



Fluor-BWXT Portsmouth LLC

**WASTE MANAGEMENT PLAN
PIKETON, OHIO**

**U. S. Department of Energy
Portsmouth/Paducah Project Office
and
Fluor-BWXT Portsmouth LLC**

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Prepared by
Fluor-BWXT Portsmouth LLC
Managing
Environmental Management Activities at the
Portsmouth Gaseous Diffusion Plant
Under contract DE-AC30-10CC40017
for the
U. S. Department of Energy
Portsmouth Gaseous Diffusion Plant
Piketon, Ohio

2 Year Periodic Review Date: 09/24/27

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APPROVALS

Fluor-BWXT Portsmouth LLC Waste Management Plan

Approval	(Signature on File)	07/10/25
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REVISION LOG

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ACRONYMS/DEFINITIONS

ALARA	As Low As Reasonably Achievable
ARAR	Applicable for Relevant and Appropriate Requirements
BIO	Basis for Interim Operation
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CRD	Contractor Requirements Document
D&D	Decontamination and Decommissioning
DAW	Dry Active Waste
DDFO	Director's Final Findings and Orders
DOE	U.S. Department of Energy
DOT	Department of Transportation
DQO	Data Quality Objective
DSA	Documented Safety Analysis
EIS	Environmental Impact Statement
EMS	Environmental Management System
EPA	Environmental Protection Agency
FBP	Fluor-BWXT Portsmouth LLC
FUEF	Former Uranium-Enrichment Facility
GWMP	Generator's Waste Management Plan
HAZMAT	Hazardous Materials
HVAC	Heating, Ventilation, and Air Conditioning
IP	Implementation Plan
ISMS	Integrated Safety Management System
LDR	Land Disposal Restriction
LLC	Limited Liability Company
LLW	Low-Level Waste
LPP	LATA Parallax Portsmouth, LLC
MARSAME	Multi-Agency Radiation Survey and Assessment of Materials and Equipment Manual
MARSSIM	Multi-Agency Radiation Survey and Site Investigation Manual
MCEP	Motor Carrier Evaluation Program
Mgr.	Manager
MLLW	Mixed Low-Level Waste

MWIR	Mixed Waste Inventory Report
NCS	Nuclear Criticality Safety
NCSA	Nuclear Criticality Safety Approval
NCSE	Nuclear Criticality Safety Evaluation
NDA	Non-Destructive Assay
NEPA	National Environmental Policy Act
NIC	NNSSWAC Implementation Crosswalk
NMC&A	Nuclear Materials Control and Accountability
NNSS	Nevada National Security Site
NNSSWAC	Nevada National Security Site Waste Acceptance Criteria
NPDES	National Pollutant Discharge Elimination System
NRC	Nuclear Regulatory Commission
OSR	Off-Site Rule
OSWDF	On-Site Waste Disposal Facility
PB	Process Building
PCB	Polychlorinated Biphenyl
PORTS	Portsmouth Gaseous Diffusion Plant
PORTSMAS	Portsmouth Materials Accountability System
PPE	Personal Protective Equipment
ppm	Parts Per Million
PW	Plant Wide
QA	Quality Assurance
QAPP	Quality Assurance Program Plan
QSL	Qualified Suppliers List
RA	Remedial Action
RAWP	Removal Action Work Plan
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
ROD	Record of Decision
RFP	Request For Proposal
RWMB	Radioactive Waste Management Basis
SADQ	Sample Analysis Data Quality Assurance Project Plan
SAP	Sampling And Analysis Plan
SMP	Safety Management Program

SODI	Southern Ohio Diversification Initiative
STP	Site Treatment Plan
TRU	Transuranic
TSCA	Toxic Substance Control Act
TSD	Transportation Safety Document
TSDF	Treatment Storage and Disposal Facility
TSR	Technical Safety Requirement
U.S.	United States
USEC	United States Enrichment Corporation
USQ	Unreviewed Safety Question
USQD	Unreviewed Safety Question Determination
WAC	Waste Acceptance Criteria
WCO	Waste Certification Official
WMP	Waste Management Plan
WP	Work Plan
WSC	Waste Stream Code

1. INTRODUCTION

The Portsmouth Gaseous Diffusion Plant (PORTS), which began operations in 1954, is located on a 3,697-acre federal reservation in a rural area of Pike County, Ohio. From 1954 until 2001, PORTS enriched uranium (via gaseous diffusion) for the U.S. Department of Energy (DOE) and its predecessor agencies, the Naval Nuclear Propulsion Program, and commercial customers. In August 2010, Fluor-BWXT Portsmouth LLC (FBP) was awarded a prime contract (contract number AC30-10CC40017) by DOE to perform decontamination and decommissioning (D&D) and environmental remediation functions at PORTS.

Historical and current site operations, including D&D and environmental remediation, have generated significant quantities of radioactive, hazardous, and mixed waste. Wastes include contaminated equipment, facilities, soil, and groundwater, in addition to associated secondary wastes. Waste and contaminants at the site include those regulated under the Resource Conservation and Recovery Act (RCRA), the Toxic Substances Control Act (TSCA), and DOE Order 435.1 as well as non-contaminated sanitary wastes.

1.1 PURPOSE

This Waste Management Plan (WMP) defines FBP's overall strategy for managing PORTS wastes, and documents the processes and systems for implementing that strategy while mitigating risks of release to workers, the environment, and the wider public in accordance with DOE Order 435.1. This update of the WMP outlines the process for transitioning to waste management operations in alignment with *Record of Decision for the Process Buildings and Complex Facilities Decontamination and Decommissioning Evaluation Project at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio* (DOE/PPPO/03-0425&D1) (Process Building [PB] D&D Record of Decision [ROD]) as issued on July 30, 2015 and the *Record of Decision for the Site-wide Waste Disposition Evaluation Project* (DOE/PPPO/03-05138.D2) (Waste Disposition [WD] ROD) as issued on June 30, 2015. The Waste Disposition ROD selected a remedy that will utilize an On-Site Waste Disposal Facility (OSWDF) with limited off-site disposal for wastes not meeting the approved Waste Acceptance Criteria (WAC) contained in the WD ROD. A WAC Implementation Plan (WAC IP) has been issued that outlines the strategy for meeting the approved WAC for waste generated during D&D. Waste Management is an essential part of FBP's Integrated Safety Management System (ISMS) and Environmental Management System (EMS). FBP's ISMS is the over-arching system that ensures environmental, safety, and health functions become an integral and visible part of FBP's work-planning and -execution processes, including pollution prevention and waste minimization. This WMP defines the processes and expectations that ensure ISMS integration and protection of workers, the public, and the environment — by adherence to FBP programs and procedures aligned with the five core functions and seven guiding principles of ISMS.

This document implements applicable regulatory requirements. They are listed in Appendix A, *Regulatory Requirements Flow Down*.

1.2 SCOPE

The scope includes:

- Evaluation of material to identify and manage assets and recyclable materials.
- Generation, treatment, storage, and disposal of waste streams in support of ongoing plant processes, the management and disposal of legacy containers generated prior to the activities identified in the PB D&D ROD and any other wastes required to be dispositioned off-site per the Waste Disposition ROD;
- Support activities (planning, compliance, etc.) under the PB D&D ROD to facilitate the disposition of approved WAC compliant waste and to plan for management and storage of approved WAC compliant wastes in anticipation of transfer to the OSWDF;
- Integration of requirements, including DOE O 435.1 and DOE O 458.1, into documents and operations;
- Define interface points between Waste Management and other site entities;
- Program-implementation methods that ensure compliant cradle-to-grave waste management, including waste characterization.

2. REQUIREMENTS

Contractual requirements and regulatory drivers are specified in FBP's prime contract with DOE (DE-AC30-10CC40017); this WMP is a deliverable (number C.2.5.) under that contract. The primary DOE drivers for this report are DOE O 435.1, *Radioactive Waste Management*, and DOE O 458.1, *Radiation Protection of the Public and Environment*.

DOE O 435.1 requires that all DOE radioactive waste be managed in a way that protects the health and safety of workers and the public and protects the environment. DOE O 458.1 establishes requirements to protect the public and the environment against undue risk from radiation.

Section J of contract DE-AC30-10CC40017 contains two lists of additional requirements. "List A" provides information about federal regulations, consensus standards, public laws, and executive orders applicable to FBP's scope of work. (However, omission of any applicable law from this list does not affect FBP's obligation to comply.) "List B" specifies applicable DOE directives (which may include orders, policies, notices, manuals, guidance, and standards).

By contract, FBP is required to follow the most recent version of DOE orders, laws, regulations, etc.; if a new version creates a cost or schedule impact, FBP must notify the contracting officer prior to implementation. Additionally, FBP is required to comply with various consent decrees, permits, and other requirements listed in the contract. Key requirements pertaining to waste management include (DOE O 460.1A, DOE O 460.2):

- Department of Transportation (DOT) Hazardous Materials (HAZMAT) shipper permit
- Motor carrier permit
- NHPA program description document
- Ohio Environmental Protection Agency (EPA) Director's Final Findings and Orders — DUF₆ (for small cylinders), 2011
- Ohio EPA Director's Final Findings and Orders for Removal Action and Remedial Investigation and Feasibility Study and Remedial Design and Remedial Action, 2010, as modified on July 16, 2012
- Ohio EPA National Pollutant Discharge Elimination System (NPDES) Permit
- Ohio EPA Director's Final Findings and Orders — Site Treatment Plan, 1995
- RCRA Part B Storage Permit, March 2024 (and amendments)
- State of Ohio Consent Decree, issued August 1989

- Title V Permit
- TSCA Compliance Agreement between the United States (U.S.) DOE and the United States EPA Washington, D.C., 1992, as amended

FBP is required to comply with the Applicable for Relevant and Appropriate Requirements (ARARs) as approved in Director's Final Findings and Orders (DFF&O) decision documents including:

- *Record of Decision for the Process Buildings and Complex Facilities Decontamination and Decommissioning Project at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio* (DOE/PPPO/03-0425&D1) (PB D&D ROD), as issued on June 30, 2015
- *Record of Decision for the Site-wide Waste Disposition Evaluation Project* (DOE/PPPO/03-05138.D2) (WD ROD), as issued on June 30, 2015
- Action Memorandum for the Plant Support Buildings and Structures at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio (DOE/PPPO/03-0230&D4) (AM/EECA)

Detailed execution of the required remedial actions, as specified in the RODs, are detailed in Remedial Design/Remedial Action Work Plans (RD/RA WP) and Removal Action Work Plans (RAWP) for specific scopes of work. The RD/RA WPs identified the ARARs and the DOE Orders in a compliance crosswalk to ensure flow down from the applicable RODs.

The *Remedial Design/Remedial Action Work Plan and Remedial Design for Process Buildings Deactivation at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio* (DOE/PPPO/03-0665&D2) (FBP-ER-RDRA-BG-PLN-0066, Revision 6) is approved and deactivation work in the three process buildings is currently being executed to align with the specified ARARs and DOE orders to be considered. The *Comprehensive Deactivation, Demolition, and Disposition Remedial Design/Remedial Action Work Plan for the Process Buildings and Complex Facilities Remedial Action Project and Remedial Design for Deactivation of Complex Facilities at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio* (DOE/PPPO/03-0758&D1) will address deactivation activities in the remaining facilities contained in the PB ROD. This plan also addresses waste generated for activities under the *Removal Action Work Plan for Deactivation of Non-time Critical Removal Action Buildings and Structures at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio* (DOE/PPPO/03-0782&D2). This work plan will also address demolition of all facilities contained in the PB ROD and AM/EECA.

The PB D&D RD/RA WP ARARs relevant to Waste Management have been flowed down into a compliance matrix. As the transition to full Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) compliance, this WMP shall be updated to reflect a comprehensive compliance matrix to demonstrate compliance with DOE Order 435.1 in respect to off-site and on-site waste disposal.

3. FBP PROGRAM OVERVIEW

3.1 SITE MISSION DESCRIPTION

FBP's goal is to safely decommission the PORTS site while creating a sustainable economic future for the region. That goal involves extensive facility-removal operations and environmental-remediation activities; both of these activities will generate waste, and successful management is key to successful decommissioning.

Waste Management's mission is to protect safety, health, and the environment while minimizing the amount of waste generated that will require treatment or disposal. To minimize the amount of waste generated, excess equipment, products and materials shall be evaluated to determine if they are eligible for asset recovery or recycle. Processes and projects, inclusive of D&D, are reviewed to minimize the amount of material to be managed as waste. Before wastes are generated, management and disposal paths shall be identified; upon generation, wastes shall be managed (characterized, packaged, labeled, tracked, stored, and inspected) and dispositioned (transported and treated or disposed of) in compliance with all applicable regulations and contract requirements.

This WMP describes the overall mission, organization design, and strategies for delivery of a Waste Management Program. Identification and evaluation of material and waste arisings from given processes and projects are described in Waste Management Matrices which are formulated prior to the generation of waste.

3.2 ORGANIZATION DESIGN

Site divisions have either programmatic responsibilities or project responsibilities (see Figure 1, *FBP Organizational Chart*). The programmatic areas establish protocols to govern work; each division director reports to the site project director, as does the site project deputy. The deputy oversees the project-delivery divisions, which ultimately are responsible for conducting the site mission in compliance with the protocols set by the program directorates. The project delivery divisions include:

- Environmental Remediation
- Facility Stabilization and Deactivation
- Non-Destructive Assay (NDA)
- Nuclear Operations
- Site Maintenance, Infrastructure, and D&D Projects
- Waste Management
- OSWDF
- WAO/ Waste Certification
- Software Management Office (SMPO)

The vast majority of wastes will be generated through operations performed by the project-delivery divisions. Following the principles of ISMS and EMS ensures that relevant waste management requirements are incorporated during the work planning process for each of these divisions. Ultimately, all personnel involved in the generation of wastes are responsible for complying with procedures and work control documents that detail waste management requirements.

The Waste Management division is designed to separate the programmatic elements from the project-delivery elements (see Figure 2, *Waste Management Organizational Chart*). The waste certification function reports to the WAO Manager; however, like all personnel, the Waste Certification Official (WCO) has the authority to report directly to the highest level of FBP management or an outside authority in the event of a concern with compliant management of waste.

Figure 1, FBP Organizational Chart

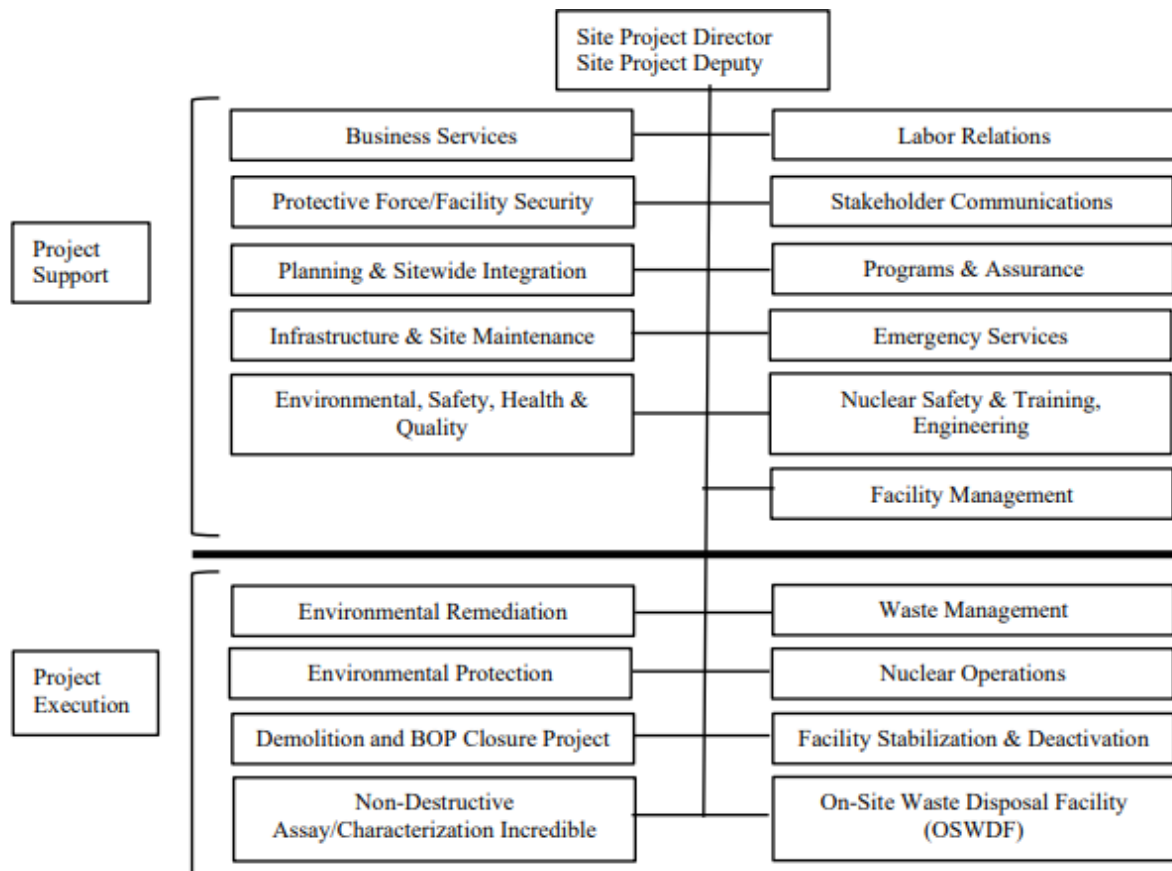
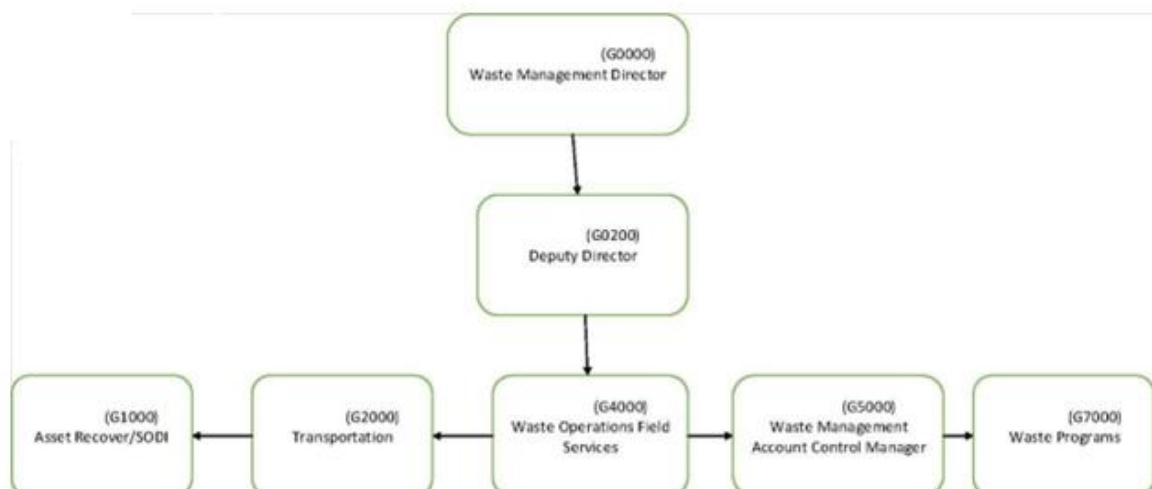


Figure 2, Waste Management Organizational Chart



3.3 ROLES AND RESPONSIBILITIES

3.3.1 Site Project Director

The site project director serves as the primary interface with DOE on establishing goals and priorities. The director establishes operational goals, sets standards of performance, and ensures integration of the program and project division managers. Ultimately, the site project director is responsible for ensuring programs are established to allow compliance with all applicable regulations and orders, including DOE O 435.1 and DOE O 458.1.

