory programs evaluated for applicability to the tanks at Mound Plant. While other programs might also be applicable in some cases, the review was limited to the AEA, RCRA, CERCLA, Clean Water Act (CWA), RCRA Subtitle I, and the corresponding Ohio programs, as appropriate. In discussing the regulatory programs, this document addresses only the assignment of the tanks to the appropriate programs, and does not provide the requirements for tank usage or any activities associated with each tank.

This document provides an initial determination of the ARARs to be complied with for activities involving the tanks and tank sites. Both federal and state environmental regulatory programs will be complied with in the ER Program (FFA) as directed by the provisions of the FFA and to the extent required by CERCLA.

It must also be recognized that the term "hazardous substance" has a significantly broader meaning in the FFA than in CERCLA. To summarize, the FFA defines a hazardous substance as a substance including all CERCLA hazardous substances and any element, substance, compound or mixture, or combination thereof, including solids, liquids, semi-solids, or contained gases, and including oil and gasoline, that after release to the environment may result in exposure to any living organisms through any route of entry. Such exposure to a substance must cause or be reasonably anticipated to cause death, disease, behavior abnormalities, cancer, genetic mutation, physiological malfunctions or physical deformities in such organisms or their offspring, or pose a real or potential hazard to human health and safety or the environment. Unless otherwise specified, references to hazardous substances made in this document refer to those substances as defined in the FFA.

Mound Plant is an operating facility and has numerous processes and process units that it uses to perform its mission. In using these processes/units, Mound Plant maintains compliance with applicable regulatory programs, including tank maintenance, monitoring, upgrade and closure activities. In general, nearly all of the USTs at Mound Plant contain or have contained hazardous substances as defined by the FFA. Any releases of these hazardous substances that could threaten human health and the environment are subject to the jurisdiction of the FFA which require CERCLA compliance for all such releases. This jurisdiction does not specifically include the management or removal/closure of USTs, but does include the investigation and remediation of tanks that have released or may have released hazardous substances that may pose a threat to human health and the environment.

Neither CERCLA nor the FFA provide specific requirements for the management and closure of USTs. CERCLA and the FFA do provide for appropriate responses to releases of hazardous substances, as defined by the FFA, that pose a threat to human health or the environment. In operating USTs at Mound Plant, the DOE fully intends to comply with applicable laws and regulations, including those which provide management and closure requirements, such as RCRA Subtitle C and I [Ohio Administrative Code (O.A.C.) Sections 3745 and 1301: 7, respectively].

There are, however, overlapping regulatory authorities for activities associated with UST releases and corresponding corrective action or cleanup activity. DOE and EPA believe corrective action at Mound Plant USTs should be taken under whatever authority allows for the most expeditious or economical cleanup while maintaining effective coordination and consistency (e.g., cleanup standards) among the different authorities. Therefore, DOE has determined that releases from UST systems assigned to the Active UST Program will be addressed under an applicable statutory or regulatory program rather than the FFA. Releases from UST systems assigned to the ER Program will be subject to investigation and cleanup under the FFA.

Tanks assigned to the Active UST Program, as shown in Figure 3.1., include active tanks, inactive tanks that are not surplus, and inactive tanks that have not been closed. Inactive surplus tanks that have been closed are assigned to the ER Program. Surplus tanks are defined as tanks for which no further use is planned. For purposes of this document, a "closed UST system" is defined as a tank and its associated piping that have been closed in accordance with the statutory and regulatory requirements applicable to the tank. For tanks subject to RCRA or BUSTR, there are well-defined closure requirements that must be met. For tanks subject to the AEA, the DOE considers the systems closed when the D&D Program has completed its cleanup activities. It is important to note that D&D activities such as inerting a tank by filling it with concrete or sand are intended to serve as interim measures to allow reuse of an area or to minimize the release of any radiological constituents that may be present in Atomic Energy Act of 1954 (AEA) tanks. Tanks for which such interim D&D measures have been taken are not "closed UST systems" for the purposes of this document. For tanks subject to the CWA, regulatory closure requirements are not defined. For purposes of the Program Plan, DOE will consider such CWA tank systems to be "closed UST systems" when the systems are cleaned and taken out of service, and are not intended to be returned to service. Finally, as noted in Section 3.1.2., in order for a tank system to be considered a closed UST system for the purposes of this document, the system must not be part of a building structure that is currently in use (e.g., tank that is a part of the interior floor of the building), unless there is evidence of a release from the system that may pose a threat to human health or the environment. Where evidence of a release exists for tanks that are part of a building structure, the DOE will investigate and remediate the release as appropriate under the primary regulatory authority for the tank.

For activities/units where there is no reason for the DOE Remedial Project Manager to believe hazardous substances have been released to the environment, the DOE believes the activities/units are not subject to the FFA or CERCLA but are subject to regulatory programs such as the Resource Conservation and Recovery Act (RCRA). When a release of a hazardous substance as defined by the FFA is found or suspected, the DOE will respond as directed by the FFA, RCRA, the Toxic Substance Control Act, etc., to ensure that human health and the environment are protected.

1.4.1. RCRA Hazardous Wastes

RCRA Subtitle C, commonly referred to as RCRA, provides requirements for the management of hazardous wastes, as defined in 40 Code of Federal Regulations (CFR) Part 261 Subparts C and D (O.A.C. 3745-51-20 to 33). These requirements include standards for collection and storage of hazardous wastes in tanks (Subpart J of 40 CFR Parts 264 and 265; O.A.C. 3745-55-90 to 99 and 3745-66-90-992).

Figure 1.1. presents a decision flow diagram for determining if tanks are subject to RCRA regulation. In order to become subject to RCRA hazardous waste tank regulations, a tank must first have been determined to contain hazardous wastes. Hazardous wastes may be identified by first establishing that the materials in question are wastes (RCRA uses the term "solid waste"). Once a waste has been identified, it must be evaluated by reviewing the lists of hazardous wastes presented in 40 CFR Part 261 Subpart D (O.A.C. 3745-51-31 to 33). If the waste is determined not be a "listed hazardous waste," it must then be assessed to determine if it exhibits what the EPA has defined as qualities or "characteristics" of a hazardous waste, as set forth in 40 CFR Part 261 Subpart C (O.A.C. 3745-51-20 to 24). Except where a waste is specifically excluded by the EPA, if it is found to be "listed" or "characteristic," it must be managed in accordance with RCRA hazardous waste management regulations. Conversely, if a waste is determined not to be a hazardous waste, it is not subject to the hazardous waste management regulations nor is the unit containing it (such as a tank) subject to hazardous waste management regulations.

It should also be noted that hazardous waste units must have been managed since 1980 to be subject to RCRA hazardous waste management regulation. Hazardous waste management units (e.g., tanks) closed prior to 1980 are not subject to these regulations. However, there are RCRA requirements that do address old (pre-1980) waste units that may pose a threat to human health and the environment through releases of hazardous wastes or constituents. RCRA's corrective action program, provided by Sections 3008(h) and 3004(u) and (v) of RCRA as well as 40 CFR 264.101 (O.A.C. 3745-55-011), require corrective measures at solid waste management units (SWMUs) present at hazardous waste management facilities. Specifically, the EPA has defined SWMUs as:

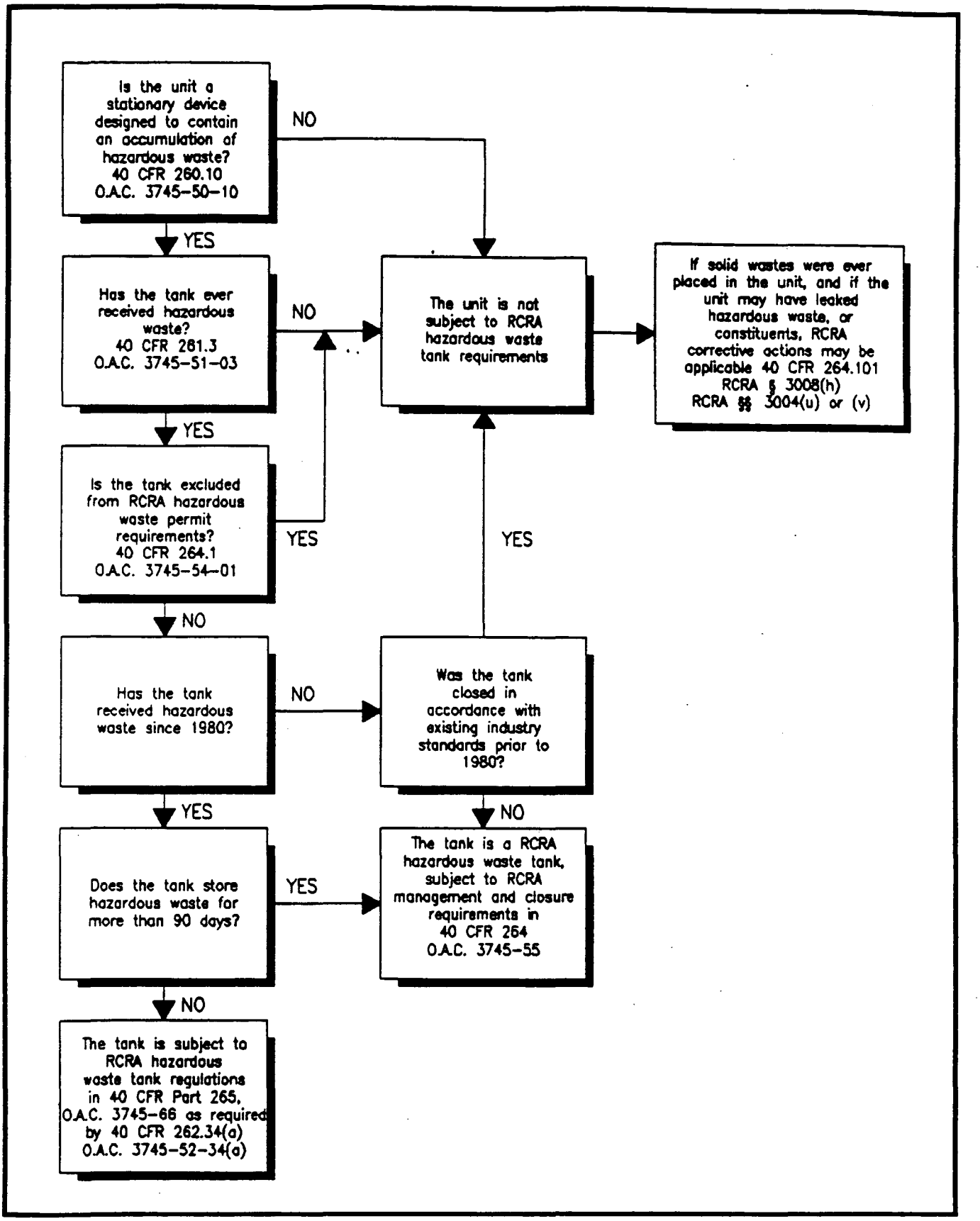

Figure 1.1. RCRA tank identification flow diagram for Mound Plant underground tanks.

> any discernible unit(s) at which solid wastes have been placed at any time, irrespective of whether the unit(s) [was] intended for the management of solid or hazardous waste. Such unit(s) include any area at a facility at which solid wastes have been routinely and systematically released (55 Federal Register [FR] 30874).

These requirements may be applied to former storage tanks from which hazardous wastes or constituents may have been released. Hazardous constituents are identified in 40 CFR Part 261, Appendix VIII (O.A.C. 3745-51-11 Appendix VIII). The corrective action provisions of RCRA Sections 3008(h) and 3004(u) and (v) are explicitly included within the jurisdiction of the FFA. Most of the tanks considered in this document are not subject to RCRA hazardous waste requirements either because they do not contain RCRA defined hazardous waste or because they fall into an excluded category. This reasoning is discussed further in the following paragraphs.

Many of the tanks that were reviewed were described as containing either sanitary or alpha radionuclide-bearing wastewaters. In general, unless such wastewaters are hazardous wastes or mixed with hazardous wastes, these wastewaters would not be subject to RCRA hazardous waste requirements. There are several exclusions and exemptions for these materials or the units in which they are managed. For example, 40 CFR 261.4(a)(4) provides a solid waste exclusion from regulation under Parts 262 through 266, 268, and 270 for "source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954." Consequently, wastewaters that fit this exclusion are not solid wastes and therefore cannot be hazardous wastes subject to RCRA; however, if hazardous wastes are mixed with such wastewaters these resulting wastes become subject to RCRA. An exemption in 40 CFR 264.1(g)(6) [O.A.C. 3745-54-01(G)(5)] provides that wastewater treatment units are not subject to hazardous waste management regulations, including those applicable to hazardous waste tanks. A wastewater treatment unit is defined in 40 CFR 260.10 as:

> ...a device which: (1) is part of a wastewater treatment facility which is subject to regulation under either Section 402 or 307(b) of the Clean Water Act; and (2) receives and treats or stores an influent wastewater which is a hazardous waste as defined in Section 261.3 of this chapter, or generates and accumulates a wastewater treatment sludge which is a hazardous waste..., or treats or stores a wastewater treatment sludge which is a hazardous waste...; and (3) meets the definition of tank in Section 260.10 of this chapter.

It should be noted that the definition of "wastewater treatment unit" is a misnomer because it specifically includes tanks that collect and store wastewaters, in addition to those in which treatment takes place. Also defined in 40 CFR 260.10, a tank is "a stationary device, designed to contain an accumulation of hazardous waste which is constructed primarily of non-earthen materials...." Ohio regulations provide similar definitions in O.A.C. 3745-50-10.

Several of the tanks addressed in this document (e.g., the 30,000-gallon, alpha-wastewater influent tanks at WD Building described in Subsection 2.1.3) can be defined as wastewater treatment systems which discharge pursuant to a National Pollutant Discharge Elimination System (NPDES) permit issued under Section 402 of the CWA (O.A.C. 3745-33). These systems are excluded from RCRA hazardous waste tank regulations.

Some wastewater treatment tanks (e.g., the 3,750-gallon, beta-wastewater influent tanks at WD Building Annex described in Subsection 2.1.7) are not part of a system which discharges pursuant to a NPDES permit issued under the CWA. Such wastewater treatment tanks would be subject to RCRA hazardous waste regulation if a RCRA regulated waste was introduced into the system. A thorough review was previously conducted of all possible waste stream contributors to the alpha- and beta-wastewater treatment systems (EG&G, 1990a). No RCRA hazardous wastes were found being directed to these systems.

The RCRA hazardous waste requirements apply to hazardous wastes that must be identified as waste materials before being evaluated for hazardous waste determination. Most of the non-wastewater-related tanks addressed by this document are product tanks such as the petroleum product Tank 118 and, therefore, are not subject to RCRA hazardous waste management regulations. If, however, a tank was closed with remaining product, the residual product may be considered a solid waste and, therefore, could be a hazardous waste thereby making the tank subject to RCRA hazardous waste management regulations. In addition, contaminated media resulting from a leak of a product tank is considered hazardous waste and would be subject to RCRA regulations.

It is important to note that the State of Ohio has developed a hazardous waste regulatory program to implement the provisions to Subtitle C of RCRA. The Ohio program has been reviewed by EPA and was found to be at least as stringent as the corresponding federal program. Pursuant to its authority under Section 3006 of RCRA, EPA has authorized the State of Ohio to implement the hazardous waste regulatory program in lieu of EPA.

1.4.2. RCRA Underground Tanks

RCRA Subtitle I provides requirements for the management of USTs, as defined in 40 CFR Part 280. These regulations apply to any UST determined to contain a regulated substance. 40 CFR 280.12 (O.A.C. 1301: 7-9-02) defines a UST as:

> ...any one or a combination of tanks (including underground pipes connected thereto) that is used to contain an accumulation of regulated substances, and the volume of which... is 10 percent or more beneath the surface of the ground....

40 CFR 280.12 defines a regulated substance as:

> (a) Any substance defined in Section 101(14) of ...(CERCLA)...(but not including any substance regulated as a hazardous waste under Subtitle C), and (b) Petroleum, including crude oil or any fraction thereof....

According to the above definitions, any underground tanks determined to contain regulated substances at Mound Plant are subject to 40 CFR Part 280 (O.A.C. 1301: 7-9). At Mound Plant, regulated substances found in USTs include radionuclide-bearing wastewaters and petroleum substances (e.g., diesel fuel, fuel oil, etc.).

Some tanks found at Mound Plant are subject to certain exclusions or exemptions under the 40 CFR Part 280 (O.A.C. 1301: 7-9) regulations. Several tanks are considered to be excluded wastewater treatment tank systems, such as the 30,000-gallon alpha-influent tanks at the WD Building (Subsection 2.1.3.). As stated in 40 CFR 280.10(b)(2) [O.A.C. 1301: 7-9-04(A)(2)], "any wastewater treatment tank system that is part of a wastewater treatment facility regulated under Section 402 or 307(b) of the Clean Water Act" is excluded from regulation. Other tanks, such as the 3,750-gallon beta-wastewater influent tanks at the WD Building Annex (Subsection 2.1.6.), are subject to a limited deferral under 40 CFR 280.10(c), which states that any "UST systems containing radioactive material that are regulated under the Atomic Energy Act of 1954..." are subject to only the requirements of release response and corrective action. The State of Ohio, under a cooperative agreement with EPA, is authorized to clean up petroleum releases from USTs systems or to require owners and operators to do so. USTs containing radioactive material regulated under the AEA are currently exempted from Ohio UST regulations (O.A.C. 1301: 7-9-04).

RCRA Subtitle I and the corresponding O.A.C. 1301: 7-9 govern the management of USTs containing regulated substances as discussed above. These regulatory programs dictate the management practices to be followed by Mound Plant personnel responsible for the operational use of such tanks.

1.4.3. CERCLA

CERCLA provides requirements for the cleanup of sites at which the presence of hazardous substances poses a threat or potential threat to human health or the environment. This federal law was primarily enacted to address sites where hazardous substances threaten the environment or the surrounding population because of hazardous substance releases. As such, CERCLA generally differs from RCRA in that it addresses past management sites (pre-1980), while RCRA generally deals with more recent or active management sites (post-1980). This distinction is important for tanks that stored hazardous wastes but were closed prior to 1980. Hazardous substances are listed in Table 302.4 of 40 CFR Part

300; a material is identified as a hazardous substance by being included on this table, and the term specifically excludes petroleum or any petroleum fractions.

CERCLA requirements do not specifically address hazardous substance management in units such as tanks; however, if hazardous substances were released from a tank or were suspected to have been released, CERCLA could require any necessary investigation or remediation to mitigate the actual or potential hazards posed by the substances. In requiring investigation or cleanup of hazardous substances areas, CERCLA would mandate compliance with all ARARs that affect the specific investigation or cleanup activities and the hazardous substances involved. For example, if cleanup involved the excavation of a hazardous substance that could be identified as hazardous waste, CERCLA could require compliance with RCRA regulations.