3.3.2 Director and Deputy Director, Waste Management Division

The Waste Management division director and deputy director are responsible for developing a waste management plan and implementing a waste management program that adheres to the requirements of DOE O 435.1, including demonstrating best value to the government. These objectives are accomplished by:

- Establishing strategic waste management plans based on the goals and priorities set by the site project director and DOE, and ensuring alignment with the project baseline
- Interfacing with other project-delivery directors to establish schedules for all operations and projects that will generate waste, to understand and anticipate Waste Management support needs
- Budgeting and staffing the Waste Management division to ensure that compliance with applicable regulations and requirements can be maintained
- Assessing Waste Management division operations to ensure that compliance with applicable regulations and requirement is maintained for all wastes managed by the division
- Establishing waste generation standards in accordance with regulations and DOE Orders

3.3.3 Senior Managers, Waste Management Division

The Waste Management department managers are responsible for the following functions:

- Waste Programs encompasses those activities that cut across the entire Waste Management division, such as generation, life-cycle planning, characterization, disposition, and tracking. These activities are managed through the Waste Management Data Tracking and Waste Disposition groups. Waste Programs has responsibility for completing regulatory reports required under the RCRA Part B Permit and the Site Treatment Plan (STP). Waste Programs also is responsible for designing and implementing the waste verification program to ensure appropriate characterization of wastes in permitted storage. Waste Programs also has responsibility for monitoring systems as required under the Federal Facilities Compliance Agreement. Waste Programs assists projects in the development of Waste Generation Plans for work executed under RD/RA WPs or under other CERCLA authorized activities.
- Waste Operations manages on-site RCRA storage facilities in buildings X-330, X-345, and X-705 maintaining compliance with the storage and inspection criteria of the permit. Waste Operations conducts other activities associated with physical manipulation or housing of wastes in RCRA-permitted areas and other waste storage areas. This group also handles packaging, labeling, on-site transfers, excess materials, newly generated wastes, and closure activities when those activities are warranted. Waste Operations coordinates with Waste Programs to ensure that all wastes accepted in the RCRA Part B storage area meet both the facility requirements as well as those specified in the permit. Waste Operations shall oversee the management of any designated CERCLA storage areas to ensure full compliance with ARARs.
- Transportation manages on-site and off-site transport of hazardous materials and wastes, manages containers/packaging inventory management, and handles shipment logistics.
- X-705/X-700 Operations manages handling legacy waste, dismantling process gas equipment, and uranium deposit removal.
- Asset Recovery & Recycling manages coordination of Recycle/Reuse Programs interfacing with off-site community organizations.

3.3.4 Waste Interfaces

Key interfaces between the site divisions and the Waste Management division are identified in Appendix B, *Matrix of Primary Waste Interfaces*.

3.3.5 Training

Managers and supervisors are responsible for establishing the training requirements for personnel within their organizations. Training should address designated responsibilities in accordance with applicable procedures, regulations, guidelines, and policies; and, the supervisor shall ensure that the designated training is current. The training department is responsible for administering required training and maintaining records of training. Training record completion and due dates are available through the FBP Training department.

RCRA Part B (hazardous waste) training is required for employees that perform hazardous waste related tasks, such as;

- Characterizing and Identifying waste
- Scheduling hazardous waste shipments
- Inspecting hazardous waste storage and accumulation areas
- Maintaining inventory and recordkeeping

- Marking and labeling containers
- Maintenance of tanks or other equipment
- Any emergency coordination
- Loading/unloading or transporting hazardous waste.

4. WASTE MANAGEMENT PROGRAM OVERVIEW

4.1 SOURCES OF WASTE

PORTS is a dynamic site supporting both ongoing operations (such as uranium cylinder transfers) as well as D&D activities. For all operations, FBP strives to avoid generating waste, to minimize chemical and radioactive contamination, and to determine whether materials can be re-used or recycled. When wastes *are* produced, identification of the source is critical to proper management. PORTS has two classes of waste — legacy and decommissioning. The latter class originates from three main sources: processes, projects, and spill cleanup.

4.1.1 Legacy Wastes

DOE contractors created legacy wastes until LATA Parallax Portsmouth, LLC (LPP), transitioned on March 29, 2011; United States Enrichment Corporation (USEC) created legacy wastes before transitioning on Oct. 1, 2011.

4.1.2 Process Wastes

Process wastes are those produced by ongoing routine site activities, including but not limited to maintenance, laboratory operations, water treatment, and uranium transfer operations. These repetitious activities are governed primarily by procedures and may be repeated in many areas across site. Process wastes may include secondary wastes such as Personal Protective Equipment (PPE) collected routinely from a variety of projects.

All currently generated process wastes have established disposition routes and are handled in accordance with applicable laws, regulations, and orders (including treatment or disposal within specified time limits under the specific regulation or order).

CERCLA process wastes are generated by the three process buildings and non-process buildings per DFF&O Appendix H and G facility listings. While the on-site laboratory may accept and analyze waste and materials classified as CERCLA, all secondary wastes will not use the CERCLA designation and shall adhere to the more stringent criteria currently in place.

4.1.3 Project Wastes

The vast majority of wastes to be generated and managed under FBP will originate from D&D projects and will consist primarily of equipment, building debris and rubble, concrete, and residual soils. With the signing of the RODs, the majority of projects executed by FBP will be governed under CERCLA. The specific ARARs will be specified in RD/RA WPs or other governing documents.

4.1.4 Spill-Cleanup Wastes

Work controls minimize the opportunities for spill conditions. However, spills occasionally may result from ongoing operations and facility maintenance (e.g., fuel leaks, hydraulic-line breaks in heavy equipment, and mercury-switch breakage). Additionally, spills may occur during D&D activities as a result of handling aging containers, residual liquids in process systems, etc. Spill response criteria are governed by the site Emergency Plan, spill response procedures, and the RCRA Permit Contingency Plan, as applicable. Spills that occur during the execution of CERCLA activities under an approved RD/RA WP are managed under the applicable ARARs and the wastes are classified as CERCLA. Spills that occur outside of CERCLA activities are managed as non-CERCLA.

Spill-cleanup activities may generate media in the form of used absorbents (e.g., pigs, pads, and towels) or contaminated soils, concrete, etc. If a waste generated during a spill meets the criteria of a mixed waste, the waste is added to the STP and managed in accordance with the requirements of the STP. All other spill-cleanup wastes and secondary materials are managed in accordance with applicable laws, regulations, and orders, including treatment or disposal within regulatory specified time limits.

4.1.5 CERCLA versus Non-CERCLA Waste

As noted above, non-legacy wastes must be assessed to determine if they meet the definition of CERCLA or non-CERCLA based on their generation. CERCLA wastes include any wastes that were generated under the auspices of the data collection phase of the Remedial Investigation (RI)/Remediation Feasibility Study (FS) for the PB D&D ROD or are currently being generated while executing work that implements the decisions outlined in the two CERCLA RODs. These activities are most readily identified as work being performed under Work Plans or Sampling and Analysis Plans issued under the authority of the D&D DFF&O.

All waste is identified as CERCLA or non-CERCLA in the waste tracking system to allow for each designation of waste to be accounted for. All CERCLA waste is identified in the waste tracking system as described in Section 4.2 to allow for a full accounting of waste. The preferred management protocols are to identify wastes that are not anticipated to meet the WAC and ship offsite for disposition. All Low Level Waste (LLW) and other waste that is anticipated to meet the WAC will be held in storage until such time as it accepted for disposal at the OSWDF. A full inventory will be maintained and shall be reported in the CERCLA quarterly reports.

4.2 WASTE VOLUMES

FBP maintains a real-time database, eMWaste®, for cradle-to-grave tracking of wastes and recyclables. Each item or container in the database is identified by a unique tracking number and its onsite storage location; upon off-site shipment, the final destination and shipment details are uploaded. eMWaste® is managed per the site Software Management Program (SMP). The information maintained in eMWaste® is part of the RCRA Operating Record.

FBP also maintains an inventory of accountable nuclear materials in the Portsmouth Materials Accountability System (PORTSMAS). These materials are not classified as waste but may be reclassified as such if recovery of marketable material is deemed unfeasible. The PORTSMAS inventory is monitored as part of overall planning activities for decommissioning.

The ability to anticipate and plan for additional, emergent volumes of waste is critical to FBP's decommissioning mission. To support such projections, a waste per facility estimate spreadsheet has been developed to capture estimates of wastes that will be generated through the removal and disposition of equipment within facilities as well as the demolition and/or excavation of the facilities/structures themselves. Facility waste spreadsheet is used to underpin the Lifecycle Plan for completion of the work on site.

While eMWaste®, PORTSMAS, and the Facility waste spreadsheet encompass the majority of current wastes or materials that may be declared wastes, the databases may not include all projected waste inventories — such as non-structural commodities and supplies that are currently classified as useable inventory (not waste). To address these other materials, when facilities or portions of facilities are scheduled for decommissioning, detailed inventories (walkdowns) also will be scheduled. Updated inventories of wastes, recyclables, and reusable assets or materials will be recorded in “facility (project) waste management plans”. Upon acceptance of inventory information, the Mass Flow Database will be updated with refined waste estimates.

4.3 WASTE GENERATION PROCESSES

The flow diagrams in Figure 3, *Waste Management Flow Charts*, illustrate FBP's waste-generation system — categorized into legacy, process, project, and spill-cleanup wastes.

4.4 HIERARCHY OF CONTROLS

FBP assumed responsibility for the D&D Project at PORTS in March of 2011. Subsequently, FBP integrated two sets of safety basis documents, functional program plans, and procedures from predecessor contractors — USEC operating under the Nuclear Regulatory Commission (NRC), and LPP, which had operated under DOE. (Figure 4, *FBP Performance Document Hierarchy*, shows FBP's document hierarchy.) FBP has committed that all documents must comply with pertinent DOE programs, including DOE O 458.1, Chg 4, *Radiation Protection of the Public and the Environment*, and DOE O 435.1-1, *Radioactive Waste Management*.

4.4.1 Safety Basis

Safety basis documents are developed and maintained in accordance with a series of procedures and guides owned by FBP's Nuclear Safety organization. Upper-tier safety basis documents include a Documented Safety Analysis (DSA) and its associated Technical Safety Requirements (TSRs), Basis of Interim Operation (BIO) and its associated TSRs, and Safety Management Program (SMP) description. These documents evaluate on-site radiological and chemical hazards and establish the overall safety envelope for nuclear and hazardous material operations; as controlled documents, they are maintained under configuration management. Currently, FBP has one BIO for former uranium enrichment facilities (FUEF) and one DSA for non-FUEF. The SMP document describes the FBP safety management programs applicable to the both the BIO and DSA. The BIO, DSA, TSRs, and SMP documents are approved by DOE to comply with 10 Code of Federal Regulations (CFR) 830, Subpart B.

Safety basis requirements (including controls from TSRs, Nuclear Criticality Safety Approvals [NCSAs], and Nuclear Criticality Safety Evaluations [NCSEs]) are flowed into procedures and/or work control documents; to ensure full compliance, any procedures or work control documents that flow down safety basis requirements and controls are reviewed by, and approval is obtained from, Nuclear Safety and Nuclear Criticality Safety (NCS) engineers as part of the approval process.

4.4.1.1 RADIOACTIVE WASTE MANAGEMENT BASIS

Activities involving radioactive material are sanctioned by authorization agreements (for FUEF and non-FUEF) between FBP and DOE; FBP's prime contract and authorization basis documents define the scope of those activities.

Numerous documents underpin the Radioactive Waste Management Basis (RWMB) — e.g., the SMP, DSA, BIO, DOE safety evaluation reports, TSRs, RCRA Part B permit, NPDES permit, and EPA Title V permit and associated ARAR's; however, most of the controls required for an RWMB are implemented through the SMP, DSA, BIO, and TSRs. Information from these documents has been used to form the Radioactive Waste Management Basis Document (RWMB), FBP-WM-PL-00103. The radioactive/hazardous waste management program implements the RWMB and ensures that waste will be appropriately characterized, designated, and packaged to meet requirements for storage/disposal; the program is discussed in detail in the SMP.

Table 4.4 (Appendix E) lists the existing PORTS Site Waste Management-operated facilities covered by the PORTS RWMB, based on use, for storing, staging, or treating radioactive wastes. In addition, the associated facility hazard category and hazard classification are listed, as well as the type of regulated wastes that can be managed in those facilities. During generation activities, the generating projects will be responsible for management of wastes temporarily accumulated and/or staged prior to transfer to one of the designated on-site facilities or to off-site TSDFs. Appendix C lists the Waste Management (Including Waste Certification) plans and procedures which provide guidance for generators, certification, storage, characterization, disposition and transportation.

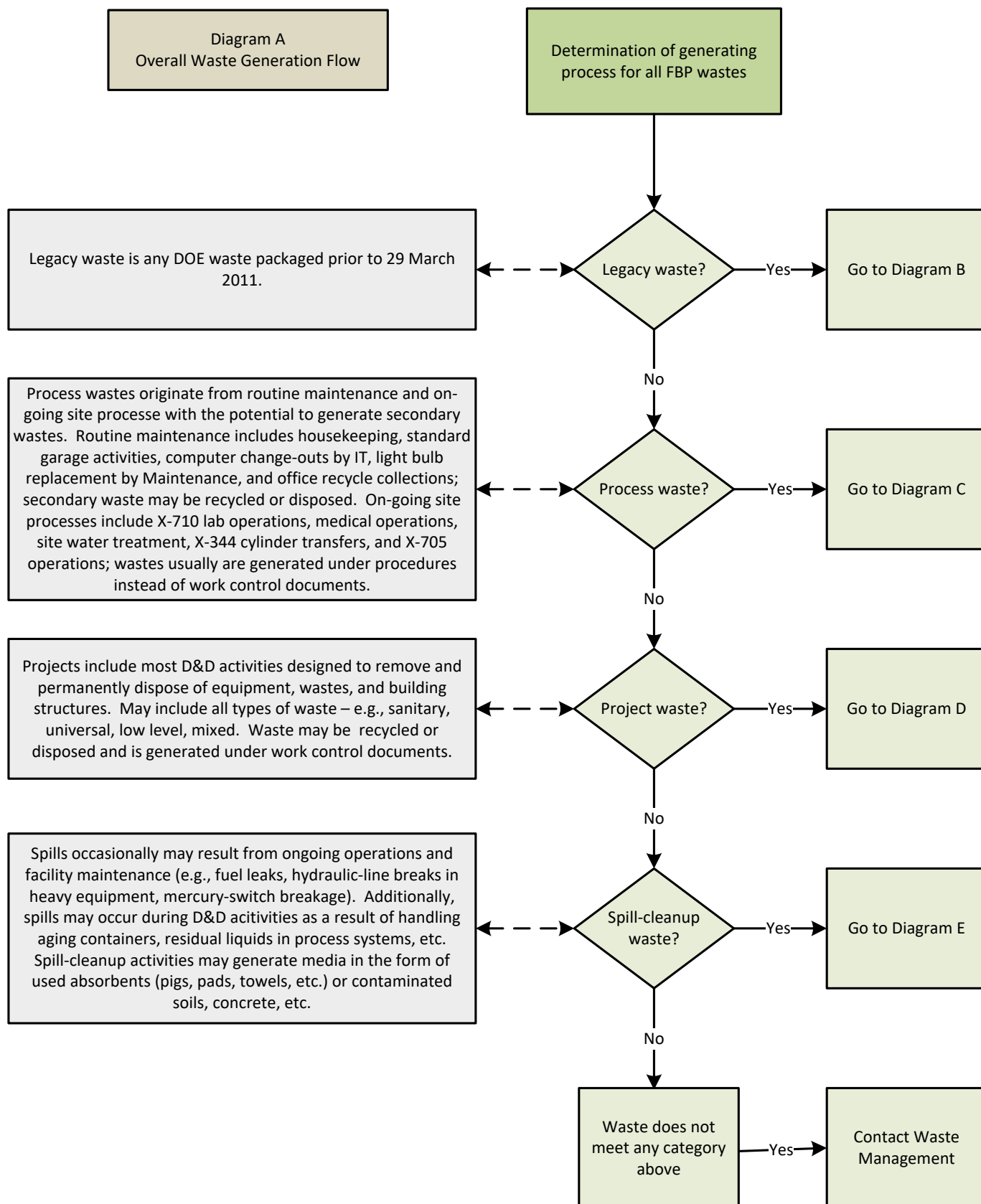
Figure 3, Waste Management Flow Charts

Figure 3, Waste Management Flow Charts (continued)