Since the Mound Plant is a federal facility on the National Priorities List, the provisions of CERCLA applicable to Mound Plant have been incorporated into the FFA. Consequently, when a hazardous substance from a tank or former tank site assigned to the ER Program has or is suspected to have been released to the environment at Mound Plant, the DOE will comply with the FFA relative to responses to the release.

1.4.3.1. AEA/CERCLA Integration

The DOE has legal authority derived from the AEA [42 United States Code (U.S.C.) 2011] to conduct routine operations involving, among other things, underground tanks. Routine operations include both the operation of currently active tanks and the D&D of inactive tanks. Environmental contamination may be known or may be discovered for both active and inactive tanks. The DOE has authority under the AEA to respond to any such contamination. Because the DOE has signed an FFA, it also has authority and responsibility derived from CERCLA and the FFA. The authorities of the AEA and CERCLA overlap, but the integration of overlapping authorities is explicitly recognized by CERCLA, and there is a criterion to determine how to apply authorities that overlap.

The AEA is the legal authority by which the DOE conducts its routine operations. These routine operations may result in either minor or major releases (as defined in 40 CFR 300.5 of the National Contingency Plan). Minor releases of hazardous substances are those that pose a minimal threat to the public health or welfare or the environment.

Typically, the DOE will use criteria such as its derived concentration guides for airborne contamination or its as low as reasonably achievable (ALARA) policy to determine whether a release was minor or major. The DOE can use its AEA authority to respond to minor releases. For major releases, the DOE

has the authority under CERCLA to "take any appropriate removal action to abate, prevent, minimize, stabilize, mitigate or eliminate the release" [40 CFR 300.415(b)(1)]. However, the DOE is first required to evaluate the availability of other appropriate federal response mechanisms to respond to the release [40 CFR 300.415(b)(2)(vii)]. Its routine operations are an available, appropriate federal response mechanism; therefore, the DOE can respond to major releases under its AEA authority. For example, the DOE can clean up radioactively contaminated soils in the vicinity of an underground tank using its AEA authority. The DOE will apply the CERCLA criteria and respond to releases from tanks in the most timely and cost-effective manner.

Responsibility for addressing radioactive contamination, pursuant to the AEA at Mound Plant rests with the D&D Program. This includes the responsibility for providing corrective actions for released radionuclides from underground tanks. Underground radionuclide tank sites are considered closed under the AEA when all radionuclide-contaminated materials (soils, etc.) have been removed to DOE thresholds.

2. UNDERGROUND TANK DISCUSSION AND REGULATORY REVIEW

In this section, a discussion of the Mound Plant underground tanks is provided in the following three subsections:

- Active, radionuclide-bearing wastewater tanks (Tank Nos. 1 to 29; Subsection 2.1.).
- Other active tanks (Tank Nos. 100 to 136; Subsection 2.2.).
- Inactive tanks (Tank Nos. 200 to 241; Subsection 2.3.).

Each tank is reviewed with respect to its usage, as permitted by available information, and the applicable regulatory program(s) is identified with a brief explanation of the application.

Following Section 4. (References) of this document is Appendix A, which summarizes the review provided here; Appendix A is presented as a table to facilitate tank reference. Each tank reviewed in this section references the corresponding entry in Appendix A by tank number and provides ER Program (FFA) assignments and regulatory jurisdiction. Appendix A includes tentative identification of UST sponsors and the primary regulatory jurisdiction for each UST. Appendix B illustrates the tank locations at Mound Plant included in this Program Plan.

2.1. ACTIVE RADIONUCLIDE-BEARING WASTEWATER TANKS

The following active radionuclide-bearing wastewater USTs have been identified at Mound Plant based on available documentation and communications with Mound Plant personnel.

2.1.1. Building 62: Stack Deluge Tank (Tank 1)

This 900-gallon, stainless-steel-lined concrete tank is intended to be used to collect fire control water from Building 58 in the event of a fire-related emergency in the Building 58 high efficiency purified air filter banks. Due to the nature of activities in Building SW/R, collected water could contain alpha contaminants and would require testing prior to discharge through piping to the 30,000-gallon, alpha-wastewater influent tanks at WD Building. The tank has reportedly never been used (Andersen, 1990b). However, there is a strong likelihood that the tank may contain radionuclides due to normal system condensation occurring over time (Andersen, 1991a).

Due to its function in nuclear operations at Mound Plant this tank is subject to the AEA. This tank is considered to be a wastewater treatment unit and part of a wastewater treatment system discharge subject to CWA §402 (NPDES) (O.A.C. 3745-33) regulations. As such, this tank is excluded from

regulation under RCRA in both the hazardous waste and UST regulations [40 CFR Part 264 (O.A.C. 3745-54) and 40 CFR Part 280 (O.A.C. 1301: 7-9), respectively].

2.1.2. H Building, Room H-131: Laundry Water Tank (Tank 2)

This 500-gallon, stainless-steel-lined concrete tank is used to collect alpha wastewaters from the laundry, floor drains, and a sink in H Building. As of December 1991, the tank drains via sanitary sewer line to the Building 57 New Sewage Disposal Area for treatment (Andersen, 1992a). The tank formerly drained through piping to the 30,000-gallon, alpha-wastewater influent tanks at WD Building after passing through a lift station in SW Building.

Due to its function in nuclear operations at Mound Plant this tank is subject to the AEA. This tank is considered to be a wastewater treatment unit and part of a wastewater treatment system that discharges subject to CWA §402 (NPDES) (O.A.C. 3745-33) regulations. As such, this tank is excluded from regulation under RCRA in both the hazardous waste and UST regulations [40 CFR Part 264 (O.A.C. 3745-54) and 40 CFR Part 280 (O.A.C. 1301: 7-9), respectively].

2.1.3. WD Building: Alpha Influent Tanks (Tanks 3, 4, 5, and 6)

There are four 30,000-gallon, double concrete/steel tanks [three are lined with polyvinyl chloride (PVC) and one with fiberglass] that collect alpha-wastewater influent from H Building, SW/R Complex (reportedly has not contributed alpha wastewater in 3 to 4 years), PP Building, a WD basement sump, a WD Building Annex basement sump, the old alpha waste line (although disconnected from all process units, the line reportedly contributes ground water collected through numerous breaks), and the spill collection sump in Building 23 (reportedly never used). The tanks drain to two 60,000-gallon clarifiers. Liquids from the clarifiers pass through a filtration system and are finally collected in 30,000-gallon effluent tanks prior to discharge off site (EG&G, 1990a).

Due to their function in nuclear operations at Mound Plant those tanks are subject to the AEA. These tanks are considered to be wastewater treatment units and part of a wastewater treatment system that discharges subject to CWA §402 (NPDES) (O.A.C. 3745-33) regulations. As such, these tanks are excluded from regulation under RCRA in both the hazardous waste and UST regulations [40 CFR Part 264 (O.A.C. 3745-54) and 40 CFR Part 280 (O.A.C. 1301: 7-9), respectively].

2.1.4. WD Building: Alpha Effluent Tanks (Tanks 7, 8, 9, and 10)

Four 30,000-gallon, epoxy-lined concrete tanks receive filtered alpha wastewater from the WD Building alpha wastewater treatment system, as discussed in Subsection 2.1.3. Wastewaters are collected and then tested prior to discharge off site.

Due to their function in nuclear operations at Mound Plant the tanks are subject to the AEA. These tanks are considered to be wastewater treatment units and part of a wastewater treatment system that discharges subject to CWA §402 (NPDES) (O.A.C. 3745-33) regulations. As such, these tanks are excluded from regulation under RCRA in both the hazardous waste and UST regulations [40 CFR Part 264 (O.A.C. 3745-54) and 40 CFR Part 280 (O.A.C. 1301: 7-9), respectively].

2.1.5. WD Building Annex: Basement Wash Sump (Tank 11)

A 600-gallon, PVC-lined steel tank is located in the WD Building Annex basement and is referred to as the Glass Melter sump in an Operable Unit 3 work plan (DOE, 1991a). The tank collects alpha wastewater from floor and sink drains in the WD Building Annex, including two floor drains in proximity to the Glass Melter. The sump drains to two 3,750-gallon, alpha-influent tanks (Subsection 2.1.8.), located in the WD Building Annex basement, prior to draining to the 30,000-gallon, alpha-wastewater influent tanks in WD Building (Subsection 2.1.3.).

Due to its function in nuclear operations at Mound Plant this tank is subject to the AEA. This tank is considered to be a wastewater treatment unit, and part of a wastewater treatment system that discharges subject to CWA §402 (NPDES) (O.A.C. 3745-33) regulations. As such, the tank is excluded from regulation under RCRA in both the hazardous waste and UST regulations [40 CFR Part 264 (O.A.C. 3745-54) and 40 CFR Part 280 (O.A.C. 1301: 7-9), respectively].

2.1.6. WD Building: Basement Sump, Room 1 (Tank 12)

A 600-gallon, steel-lined concrete tank located in Room 1 of the WD Building basement is used to collect alpha wastewater from floor and sink drains in WD Building (EG&G, 1990a) as well as from other alpha wastewater sumps in Room 01 and Room 8 of the WD Building sub-basement and basement. The sump drains to the four 30,000-gallon, alpha wastewater influent tanks at WD Building (Subsection 2.1.3.).

Due to its function in nuclear operations at Mound Plant this tank is subject to the AEA. This sump is considered to be a wastewater treatment unit and part of a wastewater treatment system that

discharges subject to CWA §402 (NPDES) (O.A.C. 3745-33) regulations. As such, the sump is excluded from regulation under RCRA in both the hazardous waste tank and UST regulations [40 CFR Part 264 (O.A.C. 3745-54) and 40 CFR Part 280 (O.A.C. 1301: 7-9), respectively].

2.1.7. WD Building Annex: Beta Influent Tanks (Tanks 13 and 14)

Two 3,750-gallon, PVC-lined double concrete/steel, beta-wastewater influent tanks are located in the WD Building Annex. The two tanks collect beta wastewater from tritium process laboratories in the SW/R Complex via piping. The tanks also receive beta wastewater from T Building that is generated from equipment decontamination, floor mopping, and potentially from the sprinkler system. T Building wastewaters are transported using 30-gallon drums to WD Building Annex since there is no pipe connection. Once received at WD Building Annex, the beta wastewaters are solidified and containerized for off-site disposal.

Due to their function in nuclear operations at Mound Plant the tanks are subject to the AEA. The tanks are not subject to RCRA as they do not contain hazardous wastes (EG&G, 1990b). Although the tanks do contain "regulated substances" in the form of radionuclides, they are deferred from most of the requirements of 40 CFR Part 280 as "UST systems containing radioactive material that are regulated under the Atomic Energy Act of 1954," per 40 CFR Part 280.10(c)(2). It is completely exempt from Ohio UST regulations, per O.A.C. 1301: 7-9-08(A)(8).

2.1.8. WD Building: Alpha Influent Tanks (Tanks 15 and 16)

Two 3,750-gallon, PVC-lined, double concrete/steel, alpha-wastewater influent tanks collect influent alpha wastewater from the WD Building Annex basement wash sump (Subsection 2.1.5.). The tanks drain via piping to the 30,000-gallon, alpha-wastewater influent tanks in WD Building (Subsection 2.1.3.).

Due to their function in nuclear operations at Mound Plant these tanks are subject to the AEA. These tanks are considered to be wastewater treatment units and part of a wastewater treatment system that discharges subject to CWA §402 (NPDES) (O.A.C. 3745-33) regulations. As such, these tanks are excluded from regulation under RCRA in both the hazardous waste and UST regulations [40 CFR Part 264 (O.A.C. 3745-54) and 40 CFR Part 280 (O.A.C. 1301: 7-9), respectively].

2.1.9. WD Building Sub-Basement, Room 01: Alpha Wastewater Sump (Tank 17)

A 500-gallon, steel-lined, concrete sump located in the sub-basement of the WD Building is used to collect alpha wastewater. The sump drains to the alpha wastewater sump in Room 1 (Section 2.1.6.) of the WD Building basement.

Due to its function in nuclear operations at Mound Plant this sump is subject to the AEA. This sump is considered to be a wastewater treatment unit and part of a wastewater treatment system that discharges subject to CWA § 402 (NPDES)(O.A.C. 3745-33) regulations. As such, the sump is excluded from regulation under RCRA in both the hazardous waste tank and UST regulations [40 CFR Part 264 (O.A.C. 3745-33) and 40 CFR Part 280 (O.A.C. 1301: 7-9), respectively].

2.1.10. WD Building, Room 8: Alpha Wastewater Sump (Tank 18)

A 450-gallon, vitrified clay-lined, concrete sump located in the WD Building basement is used to collect alpha wastewater from drains in the alpha wastewater treatment system clariflocculator area. The sump drains to the alpha wastewater sump in Room 1 (Section 2.1.6.) of the WD Building basement.

Due to its function in nuclear operations at Mound Plant this sump is subject to the AEA. This sump is considered to be a wastewater treatment unit and part of a wastewater treatment system that discharges subject to CWA § 402 (NPDES)(O.A.C. 3745-33) regulations. As such, the sump is excluded from regulation under RCRA in both the hazardous waste tank and UST regulations [40 CFR Part 264 (O.A.C. 3745-33) and 40 CFR Part 280 (O.A.C. 1301: 7-9), respectively].

2.1.11. R Building, Room R128: Alpha Wastewater Tank (Tank 19)

A 500-gallon, double-fiberglass tank with the exterior set in concrete collects alpha wastewater generated in R Building. After reaching a specified level, wastewaters are automatically pumped to the 30,000-gallon, alpha-wastewater influent tanks at WD Building (Subsection 2.1.3.).

Due to its function in nuclear operations at Mound Plant this tank is subject to the AEA. This tank is considered to be a wastewater treatment unit part of a wastewater treatment system that discharges subject to CWA §402 (NPDES) (O.A.C. 3745-54) regulations. As such, this tank is excluded from regulation under RCRA in both the hazardous waste and UST regulations [40 CFR Part 264 (O.A.C. 3745-54) and 40 CFR Part 280 (O.A.C. 1301: 7-9), respectively].

2.1.12. SW Building, Room SW8: Beta Wastewater Tank (Tank 20)

A 200-gallon, stainless-steel-lined steel tank primarily collects beta wastewaters (also some alpha) from processes in rooms SW8, 19, and 13. The tank drains via aboveground piping to the beta wastewater influent tanks (Subsection 2.1.7.) at WD Building Annex.

Due to its function in nuclear operations at Mound Plant this tank is subject to the AEA. The tank is not subject to RCRA as it does not contain hazardous wastes (EG&G, 1990b). Although this tank does receive "regulated substances" in the form of radionuclides, it is deferred from most of the requirements of 40 CFR Part 280 since it falls into the category of UST systems "containing radioactive material that are regulated under the Atomic Energy Act of 1954," per 40 CFR 280.10(c)(2). It is completely exempt from Ohio UST regulations per O.A.C. 1301: 7-9(A)(8).

2.1.13. SW Building, Room SW125: Beta Wastewater Tank (Tank 21)

A 100-gallon, stainless-steel-lined steel tank collects beta wastewater generated in Room SW125 by the decontamination of SW Building process equipment. The tank drains via aboveground piping to the beta wastewater influent tanks (Subsection 2.1.7.) at WD Building Annex.

Due to its function in nuclear operations at Mound Plant this tank is subject to the AEA. This tank is not subject to RCRA as it does not contain hazardous wastes (EG&G, 1990b). Although this tank does receive "regulated substances" in the form of radionuclides, it is deferred from most of the requirements of 40 CFR Part 280 as a UST system "containing radioactive material that are regulated under the Atomic Energy Act of 1954," per 40 CFR 280.10(c)(2). It is completely exempt from Ohio UST regulations per O.A.C. 1301: 7-9 (A)(8).

2.1.14. SW Building, Room SW143: Beta Wastewater Tank (Tank 22)

A 100-gallon, stainless-steel-lined steel tank collects beta wastewaters from production processes in SW Building. The tank drains via aboveground piping to the beta wastewater influent tanks (Subsection 2.1.7.) at WD Building Annex.

Due to its function in nuclear operations at Mound Plant this tank is subject to the AEA. This tank is not subject to RCRA as it does not contain hazardous wastes (EG&G, 1990b). Although this tank does receive "regulated substances" in the form of radionuclides, it is deferred from most of the requirements of 40 CFR Part 280 as a UST system "containing radioactive material that are regulated

under the Atomic Energy Act of 1954," per 40 CFR 280.10(c)(2). It is completely exempt from Ohio UST regulations per O.A.C. 1301: 7-9-08(A)(8).

2.1.15. SW Building, Room SW137: Alpha Wastewater Sump (Tank 23)

A 200-gallon, stainless-steel sump is used to collect alpha wastewaters from the "Hot Cell" process as well as a sink and personnel decontamination shower in the process area. Wastewaters accumulated in the sump are pumped into 30-gallon drums that are taken to WD Building. Due to the unique nature of the wastewaters, they are treated in the beta wastewater treatment system in WD Building. The sump is inactive and has been declared surplus but has not been closed. D&D activities are planned but not scheduled (Andersen, 1991h). The sump will be considered closed when D&D activities are completed.

Due to its function in nuclear operations at Mound Plant this sump is subject to the AEA. The sump is not subject to RCRA as it did not receive hazardous wastes (EG&G, 1991b). Although the sump did receive "regulated substances" in the form of radionuclides, it is deferred from most of the requirements of 40 CFR Part 280 as "UST systems containing radioactive material that are regulated under the Atomic Energy Act of 1954," per 40 CFR Part 280.10(c)(2). It is completely exempt from Ohio UST regulations, per O.A.C. 1301: 7-9-08(A)(8).

2.1.16. Building HH, Outside at West End: Beta Wastewater Sump (Tank 24)

An estimated 200-gallon sump (construction details were not available) is used to collect beta wastewater from process area sinks and floor drains. The sump drains via piping to beta wastewater treatment in WD Building.

Due to its function in nuclear operations at Mound Plant this tank is subject to the AEA. The tank is not subject to RCRA as it does not contain hazardous wastes (EG&G, 1990b). Although this tank does receive "regulated substances" in the form of radionuclides, it is deferred from most of the requirements of 40 CFR Part 280 since it falls into the category of UST systems "containing radioactive material that are regulated under the Atomic Energy Act of 1954," per 40 CFR 280.10(c)(2). It is completely exempt from Ohio UST regulations per O.A.C. 1301: 7-9(A)(8).

2.1.17. Building 38: West Dock Sump (Tank 25)

This 5,000-gallon concrete sump is used to collect precipitation and also serves to collect any potentially spilled waste material from a bermed radiologic waste drum storage pad. Liquids collected

are tested for radiological contaminants prior to release to a plant drainage ditch that ultimately discharges off site, subject to CWA §402 (NPDES) (O.A.C. 3745-33). No wastes have been spilled on the pad, and liquids collected in the sump have never been found to be contaminated (Andersen, 1991a). If the collected liquids are contaminated, they would be pumped into containers and transported to the WD Building for processing as radioactive wastes.