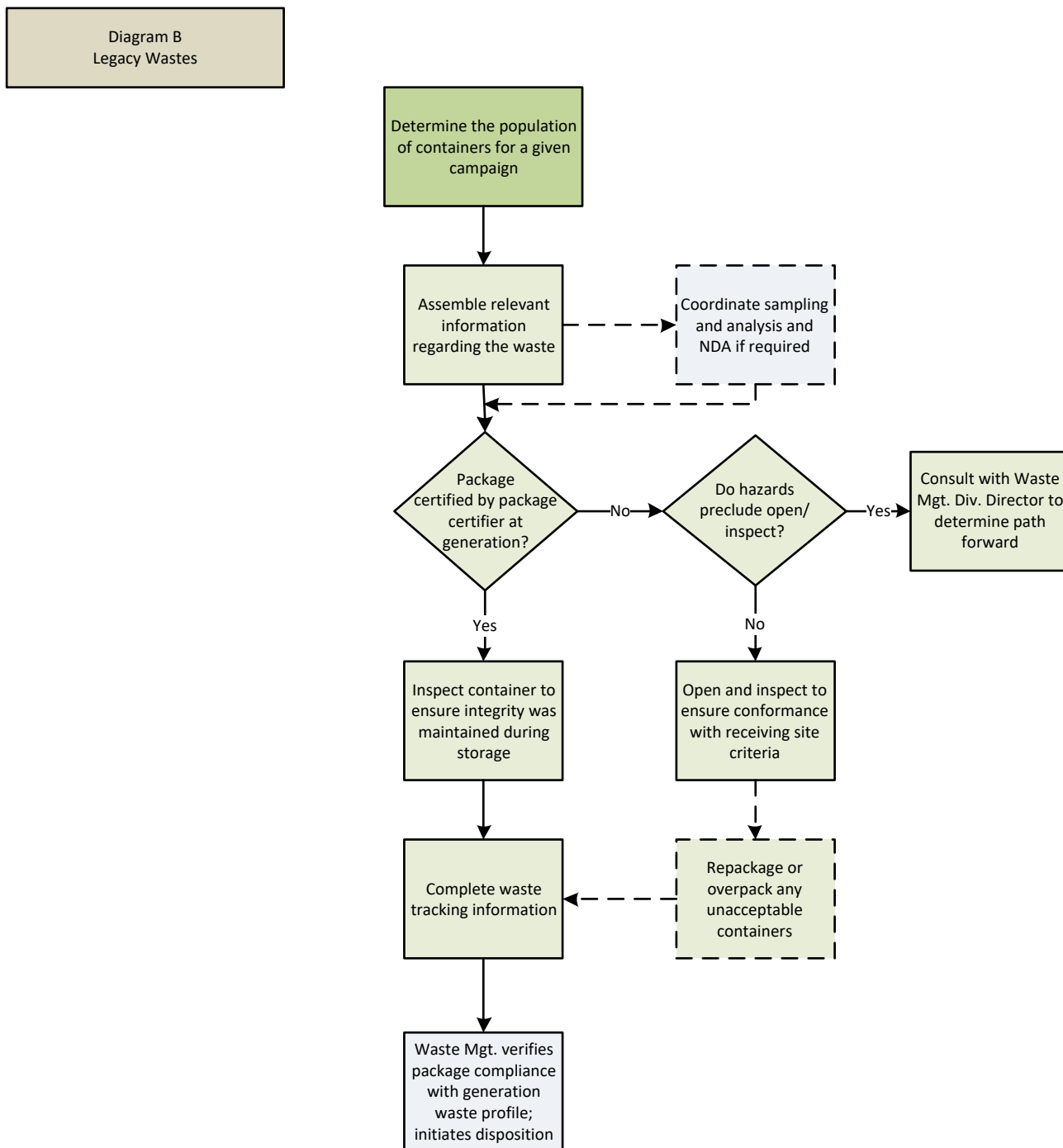


Figure 3, Waste Management Flow Charts (continued)

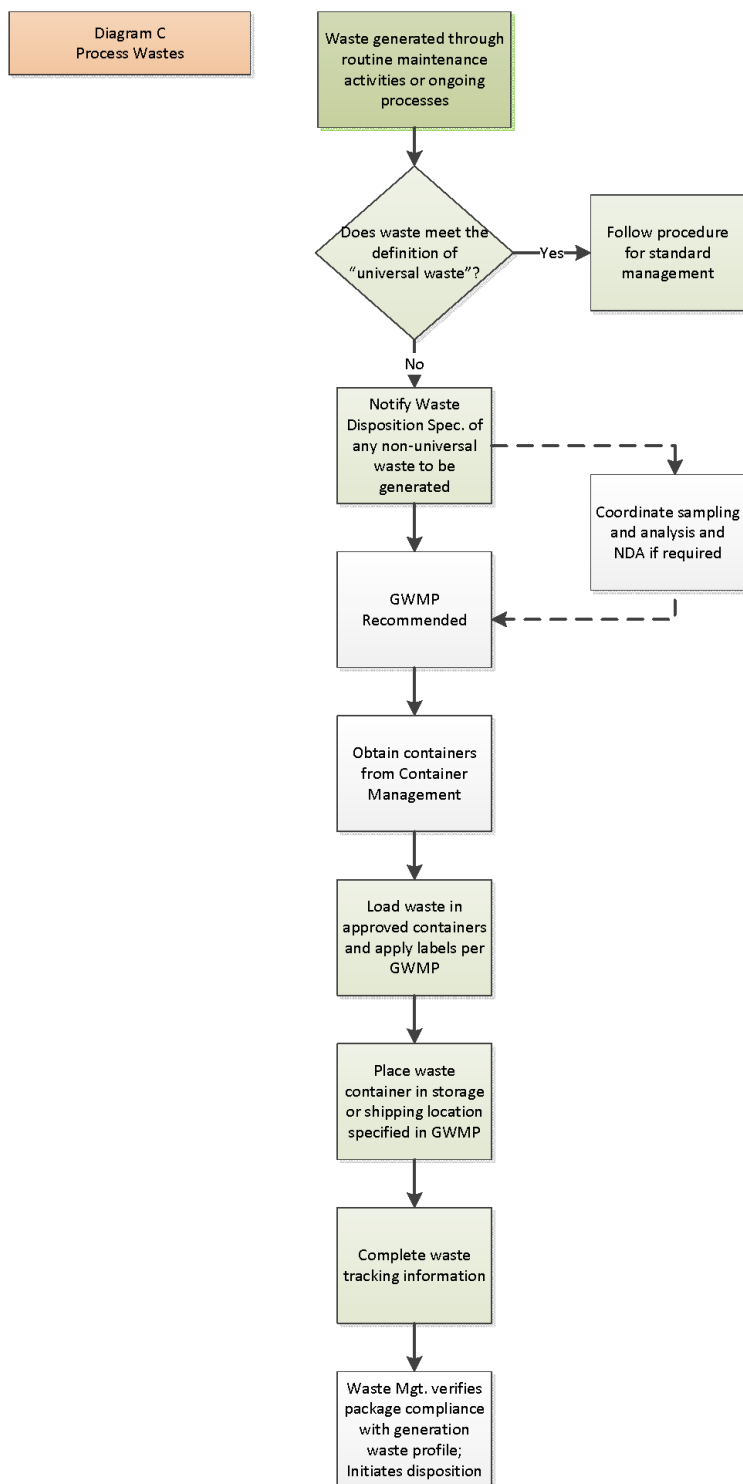


Figure 3, Waste Management Flow Charts (continued)

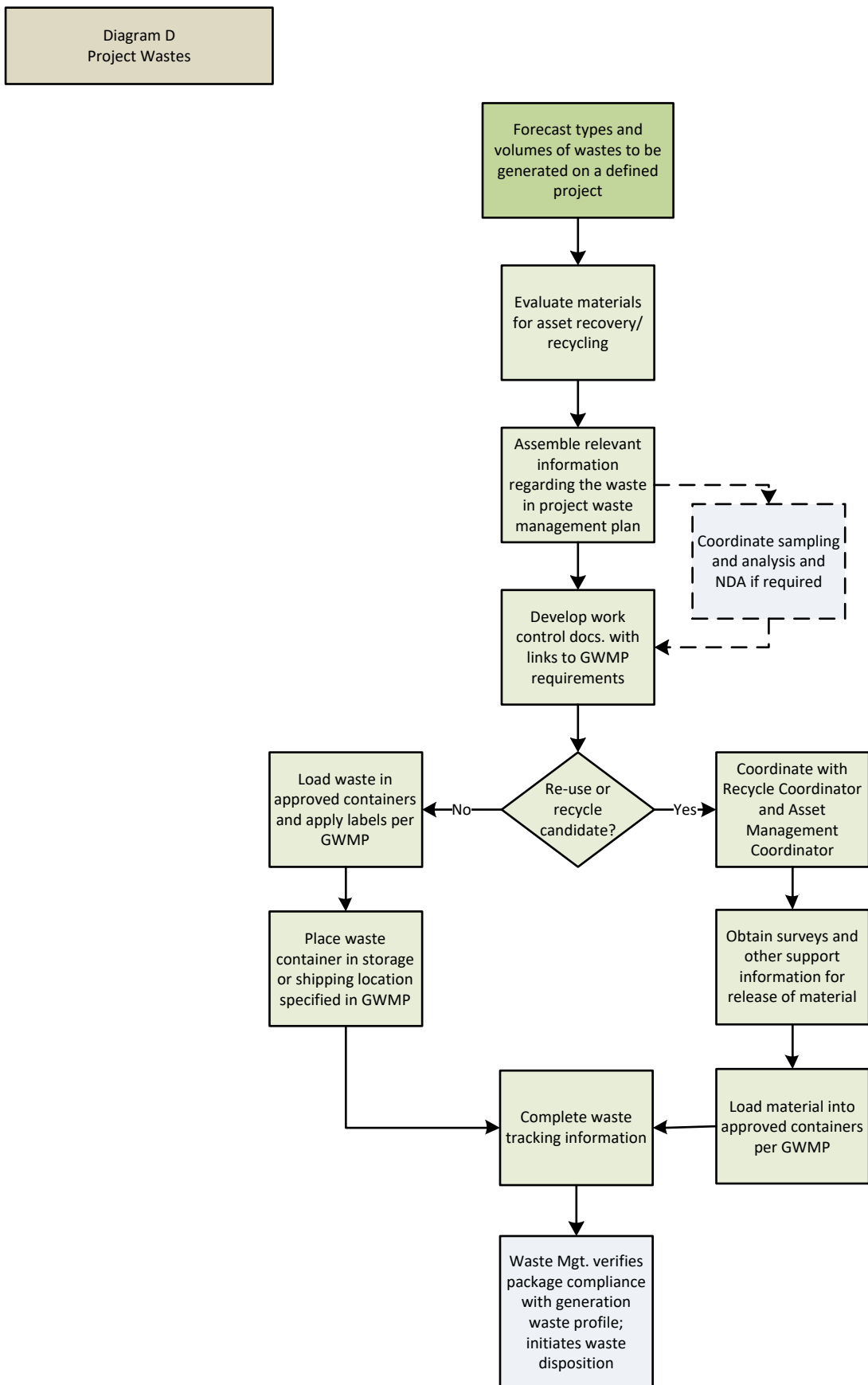


Figure 3, Waste Management Flow Charts (continued)

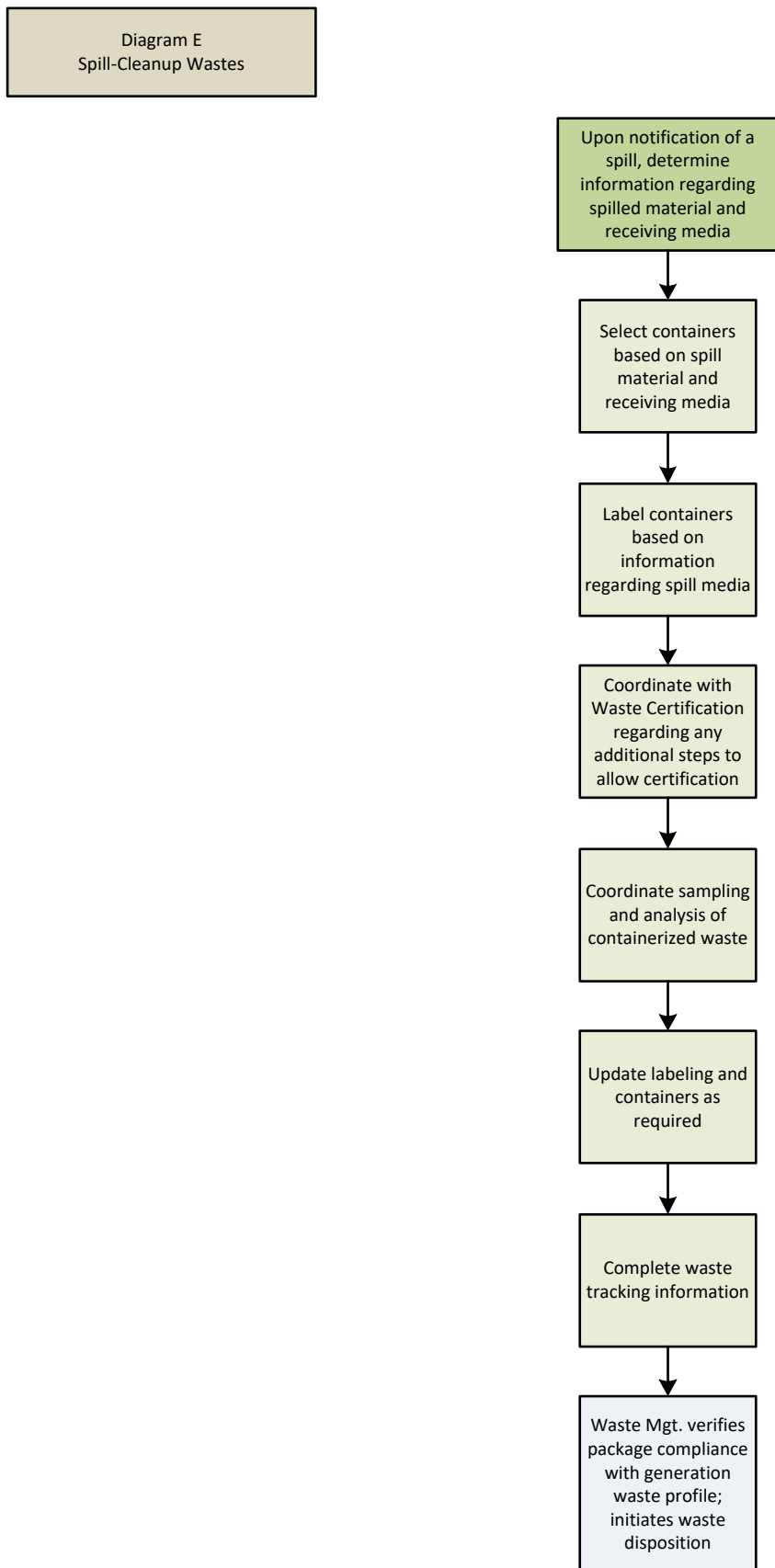
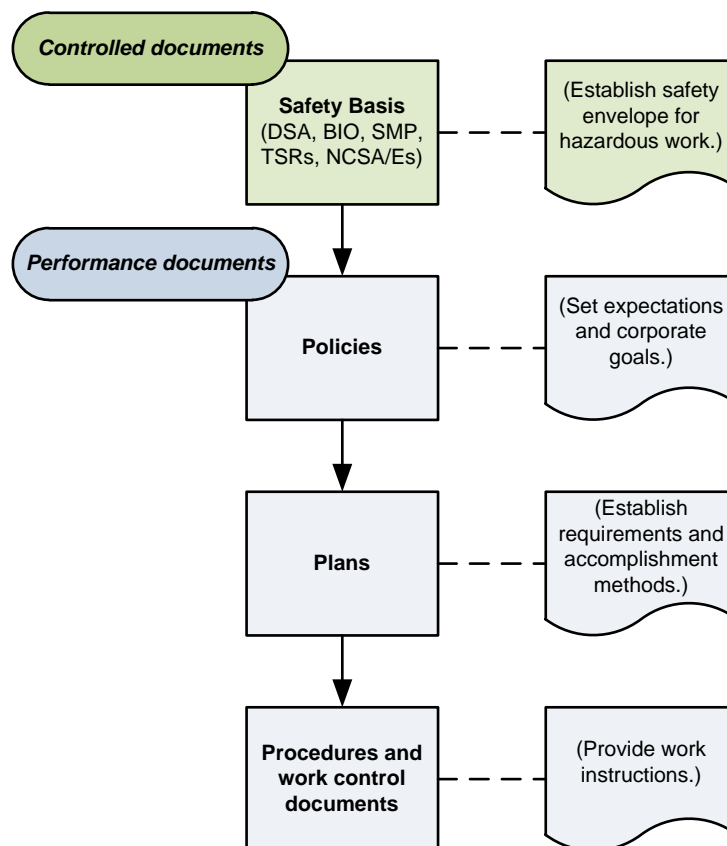


Figure 4, FBP Performance Document Hierarchy

Physical and administrative controls include the waste-certification program for off-site shipments; treatment, storage, and disposal facility (TSDF) WAC; waste profiles; facility inspections; closure plan; ISMS; EMS; nuclear safety and NCS programs; and inventory controls.

The WAC Implementation Plan is active (FBP-ER-OSDC-WD-PLN-00071) which applies to waste generator activities and disposal operations in the OSWDF. A Waste Acceptance Organization (WAO) was created under Environmental Protection (EP) to evaluate CERCLA waste to be stored for eventual disposal at the OSWDF.

WAO/Waste Certification Roles and Responsibilities:

a) Waste Certification Roles

- Waste Certification (WC) is a service organization within the Environmental Protection organization tasked with independent oversight of off-site waste disposal at approved TSDFs, including direct disposal at the Nevada National Security Site (NNSS). Oversight for 100% of waste and packaging ensures compliance with the Waste Acceptance Criteria (WAC) for its planned TSDF. All waste planned for off-site shipment and disposal are subject to WC's compliance oversight role.

b) Waste Certification Responsibilities

- Support all packaging activities when off-site waste disposal is planned, to verify waste is being packaged in a way that it can be certified to meet DOT and WAC requirements for acceptance at the planned TSDF.
- Verify containers being packaged are labeled, information is being collected to satisfy requirements for traceability and documentation is being completed that supports certification.
- Verify packaging activities adhere to project-specific plans, waste is being handled and absorbent added to ensure waste shipments will comply with DOT and WAC requirements for acceptance at the planned TSDF.

4.4.1.2 WORK CONTROL

RWMB controls are flowed into plans, procedures, and work control documents as appropriate. Upper-tier documents include safety basis documents, policies, and plans that identify operational requirements, set expectations, and establish specific goals respectively; lower-tier documents (procedures and work control documents) provide work methods and specify action steps for jobs and tasks. (FBP's upper-tier documents flow into lower-tier documents as illustrated in Figure 4.) These documents establish and implement controls that support the nuclear safety program and radioactive/hazardous waste management program. Any new or revised waste management activities will be evaluated through the Unreviewed Safety Question (USQ) process.

WM-PL-00103; *Radioactive Waste Management Basis for the Portsmouth Gaseous Diffusion Plant* has been developed to summarize FBP's comprehensive safety and waste management programmatic elements in compliance with DOE Order 435.1

4.4.1.3 INVENTORY CONTROLS

To ensure material inventories remain within hazard categories established per DOE-STD-1027-92 and regulatory constraints established by RCRA, TSCA, etc., FBP implements controls such as facility limits, tracking systems (e.g., eMWaste®), forms/checklists, and physical boundaries.

The number of containers and the amounts of material allowed in storage areas are specified in documents such as FBP's facility inventory control procedure for non-FUEF, NCSAs/NCSEs, RCRA Part B permit, and waste operations/storage procedures; additionally, FBP's waste generation and disposition programs direct generators how to store regulated waste. Authorization and controls to accept containers into storage are flowed into procedures and work control documents.

4.4.1.4 ACCEPTABLE WASTE REGULATORY CLASSIFICATIONS

FBP generates and can store the following wastes, which may exist in the form of solids, liquids, or gases (in order, from lowest hazard controls to most stringent hazard controls):

- Recyclable materials
- Sanitary/industrial (e.g., building rubble [industrial] and office trash [sanitary])
- Universal
- Non-RCRA chemical waste
- RCRA (i.e., hazardous waste as defined by RCRA)
- TSCA (e.g., Polychlorinated Biphenyls [PCBs])
- LLW

- RCRA/LLW (LLW waste mixed with RCRA-regulated constituents)
- TSCA/LLW (LLW mixed with TSCA-regulated constituents such as PCBs)
- RCRA/TSCA/LLW (LLW waste mixed with TSCA- *and* RCRA-regulated constituents)

FBP does not generate or manage high-level radioactive waste or Transuranic (TRU) waste. It is necessary, however, to review sources declared as wastes, particularly Am²⁴¹ foils, that may have concentrations of transuranics >100 nCi/g (DOE Manual 435.1 – (III)(A) 10 CRF 61.55).

Any of the classifications above may or may not be managed as CERCLA waste. The generating activities will dictate whether the waste is CERCLA and it will be designated as such in the waste tracking system. Wastes designated for disposal at the OSWDF will not be subject to the one-year limit for the storage of radioactive waste under DOE Order 435.1.

4.4.1.5 *ACCEPTABLE WASTE FORMS*

The sizes of solid waste vary from large pieces of equipment to "fines" (such as granulated powders). Liquid wastes generally consist of:

- Off-specification and unused chemical products
- Oils (process system lube oil, PCB drop-leg oil, and garage/equipment lubrications)
- Water from groundwater-remediation operations

Gaseous waste usually is contained in cylinders; however, Freon and some other gases in process piping will require containerization prior to disposal.

4.4.1.6 *ACCEPTABLE CONTAINERS/PACKAGES*

Container types are predicated on the waste type and form, since the waste has to be compatible with the container material. Typically, FBP stores waste in packaging that meets DOT shipping specifications, to reduce risks and costs associated with double-handling waste. Container sizes range from small-diameter containers (used to maintain criticality controls) to rail cars (for debris and soil).

Acceptable containers for the OSWDF are specified in the WAC Implementation Plan and the Impacted Materials Placement Plan.

Acceptable Characterization Information

Analytical data, NDA information, and process knowledge are used to characterize wastes. The amount and extent of information/data needed for characterization depends on the amount of information needed to meet requirements for on-site storage (usually NCS controls), shipping (DOT and NRC requirements), and acceptance by the target TSDF (WAC).

It is anticipated that the RI/FS characterization studies largely bounded the wastes destined for the OSWDF so further characterization is anticipated to be minimal for LLW.

4.4.1.7 SPECIAL CONSIDERATIONS

FBP manages classified waste and also waste considered accountable because of ^{235}U levels. In both cases, the waste can be stored in only designated areas on plant site, which have suitable security controls. At time of writing, the Nevada Nuclear Security Site (NNSS) was the only facility allowed to accept classified wastes for disposal, and only a limited number of facilities could accept classified mixed LLW for processing. Waste Management will work in conjunction with NCS, Nuclear Materials Control and Accountability (NMC&A), and Safeguards and Security to identify all controls required to manage classified and accountable wastes/materials.

4.4.2 Waste Management Documents

Appendix C, *Waste Management Plans and Procedures as of November 2025*, lists waste management documents in place at the time of writing (the list fluctuates as continuous improvements drive document modifications). Figure 5, *Waste Management Document Hierarchy*, shows the hierarchy of waste management documents.

4.4.2.1 PLANS

4.4.2.1.1 Waste Management Plan

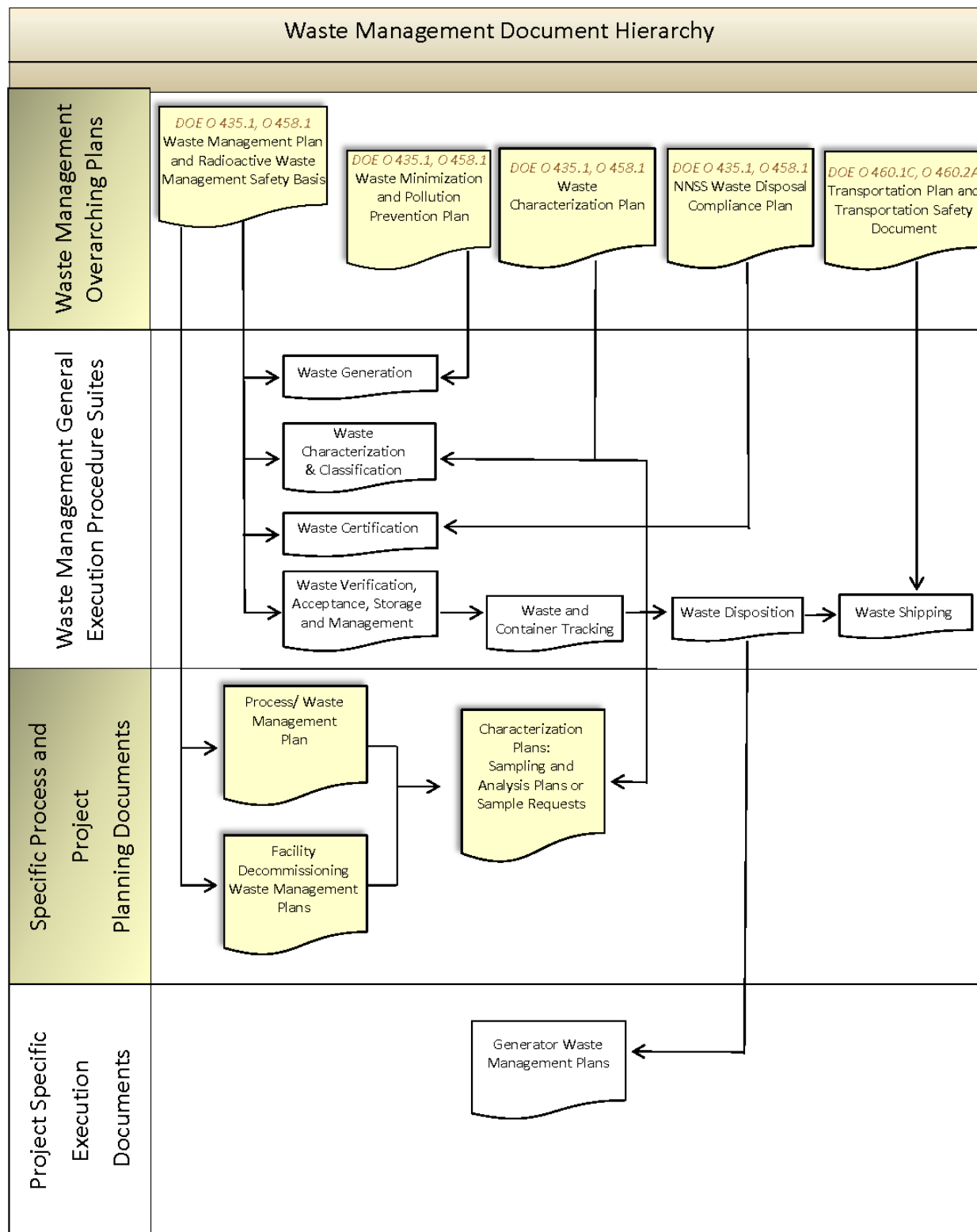
This WMP defines FBP's overall cradle-to-grave waste-management strategy as well as key activities, processes, and interfaces. Primary objectives are implemented through lower-tier plans; specific goals are flowed into procedures and work control documents (see Figure 5).

4.4.2.1.2 Waste Minimization and Pollution Prevention Plan (DOE Manual 435.1-1 (I)(1)(D)(20))

The waste minimization and pollution prevention plan is implemented via procedure; it emphasizes the need to reduce or eliminate waste, waste-water discharges, and air emissions at the source while complying with safety, environmental, quality, and productivity requirements.

The plan also provides guidance on meeting the requirements of the waste minimization and pollution prevention awareness program. The program strives to:

- Promote the use of non-hazardous materials in Plant operations, to minimize risks to human health and the environment
- Reduce or eliminate pollution to all media (e.g., land, water, air) to the lowest reasonably achievable level (through materials substitution, process optimization and innovation, in-process closed-loop recycling, and waste segregation)

Figure 5, Waste Management Document Hierarchy

- Use, reuse, reclaim, or recycle to the maximum extent practical those waste streams that cannot be eliminated or minimized by source reduction
- Promote the continual evaluation and implementation of waste-minimization and pollution-prevention opportunities in Plant operations, technical support activities, and project designs
- Develop an awareness of environmental issues in all employees

4.4.2.1.3 Waste Characterization Plan (DOE Manual 435.1-1(IV)(I), 10 CFR 61.55 (2))

The waste characterization program plan establishes requirements for the physical, chemical, and radiological characterization of all wastes produced at PORTS. The characterization plan is a key component of the overall waste management plan and also aligns with FBP's Sample Analysis Data Quality Assurance (SADQ) project plan.

Primarily, the characterization plan:

- Specifies Data Quality Objectives (DQOs), based on sources of waste at PORTS
- Provides guidance on evaluating available information (process knowledge and historical data)
- Identifies the sampling approach (random or authoritative), sample coverage guidelines, and analytical approach

These guidelines will be used to develop and document the specific requirements for a given waste population at the point of generation. Because of the variety of wastes at PORTS, guidelines for specific generating procedures are included (to allow appropriate scaling of quality and documentation requirements). Wastes submitted into the RCRA Part B Storage area are characterized in accordance with the requirements of Section C of the permit.

4.4.2.1.4 NNSS Compliance Plan

The Waste Certification Official (WCO) is responsible to ensure that the NNSS Waste Acceptance Criteria (NNSSWAC) Implementation Crosswalk (NIC) is completed in accordance with FBP-WM-PRO-00050; *Profiling Waste for Disposal at the Nevada National Security Sites* to demonstrate programmatic compliance with specified requirements (key elements of the NNSSWAC) has been evaluated. The NIC is a tool to help generators evaluate their program documents for compliance with the NNSSWAC. Implementation of FBP's Quality Assurance Program Plan (QAPP) and applicable procedures, processes, or methods referenced in the NIC will ensure compliance with NNSSWAC requirements. The WCO reviews and submits the NIC annually or within 90 days of an NNSSWAC revision, interim guidance, interpretation or addendum to ensure referenced data are current.

4.4.2.1.5 OSWDF Disposal Plan

The Waste Disposition ROD provides a decision that waste generated under the Process Buildings ROD (DOE 2015c) can be disposed on site or off site, depending on compliance with the various disposal facility waste acceptance criteria and the availability of OSWDF placement availability. The scope of work in the RD/RA work plan implements a portion of the Waste Disposition remedy; the performance standards to be met by this work (i.e., compliance with ARARs) are provided by the Waste Disposition ROD (see ROD Section 13.2, Compliance with ARARs, and ROD Appendix A). The *Operating Disposal Authorization Statement for the Portsmouth Gaseous Diffusion Plant On-Site Waste Disposal Facility* documents the Radioactive Waste Management Basis for the OSWDF and lists the documents that comprise the RWMB for the facility.

4.4.2.1.6 Transportation Plan

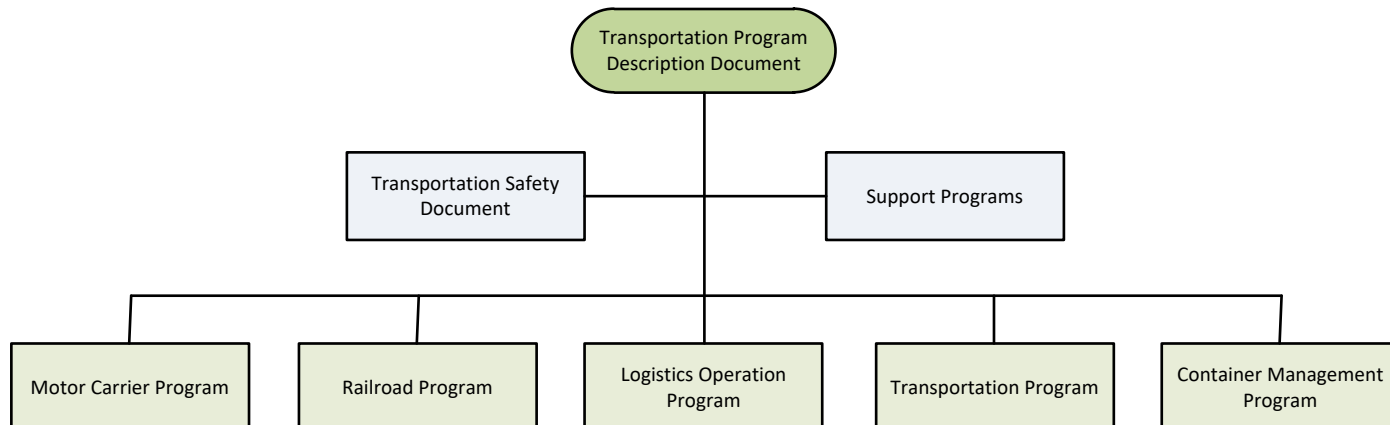
A transportation program description document lays out FBP's transportation program (see Figure 6, *Transportation Plans*). It defines how FBP will ensure that packaging and transportation are performed in a manner that:

- Protects the safety and health of workers, the general public, and the environment
- Keeps exposures to ionizing radiation “as low as reasonably achievable” (ALARA)

(NOTE: ALARA requirements can be found in FBP-RP-PRO-00006, *As Low as Reasonably Achievable (ALARA) Programs and Committee*)

- Protects the interests and reputations of DOE and FBP

Figure 6, Transportation Plans



The transportation program description is supported by a Transportation Safety Document (TSD) (POEF-FBP-010, *Transportation Safety Document for the On-Site Transport of Hazardous Material at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio*), as well as individual plans for specific subject areas (special projects are created as needed).

These lower-tier transportation plans address execution, procurement of packaging (part of the overall container management program), rail operations, logistics, motor carrier compliance, and transportation-related training. Specific training requirements can be found in FBP-WM-PL-00051, *Transportation Training Plan*.

The TSD serves as a stand-alone safety basis document governing on-site transfers of hazardous material. It is implemented via an umbrella procedure for on-site transfers; that procedure in turn is flowed into lower-tier affected procedures.

4.4.2.2 *PROCEDURES*

Waste Management currently maintains administrative and technical (operating) procedures that are accessible to all employees through Documentum®, an electronic document-control system. These procedures address cradle-to-grave waste management practices as well as routine and off-normal waste operations.

Procedures are developed in accordance with rigorous processes that include SME review as well as interdisciplinary review. All procedures are verified as accurate, and technical procedures are validated in the field by the working staff to ensure they can be used as written. Technical procedures are submitted for security reviews, and all procedures are subjected to safety-basis reviews; additionally, those that require an Unreviewed Safety Question Determination (USQD) undergo further scrutiny by a site review committee consisting of senior management personnel. Controlled copies are distributed via the FBP intranet, and also via paper copy to those without internet access. Published procedures are reviewed periodically, per established schedules, to ensure they remain current.

4.4.3 **Waste Generation Planning Documents (DOE Manual 435.1-1(IV)(I)(2)(f), OAC 3701-1-54-10(B))**

4.4.3.1 *PROCESS WASTE MANAGEMENT PLAN*

Wastes arising from ongoing routine maintenance and site operations are referred to as "process wastes". These repetitious activities are governed primarily by procedures and may be repeated in many areas across the site. The characterization requirements for process waste are being captured in a graded approach for development of facility process Generator's Waste Management Plans (GWMPs). GWMPs for facilities producing process wastes will broadly describe the general management pathways, including recycle and action to minimize waste generation.

Facilities subject to multiple regulations and with additional criticality or accountability concerns will be prioritized as Tier I facilities. Tier I facilities include: X-705/X-700, X-720/X-720C, and X-750. Tier II facilities include: X-300 Complex and X-600 Complex. Facilities that accept or house wastes but do not generate new primary waste streams with the exception of secondary waste will not have GWMPs.

4.4.3.2 *GENERATOR'S WASTE MANAGEMENT PLAN*

GWMPs provide specific guidance regarding management of waste to be generated for specific projects. The preference is to complete the GWMP after characterization is finished and the waste has been classified. The data included should be specific to:

- Identification and classification of the waste streams
- Container types to be used for packaging
- Labeling requirements
- Staging or storage areas to be used for housing the waste
- Anticipated TSDF, inclusive of the OSWDF

5. PROGRAM IMPLEMENTATION

5.1 REGULATORY DOCUMENTS AND REGULATORY WASTE STATUS

The Ohio Consent Decree, signed in August 1989 by Ohio EPA and DOE, requires DOE to complete site investigations to determine the nature and extent of any environmental contamination that exists at PORTS, complete clean-up alternative studies, and implement corrective actions as needed.