Due to its function in nuclear operations at Mound Plant this sump is subject to the AEA. This tank is not subject to regulation under RCRA as a hazardous waste tank, as a UST under 40 CFR Part 280 (O.A.C. 1301: 7-9), nor under CERCLA since the sump reportedly has never held anything other than rainwater.

2.1.18. Building 38: Alpha Wastewater Sumps (Tanks 26 and 27)

Two 300-gallon, steel-lined, concrete sumps in Building 38 are used to collect potentially radioactive wastewaters from drains and showers (Kitzke, 1992). The sumps drain to a 10,000-gallon, stainless-steel aboveground storage tank located outside of the building. The exterior tank is periodically vacuum transferred to a tanker truck and transferred to the alpha wastewater treatment system in WD Building.

Due to their function in nuclear operation at Mound Plant these sumps are subject to the AEA. These sumps are considered to be wastewater treatment units and part of a wastewater treatment system that discharges subject to CWA § 402 (NPDES)(O.A.C. 3745-33) regulations. As such, these sumps are excluded from regulation under RCRA in both the hazardous waste and UST regulations [40 CFR Part 264 (O.A.C. 3745-54) and 40 CFR Part 280 (O.A.C. 1301: 7-9), respectively].

2.1.19. A Building: Medical Decontamination Shower Water Tanks (Tanks 28 and 29)

There are two 400-gallon, PVC-lined steel tanks that collect wastewater from the medical decontamination showers. The wastewater in the tanks is sampled and if found to be non-radioactive is pumped to sanitary waste treatment at SD Building. If the wastewater is found to be radiologically contaminated, it would be transferred to the 30,000-gallon, alpha-wastewater influent tanks at WD Building (Subsection 2.1.3.); however, to date, the results of sampling of these liquids have not indicated that they are radiologically contaminated.

Due to their function in nuclear operations at Mound Plant these tanks are subject to the AEA. These tanks are considered to be wastewater treatment units and part of a wastewater treatment system that discharges subject to CWA §402 (NPDES) (O.A.C. 3745-33) regulations. As such, these tanks are

excluded from regulation under RCRA in both the hazardous waste and UST regulations [40 CFR Part 264 (O.A.C. 3745-54) and 40 CFR Part 280 (O.A.C. 1301: 7-9), respectively].

2.2. OTHER ACTIVE TANKS

The following are other active USTs that have been identified at Mound Plant based on available documentation and communication with Mound Plant personnel.

2.2.1. Building 37: Sanitary Waste Tank (Tank 100)

A 500-gallon, unlined, steel sanitary waste tank serves as a lift station for sanitary wastes received from Buildings 37 and 88. The wastes are then pumped to sanitary waste treatment at the Building 57 New Sewage Disposal Area. This tank was originally installed to receive radioactively contaminated wastes; however, the tank has never received such wastes (Wilson, 1990b).

This tank is part of a wastewater treatment system that discharges subject to CWA §402 (NPDES) (O.A.C. 3745-33) regulations. Since this tank has received only sanitary waste, it is not subject to RCRA hazardous waste tank regulations nor 40 CFR Part 280 (O.A.C. 1301: 7-9). Unless it is determined that hazardous substances that pose a threat to human health or the environment are present in the tank, the tank is not subject to CERCLA. Should wastes other than sanitary wastes be introduced to the tank, it would still not be subject to RCRA or UST regulations since it is considered a wastewater treatment unit.

2.2.2. Building 57: New Sewage Disposal Area (Tanks 101 through 112)

Several of the units described below, which are part of the operating sanitary wastewater treatment plant, are below-grade tanks (DOE, 1991c). Each of these is a wastewater treatment unit and part of a wastewater treatment system that discharges subject to CWA §402 (NPDES) (O.A.C. 3745-33) regulations. As such, they are excluded from regulation under RCRA in both the hazardous waste tank and UST regulations [40 CFR Part 264 (O.A.C. 3745-54) and 40 CFR Part 280 (O.A.C. 1301: 7-9), respectively]. The sanitary wastewater treatment system receives sanitary and industrial process effluent, including spent solvents from laboratory sinks and floor drains. Sources of wastewater treated by all units in the sanitary wastewater treatment system include restrooms, showers, laundry facilities, lab sinks, and rinse from a small metal-finishing operation. The system has been in service since 1975 and includes a total of 12 tanks in the system. A description of each of the below-grade units in the sanitary wastewater treatment system follows.

The grit chamber is the first treatment unit in the system. It is an open-topped, in-ground tank approximately 10 feet on each side and 10 to 12 feet deep. The sides and bottom of the unit are constructed of 12-inch-thick concrete. Wastewater enters the chamber by gravity flow through a below ground pipe. In the grit chamber, heavy solids settle out of the wastewater and are raked into a grit conveyor. The collected solids are then dried in sludge drying beds before they are disposed of by the DOE site in Nevada by its authority under the AEA. Wastewater effluent is discharged from the grit chamber to the comminutor.

The comminutor is an open-topped, in-ground unit that receives wastewater effluent from the grit chamber. The bottom and sides of the unit are lined with concrete. At the comminutor, the floating or suspended solids are cut into smaller, more uniform pieces to improve the efficiency of downstream treatment operations. The comminutor is approximately 5 feet on a side and 10 feet deep. Treated effluent is discharged from the comminutor to the equalization basins.

The four concrete equalization basins are in-ground, open-topped units that receive wastewater from the comminutor. The function of the equalization basins is to mix the wastewater to keep solids in suspension and to maintain aerobic conditions. Effluent is discharged from the equalization basins to the aeration basins.

The two aeration basins are in-ground, open-topped units that receive effluent from the equalization basins. The bottom and sides of the basins are metal. Wastewater in the aeration basins is aerated to improve its treatability and to promote uniform distribution of suspended solids. The basins are approximately 40 feet long, 20 feet wide, and 10 feet deep. Aerated effluent is discharged from the basins to the clarifiers.

The two clarifiers are in-ground, open-topped units that receive wastewater effluent from the aeration basins. The clarifiers have metal sides and bottoms. The objective of clarification is to remove readily settleable solids and floating material to reduce the suspended solids content. The clarifiers are approximately 20 feet long, 10 feet wide, and 10 feet deep. Clarified effluent is discharged to the aboveground sand filters for further treatment. Sludge produced in the clarifiers is mechanically dried, containerized, and shipped off-site for disposal.

The two concrete chlorine contact chambers are the final treatment units in the system. Each chamber is approximately 3 feet on a side and approximately 10 feet deep; the chambers are rectangular and open topped. Chlorine is added to the wastewater as a disinfectant prior to discharge. Chlorinated effluent is discharged from the chlorine contact chambers to the Great Miami River via NPDES Outfall 001.

2.2.3. P Building: Fuel Oil Tanks (Tanks 113, 114, 115, and 116)

Four 25,000-gallon day tanks are used to store Number 2 fuel oil for the central heating plant and serve as alternate fuel backup for natural gas-fired boilers. The boilers are used for Plant heating. All four tanks are cathodically protected steel and two are also externally coated. A stand-by electric generator, which is diesel engine driven, draws its fuel from one of the 25,000 gallon tanks. The stand-by generator provides redundant electric power for the heating plant controls.

These tanks are subject to the AEA and management activities for these tanks are conducted in accordance with DOE orders specifying the requirements for operation and maintenance of such facilities. The soils around the tanks have historically been contaminated with surface spills of fuel oil and are the subject of an investigation conducted for Operable Unit 3. These tanks, together with the aboveground, 300,000-gallon fuel oil tank near Building 27 that supplies the tanks via overhead piping, are listed on the Department of Defense national emergency fuel reserve. Because these tanks are only used to store product heating fuel for consumptive use on the premises where stored, they are excluded from the requirements of 40 CFR 280 and O.A.C. 1301: 7-9. Operation, maintenance, upgrade, and closure of the tanks is the responsibility of the Engineering Maintenance Program at Mound Plant within the facility management department. In addition, the tanks are not subject to any other tank-related regulatory authorities.

2.2.4. R/SW/T Buildings Stack: Diesel Fuel Storage Tank (Tank 117)

Tank 117 is a 5,000-gallon, unlined, steel tank used to supply diesel fuel to Emergency Generator Number 1. As a UST that stores fuel solely for use by an emergency power generator, this tank must also comply with the requirements of 40 CFR Part 280 and O.A.C. 1301: 7-9 under EPA UST regulations. It is subject to a limited deferral under 40 CFR Part 280; however, Ohio UST regulations do not provide any such deferral. This tank must be managed in accordance with O.A.C. 1301: 7-9, as implemented by the Ohio BUSTR.

2.2.5. Building 57: Diesel Fuel Storage Tank (Tank 118)

Tank 118 is an 850-gallon, fiberglass-reinforced-plastic (FRP) tank is used to supply diesel fuel to an emergency generator. This tank must be managed in accordance with O.A.C. 1301: 7-9, as implemented by the Ohio BUSTR. As a UST that stores fuel solely for use by an emergency power generator, this tank must comply with the requirements of 40 CFR Part 280 and O.A.C. 1301: 7-9 under EPA UST regulations. It is subject to a limited deferral under 40 CFR Part 280; however, Ohio UST regulations do not provide any such deferral.

2.2.6. Building M, Room M108: Metal Plating Rinse Water Tank (Tank 119)

A 250-gallon, epoxy-lined concrete tank is used to collect metal plating rinse water prior to discharge to sanitary waste treatment at the Building 57 New Sewage Disposal Area. This tank is considered to be a wastewater treatment unit and part of a wastewater treatment system that discharges subject to CWA §402 (NPDES) (O.A.C. 3745-33) regulations. As such, this tank is excluded from regulation under RCRA in both the hazardous waste and UST regulations [40 CFR Part 264 (O.A.C. 3745-54) and 40 CFR Part 280 (O.A.C. 1301: 7-9), respectively].

2.2.7. R Building: Sanitary Waste Collection Tank (Tank 120)

A 500-gallon, unlined, stainless-steel tank is used to collect sanitary waste. The tank was originally constructed because an operation in the building could have caused the wastewater to be radioactively contaminated; however, the operation was never initiated. The tank drains to the Building 57 New Sewage Disposal Area for sanitary waste treatment.

This tank is part of a wastewater treatment system that discharges subject to CWA §402 (NPDES) (O.A.C. 3745-33) regulations. Since this tank has received only sanitary waste it is not subject to RCRA hazardous waste tank regulations or 40 CFR Part 280 (O.A.C. 1301: 7-9). Unless it is determined that hazardous substances that pose a threat to human health or the environment are present in the tank, the tank is not subject to CERCLA. Should wastes other than sanitary wastes be introduced to the tank, it would still not be subject to RCRA or UST regulations since it is considered to be a wastewater treatment unit.

2.2.8. Building 38: Diesel Fuel Storage Tank (Tank 121)

Tank 121 is a 4,000-gallon, unlined, steel tank is used to supply diesel fuel to Emergency Generator Number 2. This tank must be managed in accordance with O.A.C. 1301: 7-9, as implemented by the Ohio BUSTR. As a UST that stores fuel solely for use by an emergency power generator, this tank must comply with the requirements of 40 CFR Part 280 and (O.A.C. 1301: 7-9). Under EPA UST regulations, it is subject to a limited deferral under 40 CFR Part 280; however, Ohio UST regulations do not provide any such deferral.

2.2.9. Building TF2: Diesel Fuel Storage Tank (Tank 122)

Although reported in the Mound Plant UST Plan as an active underground diesel fuel storage tank (NUS, 1989), Mound Plant documentation and discussions with Mound Plant personnel indicate that this tank was actually an aboveground propane tank that formerly supplied an emergency generator (Andersen, 1990a; Burdg, 1991b). Although it has been recently reported that a heating fuel oil UST existed near Building TF2 in the 1950s to 1960s (Hill, 1992), unless additional information is found to confirm the existence of such a tank, the ER Program (FFA) will continue on the assumption that only a propane tank existed at that location. As a result, the tank and its location can be deleted as a concern as a UST.

2.2.10. Building 27: Diesel Fuel Storage Tank (Tank 123)

Although reported as an active underground diesel fuel storage tank in the Mound Plant UST Plan, Mound Plant documentation and discussions with Mound Plant personnel indicate that this tank was actually an aboveground propane tank that formerly supplied an emergency generator (Andersen, 1990a; Burdg, 1991b). The propane tank may also have been used to supply trailers in the area of Building 27 (Fischbein, 1992). As a result, the tank and its location can be deleted as a concern as a UST.

2.2.11. Building T, Room T1: Cooling Water Sump (Tank 124)

A 350-gallon, steel-lined concrete sump, designated on construction drawings as Sump #1, is used to collect single pass, non-contact cooling water from equipment cooling systems. The sump drains via pressurized piping to the Mound Plant stormwater system that discharges pursuant to CWA §402 (NPDES) (O.A.C. 3745-33). The tank is reported to have received only cooling water and, accordingly, is not subject to RCRA hazardous waste or UST regulations (Andersen, 1991e).

2.2.12. Building T, Corridor 2: Sanitary Wastewater Sump (Tank 125)

A 350-gallon, steel-lined concrete sump, designated on construction drawings as Sump #2, collects sanitary wastewater from restrooms. The sump drains via pressurized piping to sanitary waste treatment at the Building 57 New Sewage Disposal Area Building.

This tank is and part of a wastewater treatment system that discharges subject to CWA §402 (NPDES) (O.A.C. 3745-33) regulations. Since this tank has received only sanitary waste, it is not subject to RCRA hazardous waste tank regulations nor 40 CFR Part 280 (O.A.C. 1301: 7-9). Unless it is

determined that hazardous substances have been released from the tank that pose a threat to human health or the environment, the tank is not subject to the FFA. Should wastes other than sanitary wastes be introduced to the tank, it would still not be subject to UST regulations since it is considered a wastewater treatment unit.

2.2.13. Building T, Room T11F: Sanitary Wastewater Sump (Tank 126)

A 350-gallon, steel-lined concrete sump, designated on construction drawings as Sump #4, collects sanitary wastewater from non-work area floor drains and sinks. The sump drains via pressurized piping to sanitary waste treatment at the Building 57 New Sewage Disposal Area.

This tank is part of a wastewater treatment system that discharges subject to CWA §402 (NPDES) (O.A.C. 3745-33) regulations. Since this tank has received only sanitary waste, it is not subject to RCRA hazardous waste tank regulations nor 40 CFR Part 280 (O.A.C. 1301: 7-9). Unless it is determined that hazardous substances have been released from the tank that pose a threat to human health or the environment, the tank is not subject to the FFA. Should wastes other than sanitary wastes be introduced to the tank, it would still not be subject to UST regulations since it is considered a wastewater treatment unit.

2.2.14. Building T, Room T15: Sanitary Wastewater Sump (Tank 127)

A 350-gallon, steel-lined concrete sump, designated on construction drawings as Sump #17, is used to collect sanitary wastewater from restrooms and non-work area sinks. The sump drains via pressurized piping to sanitary waste treatment at the Building 57 New Sewage Disposal Area.

This tank is part of a wastewater treatment system that discharges subject to CWA §402 (NPDES) (O.A.C. 3745-33) regulations. Since this tank has received only sanitary waste, it is not subject to RCRA hazardous waste tank regulations nor 40 CFR Part 280 (O.A.C. 1301: 7-9). Unless it is determined that hazardous substances that pose a threat to human health or the environment are present in the tank, the tank is not subject to CERCLA. Should wastes other than sanitary wastes be introduced to the tank, it would still not be subject to UST regulations since it is considered a wastewater treatment unit.

2.2.15. Building T, Stair 3: Cooling Water Sump (Tank 128)

A 350-gallon, steel-lined concrete sump, designated on construction drawings as Sump #15, is used to collect cooling water and condensate from floor drains in the air handling area. The sump drains

via pressurized piping to the Mound Plant stormwater system that discharges pursuant to CWA §402 (NPDES) (O.A.C. 3745-33). The tank is reported to have received only cooling water and condensate and, therefore, is not subject to RCRA hazardous waste or UST regulations (Andersen, 1991e).

2.2.16. Building T, Room T-78: Steam Condensate Sump (Tank 129)

A 350-gallon, steel-lined concrete sump, designated on construction drawings as Sump #16, is used to collect steam condensate from the heating system in the air handling area. The sump drains via pressurized piping to the Mound Plant stormwater that discharges pursuant to CWA §402 (NPDES) (O.A.C. 3745-33). The tank is reported to have received only steam condensate and, therefore, is not subject to RCRA hazardous waste or UST regulations (Andersen, 1991e).

2.2.17. Building T, Corridor 8: Sanitary Wastewater Sump (Tank 130)

A 350-gallon, steel-lined concrete sump, designated on construction drawings as Sump #18, is used to collect sanitary wastewater from restrooms and non-work area sinks. The sump drains via pressurized piping to sanitary waste treatment at the Building 57 New Sewage Disposal Area.

This tank is part of a wastewater treatment system that discharges subject to CWA §402 (NPDES) (O.A.C. 3745-33) regulations. Since this tank has received only sanitary waste, it is not subject to RCRA hazardous waste tank regulations nor 40 CFR Part 280 (O.A.C. 1301: 7-9). Unless it is determined that hazardous substances have been released from the tank that pose a threat to human health or the environment, the tank is not subject to the FFA. Should wastes other than sanitary wastes be introduced to the tank, it would still not be subject to RCRA or UST regulations since it is considered a wastewater treatment unit.

2.2.18. Building T, Room T-78A: Sanitary Wastewater Sump (Tank 131)

A 350-gallon, steel-lined concrete sump, designated on construction drawings as Sump #14, is used to collect sanitary wastewaters from restrooms. The sump drains via pressurized piping to sanitary waste treatment at the Building 57 New Sewage Disposal Area.

This tank is part of a wastewater treatment system that discharges subject to CWA §402 (NPDES) (O.A.C. 3745-33) regulations. Since this tank has received only sanitary waste, it is not subject to RCRA hazardous waste tank regulations nor 40 CFR Part 280 (O.A.C. 1301: 7-9). Unless it is determined that hazardous substances have been released from the tank that pose a threat to human health or the environment, the tank is not subject to the FFA. Should wastes other than sanitary

wastes be introduced to the tank, it would still not be subject to RCRA or UST regulations since it is considered a wastewater treatment unit.

2.2.19. Building T, Room T90: Cooling System Condensate Sump (Tank 132)

A 350-gallon, steel-lined concrete sump, designated on construction drawings as Sump #19, is used to collect condensate from cooling units in the air handling area. The sump drains via pressurized piping to the Mound Plant stormwater system that discharges pursuant to CWA §402 (NPDES) (O.A.C. 3745-33). The tank is reported to have received only cooling system condensate and, therefore, is not subject to RCRA hazardous waste or UST regulations (Andersen, 1991e).

2.2.20. Building T, Room T99: Sanitary Wastewater Sump (Tank 133)

A 350-gallon, steel-lined concrete sump, designated on construction drawings as Sump #21, is used to collect sanitary wastewater from restrooms. The sump drains via pressurized piping to sanitary waste treatment at the Building 57 New Sewage Disposal Area.