Coincident with the Ohio Consent Decree, DOE established the Environmental Restoration Program in 1989 to identify, control, and remediate environmental contamination at PORTS. The Environmental Restoration Program addresses inactive sites through remedial action, and it deals with contaminated soil and groundwater associated with active facilities by eventually implementing cleanup.

The Waste Management Program's activities at PORTS were evaluated under the National Environmental Policy Act (NEPA) and this evaluation was documented in a programmatic Environmental Impact Statement (EIS) for the DOE Office of Environmental Management in 1997 (DOE/EIS-0200-F, *Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste*). Waste management activities are also included in the NEPA evaluations of individual projects as describes in FBP-EP-PDD-00003 National Environmental Policy Act Program Description unless the project is being completed under the CERCLA process for D&D activities.

Additionally, Ohio EPA and DOE have entered into a formal agreement regarding performance of the D&D process at PORTS. The terms of the agreement between Ohio EPA and DOE are documented in *The April 13, 2010 Director's Final Findings and Orders for Removal Action and Remedial Investigation and Feasibility Study and Remedial Design and Remedial Action, including the July 16, 2012 Modification thereto* (DFF&O). This agreement establishes the framework for evaluating D&D decisions for the site. The agreement also establishes the processes for implementing these decisions.

There have been three significant decision documents issued for decontamination and decommissioning of the Portsmouth Gaseous Diffusion Plant under the D&D DFF&O. These decision documents are the *Record of Decision for the Process Buildings and Complex Facilities Decontamination and Decommissioning Evaluation Project at the Portsmouth Gaseous Diffusion Plant* (DOE/PPPO/03-0425&D1); *Record of Decision for the Site-Wide Waste Disposition Evaluation Project at the Portsmouth Gaseous Diffusion Plant* (DOE/PPPO/03-0513&D2); and *Action Memorandum for the Plant Support Facilities and Structures at the Portsmouth Gaseous Diffusion Plant* (DOE/PPPO/03-0230&D4). These decision documents document DOE's decisions concerning how D&D will proceed including the decision to create on an on-site disposal facility for disposition of certain wastes and the decision to dispose of some wastes off-site.

Flowing from the RODs listed above, RD/RA WPs are developed. RD/RA WPs identify specific scopes of work and identify ARARs. The RD/RA WPs also contain a compliance strategy outlining the general approach for complying with each ARAR.

Wastes generated by activities specifically defined as not being D&D may not be managed as CERCLA waste. The D&D DFF&O states that the following activities are not D&D activities 1) Investigation and remediation of environmental media other than as previously described; 2) activities carried out in connection with the Cold Shutdown Program, Tc-99 Remediation Program, the Lease with USEC; 3) surveillance and maintenance of facilities listed in the D&D DFF&O Attachment G and H; 4) soils, piping and other underground structures outside the footprint of buildings/structures identified in a Work Plan concurred with by Ohio EPA; 5) with Ohio EPA's agreement pre- D&D mobilization and preparatory actions not performed under these Orders.

5.2 GENERATION — LIFE-CYCLE PLANNING

Life-cycle planning primarily involves segregation, asset recovery/re-utilization, and recycling to provide cost-efficient disposition paths for materials (for potential future-use options or final disposition). The volumes of wastes projected to be produced during the project life-cycle are established through Process Knowledge, past waste generation history through the use of the eMWaste database and the facility waste spreadsheet.

FBP implements DOE Order 458.1, *Radiation Protection of the Public and Environment*, which distinguishes between "real property" versus "personal property." Life-cycle planning differs distinctly for both categories — but both undergo the following process:

- Evaluate radiological risks
- Evaluate non-radiological chemical risks
- Evaluate and recover assets, and disposition wastes

5.2.1 Real Property

Real property consists of open land areas and buildings. Utility systems (water; heating, ventilation, and air conditioning [HVAC]; etc.) are considered real property as long as they remain installed (real property excludes materials and operational equipment).

5.2.1.1 EVALUATE RADIOLOGICAL RISKS

Radiation Protection will be responsible for evaluating radiological status of real property in accordance with DOE-O 458.1 and Waste Management will dispose as required.

5.2.1.2 EVALUATE NON-RADIOLOGICAL CHEMICAL RISKS (40 CFR 761.61(c))

Non-radioactive hazardous constituents are characterized under an area-specific SAP; such constituents may include asbestos, lead, PCBs, beryllium, R-114, etc.

Sampling and measurement results are compiled and assessed to determine waste classification and disposition. Multiple disposition pathways may be appropriate if property components can be adequately segregated (for example, PCB-contaminated duct work may be segregated from the remainder of the building debris, such that only the ductwork is categorized as hazardous waste; the rest of the building may then be categorized as industrial waste).

5.2.1.3 EVALUATE AND RECOVER ASSETS, AND DISPOSITION WASTES

FBP-WM-PL-00099; *Asset Recovery and Recycling Program Plan* implements the requirements of DOE O 458.1 requiring an evaluation and characterization process, outside entities may be consulted to determine market interest in potentially recovered or recycled components. If a viable interest exists, then after characterization FBP typically offers non-radioactive waste for asset recovery or recycling (e.g., scrap metal recycling or reuse).

Buildings are demolished/disassembled, and components are separated (when more than one disposition pathway is warranted), in accordance with approved GWMPs and work control documents that reflect characterization, waste-classification, and disposition decisions. Waste material subsequently is released (as appropriate), packaged, and shipped in accordance with approved procedures and contracts.

All wastes destined for the OSWDF shall be evaluated to the criteria in the approved WAC.

5.2.2 Personal Property

Personal property refers to equipment separated from building structures or open land areas. Process equipment and machinery components (large and small) are treated as personal property. Personal property also includes general materials ranging from office supplies and furniture to light bulbs and other similar articles. Utility system components (light and plumbing fixtures, HVAC systems, etc.) become personal property when removed. For example, a telephone pole situated in its installed configuration (i.e., in the ground) is considered “real” property; however, when the pole is removed, it becomes “personal” property.

5.2.2.1 *EVALUATE RADIOLOGICAL RISKS*

Radiation Protection will be responsible for evaluating radiological status of real property in accordance with DOE-O 458.1 and Waste Management will dispose as required.

5.2.2.2 *EVALUATE NON-RADIOLOGICAL CHEMICAL RISKS*

Personal property also is evaluated for hazardous constituents (e.g., RCRA, TSCA, asbestos) on a case-by-case basis. Any such property determined to contain hazardous constituents is managed in accordance with approved procedures.

5.2.2.3 *EVALUATE AND RECOVER ASSETS, AND DISPOSITION WASTES*

Personal property approved for release without restriction may be recycled or disposed of as industrial or sanitary waste in accordance with approved procedures.

Alternatively, items released without restriction can follow FBP's process for control of government property, under which FBP Property personnel work with the DOE property administrator to identify disposition options. Typically, pictures and pertinent information about the material (model/serial numbers, etc.) are submitted to a web site (called GSAXcess) that is accessible to other DOE sites; if time elapses (typically 12 days) and no other site shows interest, then the items are offered for asset recovery. If no interest is shown in asset recovery, then the property is re-posted on GSAXcess for non-DOE agencies.

DOE has an asset-recovery agreement with a local community reuse organization, the Southern Ohio Diversification Initiative (SODI) that, at DOE's discretion, allows PORTS to offer equipment/material for disposition — but only if those materials are free of radioactive contamination. FBP establishes a list of materials and submits it to DOE for approval; SODI representatives then accept or reject the listed material. Material accepted by SODI is packaged and sent to them (or their representative) in accordance with established FBP procedures and protocols; rejected material/equipment is re-posted by FBP Property management or managed and disposed of as waste.

Personal property is disposed of as waste if it does not have an accepted re-use/recycle path or it has not been approved for release without restrictions.

5.2.3 Waste and Materials Tracking

eMWaste® is a database used by Waste Management for cradle-to-grave tracking of wastes and recyclable materials. Conversely, PORTSMAS is a database used by the NMC&A group to track accountable nuclear materials, which are not considered wastes.

A procedure for waste/recyclables tracking provides instructions for interfacing with the eMWaste® database and specifies documentation required for movement and control of wastes and recyclable materials.

5.2.4 Waste Certification (DOE Manual 435.1-1(IV)(J)(2))

FBP certifies all waste (real property and personal property) released from site to affirm that a given waste or waste stream meets the acceptance criteria of the intended TSDF. FBP has two general programs for certification — one for those wastes going to NNSS, and a second for all other TSDFs. Certification for NNSS-destined wastes is managed in compliance with the NIC; a separate procedure dictates certification of all other wastes.

A Waste Acceptance Organization was created to evaluate waste destined for the OSWDF to ensure compliance with the approved WAC as currently defined scope of work in the RD/RA work plan. This implements a portion of the Waste Disposition remedy; the performance standards to be met by this work (i.e., compliance with ARARs) are provided by the Waste Disposition ROD (see ROD Section 13.2, Compliance with ARARs, and ROD Appendix A).

All Waste Certification and Waste Acceptance Organization plans and procedures are listed along with the Waste Management plans and procedures in Appendix C.

5.2.5 Waste Disposition Routing (40 CFR 268.45(A), OAC 3745-270-45(A))

Typical disposition pathways per waste stream include:

- LLW (DOE 435.1, OAC 3745-27-05-(A)(1)) — For CERCLA generated LLW, the preferred option will be disposal at the OSWDF. If the waste is not eligible for disposal due to WAC restrictions, storage limitations, or impacts Criticality Incredible determinations, LLW may be shipped offsite for disposal. If LLW is to be managed offsite, it may be disposed of at either Nevada National Security Site (NNSS) or commercially licensed LLW disposal facilities; TSDF approved waste profiles are required for either option. If a commercial facility is considered, a DOE O 435.1 waste disposition site determination is required to determine whether the commercial option provides the best value to the government.
- RCRA (OAC-3745, 40 CFR 261, 40 CFR 268.50) — At this time, RCRA wastes are transferred for treatment and/or disposal at the offsite TSDFs. RCRA wastes may be treated and disposed of at RCRA-permitted commercial facilities. Treatment is necessary when hazardous constituents exceed Land Disposal Restriction (LDR) limits (40 CFR 268) as defined by EPA. TSDF approved profiles are required before waste is transported to the facility. In the future, RCRA waste may be disposed at the OSWDF dependent on receipt of authorization from the OEPA.
- Mixed LLW (OAC-3745, 40 CFR 261, DOE O 435.1, STP) — Only Mixed LLW (MLLW) wastes that meet LDR or that are eligible for disposal as CAMU waste are eligible for disposal at the OSWDF. Mixed LLW that cannot be disposed at the OSWDF due to WAC limitations, such as enrichment, can be disposed of at either NNSS or an EPA-permitted and radioactive-licensed commercial disposal facility. NNSS can dispose of only mixed hazardous LLW that meets LDR requirements (40 CFR 268). Mixed LLW particulate can be treated under the current CERCLA documentation. If the MLLW is deemed CERCLA, the facility must also have CERCLA authorization (e.g., CERCLA Off-Site Rule [OSR]). Treated Non-CERCLA MLLW and MLLW not meeting the OSWDF WAC may be disposed of at either NNSS or a RCRA-permitted and radioactive-licensed commercial disposal facility. If a commercial facility is considered, a 435.1 waste disposition site determination is required to determine whether the commercial option provides the best value to the government. TSDF approved profiles also are required.
- TSCA (40 CFR 761) — Non-liquid TSCA-regulated waste (friable asbestos, PCB equipment, PCB bulk product and PCB-remediation waste) that are also classified as CERCLA waste can be disposed of at the OSWDF. Non-CERCLA TSCA-regulated waste and liquid wastes can be treated and disposed of at commercial TSCA-permitted facilities. TSDF approved profiles for PCBs are required before waste is transported to the TSDF. Non-CERCLA, non-radiologically contaminated asbestos can be disposed of at the Rumpke landfill.

- TSCA/LLW (40 CFR 761, DOE O 435.1) — Non-liquid TSCA-regulated waste contaminated with low-level radioactive isotopes that is also classified as CERCLA can be disposed of at the OSWDF if it meets the WAC. Non-CERCLA or other non-WAC compliant TSCA/LLW waste can be disposed of at NNSS or at a commercial EPA TSCA-permitted and radioactive-licensed facility. If a commercial facility is considered, a 435.1 waste disposition site determination is required to determine whether the commercial option provides the best value to the government. TSDF approved profiles also are required before waste is transported to the TSDF.
- Universal (OAC-3745, Chapter 273, 40 CFR 273) — Universal waste (batteries, lamps, mercury-containing equipment, and pesticides) can be accepted by commercial disposal and recycling facilities permitted by EPA. TSDF approved profiles are required before waste is transported to the facility.
- Sanitary (OAC-3745, RCRA Subtitle D) — Solid non-hazardous waste can be disposed of at Rumpke's landfill.
- Non-RCRA Chemicals — Non-RCRA chemical waste will be evaluated on a case-by-case basis to determine if it meets the OSWDF WAC. Wastes may also be disposed of at a commercial subtitle C landfill, in accordance with the TSDF WAC and State and federal regulations.

In addition to consideration of chemical and radiological constituents, wastes must be evaluated to determine whether they were generated as part of a CERCLA activity. Waste generated under CERCLA that are to be shipped offsite may only be transferred to a CERCLA authorized facility and must be identified as CERCLA waste.

5.3 IDENTIFICATION OF WASTES — PLANT WIDE WASTE STREAMS

Plant-wide waste streams (designated as *PW-####*) may describe wastes generated by non-CERCLA activities at PORTS. Waste streams are designated as *PW-####* on the basis of how they are managed. For example, combustible liquids may result from similar processes in many PORTS buildings, but all combustible liquids can be managed as one waste stream. Waste treatment technologies may vary within a waste stream, depending on the types and concentrations of the hazardous constituents, and other regulatory concerns. Plant-wide waste streams include:

- Recyclable materials
- Sanitary/industrial (e.g., building rubble [industrial] and office trash [sanitary])
- Universal
- Non-RCRA chemical waste
- RCRA (i.e., hazardous waste as defined by RCRA)
- TSCA (e.g., PCBs)
- LLW (low-level radioactive waste)
- RCRA/LLW (LLW mixed with RCRA-regulated constituents)
- TSCA/LLW (LLW mixed with TSCA-regulated constituents such as PCBs)
- RCRA/TSCA/LLW (LLW mixed with TSCA- and RCRA-regulated constituents)

Waste streams (see Table 1) are identified in eMWaste® with a Waste Stream Code (WSC); in some cases, individual waste types are identified by a "Mixed Waste Inventory Report" (MWIR) number — a numbering system approved by Ohio EPA. (Each MWIR corresponds to a specific type of waste.)

5.4 IDENTIFICATION OF WASTES — CERCLA WASTE STREAMS

CERCLA waste streams (designated as CW-####) describe wastes generated by PORTS CERCLA activities as defined in *Record of Decision for the Process Buildings and Complex Facilities Decontamination and Decommissioning Evaluation Project at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio* (DOE/PPPO/03-0425&D1) (Process Building [PB] D&D Record of Decision [ROD]) as issued on July 30, 2015 and the *Record of Decision for the Site-wide Waste Disposition Evaluation Project* (DOE/PPPO/03-05138.D2) (Waste Disposition [WD] ROD) as issued on June 30, 2015.. Waste streams are designated as CW-#### on the basis of how they are managed. For example, combustible liquids may result from similar processes in many PORTS buildings, but all combustible liquids can be managed as one waste stream. Waste treatment technologies may vary within a waste stream, depending on the types and concentrations of the hazardous constituents, and other regulatory concerns. Plant-wide waste streams include:

- Recyclable materials
- Sanitary/industrial (e.g., building rubble [industrial] and office trash [sanitary])
- Universal
- Non-RCRA chemical waste
- RCRA (i.e., hazardous waste as defined by RCRA)
- TSCA (e.g., PCBs)
- LLW (low-level radioactive waste)
- RCRA/LLW (LLW mixed with RCRA-regulated constituents)
- TSCA/LLW (LLW mixed with TSCA-regulated constituents such as PCBs)
- RCRA/TSCA/LLW (LLW mixed with TSCA- and RCRA-regulated constituents)

Waste streams (see Table 1) are identified in eMWaste® with a Waste Stream Code (WSC).

Table 1, Waste Streams Managed by FBP at PORTS

Waste Type	WSC	Waste Stream Name	MWIR #	Description
LLW	PW-101	LLW Debris	NA	NA
LLW	PW-102	LLW Soils	NA	NA
LLW	PW-103	LLW Aqueous Liquids	NA	NA
LLW	PW-104	LLW Combustible Liquids	NA	NA
LLW	PW-105	LLW Sludges	NA	NA
LLW	PW-106	LLW Process Residue Solids	NA	NA
LLW	PW-107	LLW Oversized Debris	NA	NA
LLW	PW-108	LLW Asbestos-Containing Material	NA	NA
LLW	PW-109	LLW Sealed Sources	NA	NA
UNIVERSAL/LLW	PW-111	UNIVERSAL/LLW	N/A	N/A
LLW	PW-114	LLW Non-Aqueous Liquids	N/A	N/A
MTLLW/MLLW	PW-201	TSCA/RCRA/LLW or RCRA/LLW Debris (> 50% Debris, > 60 mm particle size)	W020	Lead Solids, Radiologically Contaminated Batteries, Printed Circuit Boards, Intact Light Bulbs
			W022	Waste Decon Solids and RCRA Process Residue Solids (> 50% RCRA Debris)
			W059	Bag Filters
MTLLW/MLLW	PW-202	TSCA/RCRA/LLW or RCRA/LLW Soils	W039	RCRA Soils
MTLLW/MLLW	PW-203	TSCA/RCRA/LLW or RCRA/LLW Aqueous Liquids	W055	Decon Solutions and RCRA Aqueous Liquids
MTLLW/MLLW	PW-204	TSCA/RCRA/LLW or RCRA/LLW Combustible Liquids	W057	Solvents and RCRA Combustible Liquids
MTLLW/MLLW	PW-205	TSCA/RCRA/LLW or RCRA/LLW Sludges (May contain free liquids)	W022	Waste Decon Solids and RCRA Process Residue Solids
MTLLW/MLLW	PW-206	TSCA/RCRA/LLW or RCRA/LLW Process Residue Solids (No free liquids present, Particulate Wastes – Not RCRA Debris)	W022	Waste Decon Solids and RCRA Process Residue Solids
MTLLW/MLLW	PW-207	TSCA/RCRA/LLW or RCRA/LLW Spent Activated Carbon	W058	Dewatered Spent Carbon
MTLLW/MLLW	PW-208	TSCA/RCRA/LLW or RCRA/LLW Elemental Mercury	W006	Waste Mercury, Metallic
MTLLW/MLLW	PW-209	TSCA/RCRA/LLW or RCRA/LLW Labpacks	W030	RCRA Lab Packs
			W047	Non-Lab Off-Spec Chemicals
MTLLW/MLLW	PW-210		W067	Aerosol Cans

Table 1, Waste Streams Managed by FBP at PORTS				
Waste Type	WSC	Waste Stream Name	MWIR #	Description
		TSCA/RCRA/LLW or RCRA/LLW Containerized Gases	W070	RCRA Containerized Gases
TLLW	PW-301	PCB Debris	NA	NA
TLLW	PW-302	PCB Soils	NA	NA
TLLW	PW-303	PCB Aqueous Liquids	NA	NA
TLLW	PW-304	PCB Liquids	NA	NA
TLLW	PW-305	PCB Solids	NA	NA
TLLW	PW-306	PCB Empty Containers > 50 ppm	NA	NA
TLLW	PW-307	PCB Over-sized Debris	NA	NA
TLLW	PW-308	PCB Articles Small	NA	NA
TLLW	PW-309	PCB Articles Large	NA	NA
NolukiLLW	PW-401	NolukiLLW Debris	NA	NA
RCRA	PW-502	Non-Rad RCRA Combustible Liquids (For internal WM use only)	NA	NA
RCRA	PW-503	Non-Rad Other RCRA Hazardous Waste (For internal WM use only)	NA	NA
RCRA/TSCA	PW-504	Non-Rad RCRA/TSCA (For internal WM use only)	NA	NA
Sanitary/ Industrial	PW-601	Non-Rad Non-RCRA Scrap Metal	NA	Pike Sanitation Only
Sanitary/ Industrial	PW-602	Non-Rad, Non-RCRA Demolition Debris	NA	Pike Sanitation Only
Sanitary/ Industrial	PW-603	Non-Rad, Non-RCRA Friable Asbestos Containing Material	NA	Pike Sanitation Only
Sanitary/ Industrial	PW-604	Non-Rad, Non-RCRA, Non-Friable Asbestos Containing Material	NA	Pike Sanitation Only
Non-RCRA Hazardous Mat'l	PW-605	Non-Rad/Non-RCRA Liquids	NA	EQ
Non-RCRA Hazardous Mat'l	PW-606	Non-Rad/Non-RCRA Chemicals	NA	EQ
Sanitary/ Industrial	PW-607	Non-Rad/Non-RCRA Industrial Waste (Day to Day Operations, (i.e., Housekeeping))	NA	Pike Sanitation Only
Non-RCRA Hazardous Mat'l	PW-608	Non-Rad/Non-RCRA Gas Cylinders	NA	NA
Non-RCRA Hazardous Mat'l	PW-609	Non-Rad/Non-RCRA Environmental Media (Soils, Sand, Rubble, Water, etc.)	NA	NA
Sanitary/Industrial	PW-610	PCB exempt Bulk Product ACM	NA	NA
Sanitary/Industrial	PW-611	PCB exempt Bulk Product	NA	NA
TSCA	PW-701	Non-Rad TSCA Waste	NA	NA

Table 1, Waste Streams Managed by FBP at PORTS

Waste Type	WSC	Waste Stream Name	MWIR #	Description
TSCA	PW-702	Non-Rad TSCA Waste	NA	NA
LLW	DW-101	Demo CERCLA X-326 LLW Debris	NA	NA
LLW	DW-103	Demo CERCLA X-326 Cercla LLW Aqueous Liquids	NA	NA
LLW	DW-108	Demo CERCLA X-326 LLW Asbestos Containing Material	NA	NA
MTLLW/MLLW	DW-201	Demo CERCLA X-326 TSCA/RCRA/LLW or RCRA/LLW Debris (>50% Debris, >60 mm particle size) N/AN	N/A	N/A
TLLW	DW-301	Demo CERCLA X-326 PCB Debris	N/A	N/A
RCRA	DW-502	Demo CERCLA Non-Rad RCRA Combustible Liquids	NA	N/A
RCRA	DW-503	Demo CERCLA Non-Rad RCRA Hazardous Waste	NA	NA
Sanitary/Industrial	DW-607	Demo CERCLA Non-Rad/Non-RCRA Industrial Waste	NA	N/A
Recyclable/LLW	DW-RRBU-UO	Demo CERCLA Recyclable Radioactive Beneficial Use-Used Oil	N/A	N/A
Universal	DW-R-B	Demo CERCLA Recyclable Batteries	NA	NA
Universal	R-AC	Recyclable Aerosol Cans	NA	N/A
Recyclable	R-C	Recyclable Cardboard	N/A	N/A
Recyclable	R-E	Recyclable Electrical Equipment	NA	NA
Recyclable	R-F	Recyclable Fuels	NA	NA
Universal	R-L	Recyclable Lights and Lamps	NA	NA
Recyclable	R-M	Recyclable Metals	NA	NA
Recyclable	R-O	Recyclable Oils	NA	NA
Recyclable	R-P	Recyclable Paper	NA	NA
Recyclable	R-CB	Recyclable Circuit Boards	NA	NA
Recyclable	R-ML	Recyclable Misc. Liquids	NA	NA
Recyclable	R-A	Recyclable Aluminum	NA	NA
Universal	R-B	Recyclable Batteries (Ni-CAD, alkaline, lithium)	NA	NA
Recyclable	R-LB	Recyclable Lead Acid Batteries	NA	NA
Recyclable	R-PB	Recyclable Plastic Bottles	NA	NA
Recyclable	R-R	Recyclable Rubber (Tires/Inner Tubes)	NA	NA
Recyclable	R-ME	Recyclable Mercury	NA	NA
Recyclable	R-T	Recyclable Toner Cartridges	N/A	N/A
Recyclable	R-WP	Recyclable Wooden Pallets	N/A	N/A
Recyclable	RS-O	Recyclable SODI Oil	NA	SODI only

Table 1, Waste Streams Managed by FBP at PORTS				
Waste Type	WSC	Waste Stream Name	MWIR #	Description
Recyclable	RS-AR	Recyclable SODI Asset Recovery	NA	SODI only
Recyclable	RS-EM	Recyclable SODI Excess Materials	NA	SODI only
Recyclable	RS-M	Recyclable SODI Metals	NA	SODI only
REUSE/ONSITE	REUSE	REUSE	N/A	REUSE MATERIAL
REUSE/ONSITE/ LLW	REUSE/LLW	REUSE/LLW	N/A	REUSE LLW MATERIAL
RECLAIM	RECLAIM/OFFSITE	RECLAIM	N/A	N/A
Recyclable/LLW	RRBU-PB	Recyclable Radioactive Beneficial Use- Lead	N/A	NA
Recyclable/LLW	RRBU-F	Recyclable Radioactive Beneficial Use - Fuels	N/A	N/A
Recyclable/LLW	RRBU-UO	Recyclable Radioactive Beneficial Use- Used Oil	N/A	N/A
Fernald	FNU-1	Fernald Normal Metal Uranium (LLW)	NA	NA
Fernald	FU-308	Fernald U308	NA	NA
Fernald	FU-U03	Fernald Uranium U03	NA	NA
Fernald	FU-UF4	Fernald Uranium Fluoride 4	NA	NA
Fernald	FDU-1	Fernald Depleted (Unused Chemical Product) (LLW)	NA	NA
Seattle	ENR-UMT	Enriched Uranium Metals (Seattle)	NA	NA
Hanford	HAN-US	Hanford Uranium Solids (LLW)	NA	NA
LLW	LENR-UMT	Low Enriched Uranium Metals	NA	NA
LLW	LENR-UMT	Low Enriched Uranium Metals	NA	NA
LLW	CW-101	CERCLA LLW Debris	NA	NA
LLW	CW-102	CERCLA LLW Soils	NA	NA
LLW	CW-103	CERCLA LLW Aqueous Liquids	NA	NA
LLW	CW-104	CERCLA LLW Combustible Liquids	NA	NA
LLW	CW-105	CERCLA LLW Sludges	NA	NA
LLW	CW-106	CERCLA LLW Process Residue Solids	NA	NA
LLW	CW-107	CERCLA LLW Over-sized Debris	NA	NA
LLW/ASBESTOS	CW-108	CERCLA LLW Asbestos Containing Material	NA	NA
LLW	CW-109	CERCLA LLW Sealed Sources	NA	NA
UNIVERSAL/LLW	CW-111	CERCLA UNIVERSAL/LLW	NA	NA
LLW	CW-114	CERCLA LLW Non-Aqueous Liquids	NA	NA
MTLLW/MLLW	CW-201	CERCLA TSCA/RCRA/LLW or RCRA/LLW Debris (>50% Debris, >60 mm particle size)	NA	Lead Solids, Radiologically Contaminated Batteries, Printed Circuit Boards, Intact Light Bulbs

Table 1, Waste Streams Managed by FBP at PORTS				
Waste Type	WSC	Waste Stream Name	MWIR #	Description
			NA	Waste Decon Solids and RCRA Process Residue Solids (>50% RCRA Debris)
			NA	Bag Filters
MTLLW/MLLW	CW-202	CERCLA TSCA/RCRA/LLW or RCRA/LLW Soils	NA	RCRA Soils
MTLLW/MLLW	CW-203	CERCLA TSCA/RCRA/LLW or RCRA/LLW Aqueous Liquids	NA	Decon Solutions and RCRA Aqueous Liquids
MTLLW/MLLW	CW-204	CERCLA TSCA/RCRA/LLW or RCRA/LLW Combustible Liquids	NA	Solvents and RCRA Combustible Liquids
MTLLW/MLLW	CW-205	CERCLA TSCA/RCRA/LLW or RCRA/LLW Sludges (May contain free liquids)	NA	Waste Decon Solids and RCRA Process Residue Solids
MTLLW/MLLW	CW-206	CERCLA TSCA/RCRA/LLW or RCRA/LLW Process Residue Solids (No free liquids present, Particulate Wastes - Not RCRA Debris)	NA	Waste Decon Solids and RCRA Process Residue Solids
MTLLW/MLLW	CW-207	CERCLA TSCA/RCRA/LLW or RCRA/LLW Spent Activated Carbon	NA	Dewatered Spent Carbon
MTLLW/MLLW	CW-208	CERCLA TSCA/RCRA/LLW or RCRA/LLW Elemental Mercury	NA	Waste Mercury, Metallic
MTLLW/MLLW	CW-209	CERCLA TSCA/RCRA/LLW or RCRA/LLW Labpacks	NA	RCRA Lab Packs
			NA	Non-Lab Off-Spec Chemicals
MTLLW/MLLW	CW-210	CERCLA TSCA/RCRA/LLW or RCRA/LLW Containerized Gases	NA	Aerosol Cans
			NA	RCRA Containerized Gases
TLLW	CW-301	CERCLA PCB Debris	NA	NA
TLLW	CW-302	CERCLA PCB Soils	NA	NA
TLLW	CW-303	CERCLA PCB Aqueous Liquids	NA	NA
TLLW	CW-304	CERCLA PCB Liquids	NA	NA
TLLW	CW-305	CERCLA PCB Solids	NA	NA
TLLW	CW-306	CERCLA PCB Empty Containers >50 ppm	NA	NA
TLLW	CW-307	CERCLA PCB Over-sized Debris	NA	NA
TLLW	CW-308	CERCLA PCB Articles Small	NA	NA
TLLW	CW-309	CERCLA PCB Articles Large	NA	NA

Table 1, Waste Streams Managed by FBP at PORTS				
Waste Type	WSC	Waste Stream Name	MWIR #	Description
Noluki LLW	CW-401	Noluki CERCLA LLW Debris	NA	NA
Noluki LLW	CW-402	Noluki CERCLA LLW Process Residue Solids	NA	NA
Noluki MTLW/MLLW	CW-403	Noluki CERCLA TSCA/RCRA/LLW or RCRA/LLW Debris (>50% Debris, >60 mm particle size)	NA	Lead Solids, Radiologically Contaminated Batteries, Printed Circuit Boards, Intact Light Bulbs
			NA	Waste Decon Solids and RCRA Process Residue Solids (>50% RCRA Debris)
			NA	Bag Filters
Noluki MTLW/MLLW	CW-404	Noluki CERCLA TSCA/RCRA/LLW or RCRA/LLW Process Residue Solids (No free liquids present, Particulate Wastes-Not RCRA Debris)	NA	Waste Decon Solids and RCRA Process Residue Solids
Noluki Sanitary/Industrial	CW-405	Noluki CERCLA Non-Rad, Non-RCRA Demolition Debris	NA	TBD
Noluki MTLW/MLLW	CW-406	CERCLA TSCA/RCRA/LLW or RCRA/LLW Sludges (May contain free liquids)	NA	Waste Decon Solids and RCRA Process Residue Solids
Noluki LLW/ASBESTOS	CW-408	Noluki CERCLA LLW Asbestos Containing Material	NA	NA
Enoluki ASBESTOS/RCRA Mixed	CW-409	Enoluki CERCLA Asbestos/RCRA Mixed Debris	NA	NA
Enoluki LLW	CW-410	Enoluki CERCLA LLW Debris	NA	NA
Enoluki LLW	CW-411	Enoluki CERCLA LLW Process Residue Solids	NA	NA
Enoluki MTLW/MLLW	CW-412	Enoluki CERCLA TSCA/RCRA/LLW or RCRA/LLW Debris (>50% Debris, >60 mm particle size)	NA	Lead Solids, Radiologically Contaminated Batteries, Printed Circuit Boards, Intact Light Bulbs
			NA	Waste Decon Solids and RCRA Process Residue Solids (>50% RCRA Debris)
			NA	Bag Filters
Enoluki MTLW/MLLW	CW-413	Enoluki CERCLA TSCA/RCRA/LLW or RCRA/LLW Process Residue Solids (No free liquids present, Particulate Wastes-Not RCRA Debris)	NA	Waste Decon Solids and RCRA Process Residue Solids
RCRA	CW-502	Non-Rad RCRA Combustible Liquids ("For internal WM use only")	NA	NA

Table 1, Waste Streams Managed by FBP at PORTS

Waste Type	WSC	Waste Stream Name	MWIR #	Description
RCRA	CW-503	Non-Rad Other RCRA Hazardous Waste ("For internal WM use only")	NA	NA
RCRA/TSCA	CW-504	CERCLA Non-Rad RCRA/TSCA ("For internal WM use only")	NA	NA
Sanitary/Industrial	CW-601	CERCLA Non-Rad Non-RCRA Scrap Metal	NA	Pike Sanitation Only
Sanitary/Industrial	CW-602	CERCLA Non-Rad, Non-RCRA Demolition Debris	NA	Pike Sanitation Only
Sanitary/Industrial	CW-603	CERCLA Non-Rad, Non-RCRA Friable Asbestos Containing Material	NA	Pike Sanitation Only
Sanitary/Industrial	CW-604	CERCLA Non-Rad, Non-RCRA, Non-Friable Asbestos Containing Material	NA	Pike Sanitation Only
Non-RCRA Hazardous Mat'l	CW-605	CERCLA Non-Rad/Non-RCRA Liquids	NA	EQ
Non-RCRA Hazardous Mat'l	CW-606	CERCLA Non-Rad/Non-RCRA Chemicals	NA	EQ
Cercla/Sanitary	CW-607	CERCLA Non-Rad/Non-RCRA Industrial waste (Day to Day Operations (i.e., House Keeping))	NA	Cercla Sanitary Trash Pike Sanitation Only
Non-RCRA Hazardous Mat'l	CW-608	CERCLA Non-Rad/Non-RCRA Gas Cylinders	NA	NA
Non-RCRA Hazardous Mat'l	CW-609	CERCLA Non-Rad/Non-RCRA Environmental Media (Soils, Sand, Rubble, Water, etc.)	NA	NA
Sanitary/Industrial	CW-610	CERCLA PCB exempt Bulk Product ACM	NA	NA
Sanitary/Industrial	CW-611	CERCLA PCB exempt Bulk Product	NA	NA
TSCA	CW-701	CERCLA Non-Rad TSCA Solid Waste	NA	EQ
TSCA	CW-702	CERCLA Non-Rad TSCA Liquid Waste	NA	EQ
Recyclable	CERCLA R-E	CERCLA Recyclable Electrical Equipment	NA	NA
Recyclable	CERCLA R-F	CERCLA Recyclable Fuels	NA	NA
Universal	CERCLA R-L	CERCLA Lights and Lamps	NA	NA
Recyclable	CERCLA R-M	CERCLA Recyclable Metals	NA	NA
Recyclable	CERCLA R-O	CERCLA Recyclable Oils	NA	NA
Recyclable	CERCLA R-P	CERCLA Recyclable Paper	NA	NA
Recyclable	CERCLA R-C	CERCLA Recyclable Cardboard	NA	NA
Recyclable	CERCLA R-CB	CERCLA Recyclable Circuit Boards	NA	NA
Recyclable	CERCLA R-ML	CERCLA Recyclable Misc. Liquids	NA	NA
Recyclable	CERCLA R-A	CERCLA Recyclable Aluminum	NA	NA
Universal	CERCLA R-B	CERCLA Recyclable Batteries (Ni-CAD, alkaline, lithium)	NA	NA
Recyclable	CERCLA R-LB	CERCLA Recyclable Lead Acid Batteries	NA	NA
Recyclable	CERCLA R-PB	CERCLA Recyclable Plastic Bottles	NA	NA

Table 1, Waste Streams Managed by FBP at PORTS				
Waste Type	WSC	Waste Stream Name	MWIR #	Description
Recyclable	CERCLA R-R	CERCLA Recyclable Rubber (Tires/Inner Tubes)	NA	NA
Recyclable	CERCLA R-ME	CERCLA Recyclable Mercury	NA	NA
Recyclable	CERCLA R-T	CERCLA Recyclable Toner Cartridges	NA	NA
Recyclable	CERCLA R-WP	CERCLA Recyclable Wooden Pallets	NA	NA
Recyclable	CERCLA RS-O	CERCLA Recyclable SODI Oil	NA	SODI only
Recyclable	CERCLA RS-AR	CERCLA Recyclable SODI Asset Recovery	NA	SODI only
Recyclable	CERCLA RS-EM	CERCLA Recyclable SODI Excess Materials	NA	SODI only
Recyclable	CERCLA RS-M	CERCLA Recyclable SODI Metals	NA	SODI only
REUSE/ONSITE	CERCLA REUSE	CERCLA REUSE	NA	REUSE MATERIAL
REUSE/ONSITE/ LLW	CERCLA REUSE/LLW	CERCLA REUSE/LLW	NA	REUSE LLW MATERIAL
Recyclable/LLW	CERCLA RRBUPB	CERCLA Recyclable Radioactive Beneficial Use-Lead	NA	NA
Recyclable/LLW	CERCLA RRBUF	Recyclable Radioactive Beneficial Use - Fuels	NA	NA
Recyclable/LLW	CERCLA RRBUIO	CERCLA Recyclable Radioactive Beneficial Use-Used Oil	NA	NA

5.5 WASTE WITH NO IDENTIFIED PATH TO DISPOSAL

Currently, PORTS does not have any waste in inventory that has not been aligned to a treatment code. PORTS does have, however, waste that cannot ship to an off-site TSDF until some type of in-house processing occurs, because of security or accountability issues.