This tank is part of a wastewater treatment system that discharges subject to CWA §402 (NPDES) (O.A.C. 3745-33) regulations. Since this tank has received only sanitary waste, it is not subject to RCRA hazardous waste tank regulations nor 40 CFR Part 280 (O.A.C. 1301: 7-9). Unless it is determined that hazardous substances have been released from the tank that pose a threat to human health or the environment, the tank is not subject to the FFA. Should wastes other than sanitary wastes be introduced to the tank, it would still not be subject to RCRA or UST regulations since it is considered a wastewater treatment unit.

2.2.21. WD Building Sub-Basement, Room 01: Sanitary Waste Sump (Tank 134)

A rectangular, 400-gallon, steel-lined, concrete sump located in the sub-basement of the WD Building is used to collect sanitary wastes. Wastes collected in the sump drain to the Building 57 New Sewage Disposal Area for sanitary waste treatment.

This tank is part of a wastewater treatment system that discharges subject to CWA § 402 (NPDES)(O.A.C. 3745-33) regulations. Since this sump has received only sanitary waste, it is not subject to RCRA hazardous waste tank regulations or 40 CFR part 280 (O.A.C. 1301: 7-9). Unless it is determined that hazardous substances that pose a threat to human health or the environment are present in the sump, the sump is not subject to CERCLA. Should wastes other than sanitary wastes

be introduced to the tank, it would still not be subject to RCRA hazardous waste or UST regulations because it is considered a wastewater treatment unit.

2.2.22. WD Building Annex Basement: Sanitary Waste Tank (Tank 135)

A 3.5-foot diameter (construction information was not available) tank located adjacent to the north wall of the WD Building Annex basement is used to collect sanitary wastewater from shower and toilet facilities in the WD Building Annex penthouse. The tank drains to the Building 57 New Sewage Disposal Area for sanitary waste treatment.

This tank is part of a wastewater treatment system that discharges subject to CWA § 402 (NPDES)(O.A.C. 3745-33) regulations. Since this sump has received only sanitary waste, it is not subject to RCRA hazardous waste tank regulations or 40 CFR part 280 (O.A.C. 1301: 7-9). Unless it is determined that hazardous substances that pose a threat to human health or the environment are present in the sump, the sump is not subject to CERCLA. Should wastes other than sanitary wastes be introduced to the tank, it would still not be subject to RCRA hazardous waste or UST regulations because it is considered a wastewater treatment unit.

2.2.23. Building 85, Waste Solvent Tank (Tank 136)

A 450-gallon, stainless-steel tank at Building 85 was intended for use as a waste solvent collection tank for explosives processing. The tank is below grade in a concrete "coffin" covered by a metal lid. Neither the building nor the tank have been put into service. Mound personnel report that when operations are initiated in Building 85, the tank will not be used because of design concerns (Kabot, 1992a). As a result, the tank will not be a potential source and will not be a regulated unit. Accordingly, the tank and its location can be deleted as a concern as an UST.

2.3. INACTIVE TANKS

The following are inactive USTs and former UST sites identified at Mound Plant based on available documentation and communications with Mound Plant personnel.

2.3.1. Buildings 1 and 43: Explosives Wastewater Settling Basins (Tanks 200 and 201)

To the west of Building 1 and Building 43 are concrete settling basins (one west of each building) that were formerly used to filter and settle out explosives elements in an explosives production process waste stream. After passing through the basins, wastes from both units would drain to an evaporation

pond west of Building 1, which is described in Operable Unit 3 as the Area 1, Building 1 leach pit (Andersen, 1990c). The unit at Building 43 is the same 500-gallon concrete basin described in the discussion of Tank 221 in Subsection 2.3.10. The Building 1 basin was identified as a SWMU during the visual site inspection (VSI) portion of an RFA conducted in 1988 and 1990 (EPA, 1988). The Building 1 unit was assigned to the ER Program and upon further review it was determined that no further action was necessary. As inactive waste units, both the basins may be subject to RCRA hazardous waste management requirements unless it can be determined that hazardous wastes were not introduced to them or that the units are otherwise exempt. Unlike the Building 1 basin, the basin at Building 43 was not identified as a SWMU nor was it assigned to the ER Program.

It should be noted that the Mound UST Plan (NUS, 1989) identified a 500-gallon solvent tank immediately adjacent to Building 43. When Mound Plant engineers visited the area to plan closure activities, they found that there were two tanks in proximity to Building 43. The first was a 500-gallon concrete settling basin formerly used to process explosives production wastewaters from Building 43. The second was a 1,000-gallon stainless-steel tank installed to store solvents, but was never used. Consequently, there is no "500-gallon solvent tank," and Mound Plant has identified the 500-gallon concrete settling basin as Tank 201 and the 1,000-gallon stainless-steel tank as Tank 221 for the purposes of this document.

2.3.2. G Building: Gasoline Tanks (Tanks 202, 203, and 204)

Two 4,000-gallon, unlined, steel tanks and one 5,000-gallon FRP tank were used to supply gasoline at G Building. All three tanks were closed by removal during the summer of 1986.

As closed tank sites, the locations are subject to the FFA to the extent that the potential for hazardous substances released to the environment will be investigated and such releases remediated, as appropriate.

2.3.3. Old SD Building: Sanitary Waste Treatment Tanks (Tanks 205, 206, and 207)

Two 7,500-gallon and one 30,000-gallon, unlined, concrete tanks were used in sanitary waste treatment at the old SD Building next to the WD Building. Although they are still in place, these inactive tanks were reportedly last used in 1975 (Andersen, 1990c). These tanks are surplus and reportedly received low levels of plutonium-contaminated sediments (Wilson, 1990a).

Because of their function in nuclear operations, the tanks are subject to the AEA. They are scheduled for removal as part of the D&D Program. The tanks lie within a D&D Program project and an ER

Program (FFA) site, Area 4a WD Building Influent Tank Overflow and Sewage Pit. Following removal, the tank sites will be investigated by the D&D Program. The tanks will be considered closed upon completion of D&D activities.

2.3.4. Building 41: Alpha Wastewater Tanks (Tanks 208 and 209)

Two 3,466-gallon, stainless-steel-lined steel tanks were formerly used to collect alpha wastewaters from the SM and PP Buildings. Collected wastewaters were pumped via the old waste transfer system underground line to the 30,000-gallon, alpha-wastewater influent tanks (Subsection 2.1.3.) at WD Building. The tanks are reported to have been removed in September 1986 (Andersen, 1991h). Radioactively contaminated soils with levels above Mound Plant guidelines were removed by the D&D Program pursuant to the AEA.

The tanks lie within a completed D&D Program project and are considered closed. Because of evidence of a release from the tanks systems, the tanks are subject to the FFA and are part of an ER Program site, Area 14 – Radioactive Waste Line Break.

2.3.5. SM Building: Alpha Wastewater Tanks (Tanks 210, 211, 212, and 213)

Four tanks of 5,000-, 3,000-, 1,000-, and 1,000-gallon capacity were located at the SM Building. The 5,000-gallon and 3,000-gallon tanks were constructed of unlined steel, while the two 1,000-gallon tanks were constructed of bituminous-lined steel. These tanks were formerly used to collect alpha wastewater and they drained to two 3,466-gallon, alpha-wastewater tanks (Subsection 2.3.4.) for transfer to the alpha-wastewater treatment system at WD Building. The 5,000-gallon and the 3,000-gallon tanks are reported to have been removed in June 1986 (NUS, 1989), while the two 1,000-gallon tanks are reported to have been similarly removed in January 1988 (Andersen, 1991h). All four tanks were reportedly last used in 1972 (Andersen, 1990c).

Because of their function in nuclear operations, the tanks are subject to the AEA. Radioactively contaminated soils remain at the tank locations above Mound Plant guidelines and must be remediated by the D&D Program pursuant to the AEA. The tanks lie within a D&D project and ER Program site, Area 17 – SM Building area. After the D&D activities are completed, the tank will be considered closed.

2.3.6. WD Building Annex: Alpha Effluent Tanks (Tanks 214, 215, and 216)

Three 3,750-gallon, PVC-lined steel tanks were formerly used to collect effluent alpha wastewaters. Although still in place, the tanks were reportedly last used in 1975 (Wilson, 1990a). The tanks are inactive and have been declared surplus. D&D activities are planned but not scheduled (Andersen, 1991h).

Because of their function in nuclear operations, the tanks are subject to the AEA. After D&D activities are completed, the tanks will be considered closed.

2.3.7. Building 27: Explosives Waste Flume and Settling Sump (Tanks 217 and 218)

The Building 27 waste flume is a concrete trench of approximately 100-gallon capacity, formerly used to convey waste to the Building 27 sump. Since the sump was taken out of service in 1985, the connection between the flume and the sump was blocked off effectively changing the flume into a sump. Waste received by the flume contains the same constituents described for the Building 27 sump and were considered to be hazardous waste. Wastes accumulated in the flume sump were pumped to drums twice daily.

The Building 27 settling sump is similar to those discussed above at Buildings 1 and 43 (Section 2.3.1.) (DOE, 1991a). The sump is concrete and was used to collect waste from Building 27 and filter it to remove suspended contaminants. Filtered effluent was then discharged through an underground pipeline to the Building 27 leach pit, which is described in Operable Unit 3 as the Area 1, Building 27 leach pit. Waste received by the sump contained acetone, ethanol, and high explosives that have been determined to be RCRA hazardous wastes. Use of the sump for the function described above was discontinued in 1985. Since 1985, the sump has been used as a contingency tank for the Building 27 waste flume; however, the sump has reportedly held no waste-related contents since 1985 (Fischbein, 1992). The flume was used as a generator accumulation sump from 1985 to October 1991.

While the settling sump might have been considered a RCRA hazardous waste management unit because of its use prior to 1985, both the settling sump and the waste flume were identified as SWMUs during the VSI portion of an RFA in 1988 and 1990. Pursuant to their designation as SWMUs, the DOE directed the ER Program to further investigate the two units. Both the sump and the flume were assigned to the ER Program Operable Unit 3. Soils at the two locations were sampled in the summer of 1991, and analytical results are forthcoming.

As discussed above, the Building 27 waste flume was converted in 1985 to a hazardous waste generator accumulation tank that held waste for less than 90 days. The former settling sump served as secondary containment capacity for the flume. Use of the flume and the sump for this purpose was discontinued on October 1, 1991. Based on communications with the Waste Management Program, the tank system will be closed in accordance with the tank closure requirements applicable to RCRA hazardous waste generator tanks (Andersen, 1991b). Waste Management closure activities will be coordinated with the ER Program (FFA) which is currently conducting investigations in the area.

2.3.8. Building 34: Aviation Fuel Storage Tank (Tank 219)

A 5,000-gallon, unlined, steel tank was formerly used to supply aviation fuel to a container burn test unit. The tank was reportedly last used in 1972 and was removed by the Mound Plant Engineering Program in compliance with Ohio's BUSTR Program on November 27, 1990 (Andersen, 1990c). A preliminary closure assessment was conducted and the results indicated that hazardous fuel constituents had been released to the environment (Bowser-Morner, 1991). A BUSTR closure of the tank has not been completed and, accordingly, the tank is currently subject to BUSTR requirements.

Due to the apparent release, the potential threat posed to human health and the environment, and previous commitments, the tank has been assigned to ER Program Operable Unit 3. Analytical results from the Operable Unit 3 sampling of the site were documented in the ER Program Report "Closure Report, Building 34–Aviation Fuel Storage Tank." This "Closure Report" was submitted to the BUSTR with a request to close the file on the tank in September 1992.

2.3.9. Building 51: Waste Solvent Storage Tank (Tank 220)

A 1,000-gallon, unlined, steel tank was formerly used to store waste oil and some small quantities of solvents prior to incineration in Building 51. When the tank was last used in 1972, remaining waste solvents were pumped out and incinerated. Most incineration equipment in Building 51 was removed by 1975. The tank is reported to have been closed in place in accordance with standard industry practice in 1972 (Andersen, 1990c). The tank was removed on December 6, 1990, by the Mound Plant Engineering Program in compliance with Ohio's BUSTR Program. A preliminary closure assessment was conducted and the results indicated that hazardous substances had been released to the environment (Bowser-Morner, 1991). A BUSTR closure of the tank has not been completed and, accordingly, the tank is currently subject to BUSTR requirements.

Due to the apparent release, the potential threat posed to human health and the environment, and previous commitments, the tank has been assigned to ER Program Operable Unit 3. Analytical results

from the Operable Unit 3 sampling of the site are documented in the ER Program report "Closure Report, Building 51-Waste Storage Tank." This "Closure Report" was submitted to the BUSTR with a request to close the file on the tank in September 1992.

2.3.10. Building 43: Solvent Storage Tank (Tank 221)

This 1,000-gallon, stainless-steel tank was originally constructed to store acetone or alcohol solvents for use in Building 43. The stainless-steel tank reportedly has never been used and at removal still contained the water used in hydrostatic testing when the tank was installed (Burdg, 1991b). Laboratory results confirmed the contents to be deionized water (Bowser-Morner, 1991). The tank was closed by removal on November 29, 1990, in accordance with BUSTR requirements. Accordingly, because the tank has been removed and had only contained water, the tank should be deleted as a concern as a UST.

It should be noted that the Mound UST Plan (NUS, 1989) identified a 500-gallon solvent tank immediately adjacent to Building 43. When Mound Plant engineers visited the area to plan closure activities they found that there were two tanks in proximity to Building 43. The first was a 500-gallon concrete settling basin formerly used to process explosives production wastewaters from Building 43. The second was a 1,000-gallon stainless-steel tank installed to store solvents, but was never used. Consequently, there is no "500-gallon solvent tank," and Mound Plant has identified the 500-gallon concrete settling basin as Tank 201 and the 1,000-gallon stainless-steel tank as Tank 221 for the purposes of this document.

2.3.11. Building 58: Diesel Fuel Storage Tank (Tank 222)

This 3,000-gallon, unlined, steel tank was formerly used to supply diesel fuel to Emergency Generator Number 1. The tank is reported by Mound Plant personnel to have been closed by removal in December 1989 (Andersen, 1990c). As a closed tank site, the location will be investigated by the ER Program (FFA) in Operable Unit 2 to determine if evidence of a release exists.

2.3.12. Building 56: Diesel Fuel Storage Tank (Tank 223)

This 825-gallon, unlined steel tank was formerly used to supply diesel fuel to an emergency power generator. The tank is reported by Mound Plant site personnel to have been closed by removal in December 1989 (Andersen, 1990c). As a closed tank site, the location will be investigated by the ER Program (FFA) in Operable Unit 2 to determine if evidence of a release exists.

2.3.13. Building 29, East of Building: Historic Septic Tank (Tank 224)

An estimated 1,500- to 3,000-gallon poured concrete septic tank located in Area 7 near Building 29 was constructed in the late 1940s for use during the original Mound Plant construction activities; it was abandoned in the 1950s (DOE, 1991c; Kabot, 1992b). The tank was built without a leach field and apparently drained directly to a ravine. In 1959 or 1960, approximately three truck loads of soil and gravel, estimated to be 200 cubic feet, containing radium-226, actinium-227, and thorium-228 were disposed of in the inactive septic tank. The soil and gravel resulted from excavation and construction activities at SW Building. The septic tank site is a part of Area 7 at Mound Plant, which has been assigned to the ER Program (FFA) in Operable Unit 5 for investigation.

2.3.14. Building M, Room M38: Metal Plating Rinse Water Sump (Tank 225)

A 350-gallon, concrete sump was formerly used to collect rinse water from a metal plating operation prior to discharge to sanitary waste treatment at SD Building. Although it is still in place, the sump was reportedly last used in 1984 (Andersen, 1991f).

This tank is considered to have been a wastewater treatment unit and part of a wastewater treatment system that discharges subject to CWA §402 (NPDES) (O.A.C. 3745-33) regulations. As such, this tank was excluded under both RCRA hazardous waste and UST regulations [40 CFR Part 264 (O.A.C. 3745-54) and 40 CFR Part 280 (O.A.C. 1301: 7-9), respectively].

2.3.15. SW Building, Room SW10: Beta Wastewater Sump (Tank 226)

A 100-gallon, stainless-steel sump was formerly used to collect beta wastewaters from floor drains in the SW10 process laboratory. The sump drained via aboveground piping to the beta wastewater influent tanks at WD Building. Although it is still in place, the sump is currently inactive.

Due to its function in nuclear operations at Mound Plant this sump is subject to the AEA. The sump is not subject to RCRA as it did not receive hazardous waste (EG&G, 1990b). Although the sump does receive "regulated substances" in the form of radionuclides, it is deferred from most of the requirements of 40 CFR Part 280 as "UST systems containing radioactive material that are regulated under the Atomic Energy Act of 1954," per 40 CFR 280.10(c)(2). It is completely exempt from Ohio UST regulations per O.A.C. 1301: 7-9(A)(8).

2.3.16. Building T, Room T23: Beta Wastewater Sump (Tank 227)

A 350-gallon, steel-lined concrete sump was formerly used to collect beta wastewaters. The sump drained via pressurized piping to the beta wastewater treatment system in WD Building. The sump is reported to have been decontaminated by decontamination maintenance personnel and filled with concrete in about 1975 (Andersen, 1991e).

Because of its function in nuclear operations and because closure of the sump has not been completed, the sump is subject to the AEA. After the completion of D&D activities, the tank will be considered closed.

2.3.17. Building T, Room T3: Floor Drain Sump (Tank 228)

A 350-gallon, steel-lined, concrete sump, designated on construction drawings as Sump #3, was formerly used to collect wastewater from nonradiologic work area floor drains. The sump drained via pressurized piping to sanitary waste treatment at SD Building. The sump was reported to have been closed in place by filling it with concrete in about 1985 (Andersen, 1991e).

Because of its function in nuclear operations and because closure of the sump has not been completed, the sump is subject to the AEA. After completion of D&D activities, the tank will be considered closed.

2.3.18. Building T, Room T40 and T41: Alpha Wastewater Sumps (Tanks 229 and 230)

Two 350-gallon, steel-lined concrete sumps, designated on construction drawings as Sumps #7 (Room T40) and #8 (Room T41), were formerly used to collect alpha wastewater from floor drains in alpha process areas. Although the date of closure was not provided, the sumps were reportedly closed in place by filling them with concrete following decontamination (Andersen, 1991e).

Because of their function in nuclear operations and because closure of the sumps has not been completed, the sumps are subject to the AEA. After completion of D&D activities, the sumps will be considered closed.

2.3.19. Building T, Room T50: Alpha Wastewater Sump (Tank 231)

A 50- to 60-gallon sump (construction details were not available) was used to collect alpha process wastewaters. The sump was reportedly closed in place by filling it with concrete after decontamination around 1970 to 1975 (Andersen, 1991e).