FBP either characterizes its waste before generation or, when that is not practical, evaluates the area/operation to determine whether a waste could be generated that would have no pathway to disposal. If waste with no pathway to disposal did have to be generated, FBP would obtain prior permission from DOE in accordance with DOE Order 435.1.

Historically, PORTS had waste that had no treatment technology available to comply with regulations. In 1995, DOE and Ohio EPA entered into an agreement whereby PORTS established its STP, which contains sections on implementation and MLLW streams. The MLLW streams section contains subsections on:

- Mixed waste streams for which technology exists
- Mixed waste streams for which technology exists but needs adaptation
- Mixed waste streams requiring further characterization or for which technology assessment has not been done
- Treatment technologies added after STP inception

Each of these subsections consists of a paragraph discussing the treatment technology, milestones associated with that technology, and a table of individual waste types and the amount of waste per type.

5.5.1 Site Treatment Plan

Each year FBP must submit a STP report to Ohio EPA; this report essentially is an amended STP, or status update, that compares current data with the previous year's report and tracks any changes to milestones, waste types, and amounts of MLLW (see Table 2).

Table 3 contains the summary information (by MWIR number) included in FBP's STP submittal for 2016.

5.6 STORAGE AND ON-SITE TREATMENT FACILITIES

The implementation guidance document for DOE Order 435.1 defines storage and staging as follows:

- Staging — Holding waste for the purpose of accumulation to facilitate transportation transfer, treatment, and/or disposal. Waste that is staged for more than 90 days must follow the requirements outlined in DOE M 435.1 (IV)(N)(7).
- Storage — The holding of radioactive waste for a temporary period, at the end of which the waste is treated, disposed of, or stored elsewhere.

Staging and storage areas will be designated for both CERCLA and non-CERCLA waste. The ARARs will dictate the criteria for areas used for CERCLA waste. The requirements for other non-CERCLA waste staging and storage areas will be dictated by governing orders, regulations and/or permits and authorizations.

Nuclear Safety personnel have evaluated existing storage facilities and areas; wastes and materials in storage are governed by the controls discussed in Section 4.4, *Hierarchy of Controls*.

Table 2, Summary of Changes to Preferred Treatment Technology Tables

Table	MWIR Waste ID	Waste Stream Name	Inventory (m ³)		
			Sept 2023 Report	Sept 2024 Report	Delta
Table 3.4	PO-W058	Carbon Sludge	0.0	0.0	0.0
Table 3.7	PO-W022	Waste Decontamination Solids	0.0	0.0	0.0
	PO-W039	Soils	0.0	0.0	0.0
	PO-W055	Decontamination Waste Solutions	0.0	0.0	0.0
	PO-W059	Bag Filters	0.0	0.0	0.0
Table 3.17	PO-W057	Solvents	0.0	0.0	0.0
Total			0.0	0.0	0.0
Note 1: All MWIR Waste Streams that have not had inventory (zero volume and weight) for 2 consecutive years have been removed from this summary table (as well as the associated balance sheet).					
Note 2: All quantities in the Summary of Changes Table are rounded to the nearest 0.1 m ³					
Note 3: 62 of the 66.5 m ³ in inventory on 9/30/16 is projected to ship in first quarter of FY17.					
Note 4: FY18 STP - Actual volume Sept 2018 Report MWIR W039 equals 0.02 cubic meters.					
Note 5: FY19 STP - Actual volume Sept 2019 Report MWIR W022 equals 0.03 cubic meters.					
Note 6: FY19 STP - September 2019 Report total cubic meters discrepancy due to rounding.					
Note 7: FY22 STP - All waste generated in 2022 are in compliance with land disposal requirements.					
Note 8: FY23 STP - All waste generated in 2023 are in compliance with land disposal requirements.					
Note 9: FY24 STP - ALL WASTE GENERATED IN 2024 ARE IN COMPLIANCE WITH LAND DISPOSAL REQUIREMENTS.					

Table 3, Site Treatment Plan Submittal for 2022

MWIR Waste ID	Waste Stream Name	Five Year Projected (m ³)
See FY23 AND FY24 NOTES Below		
Note:- MWIR Waste Streams that have not had inventory (zero volume and weight) for both the FY-2016 and FY-2017 STP Reports may have been removed from this summary table (as well as their associated balance sheet). However, MWIRs with a five year projected volume were retained.		
Note : MWIR #W004, Broken Bulbs are managed under MWIR #W022; while intact bulbs are being managed under MWIR #W020.		
Note : MWIR # W083, Trap Material is being managed under MWIR #W022.		
Note: FY17 STP - Title updated to clarify referenced Table 3.1 originated from the "Background Volume" of Proposed Site Treatment Plan (PSTP) dated 1995.		
Note: FY18 STP - MWIR #W039, Soils, actual inventory volume as of 09/30/2018 equals 0.02 cubic meters. MWIR #W082, Oil Leak Gunk and Filter Ash, has been removed from the summary table because the project is complete.		
Note: FY19 STP - MWIR #W022 actual volume as of September 30, 2019 = 0.03 cubic meters.		
Note: FY19 STP - Waste streams that have not had inventory (zero volume and weight) for 2 consecutive years (MWIRs W030, W052, W053 AND W067) have been removed from this summary table (as well as their associated balance sheet).		
Note: FY20 STP - Waste stream that has not had inventory (zero volume and weight) for 2 consecutive years (MWIR W070) has been removed from this summary table (as well as its associated balance sheet).		
Note: FY21 STP - Waste Streams that have not had inventory (zero volume and weight) for 2 consecutive years (MWIRs W006 and W057) have been removed from this summary table (as well as its associated balance sheet).		
Note: FY22 STP - Waste Streams that have not had inventory (zero volume and weight) for 2 consecutive years (MWIR W020) has been removed from this summary table (as well as the associated balance sheet).		
Note: FY23 STP - Waste Streams that have not had inventory (Zero Volume and Weight) for 2 consecutive years (MWIRs W022, W039, W055, W058, and W059) have been removed from this summary table (as well as the associated balance sheet). Note: No waste to report.		
NOTE: FY24 STP - NO WASTE TO REPORT.		

5.6.1 Volume and Calendar Limits

Section 4.4.1.3, *Inventory Controls*, discusses how volume limits are established and maintained; calendar limits are established by multiple mechanisms once items are determined to be waste.

Calendar limits for storage of MLLW are dictated by STP milestones. Non-radioactive RCRA wastes and PCB wastes are required by regulation to be shipped within a calendar year. PCB wastes with radioactive contamination are exempt from the One year requirement.

Per DOE Order 435.1, LLW is to be shipped within one-year of generation. LLW with higher enrichments or gram loading has been and is continued to be prioritized for shipment. Due to this prioritization, FBP currently has an inventory of LLW that has been held in excess of one year. The inventory of LLW exceeding one year is monitored and reported to DOE to be considered in lifecycle planning. A listing of greater than 1 year LLW is included as Appendix D, *LLW Greater than 1 Year*.

Project wastes generated under CERCLA that are destined for the OWSDF may be held until the facility is accepting the waste. Waste will be stored in accordance with all substantive requirements as specified in the ARARs. Under CERCLA, time limits are considered an administrative requirement.

5.6.2 Inspections and Monitoring

Requirements for inspecting waste storage areas are governed by procedure; established LLW storage areas are inspected monthly, PCB storage areas are inspected once every 30 days, and RCRA-permitted storage areas are inspected once every 7 calendar days. Completed inspection forms are maintained as records.

Separate storage areas established for CERCLA waste must meet the substantive requirements and the inspection requirements (including frequency) for those holding PCB or RCRA wastes (including those with mixed PCB or RCRA waste).

CERCLA staging areas may be established for the temporary staging of RCRA or PCB waste. The type and form of waste as well as the time the waste is to be staged will dictate the requirements. The waste generating project must establish the requirements with Environmental Protection.

5.6.3 Evaluations for New Facilities

The need for a new TSDF for waste disposal is based on the TSDF that can be found on the Qualified Suppliers List (QSL). Additionally, Environmental Protection will vet proposed TSDFs and recycle facilities for environmental performance prior to the transfer of waste.

FBP's Quality Assurance (QA) organization maintains the QSL; if FBP needs to use a TSDF that is not on the QSL, then Procurement will issue a Request for Proposal (RFP). Prospective vendors can be evaluated either at the time of proposal or at award. The QA organization controls and implements the evaluation process via a procedure for procurement quality engineering, which addresses such topics as third party audits, safety and environmental history, insurance, and the supplier's QA program.

5.7 OFF-SITE WASTE TRANSFERS FOR TREATMENT OR DISPOSAL

Each waste type has unique disposal or treatment requirements, which are dictated by State and federal regulations and TSDF WAC. Waste Management characterizes each waste stream to determine the applicable pathway for treatment/disposal. Factors that influence the final waste disposition pathway include:

- Safety
- Packaging options
- Transportation options
- TSDF compliance history
- TSDF permit and license status
- Overall value to the government
- Schedule
- Status under the CERCLA OSR

5.7.1 Vendor Selection

When planning for waste generation, a waste disposition specialist identifies potential disposition pathways for anticipated waste streams, by:

- Researching companies that possess applicable treatment/disposal capabilities
- Identifying whether suitable TSDFs are on FBP's QSL
- Identifying existing contracts and funding availability
- Determining the status of each TSDF's permit and license

If more than one option exists, all are evaluated to determine the most efficient and cost-effective pathway to compliant treatment or disposal. If the chosen TSDF is not on the QSL, then a document review is required to determine the company's compliance history, permit and license status, and technical ability to manage the proposed waste.

5.7.1.1 *VENDOR EVALUATION*

Waste specialists may use many factors to evaluate the disposition pathway:

- ALARA
- Conveyance availability and costs
- Other DOE sites' experience
- Packaging availability, complexity, options, and costs
- Past vendor experience with PORTS or waste stream
- Schedule
- Treatment technologies
- TSDF liability insurance and WAC
- Vendor compliance history
- Whether approved TSDF profiles and contracts exist
- Whether the TSDF provides transportation and, if so, whether the TSDF is on the DOE-approved Motor Carrier Evaluation Program (MCEP) list
- Whether vendor is CERCLA approved under the CERCLA OSR

5.7.1.2 *DOE O 435.1 EXEMPTION REVIEWS*

FBP submitted an annual exemption request on June 28, 2019, to treat and dispose of LLW at facilities that are not owned or operated by DOE (non-DOE facilities). That request has been approved and is valid through June of 2020; the exemption will be renewed annually.

As approved in the WD ROD, the selected remedy for all OSWDF eligible waste will be on-site management and disposal. If on-site disposal is not an option, NNSS is the preferred option. For any commercial disposal, a 435.1 waste disposition site determination will be completed to ensure the best value to the government.

5.7.2 **Evaluation of Waste to Vendor WAC**

Two classes of waste exist at PORTS: legacy and decommissioning. The latter originates from three primary sources — routine processes, projects, and spill cleanup.

5.7.2.1 *NEWLY GENERATED DECOMMISSIONING WASTE*

All waste generated since FBP has managed the PORTS contract is considered newly generated waste (i.e., process, project, and spill-cleanup wastes); thus, waste disposition pathways are documented in the respective GWMPs. Each waste container has a unique tracking number that ties to the waste stream, container contents, quantity, traceability added, and independent verification signatures. The waste disposition specialist's acceptance of the waste and release of the container are tracked in eMWaste®.

5.7.2.2 *LEGACY WASTE*

Legacy waste is defined as waste packaged by a company other than FBP or an FBP subcontractor.

Legacy containers under FBP management will be opened and inspected or otherwise verified such as under a statistically based verification plan prior to shipment off site, to ensure the contents comply with the treatment or disposal profile and TSDF's WAC. The Waste Certification organization will directly oversee open-and-inspect or verification operations and will use tools such as inspection checklists to document results and corrective actions (e.g., absorbent added, re-packaged, gasket replaced, prohibited item removed).

The Waste Management director may grant exceptions to the verification process on a case-by-case basis when warranted by safety concerns, ALARA conditions, or significant technical and process knowledge that provides a high level of confidence that the waste meets the TSDF WAC. Exceptions must be documented as required by work control documents and can not be granted to waste disposed of at the NNSS.

5.8 **RECORDS (DOE MANUAL 435.1-1(IV)(1)(2)(E))**

Waste management records are maintained in a combination of paper and electronic formats. (Examples of waste-management records include tracking forms, shipment paperwork, characterization information, radiological data.) Active records are kept in the "operating record," which contains the written description and quantity of hazardous waste received, and the method(s) and dates of treatment, storage, and disposal. By law, operating record files must be retained for specific periods of time; then they are submitted to FBP's centralized document control system in accordance with FBP's process and schedules.

6. REFERENCES

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- 10 CFR 71, *Packaging And Transportation Of Radioactive Material*
- 15 U.S.C. 2601 et seq., *Toxic Substances Control Act*
- 40 CFR 261, *Identification and Listing of Hazardous Waste*
- 40 CFR 268, *Land Disposal Restrictions*
- 40 CFR 273, *Standards for Universal Waste Management*
- 40 CFR 300.440, *Procedure for Planning and Implementing Off-Site Response Actions*
- 40 CFR 761, *Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions*
- 42 U.S.C. 2021 et seq., *Low-Level Radioactive Waste Policy Act*
- 42 U.S.C. 6901 et seq., *Resource Conservation and Recovery Act*
- 49 CFR 40, *Procedure for Transportation Workplace Drug Testing Programs*
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- DOE M 460.2-1A, CRD, *Radioactive Material Transportation Practices Manual*
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Key Responsibilities	Key Waste Impacts (Generation, Strategic, or Tactical Planning/Oversight)	Primary Waste Interfaces
Nuclear Safety and Engineering Division		
Establishes the parameters for nuclear safety for all PORTS facilities.	Tactical: Establishes acceptance limits (inclusive of waste types, volumes, and containers) for all facilities that accept waste or other fissile materials for storage or treatment. Defines acceptable packaging for fissile materials, including fissile materials under site management. Defines criteria for transportation safety document.	<ul style="list-style-type: none"> • For waste and material acceptance – Waste Operations Mgr., and Waste Programs Mgr. • For on-site transfer of fissile waste or material – Transportation Mgr. • Approves all CERCLA Waste Staging and CERCLA Waste Storage Areas.
Facility Stabilization and Deactivation Division		
Stabilizes, deactivates, and removes equipment from FUEF (X-326, 330, 333) to allow eventual D&D of facility structures.	<p>Generation: Largest generator of potential LLW and mixed project waste for on-site and off-site disposal. Generates secondary process wastes primarily consisting of PPE and other Dry Active Waste (DAW).</p> <p>Responsible for establishing and inspecting CERCLA Waste Staging Areas.</p> <p>Responsible for transferring wastes to CERCLA Waste Storage areas operated by Waste Management.</p>	<ul style="list-style-type: none"> • For off-site destined wastes high level planning to ensure scope and budget identified – Waste Mgt Division Director. • For determination (planning, characterization) and profiling of all project materials and components – Waste Disposition Specialist. • For waste transfers – Waste Operations.