Because of its function in nuclear operations and because closure of the sump has not been completed, the sump is subject to the AEA. After completion of D&D activities, the sump will be considered closed.

2.3.20. Building T, Room T50: Alpha Wastewater Sump (Tank 232)

A 350-gallon, steel-lined concrete sump, designated on construction drawings as Sump #11, was formerly used to collect alpha process wastewaters. The sump was reportedly closed in place by filling it with concrete after decontamination in about 1970 to 1975 (Andersen, 1991e).

Because of its function in nuclear operations and because closure of the sump has not been completed, the sump is subject to the AEA. After completion of D&D activities, the sump will be considered closed.

2.3.21. Building T, Historic Corridor 8: Alpha Wastewater Sump (Tank 233)

A 350-gallon, steel-lined concrete sump, designated on construction drawings as Sump #5, was formerly used to collect alpha wastewater from process area floor drains. The sump drained via pressurized piping to alpha wastewater treatment in WD Building. The sump is reported to have been closed in place by filling it with concrete after decontamination in about 1982 (Andersen, 1991e).

Because of its function in nuclear operations and because closure of the sump has not been completed, the sump is subject to the AEA. After completion of D&D activities, the sump will be considered closed.

2.3.22. Building T, Corridor 7: Alpha Wastewater Sump (Tank 234)

A 350-gallon steel-lined concrete sump, designated on construction drawings as Sump #12, was used to collect alpha wastewater from process area floor drains. The sump drained via pressurized piping to alpha wastewater treatment in WD Building. The sump is reported to have been closed in place by filling it with concrete after decontamination in about 1982 (Andersen, 1991e).

Because of its function in nuclear operations and because closure of the sump has not been completed, the sump is subject to the AEA. After completion of D&D activities, the sump will be considered closed.

2.3.23. Building T, Room T63: Alpha Wastewater Sump (Tank 235)

A 350-gallon, steel-lined concrete sump, designated on construction drawings as Sump #13, was used to collect alpha wastewaters from process area floor drains. The sump drained via pressurized piping to alpha wastewater treatment in WD Building. The sump is reported to have been closed in place by filling it with concrete after decontamination in about 1982 (Andersen, 1991e).

Because of its function in nuclear operations and because closure of the sump has not been completed, the sump is subject to the AEA. After completion of D&D activities, the sump will be considered closed.

2.3.24. Building HH, Room HH15: Beta Wastewater Sump (Tank 236)

A 100-gallon, steel-lined concrete sump was formerly used to collect beta wastewaters from restrooms and process area floor drains. The sump drained to beta wastewater treatment in WD Building. The sump is inactive and was reportedly last used on November 9, 1975 (Andersen, 1991g).

Because of its function in nuclear operations at Mound Plant, the tank is subject to the AEA. After completion of D&D activities, the tank will be considered closed. This tank is not subject to RCRA since it has not been operated since 1980. Also, if in operation, the tank would receive "regulated substances" in the form of radionuclides, but would be deferred from most of the requirements of 40 CFR Part 280 since it falls into the category of UST systems "containing radioactive material that are regulated under the Atomic Energy Act of 1954," per 40 CFR 280.10(c)(2). It would be completely exempt from Ohio UST regulations, per O.A.C. 1301: 7-9-08(A)(8) for the same reason.

2.3.25. Building HH, Room HH6: Alpha Wastewater Sump (Tank 237)

An estimated 100-gallon sump (construction details were not available) was formerly used to collect and process alpha wastewater from T Building operations. The sump drained via piping to alpha wastewater treatment in WD Building. The sump is reported to have been closed in place by filling it with concrete in late 1960 (Andersen, 1991g; Andersen 1992b).

Until Building HH is declared surplus and because of the historic function of the sump in nuclear operations at Mound Plant, the sump is subject to the AEA. After completion of D&D activities, the sump will be considered closed.

2.3.26. Building 19, Historic Gasoline Tank (Tank 238)

Built during the initial construction of Mound Plant in the 1940s, Building 19 is reported to have served as a vehicle service and maintenance facility for the Plant construction contractor (Kabot, 1992c). Two gasoline pumps at the facility are visible in a historical drawing, and are believed to have been supplied by a UST. The number, volume, and construction of the tank(s) have not been determined, nor has documentation concerning closure of the tank(s) been found, although it is believed that the tank(s) has been removed.

Because the historic gasoline tank(s) at Building 19 is thought to have been closed by removal, the existence of the tank(s) and any evidence of a release is subject to investigation by the ER Program (FFA) in Operable Unit 5.

2.3.27 Building 36, Historic Gasoline Tanks (Tanks 239 and 240)

A very old construction drawing (circa 1948) indicates that a fueling facility existed at the location of what is now Building 36. The drawing shows four pumps supplied by two USTs. The volume and construction of these tanks have not been determined, nor has documentation concerning closure of the tanks been found, although it is believed that the tanks have been removed.

Because the historic gasoline tanks at Building 19 are thought to have been closed by removal, the existence of the tanks and any evidence of a release is subject to investigation by the ER Program (FFA) in Operable Unit 5.

2.3.28 SM Building, Historic Septic Tank (Tank 241)

Historically, a sanitary septic tank located southeast of Building 30 served the SM Building. This tank is believed to have been constructed as a concrete vault, about 15 feet by 8 feet, and of unknown volume, that served the SM leach field downslope of the tank. Discharges to the tank took place from 1960 when it was built to 1964 when it was taken out of service and when the sanitary sewer connected to the sewage disposal facility. Overflow of the alpha wastewater system in room SM-1, may have contributed plutonium contamination to the tank and leach field. The D&D of the SM leach field originally included the removal of the tank, but the tank could not be located when excavation started. The tank may have been removed during an earlier construction project in the area (DOE, 1992c).

Because of its function in nuclear operations, the tank is subject to the AEA. After completion of D&D activities, the tank will be considered closed.

3. MOUND UST PROGRAM PLAN

3.1. MOUND UST PROGRAM PLAN

In order to fulfill the obligations of the FFA and to coordinate with the DOE operational requirements at Mound Plant, the ER Program (FFA) has developed this Program Plan to address USTs. The goal of the Program Plan is to ensure that USTs at the Plant are dealt with in a manner that is both environmentally sound and effective relative to operational needs either by the ER Program (FFA) or by the Active UST Program.

The Mound Plant is an operating facility and has numerous processes and process units that it uses to perform its mission. In using these processes/units, Mound Plant maintains compliance with applicable regulatory programs, including tank maintenance, monitoring, upgrade and closure activities. As previously stated in Section 1.4, nearly all of the USTs at Mound Plant contain or have contained hazardous substances as defined by the FFA. Any releases of these hazardous substances that could threaten human health and the environment are subject to the jurisdiction of the FFA which require CERCLA compliance for all such releases. However, due to the overlap between different regulatory programs, corrective action for Mound Plant USTs should be taken under whatever authority allows for the most expeditious or economical cleanup while maintaining effective coordination and consistency (e.g., cleanup standards) among the different authorities. Therefore, DOE has determined releases from UST systems assigned to the ER Program will be addressed under the FFA. Releases from UST systems assigned to the Active UST Program will be addressed under an applicable statutory or regulatory program rather than the FFA (refer to Table III.1.). For activities/units where there is no reason to believe hazardous substances as defined by the FFA have been released to the environment, the DOE believes the activities/units are not subject to the FFA or CERCLA.

Tanks assigned to the Active UST Program, as shown in Figure 3.1., include active tanks, inactive tanks that are not surplus, and inactive tanks that have not been closed. Inactive surplus tanks that have been closed are assigned to the ER Program. Definitions of closed and surplus UST systems are given in Section 1.4.

3.1.1. Active UST Program

The Active UST Program will be designed for USTs primarily associated with Mound Plant's ongoing operations and will be developed to maintain regulatory oversight of tanks from operation through removal and closure The functions of the Active UST Program will be to:

Table III.1. Regulatory Authorities for Release Response

Release Type	Primary Release Response Regulatory Authority Reference	Comments
Radionuclide-bearing Wastewater	AEA	Release response according to DOE policy to operate in an environmentally safe manner taken from general duty clauses in DOE Orders (e.g., DOE Order 5400.1). If the magnitude of a release exceeds capability under the AEA, response under the FFA may be required.
Non-radionuclide-bearing Wastewater	AEA	Release response according to DOE policy to operate in an environmentally safe manner taken from general duty clauses in DOE Orders (e.g., DOE Order 5400.1). If the magnitude of a release exceeds capability under the AEA, response under the FFA may be required.
Petroleum or Other Regulated Substance	RCRA 40 CFR 280 Subpart F/BUSTR O.A.C. 1301: 7-7-36 and 7-9-13	Releases of petroleum substances that could reach navigable waters are also subject to Mound's Spill Preventation, Controls, and Countermeasures Plan.
Hazardous Waste	RCRA 40 CFR 264 Subpart J/O.A.C. 3745-51-20 et seq.	Releases of hazardous wastes also may cause Mound Plant to implement its hazardous waste contingency plan in response to the release.

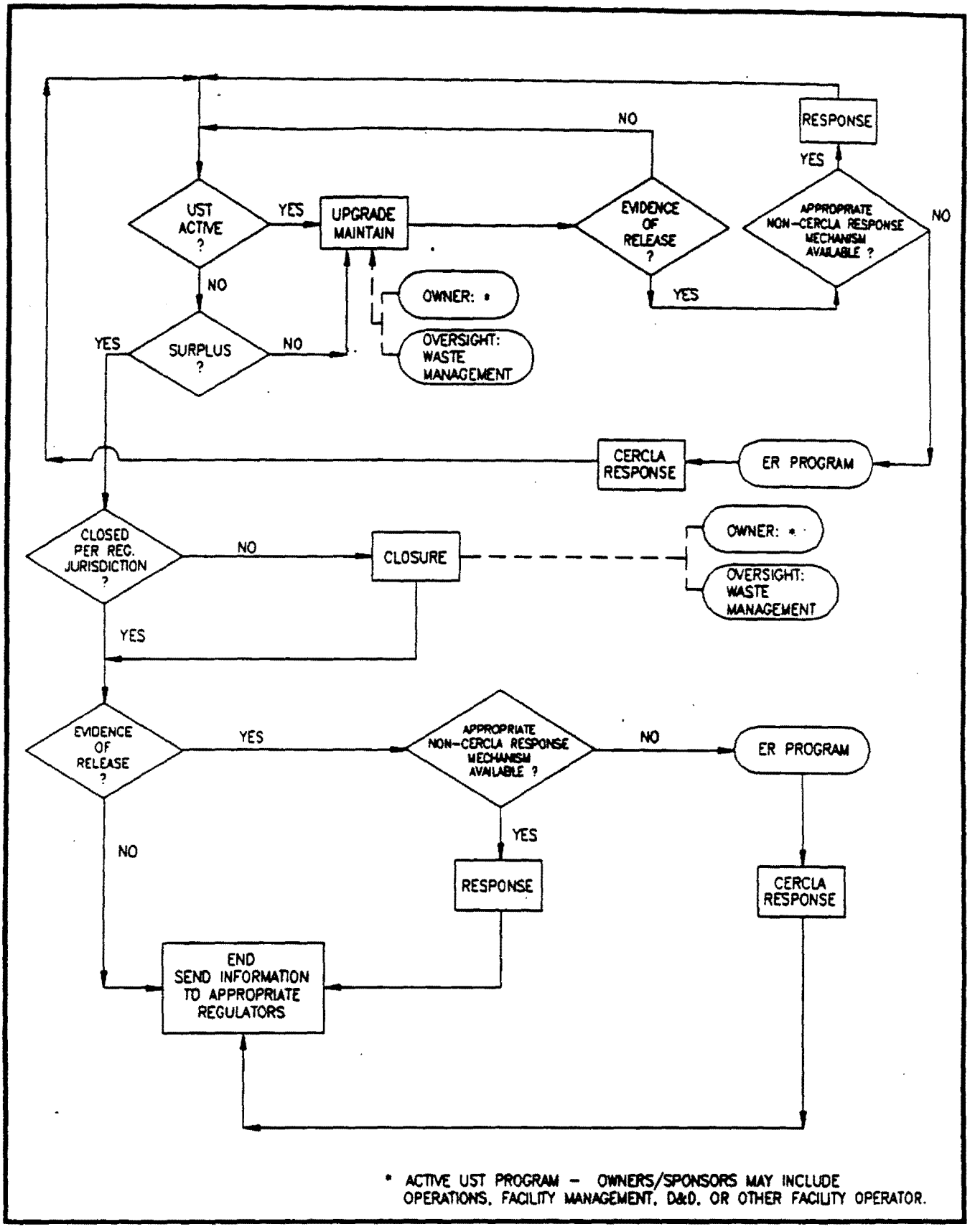

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Figure 3-1 Flow diagram illustrating ER Program UST assignment process

- Maintain data on current regulatory jurisdiction.
- Maintain data on required upgrades.
- Schedule and fund maintenance and testing.
- Maintain data on compliance deadlines.
- Prepare compliance deadlines.
- Implement regulatory compliance, including interaction with Ohio BUSTR, OEPA, (RCRA), and EPA (RCRA).
- Coordinate with the ER Program (FFA) and provide support in interaction with EPA (CERCLA) and OEPA Division of Emergency and Remedial Response (DERR).
- Ensure that responses to releases of hazardous substances are conducted in accordance with applicable regulatory programs.

This Active UST Program will have a designated Project Manager.

The Active UST Program will include an owner/sponsor, defined as the person or group that utilized the UST system and is commonly the most familiar with system operations. The owner/sponsor has the primary responsibility to comply with laws and regulations pertaining to the operation, maintenance, upgrade, installation, replacement, and closure of a tank system. The owner/sponsor is responsible for identifying and scheduling required tank-related activities and budgeting funds for the implementation of these activities. A summary of UST owner/sponsors and primary UST regulatory jurisdiction is provided in Appendix A.

The tank system compliance oversight authority will be responsible for overseeing operations, maintenance, upgrade, installation, replacement, and closure activities with respect to applicable laws and regulations. This authority will track scheduled tank system-related compliance activities and maintain a central repository for documentation of such activities. Changes to operating procedures, maintenance procedures, or physical changes to a tank system will be reviewed and approved by the compliance oversight authority. Mound Plant has assigned the compliance oversight authority to the Waste Management Program.

In addition to the owner/sponsor and the compliance oversight authority, specialists approve the safety of facility modifications and associated procedures when special materials are involved. While not responsible for regulatory compliance, these specialists serve an important function in the management of facilities at Mound Plant. These specialists include the Energetic Materials Safety and Overview Committee (EMSOC) for facilities involving explosive materials; the Tritium Environmental Safety and Overview Committee (TESOC); and the Transuranic Environmental Safety and Overview Committee (TRUESOC).

3.1.2. ER Program (FFA)

In general, the ER Program (FFA) is not responsible under the FFA for operational UST systems at Mound Plant. Operational UST systems are those that are currently subject to regulatory control as active management units. These UST systems will continue to be subject to regulatory control other than the FFA until the applicable compliance period is over, usually when the system is properly closed. Accordingly, the FFA will be applied to UST systems after the systems are closed. The rationale for assigning UST systems to the ER Program (FFA) is illustrated in a flow diagram in Figure 3.1.

The ER Program (FFA) will address closed UST systems during the scoping effort in the pre-investigation and RI phases. A review of available references and any environmental sampling will be performed to determine if there is evidence that hazardous substances remain in the environment from a release from the closed UST system. Anticipated reference sources include the Active UST Program, the Operable Unit 9, Site Scoping Report: Volumes 10 and 11 – Permits and Enforcement Actions Report and Spills and Response Actions (DOE, 1992a, and DOE, 1992b, respectively), other operable unit documentation, and information readily available from facility operators. In addition to the procedures outlined here, the closed UST system will be visually inspected, as appropriate. Where no evidence of a release is found in investigation scoping efforts, no further action will be taken by the ER Program (FFA).

Some tanks are part of a building structure, e.g., installed in the basement floor of a building. When there is no evidence of a release from these tanks, they do not present an apparent risk to human health and the environment and tank removal and closure can be incorporated into the building D&D rather than incorporating it into a remedial investigation or remedial action. The absence of a release will be determined from a review of past waste management practices and spills and response actions.

When all UST-related activities are completed at a UST site, whether under an ER Program (FFA) or Active UST Program, notice will be provided to the appropriate regulatory agencies including the EPA, the OEPA, and the Ohio BUSTR.

3.1.2.1 T Building USTs

As noted in Subsection 1.4., 19 of the Mound Plant USTs are located in T Building. Relative to anticipated Operations Program activities, T Building presents a unique situation. Constructed in the late 1940s for atomic materials production, T Building was built underground for defense purposes. The entire building is made of reinforced concrete including the floor which is 10 feet thick. All of the 19 USTs in T Building were formed in the concrete floor when the building was constructed. For this

reason, T Building USTs are not considered to be potential release sources (DOE, 1992c). Any piping or other ancillary equipment external to T Building may represent a threat of release and will be investigated, as appropriate.

3.1.3. Tanks to be Deleted from the UST List

Aboveground propane tanks (Tanks 122 and 123) were mistakenly classified as a UST and one tank that was apparently never used (Tank 221) can be deleted from the list of USTs at Mound Plant. Tank 221 was closed by removal in December 1990 (Burdg, 1991b). Tank 136 will never be used due to design concerns and can be similarly deleted from the list of USTs (Kabot, 1992a).

3.2. DESCRIPTION AND SCOPE OF ER PROGRAM OPERABLE UNITS

The Mound Plant ER Program (FFA) presently encompasses identified or suspected release sites. Because of the number and complexity of potential release sites at Mound Plant, the RI/FS has been divided into nine operable units to facilitate program management. These nine operable units and current objectives are described in the Operable Unit 9 RI/FS Work Plan (DOE, 1991b) as follows:

- Area B, Operable Unit 1, includes a historical waste disposal area (landfill) from which there has been a known release of volatile organic compounds to the Buried Valley aquifer. Two stages of the RI have been performed for Area B, and a third is under way.

- Main Hill Seeps, Operable Unit 2, addresses potential release sites on the Mound Plant Main Hill, including some peripheral ground-water seeps. Its scope includes characterization of the indurated bedrock and unconsolidated overburden on the Main Hill, associated soils, and ground water.

- Miscellaneous Sites, Operable Unit 3, includes those potential release sites for which little or no data are currently available and for which the collection of site-specific data in a limited field investigation will enhance the scoping effort. At the conclusion of the field work and data validation, a decision point is scheduled. At this decision point a recommendation will be made whether to proceed with a full RI/FS within Operable Unit 3 to reassign the sites to other operable units, or whether any of the sites require no further action. Since many of the sites undergoing limited field investigation are within the Plant valley, it is conceivable that Operable Unit 3 may assume geographic responsibility of the Plant valley for full characterization.

- Miami-Erie Canal, Operable Unit 4, addresses an abandoned segment of the Miami-Erie Canal, west of Mound Plant, that contains plutonium-contaminated sediments from a 1969 waste line break and tritium-contaminated soils. Although 1 mile long, it is considered to be one potential release site.

- Radioactively Contaminated Soils, Operable Unit 5, includes soils with known or suspected radioactive contamination. The sites within Operable Unit 5 are not currently scheduled for D&D under the D&D Program at Mound. It is anticipated that as sites obtain funding under the D&D Program they may be moved from Operable Unit

5 to Operable Unit 6, described below. Since many of the known radioactively contaminated sites are located on the SM/PP Hill, Operable Unit 5 has the geographic responsibility for the SM/PP Hill. As with the Main Hill, investigations of the potential source terms on the SM/PP Hill may require characterization of the bedrock and unconsolidated overburden.

- D&D Program Sites, Operable Unit 6, includes potential release sites with radioactively contaminated soils that are undergoing cleanup or are scheduled for cleanup in the near future. Because it is already known that the contaminated soil will be cleaned up, and because the D&D Program is an ongoing activity under the AEA that reduces potential impacts to human health and the environment, the scope of the RI/FS for these sites is verification of cleanup after the soil is removed. The cleanup levels are to be determined through the CERCLA risk assessment process.

- Limited Action Sites, Operable Unit 7, includes potential release sites that are believed to have no contamination based on a review of site histories and an August 1990 joint VSI by the DOE, the EPA, and the OEPA. The Operable Unit 9 RI/FS Work Plan (DOE, 1991b) stipulates that no further action is required, and no further documentation will be produced.

- Inactive USTs, Operable Unit 8, originally included USTs primarily in the vicinity of the Waste Disposal Building. Its scope has also included a review to determine the regulatory status of all underground tanks at Mound Plant. The result will be an integration of responsibility for the tanks between the ER Program (FFA) and other Mound Plant programs. Once integration is initiated, USTs will be addressed as necessary in other operable units and Operable Unit 8 will be closed.

- Site-Wide RI/FS, Operable Unit 9, includes off-plant migration of contaminants in ground water, soils, surface water and sediments, airborne contamination, and ecology. Additionally, the site-wide RI/FS will ensure that a comprehensive investigation is performed by compiling all data from individual operable unit investigations into a comprehensive report. Data reports from specific site-wide investigations included under this work plan will be initially reported in interim reports or technical memoranda to ensure that the off-plant and regional data are available early.

Operable unit designations for the tank and tank sites assigned to the ER Program (FFA) are provided in Appendix A.

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A

APPENDIX A

SUMMARY OF TANK DESCRIPTIONS AND

ASSIGNMENTS TO CERCLA

NOTE TO THE READER

Appendix A identifies the tentative UST sponsor assigned to each tank system and also primary regulatory jurisdiction for operation and release response for each.

For an explanation of the determination of primary regulatory jurisdiction and a more detailed description for each UST please refer to Section 2.

APPENDIX A
UST SPONSORSHIP AND PRIMARY REGULATORY JURISDICTION

Tank #	NUS#*	Capacity (gallons)	Location	Purpose	Comments	Last date used*	Tentative Tank Sponsor	Spill Jurisdiction	Primary Regulatory Jurisdiction
1	1.3-1 #1	900	Bldg. 62	Stack deluge tank	Stainless-steel-lined concrete tank intended to contain fire control water. Never used.	In service	Operations	AEA	AEA
2	1.3-1 #2	500*	Room H-131	Radioactive laundry water tank	Stainless-steel-lined concrete tank used to collect alpha waste-waters primarily from laundry operations.	In service	Operations	AEA	AEA
3	1.3-1 #3	30,000	WD Bldg.	Alpha waste-water influent tank	PVC-lined double concrete/steel tank used to collect influent alpha waste-waters.	In service	Operations	AEA	AEA
4	1.3-1 #4	30,000	WD Bldg.	Alpha waste-water influent tank	Fiberglass-lined double concrete/steel tank used to collect influent alpha waste-waters.	In service	Operations	AEA	AEA
5	1.3-1 #5	30,000	WD Bldg.	Alpha waste-water influent tank	PVC-lined double concrete/steel tank used to collect influent alpha waste-waters.	In service	Operations	AEA	AEA
6	1.3-1 #6	30,000	WD Bldg.	Alpha waste-water influent tank	PVC-lined double concrete/steel tank used to collect influent alpha waste-waters.	In service	Operations	AEA	AEA
7	1.3-1 #7	30,000	WD Bldg.	Alpha waste-water effluent tank	Epoxy-lined concrete tank used to collect treated alpha waste-waters prior to discharge.	In service	Operations	AEA	AEA
8	1.3-1 #8	30,000	WD Bldg.	Alpha waste-water effluent tank	Epoxy-lined concrete tank used to collect treated alpha waste-waters prior to discharge.	In service	Operations	AEA	AEA

APPENDIX A (continued)
UST OWNERSHIP/SPONSORSHIP AND PRIMARY REGULATORY JURISDICTION

Tank #	NUS#*	Capacity (gallons)	Location	Purpose	Comments	Last date used*	Tentative Tank Sponsor	Spill Jurisdiction	Primary Regulatory Jurisdiction
9	1.3-1 #9	30,000	WD Bldg.	Alpha waste-water effluent tank	Epoxy-lined concrete tank used to collect treated alpha waste-waters prior to discharge.	In service	Operations	AEA	AEA
10	1.3-1 #10	30,000	WD Bldg.	Alpha waste-water influent tank	Epoxy-lined concrete tank used to collect treated alpha waste-waters prior to discharge.	In service	Operations	AEA	AEA
11	1.3-1 #11	600	WD Bldg. Annex	Wash sump	PVC-lined steel tank used to collect alpha waste-water from floor and sink drains in WD Annex Building.	In service	Operations	AEA	AEA
12	N/A	600	WD Bldg.	Wash sump	Steel-lined concrete tank used to collect alpha waste-water from floor and sink drains in the WD Building.	In service	Operations	AEA	AEA
13	1.3-1 #12	3,750	WD Bldg. Annex	Beta waste-water influent tank	PVC-lined double concrete/steel tank used to collect influent beta waste-waters.	In service	Operations	AEA	AEA
14	1.3-1 #13	3,750	WD Bldg. Annex	Beta waste-water influent tank	PVC-lined double concrete/steel tank used to collect influent beta waste-waters.	In service	Operations	AEA	AEA
15	1.3-1 #14	3,750	WD Bldg. Annex	Alpha waste-water influent tank	PVC-lined double concrete/steel tank used to collect influent alpha waste-waters.	In service	Operations	AEA	AEA
16	1.3-1 #15	3,750	WD Bldg. Annex	Alpha waste-water influent tank	PVC-lined double concrete/steel tank used to collect influent alpha waste-waters.	In service	Operations	AEA	AEA
17	N/A	500	WD Bldg. Room 01	Alpha waste-water sump	Steel-lined concrete sump used to collect alpha waste-waters.	In service	Operations	AEA	AEA

APPENDIX A (continued)
UST OWNERSHIP/SPONSORSHIP AND PRIMARY REGULATORY JURISDICTION

Tank #	NUS#*	Capacity (gallons)	Location	Purpose	Comments	Last date used*	Tentative Tank Sponsor	Spill Jurisdiction	Primary Regulatory Jurisdiction
18	N/A	450	WD Bldg. Room 8	Alpha waste-water sump	Vitrified clay-lined concrete sump used to collect alpha waste-waters from floor drains.	In service	Operations	AEA	AEA
19	1.3-1 #20	500*	Room R-128	Alpha waste-water collection tank	Double fiberglass tank set in concrete used to collect alpha waste-water.	In service	Operations	AEA	AEA
20	1.3-1 #21	200	Room SW-8	Beta waste-water collection tank	Stainless-steel-lined steel tank used to collect beta waste-waters.	In service	Operations	AEA	AEA
21	1.3-1 #22	100	Room SW-125	Beta waste-water collection tank	Stainless-steel-lined steel tank used to collect beta waste-waters.	In service	Operations	AEA	AEA
22	1.3-1 #23	100	Room SW-143	Beta waste-water collection tank	Stainless-steel-lined steel tank used to collect beta waste-waters.	In service	Operations	AEA	AEA
23	N/A	200*	SW-137	Alpha waste-water sump	Stainless-steel* sump used to collect radioactive waste-waters from drains, sinks and processes in SW Building hot cell operations.	Unknown (I/I)	D&D	AEA	AEA
24	N/A	200*	HH Building West-Outside	Beta waste-water sump	Sump used to collect beta waste-water from process area sinks and floor drains.	In service	Operations	AEA	AEA
25	1.2-1 #16	5,000	Bldg. 38	Drum storage pad sump	Concrete tank used to collect precipitation and, potentially, spills for a radiological waste drum storage pad.	In service	Operations	AEA	AEA
26	N/A	300	Bldg. 38	Sanitary waste tank	Stainless-steel-lined concrete tank used to collect waste-water from floor drains and decon showers.	In service	Operations	AEA	AEA

APPENDIX A (continued)
UST OWNERSHIP/SPONSORSHIP AND PRIMARY REGULATORY JURISDICTION

Tank #	NUS#*	Capacity (gallons)	Location	Purpose	Comments	Last date used*	Tentative Tank Sponsor	Spill Jurisdiction	Primary Regulatory Jurisdiction
27	N/A	300	Bldg. 38	Sanitary waste tank	Stainless-steel-lined concrete tank used to collect waste-water from floor drains and decon showers.	In service	Operations	AEA	AEA
28	1.3-1 #17	400	A Bldg.	Decon shower collection tank	PVC-lined° steel tank used to collect waste-water from medical decon shower.	In service	Operations	AEA	AEA
29	1.3-1 #18	400	A Bldg.	Decon shower collection tank	PVC-lined° steel tank used to collect waste-water from medical decon shower.	In service	Operations	AEA	AEA
100	1.3-1 #19	500	Bldg. 37	Sanitary waste tank	Unlined steel sanitary waste collection tank.	In service	Facility Operator	AEA	CWA (NPDES)
101	N/A	7,500°	Bldg. 57	Grit chamber	Concrete tank.	In service	Facility Operator	AEA	CWA (NPDES)
102	N/A	1,870°	Bldg. 57	Comminutor	Concrete tank.	In service	Facility Operator	AEA	CWA (NPDES)
103 104 105 106	N/A	10,770° 10,770° 10,770° 10,770°	Bldg. 57	Equalization basins	Four tanks.	In service	Facility Operator	AEA	CWA (NPDES)
107 108	N/A	59,840° 59,840°	Bldg. 57	Aeration basins	Two tanks.	In service	Facility Operator	AEA	CWA (NPDES)
109 110	N/A	14,960° 14,960°	Bldg. 57	Clarifiers	Two metal tanks.	In service	Facility Operator	AEA	CWA (NPDES)
111 112	N/A	673° 673°	Bldg. 57	Chlorine contact chambers	Two tanks.	In service	Facility Operator	AEA	CWA (NPDES)
113	1.3-2 #1	25,000	P Bldg.	Fuel oil storage tank	Cathodically protected steel tank used to store fuel oil.	In service	Facility Operator	CWA SPCC	AEA (DOE Orders)
114	1.3-2 #2	25,000	P Bldg.	Fuel oil storage tank	Cathodically protected steel tank used to store fuel oil.	In service	Facility Operator	CWA SPCC	AEA (DOE Orders)

APPENDIX A (continued)
UST OWNERSHIP/SPONSORSHIP AND PRIMARY REGULATORY JURISDICTION

Tank #	NUS#*	Capacity (gallons)	Location	Purpose	Comments	Last date used*	Tentative Tank Sponsor	Spill Jurisdiction	Primary Regulatory Jurisdiction
115	1.3-2 #3	25,000	P Bldg.	Fuel oil storage tank	Externally coated, cathodically protected steel tank used to store fuel oil.	In service	Facility Operator	CWA SPCC	AEA (DOE Orders)
116	1.3-2 #4	25,000	P Bldg.	Fuel oil storage tank	Externally coated, cathodically protected steel tank used to store fuel oil.	In service	Facility Operator	CWA SPCC	AEA (DOE Orders)
117	1.3-2 #5	5,000	R/SW/T Buildings Stack	Diesel fuel storage tank	Unlined steel tank used to supply diesel fuel to emergency generator No. 1.	In service	Facility Management	BUST R	BUSTR
118	1.3-2 #7	850	Bldg. 57	Diesel fuel storage tank	Fiberglass-reinforced-plastic tank used to supply diesel fuel to an emergency generator.	In service	Facility Management	BUST R	BUSTR
119	1.3-2 #9	250	Room M-108	Metal plating rinse-water tank	Epoxy-lined concrete tank used to collect metal plating rinsewater prior to discharge.	In service	Facility Operator	AEA	CWA (NPDES)
120	1.3-2 #10	500	R Bldg.	Sanitary waste tank	Unlined, stainless-steel* tank used to collect sanitary waste.	In service	Facility Operator	AEA	CWA (NPDES)
121	1.3-2 #11	4,000	Bldg. 38	Diesel fuel storage tank	Unlined steel tank used to supply diesel fuel to Emergency Generator No. 2.	In service	Facility Management	BUST R	BUSTR
122	1.3-3 #16	N/A	Bldg. TF2	Diesel fuel storage tank	No such tank existed. Actually an aboveground propane tank.	Unknown	N/A	N/A	N/A
123	1.3-3 #20	N/A	Bldg. 27	Diesel fuel storage tank	No such tank existed. Actually aboveground propane tank.	N/A	N/A	N/A	N/A

APPENDIX A (continued)
UST OWNERSHIP/SPONSORSHIP AND PRIMARY REGULATORY JURISDICTION

Tank #	NUS#*	Capacity (gallons)	Location	Purpose	Comments	Last date used*	Tentative Tank Sponsor	Spill Jurisdiction	Primary Regulatory Jurisdiction
124	N/A	350	T-1	Cooling water sump	Steel-lined concrete* sump used to collect single pass non-contact cooling water.	In service	Operations	AEA	CWA (NPDES)
125	N/A	350	T Building Corridor 2	Sanitary waste-water sump	Steel-lined concrete* sump used to collect sanitary waste-waters from restrooms.	In service	Operations	AEA	CWA (NPDES)
126	N/A	350	T-11F	Sanitary waste-water sumps	Steel-lined concrete* sump used to collect sanitary waste-waters from sinks and floor drains.	In service	Operations	AEA	CWA (NPDES)
127	N/A	350	T-15	Sanitary waste-water sump	Steel-lined concrete* sump used to collect sanitary waste-waters from restrooms and floor drains.	In service	Operations	AEA	CWA (NPDES)
128	N/A	350	T Building Stair 3	Cooling water sump	Steel-lined concrete* sump used to collect single pass cooling water in air handling area.	In service	Operations	AEA	CWA (NPDES)
129	N/A	350	T-78	Steam condensation sump	Steel-lined concrete* sump used to collect steam condensate from heating system in air handling area.	In service	Operations	AEA	CWA (NPDES)
130	N/A	350	T Building Corridor 8	Sanitary waste-water sump	Steel-lined concrete* sump used to collect sanitary waste-water from restrooms and sinks.	In service	Operations	AEA	CWA (NPDES)
131	N/A	350	T-78A	Sanitary waste-water sump	Steel-lined concrete sump used to collect sanitary waste-water from restrooms.	In service	Operations	AEA	CWA (NPDES)

APPENDIX A (continued)
UST OWNERSHIP/SPONSORSHIP AND PRIMARY REGULATORY JURISDICTION

Tank #	NUS#*	Capacity (gallons)	Location	Purpose	Comments	Last date used*	Tentative Tank Sponsor	Spill Jurisdiction	Primary Regulatory Jurisdiction
132	N/A	350	T-90	Cooling system condensation sump	Steel-lined concrete° sump used to collect condensate from cooling units in air handling area.	In service	Operations	AEA	CWA (NPDES)
133	N/A	350	T-99	Sanitary waste-water sump	Steel-lined concrete° sump used to collect sanitary waste-water from restrooms.	In service	Operations	AEA	CWA (NPDES)
134	N/A	400	WD Bldg.	Sanitary waste sump	Steel-lined concrete sump used to collect sanitary wastes.	In service	Operations	AEA	CWA (NPDES)
135	N/A	•	WD Bldg.	Sanitary waste sump	Concrete° sump used to collect sanitary waste-water from WD Building Annex Penthouse.	In service	Operations	AEA	CWA (NPDES)
136	N/A	450	Bldg. 85	Waste solvent tank	Stainless-steel tank in concrete "coffin" to be used to collect waste solvent. Never used.	N/A	Operations	N/A	N/A
200	N/A	•	Bldg. 1	Settling basin	Concrete basin used to filter and settle out explosive elements in an explosive production process waste-water stream.	1985	Operations	RCRA	RCRA
201	N/A	500	Bldg. 43	Settling basin	Concrete basin used to filter and settle out explosive elements in an explosive production process waste-water stream.	1985	Operations	RCRA	RCRA
202	1.3-3 #1	4,000	G Bldg.	Gasoline storage tank	Unlined steel tank used to supply gasoline.	Unknown (c/r summer 1986)	ER (2°)	FFA	FFA

APPENDIX A (continued)
UST OWNERSHIP/SPONSORSHIP AND PRIMARY REGULATORY JURISDICTION

Tank #	NUS#*	Capacity (gallons)	Location	Purpose	Comments	Last date used*	Tentative Tank Sponsor	Spill Jurisdiction	Primary Regulatory Jurisdiction
203	1.3-3 #2	4,000	G Bldg.	Gasoline storage tank	Unlined steel tank used to supply gasoline.	Unknown (c/r summer 1986)	ER (2*)	FFA	FFA
204	1.3-3 #3	5,000	G Bldg.	Gasoline storage tank	Fiberglass-reinforced-plastic tank used to supply gasoline.	Unknown (c/r summer 1986)	ER (2*)	FFA	FFA
205	1.3-3 #4	7,500	Old SD Bldg.	Sanitary waste treatment tank	Unlined concrete tank used in sanitary waste treatment.	1975 (i/i)	D&D	AEA	AEA
206	1.3-3 #5	30,000	Old SD Bldg.	Sanitary waste treatment tank	Unlined concrete tank used in sanitary waste treatment.	1975 (i/i)	D&D	AEA	AEA
207	1.3-3 #6	7,500	Old SD Bldg.	Sanitary waste treatment tank	Unlined concrete tank used in sanitary waste treatment.	1975 (i/i)	D&D	AEA	AEA
208	1.3-3 #7	3,466	Bldg. 41	Alpha waste-water pumping station tank	Stainless-steel-lined steel tank used to collect alpha waste-waters and pump them to WD Building.	1974 (c/r Sept. 1986)	ER (6*)	FFA	FFA
209	1.3-3 #8	3,466	Bldg. 41	Alpha waste-water pumping station tank	Stainless-steel-lined steel tank used to collect alpha waste-waters and pump them to WD Building.	1976 (c/r Sept. 1986)	ER (6*)	FFA	FFA
210	1.3-3 #9	5,000	SM Bldg.	Alpha waste-water collection tank	Unlined steel tank used to collect alpha waste-waters.	1972 (c/r June 1986)	D&D	AEA	AEA
211	1.3-3 #10	3,000	SM Bldg.	Alpha waste-water collection tank	Unlined steel tank used to collect alpha waste-waters.	1972 (c/r June 1986)	D&D	AEA	AEA
212	1.3-3 #11	1,000	SM Bldg.	Alpha waste-water collection tank	Bituminous-lined steel tank used to collect alpha waste-waters.	1972 (c/r Jan. 1988)	D&D	AEA	AEA