Appendix B
MATRIX OF PRIMARY WASTE INTERFACES
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Key Responsibilities	Key Waste Impacts (Generation, Strategic, or Tactical Planning/Oversight)	Primary Waste Interfaces
Nuclear Operations Division		
Directs and manages nuclear operations in the X-344, X-342, and category nuclear facilities.	Generation: Generates secondary wastes from X-342 and X-344 facilities.	For planning, containerization, characterization, transfer, and profiling of secondary waste – Waste Disposition Specialist
Site Maintenance, Infrastructure, D&D Projects Division		
Manages D&D of facilities, including removal of equipment from facilities other than FUEF. Performs maintenance across site.	Generation: Largest generator of sanitary and hazardous project waste through the D&D of various support facilities. Also generates smaller volumes of universal, LLW and MLLW.	<ul style="list-style-type: none"> For planning (characterization, containerization, and profiling) of all project components, materials and secondary wastes – Waste Disposition Specialist
Environmental Remediation Division		
Develops regulatory documents outlining site decommissioning. Runs groundwater treatment program, manages on-site soils, and operates on-site analytical laboratory. Conducts environmental and waste sampling.	Tactical, Strategic, and Generation: Plans for soil management and proposed on-site waste disposition. Generates small quantities of LLW and MLLW from laboratory and groundwater treatment operations.	<ul style="list-style-type: none"> For development of regulatory documents – Waste Programs Mgr. For planning (containerization, characterization, and profiling) of process wastes – Waste Disposition Specialist
Regulatory Planning and Implementation Division		
Interfaces with regulatory agencies and community. Creates overall site cleanup framework.	Strategic: Plans for long-term waste disposition Establishes WAC Implementation Plan.	<ul style="list-style-type: none"> For strategic planning – Waste Management Division Director

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MATRIX OF PRIMARY WASTE INTERFACES
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Key Responsibilities	Key Waste Impacts (Generation, Strategic, or Tactical Planning/Oversight)	Primary Waste Interfaces
Environmental Protection Department		
Ensures all site operations are conducted in accordance with local, State, and federal environmental regulations and DOE orders pertinent to environmental protection.	<p>Tactical: Oversees site operations for compliance with regulations, including waste regulations. Also reviews off-site recycling, treatment, and disposal facilities other than those approved by DOE.</p> <p>Formation of Waste Acceptance Organization.</p>	<ul style="list-style-type: none"> • For concurrence with waste and material acceptance – Waste Operations Mgr. and Waste Programs Mgr. • Approval of all CERCLA staging and storage areas.
On-Site Waste Disposal Facility		
Signed Record of Decision, July 2015	<p>Tactical: Organization and requirements under development</p>	<ul style="list-style-type: none"> • For strategic planning – Waste Management Director. • Aligning waste tracking from generation to final OSWDF disposal – Waste Programs Mgr.
Quality Assurance Department		
Ensures all site operations are conducted in accordance with DOE orders and other contractual requirements. Maintains FBP QAPP, SADQ, and NDA quality assurance program plan.	<p>Tactical: Oversees site operations, including waste management operations, for conformance to requirements. Conducts evaluations of off-site recycling, treatment, and disposal facilities used by FBP.</p>	<ul style="list-style-type: none"> • For oversight of waste releases from the site (NNSS and non-NNSS) – Waste Certification Official

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MATRIX OF PRIMARY WASTE INTERFACES
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Key Responsibilities	Key Waste Impacts (Generation, Strategic, or Tactical Planning/Oversight)	Primary Waste Interfaces
Nuclear Materials Control and Accountability Department		
Interfaces with Waste Management, Transportation, and regulatory agencies.	Tactical: Approves termination of safeguards for shipments involving materials with higher levels of attractiveness. Prepares and submits documentation for all off-site shipments that contain a reportable quantity of materials.	<ul style="list-style-type: none"> • For development of regulatory documents – Waste Programs Mgr. • For planning and approval of shipments – Waste Disposition Specialist
NDA		
Interfaces with Waste Management, Demolition and Deactivation, NMC&A, and Nuclear Operations.	Tactical: Locates, characterizes, and quantifies nuclear material in support of WM, NCS, and safeguards.	<ul style="list-style-type: none"> • Quantifies nuclear material in support of waste and accountable material containers.
Software Management Program Office (SMPO)		
Ensures all site Software Management Quality Assurance (SMQA) requirements are met in accordance with DOE and NQA-1 requirements.	Tactical Maintains the Software Management Program (SMP) for guidance and deliverables to be met by Waste Management.	<ul style="list-style-type: none"> • For control of software used to support waste characterization, classification, tracking, and shipment for all applicable software used by Waste Management.

Appendix C
WASTE MANAGEMENT PLANS AND PROCEDURES AS OF NOVEMBER 2025
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Document Number	Document Title
FBP-EP-PL-00018	Waste Packaging Requirements for Disposal at the Nevada National Security Site
FBP-WM-PL-00001	Waste Management Plan
FBP-WM-PL-00004	Transportation Execution Plan
FBP-WM-PL-00005	Procurement Plan for the Purchase of Specification Packagings
FBP-WM-PL-00008	Qualifying Waste Streams for Disposal at the Nevada National Security Site
FBP-WM-PL-00045	Implementing Procedures and Training Matrix for Disposal of Waste at the Nevada National Security Site
FBP-WM-PL-00047	Rail Operations Program Plan
FBP-WM-PL-00048	Logistics Operations Program Plan
FBP-WM-PL-00049	Motor Carrier Compliance Plan
FBP-WM-PL-00051	Transportation Training Plan
FBP-WM-PL-00072	PORTS Railroad Bridge Management Plan
FBP-WM-PL-00083	Waste Characterization Plan
FBP-WM-PL-00084	Waste Minimization and Pollution Prevention
FBP-WM-PL-00099	Asset Recovery & Recycling Program Plan Piketon, Ohio
FBP-WM-PL-00102	Fluor-BWXT Portsmouth (FBP) Transportation Security Plan for the Off Site Shipment of Hazardous Material
FBP-WM-PL-00103	Radioactive Waste Management Basis for the Portsmouth Gaseous Diffusion Plant
FBP-WM-PRO-00004	Management of the Polychlorinated Biphenyls (PCB) Collection & Containment Program (X330)
FBP-WM-PRO-00009	Shipping Hazardous Samples Off-Site
FBP-WM-PRO-00012	Management of Waste Storage Areas
FBP-WM-PRO-00016	Spill Cleanup and Repackaging/Transferring Waste
FBP-WM-PRO-00017	Waste Storage in Category 2 Facilities
FBP-WM-PRO-00018	Management of the Resource Conservation and Recovery Act (RCRA) Part B Storage Areas
FBP-WM-PRO-00028	Preparing Off-Site Shipments of Non-Hazardous Materials
FBP-WM-PRO-00039	Waste Container Operations
FBP-WM-PRO-00042	Management of Polychlorinated Biphenyls (PCB) Waste

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WASTE MANAGEMENT PLANS AND PROCEDURES AS OF NOVEMBER 2025
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Document Number	Document Title
FBP-WM-PRO-00043	Waste Package Marking and Labeling Requirements for Shipment and Disposal at the Nevada National Security Site (NNSS)
FBP-WM-PRO-00044	Preparing Off-Site Shipments of Hazardous Materials
FBP-WM-PRO-00045	Handling Swollen or Bulging Containers
FBP-WM-PRO-00046	Waste/Recyclables Tracking
FBP-WM-PRO-00047	Procurement and Inspection of Items Critical to the Portsmouth Waste Certification Program
FBP-WM-PRO-00050	Profiling Waste for Disposal at the Nevada National Security Site
FBP-WM-PRO-00051	Motor Carrier Evaluation Program (MCEP) Carriers
FBP-WM-PRO-00052	Portsmouth Gaseous Diffusion Plant (PORTS) Motor Carrier Operations
FBP-WM-PRO-00059	Intermodal and Cargo Container Operations
FBP-WM-PRO-00061	Material Handling
FBP-WM-PRO-00063	Certification of Portsmouth Gaseous Diffusion Plant (PORTS) Waste for Disposal at the Nevada National Security Site (NNSS)
FBP-WM-PRO-00072	Operation of Railcar Mover
FBP-WM-PRO-00085	Inspection of Railcar Mover
FBP-WM-PRO-00090	Waste Generation
FBP-WM-PRO-00093	Nuclear Criticality Safety (NCS) Controls for Fissile Material Transport
FBP-WM-PRO-00095	Railcar (Inbound and Outbound) Shipments
FBP-WM-PRO-00099	Oversight, Inspection, and Maintenance of Portsmouth Gaseous Diffusion Plant (PORTS) Railroad
FBP-WM-PRO-00103	Repackaging Waste Containers
FBP-WM-PRO-00115	Contaminated Metal Requirements
FBP-WM-PRO-00116	Sorting and Packaging Dry Active Waste
FBP-WM-PRO-00150	Waste Collection and Disposal of Waste from Dumpsters and Operation of the Site Garbage Truck
FBP-WM-PRO-00164	Batching Contaminated Solids
FBP-WM-PRO-00174	Ports Gaseous Diffusion Plant (PORTS) Railroad Program
FBP-WM-PRO-00175	Contaminated Liquids Sampling and Batching

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WASTE MANAGEMENT PLANS AND PROCEDURES AS OF NOVEMBER 2025
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Document Number	Document Title
FBP-WM-PRO-00248	Filling 12-Inch Daughter Cylinders at X-344 NSU Autoclaves Using Cold Traps
FBP-WM-PRO-00254	Waste Handling
FBP-WM-PRO-00257	Certification of Portsmouth Gaseous Diffusion Plant (PORTS) Waste for Non-Nevada National Security Site (Non-NSS) Off-Site Disposal
FBP-WM-PRO-00261	Railcar Inspections
FBP-WM-PRO-00262	Managing Empty Containers
FBP-WM-PRO-00264	Waste Disposition
FBP-WM-PRO-00272	On-Site Transportation of Hazardous Materials
FBP-WM-PRO-00273	Preparing Uranium Hexafluoride (UF ₆) Cylinders for Shipment
FBP-WM-PRO-00289	PORTS Railroad Bridge Inspection
FBP-WM-PRO-00293	Roll-Off Box Operations
FBP-WM-PRO-00294	Preparation, Staging, and Loading of Off-Site Waste Shipments
FBP-WM-PRO-00295	Waste Container Labeling and Marking Requirements for Storage
FBP-WM-PRO-00297	Palletizing Waste and Waste Containers
FBP-WM-PRO-00300	Off-Site Shipment of Contaminated Laundry and Respirators
FBP-WM-PRO-00302	Contamination Area Fueling Operations
FBP-WM-PRO-00306	Inspection, Storage and Operation of USA/9979/AF-96 (Department of Energy [DOE]) Containers at Portsmouth Gaseous Diffusion Plant (PORTS)
FBP-WM-PRO-00307	Operational Controls for the X-747L Container Laydown and Loading Area
FBP-WM-PRO-00321	Container Repair and Down-Sizing Material for Packaging, Container Management
FBP-WM-PRO-00322	Excess Personal Property Transfer
FBP-WM-PRO-00323	Cost Benefit Analysis
FBP-WM-PRO-00329	Waste Generated Under Activities Governed by Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
FBP-WM-PRO-00330	Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Waste Storage and Staging Areas
FBP-WM-PRO-00331	Receipt and Storage of Resource Conservation and Recovery Act (RCRA) Waste in the X-345
FBP-WM-PRO-00334	Re-Stemming 3/4 Inch Valves on Clean 5, 8, and 12 Inch UF6 Cylinders

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WASTE MANAGEMENT PLANS AND PROCEDURES AS OF NOVEMBER 2025
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Document Number	Document Title
FBP-WM-PRO-00335	Operational Controls for the X-747K Container Scrap Metal Storage Yard Utilized as Transportation Staging Area
FBP-WM-PRO-00336	Excess Material Removal from Category II Facilities
FBP-WM-PRO-00337	Completion of Lot 11A2b Low Enriched Uranium (LEU) Metal Repackaging into the USA/9979/AF-96 (DOE) at the X-744G Facility
FBP-WM-PRO-00338	Technetium (Tc) Trap Handling and Maintenance
FBP-WM-PRO-00339	X-345 Grouting Operations
FBP-WM-PRO-00340	Operational Controls for the X-747A Material Storage Yard
FBP-WM-PRO-00341	Containerizing Dry Fissile Waste
FBP-WM-PRO-00342	Pallet and Recycling Process
FBP-WM-PRO-00343	Software Configuration Management Plan for Waste Management Utility Calculation Software

Appendix D
LLW GREATER THAN 1 YEAR

Per FBP-16-0396

LLW CAP Population (as of 12/15/15)	Number of CAP-LLW Containers shipped (as of 9/29/22)	Remaining CAP LLW containers
1417	1247	279

*Does not include CERCLA waste eligible for OSWDF

The LLW CAP population was exceed due to splits.

Appendix E
TABLE 4.4 PORTS WASTE STORAGE FACILITIES
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Facility ID	Authorization Basis Document	Facility Description	Regulated Waste Type	Active	SB Hazard Category	SB Hazard Classification
X-330	POEF-FBP-024 (DSA) POEF-FBP-025 (TSR) POEF-FBP-020 (SMP)	GDP Process Building	Hazardous PCB Universal Used Oil LLW	X	Category 2	High
X-333	POEF-FBP-024 (DSA) POEF-FBP-025 (TSR) POEF-FBP-020 (SMP)	GDP Process Building	Hazardous PCB Universal Used Oil LLW	X	Category 2	High
X-343	POEF-FBP-001 (SB) POEF-FBP-002 (TSR) POEF-FBP-020 (SMP)	Feed Vaporization and Sampling Facility	Hazardous PCB Universal Used Oil LLW	X	Category 2	High
X-344	POEF-FBP-001 (SB) POEF-FBP-002 (TSR) POEF-FBP-020 (SMP)	Toll Enrichment Services Facility	Hazardous PCB Universal Used Oil LLW	X	Category 2	High
X-345	FBP/PORTS-444 (DSA) FBP/PORTS-446 (TSR) POEF-FBP-020 (SMP)	Special Nuclear Material (SNM) Storage Facility	Hazardous PCB Universal Used Oil LLW	X	Category 2	High
X-530 A-H	POEF-FBP-001 (SB) POEF-FBP-020 (SMP)	Switchyard	Hazardous PCB Universal Used Oil LLW	X	NA	NA

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TABLE 4.4 PORTS WASTE STORAGE FACILITIES
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Facility ID	Authorization Basis Document	Facility Description	Regulated Waste Type	Active	SB Hazard Category	SB Hazard Classification
X-600A	POEF-FBP-001(SB) POEF-FBP-020 (SMP)	Coal Pile Yard	Hazardous PCB Universal Used Oil LLW	X	NA	NA
X-622	POEF-FBP-001(SB) POEF-FBP-020 (SMP)	South Groundwater Treatment Facility	Hazardous Universal Used Oil LLW	X	NA	NA
X-624	POEF-FBP-001(SB) POEF-FBP-020 (SMP)	Little Beaver Groundwater Treatment Facility	Hazardous Universal Used Oil LLW	X	NA	NA
X-627	POEF-FBP-001(SB) POEF-FBP-020 (SMP)	Groundwater Pump and Treatment Building	Hazardous Universal Used Oil LLW	X	NA	NA
X-700	POEF-FBP-001 (SB) POEF-FBP-002 (TSR) POEF-FBP-020 (SMP)	Converter Shop and Cleaning Building	Hazardous PCB Universal Used Oil LLW	X	Category 2	High
X-705	POEF-FBP-001 (SB) POEF-FBP-002 (TSR) POEF-FBP-020 (SMP)	Decontamination Building	Hazardous PCB Universal Used Oil LLW	X	Category 2	High
X-710	POEF-FBP-001 (SB) POEF-FBP-002 (TSR) POEF-FBP-020 (SMP)	Technical Services Building	Hazardous PCB Universal Used Oil LLW	X	Category 2	High

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TABLE 4.4 PORTS WASTE STORAGE FACILITIES
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Facility ID	Authorization Basis Document	Facility Description	Regulated Waste Type	Active	SB Hazard Category	SB Hazard Classification
X-720	POEF-FBP-001 (SB) POEF-FBP-002 (TSR) POEF-FBP-020 (SMP)	Maintenance and Store Building	Hazardous PCB Universal Used Oil LLW	X	Category 2	High
X-720C	POEF-FBP-001(SB) POEF-FBP-020 (SMP)	Paint and Oil Storage Building	Hazardous PCB Universal Used Oil LLW	X	NA	NA
X-721C	POEF-FBP-001 (SB) POEF-FBP-020 (SMP)	Radiation Calibration Facility	Hazardous PCB Universal Used Oil LLW	X	Category 2	High
X-741	POEF-FBP-001(SB) POEF-FBP-020 (SMP)	Oil Drum Storage Facility	Hazardous PCB Universal Used Oil LLW	X	NA	NA
X-744L	POEF-FBP-001(SB) POEF-FBP-020 (SMP)	Stores and Maintenance Warehouse	Hazardous PCB Universal Used Oil LLW	X	NA	NA
X-744W	POEF-FBP-001(SB) POEF-FBP-020 (SMP)	Surplus and Salvage Warehouse	Hazardous PCB Universal Used Oil LLW	X	NA	NA

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TABLE 4.4 PORTS WASTE STORAGE FACILITIES
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Facility ID	Authorization Basis Document	Facility Description	Regulated Waste Type	Active	SB Hazard Category	SB Hazard Classification
X-744G	FBP/PORTS-444 (DSA) FBP/PORTS-446 (TSR) POEF-FBP-020 (SMP)	Bulk Non-Uranium Enrichment Service Activity (UESA) Storage Building (Bldg.)	Hazardous PCB Universal Used Oil LLW	X	Category 2	High
X-747A	POEF-FBP-001(PHS) FBP-PHS-747A-00014 (PHS) POEF-FBP-020 (SMP)	Material Storage Yard	Hazardous PCB Universal Used Oil LLW	X	NA	NA
X-747H	POEF-FBP-001 (SB) FBP-PHS-747H-00001 (PHS) POEF-FBP-020 (SMP)	Waste Storage Yard	Hazardous PCB Universal Used Oil LLW	X	Radiological	NA
X-747H-1	POEF-FBP-001(SB) FBP-PHS-747H-00001 (PHS) POEF-FBP-020 (SMP)	Waste Shipping Pad	Hazardous PCB Universal Used Oil LLW	X	Radiological	NA
X-747K	POEF-FBP-001(SB) FBP-PHS-747K-00007 (PHS) POEF-FBP-020 (SMP)	Container Scrap Metal Storage Yard utilized as Transportation Staging Area	Hazardous PCB Universal Used Oil LLW	X	Radiological	NA

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TABLE 4.4 PORTS WASTE STORAGE FACILITIES
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Facility ID	Authorization Basis Document	Facility Description	Regulated Waste Type	Active	SB Hazard Category	SB Hazard Classification
X-747L	POEF-FBP-001(SB) FBP-PHS-747L-00010 (PHS) POEF-FBP-020 (SMP)	Container Laydown and Loading Area	Hazardous PCB Universal Used Oil LLW	X	Radiological	NA
X-750	POEF-FBP-001(SB) POEF-FBP-020 (SMP)	Mobile Equipment Maintenance Shop	Hazardous PCB Universal Used Oil LLW	X	NA	NA
X-752	POEF-FBP-001(SB) POEF-FBP-020 (SMP)	Warehouse & Weld Shop	Hazardous PCB Universal Used Oil LLW	X	Radiological	NA
X-782	FBP-HA-780-00001(SB) POEF-FBP-020 (SMP)	On Site Disposal Cell	Hazardous PCB Universal Used Oil LLW	X	Radiological	NA