APPENDIX A (continued)
UST OWNERSHIP/SPONSORSHIP AND PRIMARY REGULATORY JURISDICTION

Tank #	NUS#[a]	Capacity (gallons)	Location	Purpose	Comments	Last date used[b]	Tentative Tank Sponsor	Spill Jurisdiction	Primary Regulatory Jurisdiction
213	1.3-3 #12	1,000	SM Bldg.	Alpha waste-water collection tank	Bituminous-lined steel tank used to collect alpha waste-waters.	1972 (c/r Jan. 1988)	D&D	AEA	AEA
214	1.3-3 #13	3,750	WD Bldg. Annex	Alpha waste-water effluent tank	PVC-lined steel tank used to collect treated alpha waste-waters prior to discharge.	1975[c] (i/i)	D&D	AEA	AEA
215	1.3-3 #14	3,750	WD Bldg. Annex	Alpha waste-water effluent tank	PVC-lined steel tank used to collect treated alpha waste-waters prior to discharge.	1975[c] (i/i)	D&D	AEA	AEA
216	1.3-3 #15	3,750	WD Bldg. Annex	Alpha waste-water effluent tank	PVC-lined steel tank used to collect treated alpha waste-waters prior to discharge.	1975[c] (i/i)	D&D	AEA	AEA
217	N/A	100[c]	Bldg. 27	Waste flume sump	Concrete flume used to collect wastes from an explosives production process.	Oct. 1991 (i/i)	Operations	RCRA	RCRA[d]
218	N/A	500[c]	Bldg. 27	Settling sump	Concrete basin formerly used to filter and settle out explosive elements in an explosive production process waste stream. More recently used as contingency unit. Last held waste in 1985.	Oct. 1991 (i/i)	Operations	RCRA	RCRA[d]
219	1.3-3 #17	5,000	Bldg. 34	Aviation fuel storage tank	Unlined steel tank used to supply aviation fuel for container burn testing.	1972 (c/r Nov. 1990)	ER (3*)	FFA	FFA
220	1.3-3 #18	1,000	Bldg. 51	Waste solvent storage tank	Unlined steel tank used to supply incinerator with waste solvents.	1972 (c/r Dec. 1990)	ER (3*)	FFA	FFA
221	1.3-3 #19	1,000	Bldg. 43	Product solvent storage tank	Stainless-steel tank constructed to store solvent for use in Building 43. Never used.	N/A (c/r Dec. 1990)	NA	N/A	BUSTR

APPENDIX A (continued)
UST OWNERSHIP/SPONSORSHIP AND PRIMARY REGULATORY JURISDICTION

Tank #	NUS#*	Capacity (gallons)	Location	Purpose	Comments	Last date used*	Tentative Tank Sponsor	Spill Jurisdiction	Primary Regulatory Jurisdiction
222	1.3-2 #6	3,000	Bldg. 58	Diesel fuel storage tank	Unlined steel tank used to supply diesel fuel to Emergency Generator No. 1.	Unknown (c/r Dec. 1989)	ER (2°)	FFA	FFA
223	1.3-2 #8	825	Bldg. 56	Diesel fuel storage tank	Unlined steel tank used to supply diesel fuel to an emergency generator.	Unknown (c/r Dec. 1989)	ER (2°)	FFA	FFA
224	N/A	1,500°	East of Bldg. 29	Historic septic tank	Poured concrete septic tank. Used in late 1950s for disposal of radioactive soil.	Unknown (c/i late 1950s°)	ER (5°)	AEA	FFA
225	N/A	350	M-38	Metal plating rinse sump	Concrete° sump sanitary waste line. Used for NPDES sampling.	1984°(i/i)	Operations	AEA	CWA (NPDES)
226	N/A	100°	SW-10	Beta waste-water sump	Stainless-steel° sump used to collect beta waste-water from floor drains in SW-10.	Unknown (i/i)	Operations	AEA	AEA
227	N/A	350	T-23	Beta waste-water sump	Steel-lined concrete° sump used to collect beta waste-waters.	Unknown (c/i 1975°)	Operations	AEA	AEA
228	N/A	350	T-3	Floor drain sump	Steel-lined concrete° sump used to collect nonradiological waste-water from floor drains.	Unknown (c/i 1985°)	Operations	AEA	AEA
229	N/A	350	T-40	Alpha waste-water sump	Steel-lined concrete° sump used to collect alpha waste-waters from process area floor drains.	Unknown (c/i)	Operations	AEA	AEA
230	N/A	350	T-41	Alpha waste-water sump	Steel-lined concrete° sump used to collect alpha waste-waters from process area floor drains.	Unknown (c/i)	Operations	AEA	AEA
231	N/A	60°	T-50	Alpha waste-water sump	Sump used to collect process alpha waste-waters.	Unknown (c/i 1975°)	Operations	AEA	AEA

APPENDIX A (continued)
UST OWNERSHIP/SPONSORSHIP AND PRIMARY REGULATORY JURISDICTION

Tank #	NUS#[a]	Capacity (gallons)	Location	Purpose	Comments	Last date used[b]	Tentative Tank Sponsor	Spill Jurisdiction	Primary Regulatory Jurisdiction
232	N/A	350	T-50	Alpha waste-water sump	Steel-lined concrete[c] sump used to collect process alpha waste-waters.	Unknown (c/i 1985[c])	Operations	AEA	AEA
233	N/A	350	T Building Corridor 8 (historic)	Alpha waste-water sump	Steel-lined concrete[c] sump used to collect alpha waste-waters from process area floor drains.	Unknown (c/i 1982[c])	Operations	AEA	AEA
234	N/A	350	T Building Corridor 7	Alpha waste-water sump	Steel-lined concrete[c] sump used to collect alpha waste-waters from process area floor drains.	Unknown (c/i 1982[c])	Operations	AEA	AEA
235	N/A	350	T-63	Alpha waste-water sump	Steel-lined concrete[c] sump used to collect alpha waste-waters from process area floor drains.	Unknown (c/i 1982[c])	Operations	AEA	AEA
236	N/A	100[c]	HH-15	Beta waste-water sump	Steel-lined concrete sump used to collect beta waste-water from restrooms and floor drains in process areas.	Nov. 1975 (i/i)	Operations	AEA	AEA
237	N/A	100[c]	HH-6	Alpha waste-water sump	Steel-lined concrete[c] sump used to collect alpha waste-water from process area floor drains.	Unknown (c/i 1961[c])	Operations	AEA	AEA
238	N/A	[c]	Bldg. 19	Historic gasoline tank	Gasoline tank reported to have been used to support contractor in original plant construction in the 1940s.	Unknown (c/r)	ER (5)	FFA	FFA
239	N/A	[c]	Bldg. 36	Historic gasoline tanks	Two gasoline tanks used to support contractor in original plant construction in the 1940s.	Unknown (c/r)	ER (5)	FFA	FFA
240	N/A	[c]	Bldg. 36	Historic gasoline tanks	Two gasoline tanks used to support contractor in original plant construction in the 1940s.	Unknown (c/r)	ER (5)	FFA	FFA

APPENDIX A (continued)
UST OWNERSHIP/SPONSORSHIP AND PRIMARY REGULATORY JURISDICTION

Tank #	NUS#[a]	Capacity (gallons)	Location	Purpose	Comments	Last date used[b]	Tentative Tank Sponsor	Spill Jurisdiction	Primary Regulatory Jurisdiction
241	N/A	[c]	SM Bldg.	Historic septic tank	Septic tank with associated leach field installed to receive sanitary wastes from SM Building. Also received radioactive waste-water.	1964	D&D	AEA	AEA

[a] References "Mound Underground Storage Tank Management Plan and Preliminary Cost Estimate," April 14, 1989, NUS Corporation (NUS 1989), Tables 1.3-1, 1.3-2, and 1.3-3, pp. 1-6 through 1-10.

[b] (i/i) denotes inground and inactive; (c/r December 1989) indicates the tank was closed by removal and the date such closure took place; (c/i 1982[c]) indicates the tank was closed in place and the date of such closure.

[c] Denotes data is estimated, uncertain, or unknown.

[d] The Building 27 waste flume and sump site is currently being addressed by both the ER Program under the FFA and the Waste Management Program under RCRA.

[e] Number shown in parentheses is the Operable Unit assignment for the ER (FFA) program.

N/A = not applicable.

B

APPENDIX B

PLATE: TANK LOCATIONS AT MOUND PLANT

APPENDIX B

PLATE: TANK LOCATIONS AT MOUND PLANT

ER PROGRAM

MOUND PLANT

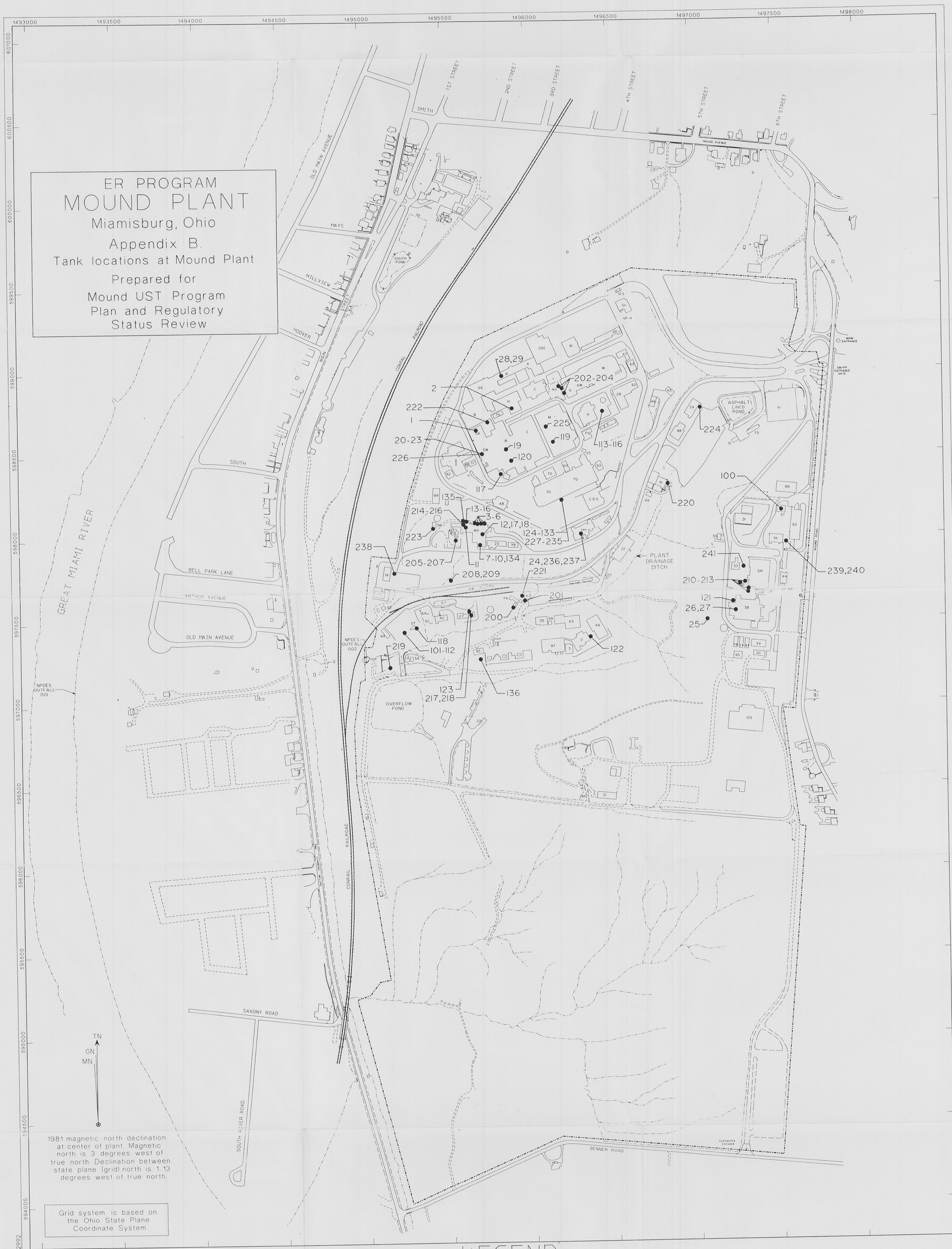
Miamisburg, Ohio

Appendix B.

Tank locations at Mound Plant

Prepared for

Mound UST Program
Plan and Regulatory
Status Review



1981 magnetic north declination at center of plant. Magnetic north is 3 degrees west of true north. Declination between state plane (grid) north is 1.13 degrees west of true north.

Grid system is based on the Ohio State Plane Coordinate System

LEGEND

- 53 Structures
- Paved Roadway
- Unpaved Roadway
- Railroad
- Water
- Fences
- Retaining Wall
- Mound Plant Boundary
- 48 Tank with Tank Number

NOTES:

1. The electronic base map data file was obtained by WESTON from Woolpert Consultants, Inc., Dayton, Ohio. The data were photogrammetrically complied from aerial photography dated 12/08/85.
2. WESTON converted MOUND plant coordinates to Ohio State Plane Coordinates using an algorithm provided by Oak Ridge National Laboratory, Grand Junction Project Office.
3. Area west of Dayton-Cincinnati Pike was digitized from a hand drafted map, dated 3/12/86 from Monstanto Research Corp.
4. Figure taken from the Operable Unit 9, Site Scoping Report Volume 4, Engineering Map Series Modified for the Mound UST Program Plan and Regulatory Status Review.

0 100 200 400 600 800 1000
Scale in Feet

WESTON
MANAGERS DESIGNERS/CONSULTANTS
6501 Americas Parkway, NE.
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J:\DGN\MOUNDBN1350.DGN 062992

DATE: November 6, 1992

University of California
Los Alamos National Laboratory
Attention: Dr. Kenneth Rea
Environmental Restoration Program
Technical Support Office
P.O. Box 1663, MS K-485
Los Alamos, NM 87545

DOCUMENT TRANSMITTAL

TITLE OF DOCUMENT: Mound Underground Storage Tank Program Plan and Regulatory Status Review

REVISION NO.: 0 DATE OF DOCUMENT: November 1992

TYPE OF DOCUMENT:
- Work Plan ____
- Report ____
- Technical Memo X
- Comment Responses ____

ACTION: __ Review By: X TSO X DOE-AL X DOE-AO X DOE-HQ
X Transmit to Regulatory Authority

DRAFT:
- __ Working Draft (Preliminary)
- __ Draft (Program)
- X Final (External) – Regulatory Approval
- __ Concept of Document

COMMENTS EXPECTED: _____
(Date)

RETURN COMMENTS TO: JOHN PRICE
(Installation Manager)

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Environmental Restoration Program

MOUND PLANT UNDERGROUND STORAGE TANK PROGRAM PLAN AND REGULATORY STATUS REVIEW

MOUND PLANT
MIAMISBURG, OHIO

November 1992

FINAL

(Revision 0)

Department of Energy
Albuquerque Field Office

Environmental Restoration Program
EG&G Mound Applied Technologies

ENVIRONMENTAL RESTORATION PROGRAM

MOUND PLANT UNDERGROUND STORAGE TANK PROGRAM PLAN AND REGULATORY STATUS REVIEW

MOUND PLANT

MIAMISBURG, OHIO

November 1992

DEPARTMENT OF ENERGY

ALBUQUERQUE OPERATIONS OFFICE

ENVIRONMENTAL RESTORATION PROGRAM

EG&G MOUND APPLIED TECHNOLOGIES

FINAL (REVISION 0)

EXECUTIVE SUMMARY

The Environmental Restoration (ER) Program at the U.S. Department of Energy (DOE) Mound Plant is being conducted in accordance with the Federal Facility Agreement (FFA) between the DOE and the U.S. Environmental Protection Agency (EPA). The FFA includes compliance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA) sections 3004(u) and 3008(h). Under these Acts, the identification of potential release sites and solid waste management units is an important part of the scoping process for developing remedial investigations. For underground storage tanks (USTs), the scoping process includes both identifying and listing tank systems, and determining the regulations that govern each system.

This program plan identifies 106 tank systems that can be divided into three categories on the basis of usage: 1) active tanks containing radionuclide-bearing wastewater; 2) other active tanks containing petroleum products, sanitary wastewater, explosives wastewater, or metal plating rinse water; and 3) inactive tanks and former tank sites. The total number of tanks in each category is 30, 40, and 38, respectively. For the purpose of the UST Program at the Mound Plant, a broad definition of tanks and USTs is being used. The definition used in this report is more extensive than that used by Subtitle I of RCRA. "Tank" or "USTs" is defined to include any tank-like unit having some portion below grade.

The tanks in this Program Plan are located near or within 28 Mound Plant Buildings. Fifty-three of these tanks were found at 3 locations: 19 at T Building, 21 at WD Building, and 13 at Building 57.

The tank systems identified at Mound Plant have also been divided on the basis of governing regulations. A flow chart showing the decision process for assigning tanks is provided in Figure ES.1. Active tanks, inactive tanks that are not surplus, and inactive surplus tanks that have not been closed will be managed, monitored, and closed in accordance with regulations applicable to the tank systems. On the basis of this division, 14 of the tanks are to be included in ER Program (FFA) remedial investigations. A summary of tank descriptions and regulatory assignments is provided in Appendix A.

The ER Program at Mound Plant has been divided into nine operable units. Operable Unit 8, (Inactive USTs) was established to address six of the tanks included in this Program Plan. One of the primary purposes of this document is to divide the tanks that will be included in remedial investigations among Operable Units 2, 5, and 6 on the basis of their geographical location. Instead of addressing tanks as

A total of 54 tanks are documented in the Mound Plant UST Plan (NUS, 1989). Fifty-two additional tanks are included in this review document, 16 of which have been previously documented (EPA, 1988); a total of 106 tanks are located at 28 separate buildings. In this review document the tanks are divided into three categories: active radionuclide-bearing wastewater tanks, other active tanks, and inactive tanks and former tank sites. To facilitate cross-referencing, tank numbers applied in this Program Plan are provided for each tank and are listed in Appendix A correlated with the tank numbers used in the Mound Plant UST Plan (NUS, 1989).

USTs and tank sites are identified and described in Section 2 of this document. The tanks identified in the program plan are located at or within 28 Mound Plant Buildings. Fifty-three of these tanks were found at 3 locations: 19 at T Building, 21 at WD Building, and 13 at Building 57.

Subsection 2.1. of this document discusses the 29 active radionuclide-bearing wastewater tanks. The specific nature of the wastewater varies from tank to tank. The capacity of these tanks ranges from 100 to 30,000 gallons, and the age of the tanks varies from 3 to 42 years.

Subsection 2.2. discusses the 36 active tanks that contain petroleum products, sanitary wastewater, or metal-plating rinse water, and 2 aboveground propane tanks incorrectly described by NUS (1989) as USTs. The tanks discussed in this subsection range in capacity from 250 to 60,000 gallons and vary in age from 4 to 42 years.

Subsection 2.3. describes the 27 inactive tanks and 14 former tank sites historically containing petroleum, radionuclide-bearing wastewater, sanitary wastewater, and other wastes. The tanks in this subsection vary in capacity from 60 to 30,000 gallons and vary in age from 21 to over 40 years. The former tanks were removed or closed in place by the Mound Decontamination and Decommissioning (D&D) Program (or an historic equivalent) or were removed in compliance with applicable regulations, such as the State of Ohio Bureau of Underground Storage Tank Regulation (BUSTR) Program.

Section 3 describes the Mound Plant UST Program Plan. The goal of the plan is to ensure that USTs at Mound Plant are dealt with in a manner that is both environmentally sound and effective relative to operational needs either by the ER Program (FFA) or by the Active UST Program.

1.3. Elimination of Operable Unit 8

Operable Unit 8 (Inactive USTs) was created after the prior designation of seven other operable units when six USTs in the vicinity of the WD Building were assigned to the ER program (FFA). A new operable unit was created for the tanks because they did not fit into the then existing definition of the

Several of the tanks addressed in this document (e.g., the 30,000-gallon, alpha-wastewater influent tanks at WD Building described in Subsection 2.1.3) can be defined as wastewater treatment systems which discharge pursuant to a National Pollutant Discharge Elimination System (NPDES) permit issued under Section 402 of the CWA (O.A.C. 3745-33). These systems are excluded from RCRA hazardous waste tank regulations.

Some wastewater treatment tanks (e.g., the 3,750-gallon, beta-wastewater influent tanks at WD Building Annex described in Subsection 2.1.7) are not part of a system which discharges pursuant to a NPDES permit issued under the CWA. Such wastewater treatment tanks would be subject to RCRA hazardous waste regulation if a RCRA regulated waste was introduced into the system. A thorough review was previously conducted of all possible waste stream contributors to the alpha- and beta-wastewater treatment systems (EG&G, 1990a). No RCRA hazardous wastes were found being directed to these systems.

The RCRA hazardous waste requirements apply to hazardous wastes that must be identified as waste materials before being evaluated for hazardous waste determination. Most of the non-wastewater-related tanks addressed by this document are product tanks such as the petroleum product Tank 118 and, therefore, are not subject to RCRA hazardous waste management regulations. If, however, a tank was closed with remaining product, the residual product may be considered a solid waste and, therefore, could be a hazardous waste thereby making the tank subject to RCRA hazardous waste management regulations. In addition, contaminated media resulting from a leak of a product tank is considered hazardous waste and would be subject to RCRA regulations.

It is important to note that the State of Ohio has developed a hazardous waste regulatory program to implement the provisions to Subtitle C of RCRA. The Ohio program has been reviewed by EPA and was found to be at least as stringent as the corresponding federal program. Pursuant to its authority under Section 3006 of RCRA, EPA has authorized the State of Ohio to implement the hazardous waste regulatory program in lieu of EPA.

1.4.2. RCRA Underground Tanks

RCRA Subtitle I provides requirements for the management of USTs, as defined in 40 CFR Part 280. These regulations apply to any UST determined to contain a regulated substance. 40 CFR 280.12 (O.A.C. 1301: 7-9-02) defines a UST as:

> ...any one or a combination of tanks (including underground pipes connected thereto) that is used to contain an accumulation of regulated substances, and the volume of which... is 10 percent or more beneath the surface of the ground....

40 CFR 280.12 defines a regulated substance as:

> (a) Any substance defined in Section 101(14) of ...(CERCLA)...(but not including any substance regulated as a hazardous waste under Subtitle C), and (b) Petroleum, including crude oil or any fraction thereof....

According to the above definitions, any underground tanks determined to contain regulated substances at Mound Plant are subject to 40 CFR Part 280 (O.A.C. 1301: 7-9). At Mound Plant, regulated substances found in USTs include radionuclide-bearing wastewaters and petroleum substances (e.g., diesel fuel, fuel oil, etc.).

Some tanks found at Mound Plant are subject to certain exclusions or exemptions under the 40 CFR Part 280 (O.A.C. 1301: 7-9) regulations. Several tanks are considered to be excluded wastewater treatment tank systems, such as the 30,000-gallon alpha-influent tanks at the WD Building (Subsection 2.1.3.). As stated in 40 CFR 280.10(b)(2) [O.A.C. 1301: 7-9-04(A)(2)], "any wastewater treatment tank system that is part of a wastewater treatment facility regulated under Section 402 or 307(b) of the Clean Water Act" is excluded from regulation. Other tanks, such as the 3,750-gallon beta-wastewater influent tanks at the WD Building Annex (Subsection 2.1.6.), are subject to a limited deferral under 40 CFR 280.10(c), which states that any "UST systems containing radioactive material that are regulated under the Atomic Energy Act of 1954..." are subject to only the requirements of release response and corrective action. The State of Ohio, under a cooperative agreement with EPA, is authorized to clean up petroleum releases from USTs systems or to require owners and operators to do so. USTs containing radioactive material regulated under the AEA are currently exempted from Ohio UST regulations (O.A.C. 1301: 7-9-04).

RCRA Subtitle I and the corresponding O.A.C. 1301: 7-9 govern the management of USTs containing regulated substances as discussed above. These regulatory programs dictate the management practices to be followed by Mound Plant personnel responsible for the operational use of such tanks.

1.4.3. CERCLA

CERCLA provides requirements for the cleanup of sites at which the presence of hazardous substances poses a threat or potential threat to human health or the environment. This federal law was primarily enacted to address sites where hazardous substances threaten the environment or the surrounding population because of hazardous substance releases. As such, CERCLA generally differs from RCRA in that it addresses past management sites (pre-1980), while RCRA generally deals with more recent or active management sites (post-1980). This distinction is important for tanks that stored hazardous wastes but were closed prior to 1980. Hazardous substances are listed in Table 302.4 of 40 CFR Part

2.3.13. Building 29, East of Building: Historic Septic Tank (Tank 224)

An estimated 1,500- to 3,000-gallon poured concrete septic tank located in Area 7 near Building 29 was constructed in the late 1940s for use during the original Mound Plant construction activities; it was abandoned in the 1950s (DOE, 1991c; Kabot, 1992b). The tank was built without a leach field and apparently drained directly to a ravine. In 1959 or 1960, approximately three truck loads of soil and gravel, estimated to be 200 cubic feet, containing radium-226, actinium-227, and thorium-228 were disposed of in the inactive septic tank. The soil and gravel resulted from excavation and construction activities at SW Building. The septic tank site is a part of Area 7 at Mound Plant, which has been assigned to the ER Program (FFA) in Operable Unit 5 for investigation.

2.3.14. Building M, Room M38: Metal Plating Rinse Water Sump (Tank 225)

A 350-gallon, concrete sump was formerly used to collect rinse water from a metal plating operation prior to discharge to sanitary waste treatment at SD Building. Although it is still in place, the sump was reportedly last used in 1984 (Andersen, 1991f).

This tank is considered to have been a wastewater treatment unit and part of a wastewater treatment system that discharges subject to CWA §402 (NPDES) (O.A.C. 3745-33) regulations. As such, this tank was excluded under both RCRA hazardous waste and UST regulations [40 CFR Part 264 (O.A.C. 3745-54) and 40 CFR Part 280 (O.A.C. 1301: 7-9), respectively].

2.3.15. SW Building, Room SW10: Beta Wastewater Sump (Tank 226)

A 100-gallon, stainless-steel sump was formerly used to collect beta wastewaters from floor drains in the SW10 process laboratory. The sump drained via aboveground piping to the beta wastewater influent tanks at WD Building. Although it is still in place, the sump is currently inactive.

Due to its function in nuclear operations at Mound Plant this sump is subject to the AEA. The sump is not subject to RCRA as it did not receive hazardous waste (EG&G, 1990b). Although the sump does receive "regulated substances" in the form of radionuclides, it is deferred from most of the requirements of 40 CFR Part 280 as "UST systems containing radioactive material that are regulated under the Atomic Energy Act of 1954," per 40 CFR 280.10(c)(2). It is completely exempt from Ohio UST regulations per O.A.C. 1301: 7-9(A)(8).

3. MOUND UST PROGRAM PLAN

3.1. MOUND UST PROGRAM PLAN

In order to fulfill the obligations of the FFA and to coordinate with the DOE operational requirements at Mound Plant, the ER Program (FFA) has developed this Program Plan to address USTs. The goal of the Program Plan is to ensure that USTs at the Plant are dealt with in a manner that is both environmentally sound and effective relative to operational needs either by the ER Program (FFA) or by the Active UST Program.

The Mound Plant is an operating facility and has numerous processes and process units that it uses to perform its mission. In using these processes/units, Mound Plant maintains compliance with applicable regulatory programs, including tank maintenance, monitoring, upgrade and closure activities. As previously stated in Section 1.4, nearly all of the USTs at Mound Plant contain or have contained hazardous substances as defined by the FFA. Any releases of these hazardous substances that could threaten human health and the environment are subject to the jurisdiction of the FFA which require CERCLA compliance for all such releases. However, due to the overlap between different regulatory programs, corrective action for Mound Plant USTs should be taken under whatever authority allows for the most expeditious or economical cleanup while maintaining effective coordination and consistency (e.g., cleanup standards) among the different authorities. Therefore, DOE has determined releases from UST systems assigned to the ER Program will be addressed under the FFA. Releases from UST systems assigned to the Active UST Program will be addressed under an applicable statutory or regulatory program rather than the FFA (refer to Table III.1.). For activities/units where there is no reason to believe hazardous substances as defined by the FFA have been released to the environment, the DOE believes the activities/units are not subject to the FFA or CERCLA.

Tanks assigned to the Active UST Program, as shown in Figure 3.1., include active tanks, inactive tanks that are not surplus, and inactive tanks that have not been closed. Inactive surplus tanks that have been closed are assigned to the ER Program. Definitions of closed and surplus UST systems are given in Section 1.4.

3.1.1. Active UST Program

The Active UST Program will be designed for USTs primarily associated with Mound Plant's ongoing operations and will be developed to maintain regulatory oversight of tanks from operation through removal and closure The functions of the Active UST Program will be to:

APPENDIX A (continued)
UST OWNERSHIP/SPONSORSHIP AND PRIMARY REGULATORY JURISDICTION

Tank #	NUS#[a]	Capacity (gallons)	Location	Purpose	Comments	Last date used[b]	Tentative Tank Sponsor	Spill Jurisdiction	Primary Regulatory Jurisdiction
203	1.3-3 #2	4,000	G Bldg.	Gasoline storage tank	Unlined steel tank used to supply gasoline.	Unknown (c/r summer 1986)	ER (2°)	FFA	FFA
204	1.3-3 #3	5,000	G Bldg.	Gasoline storage tank	Fiberglass-reinforced-plastic tank used to supply gasoline.	Unknown (c/r summer 1986)	ER (2°)	FFA	FFA
205	1.3-3 #4	7,500	Old SD Bldg.	Sanitary waste treatment tank	Unlined concrete tank used in sanitary waste treatment.	1975 (i/i)	D&D	AEA	AEA
206	1.3-3 #5	30,000	Old SD Bldg.	Sanitary waste treatment tank	Unlined concrete tank used in sanitary waste treatment.	1975 (i/i)	D&D	AEA	AEA
207	1.3-3 #6	7,500	Old SD Bldg.	Sanitary waste treatment tank	Unlined concrete tank used in sanitary waste treatment.	1975 (i/i)	D&D	AEA	AEA
208	1.3-3 #7	3,466	Bldg. 41	Alpha waste-water pumping station tank	Stainless-steel-lined steel tank used to collect alpha waste-waters and pump them to WD Building.	1974 (c/r Sept. 1986)	ER (6°)	FFA	FFA
209	1.3-3 #8	3,466	Bldg. 41	Alpha waste-water pumping station tank	Stainless-steel-lined steel tank used to collect alpha waste-waters and pump them to WD Building.	1976 (c/r Sept. 1986)	ER (6°)	FFA	FFA
210	1.3-3 #9	5,000	SM Bldg.	Alpha waste-water collection tank	Unlined steel tank used to collect alpha waste-waters.	1972 (c/r June 1986)	D&D	AEA	AEA
211	1.3-3 #10	3,000	SM Bldg.	Alpha waste-water collection tank	Unlined steel tank used to collect alpha waste-waters.	1972 (c/r June 1986)	D&D	AEA	AEA
212	1.3-3 #11	1,000	SM Bldg.	Alpha waste-water collection tank	Bituminous-lined steel tank used to collect alpha waste-waters.	1972 (c/r Jan. 1988)	D&D	AEA	AEA

APPENDIX A (continued)
UST OWNERSHIP/SPONSORSHIP AND PRIMARY REGULATORY JURISDICTION

Tank #	NUS#[a]	Capacity (gallons)	Location	Purpose	Comments	Last date used[b]	Tentative Tank Sponsor	Spill Jurisdiction	Primary Regulatory Jurisdiction
213	1.3-3 #12	1,000	SM Bldg.	Alpha waste-water collection tank	Bituminous-lined steel tank used to collect alpha waste-waters.	1972 (c/r Jan. 1988)	D&D	AEA	AEA
214	1.3-3 #13	3,750	WD Bldg. Annex	Alpha waste-water effluent tank	PVC-lined steel tank used to collect treated alpha waste-waters prior to discharge.	1975[c] (i/i)	D&D	AEA	AEA
215	1.3-3 #14	3,750	WD Bldg. Annex	Alpha waste-water effluent tank	PVC-lined steel tank used to collect treated alpha waste-waters prior to discharge.	1975[c] (i/i)	D&D	AEA	AEA
216	1.3-3 #15	3,750	WD Bldg. Annex	Alpha waste-water effluent tank	PVC-lined steel tank used to collect treated alpha waste-waters prior to discharge.	1975[c] (i/i)	D&D	AEA	AEA
217	N/A	100[c]	Bldg. 27	Waste flume sump	Concrete flume used to collect wastes from an explosives production process.	Oct. 1991 (i/i)	Operations	RCRA	RCRA[d]
218	N/A	500[c]	Bldg. 27	Settling sump	Concrete basin formerly used to filter and settle out explosive elements in an explosive production process waste stream. More recently used as contingency unit. Last held waste in 1985.	Oct. 1991 (i/i)	Operations	RCRA	RCRA[d]
219	1.3-3 #17	5,000	Bldg. 34	Aviation fuel storage tank	Unlined steel tank used to supply aviation fuel for container burn testing.	1972 (c/r Nov. 1990)	ER (3*)	FFA	FFA
220	1.3-3 #18	1,000	Bldg. 51	Waste solvent storage tank	Unlined steel tank used to supply incinerator with waste solvents.	1972 (c/r Dec. 1990)	ER (3*)	FFA	FFA
221	1.3-3 #19	1,000	Bldg. 43	Product solvent storage tank	Stainless-steel tank constructed to store solvent for use in Building 43. Never used.	N/A (c/r Dec. 1990)	NA	N/A	BUSTR

APPENDIX A (continued)
UST OWNERSHIP/SPONSORSHIP AND PRIMARY REGULATORY JURISDICTION

Tank #	NUS#[a]	Capacity (gallons)	Location	Purpose	Comments	Last date used[b]	Tentative Tank Sponsor	Spill Jurisdiction	Primary Regulatory Jurisdiction
232	N/A	350	T-50	Alpha waste-water sump	Steel-lined concrete[c] sump used to collect process alpha waste-waters.	Unknown (c/i 1985[c])	Operations	AEA	AEA
233	N/A	350	T Building Corridor 8 (historic)	Alpha waste-water sump	Steel-lined concrete[c] sump used to collect alpha waste-waters from process area floor drains.	Unknown (c/i 1982[c])	Operations	AEA	AEA
234	N/A	350	T Building Corridor 7	Alpha waste-water sump	Steel-lined concrete[c] sump used to collect alpha waste-waters from process area floor drains.	Unknown (c/i 1982[c])	Operations	AEA	AEA
235	N/A	350	T-63	Alpha waste-water sump	Steel-lined concrete[c] sump used to collect alpha waste-waters from process area floor drains.	Unknown (c/i 1982[c])	Operations	AEA	AEA
236	N/A	100[c]	HH-15	Beta waste-water sump	Steel-lined concrete sump used to collect beta waste-water from restrooms and floor drains in process areas.	Nov. 1975 (i/i)	Operations	AEA	AEA
237	N/A	100[c]	HH-6	Alpha waste-water sump	Steel-lined concrete[c] sump used to collect alpha waste-water from process area floor drains.	Unknown (c/i 1961[c])	Operations	AEA	AEA
238	N/A	[c]	Bldg. 19	Historic gasoline tank	Gasoline tank reported to have been used to support contractor in original plant construction in the 1940s.	Unknown (c/r)	ER (5)	FFA	FFA
239	N/A	[c]	Bldg. 36	Historic gasoline tanks	Two gasoline tanks used to support contractor in original plant construction in the 1940s.	Unknown (c/r)	ER (5)	FFA	FFA
240	N/A	[c]	Bldg. 36	Historic gasoline tanks	Two gasoline tanks used to support contractor in original plant construction in the 1940s.	Unknown (c/r)	ER (5)	FFA	FFA

APPENDIX A (continued)
UST OWNERSHIP/SPONSORSHIP AND PRIMARY REGULATORY JURISDICTION

Tank #	NUS#[a]	Capacity (gallons)	Location	Purpose	Comments	Last date used[b]	Tentative Tank Sponsor	Spill Jurisdiction	Primary Regulatory Jurisdiction
241	N/A	[c]	SM Bldg.	Historic septic tank	Septic tank with associated leach field installed to receive sanitary wastes from SM Building. Also received radioactive waste-water.	1964	D&D	AEA	AEA

[a] References "Mound Underground Storage Tank Management Plan and Preliminary Cost Estimate," April 14, 1989, NUS Corporation (NUS 1989), Tables 1.3-1, 1.3-2, and 1.3-3, pp. 1-6 through 1-10.

[b] (i/i) denotes inground and inactive; (c/r December 1989) indicates the tank was closed by removal and the date such closure took place; (c/i 1982[c]) indicates the tank was closed in place and the date of such closure.

[c] Denotes data is estimated, uncertain, or unknown.

[d] The Building 27 waste flume and sump site is currently being addressed by both the ER Program under the FFA and the Waste Management Program under RCRA.

[e] Number shown in parentheses is the Operable Unit assignment for the ER (FFA) program.

N/A = not applicable.