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Level 2 Administrative Procedure

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1.0 PURPOSE

- 1.1** This procedure provides guidance to personnel employed by or contracted to Fluor-BWXT Portsmouth, LLC (FBP) at the Portsmouth Gaseous Diffusion Plant (PORTS) that generate, manage, characterize, classify, or determine disposition options for on-site waste management (WM) purposes, on-site and/or off-site transport, treatment, and/or disposal in accordance with federal, state, and local laws and regulations.
- 1.2** This procedure has been developed to implement applicable requirements from the following:
- DOE Order 435.1, *Radioactive Waste Management*
 - DOE Order 436.1, *Department Sustainability*
 - DOE P 450.4A, *Integrated Safety Management System (ISMS)*, for routine Waste Management
 - FBP-PM-PDD-00001, *Integrated Safety Management System*
 - FBP-WM-PL-00001, *Waste Management Plan*
 - FBP-WM-PL-00083, *Waste Characterization Plan*
 - FBP-WM-PL-00084, *Waste Minimization and Pollution Prevention*
- 1.3** This document implements applicable regulatory requirements. They are listed in Appendix A, *Regulatory Requirements Flow Down*.

2.0 SCOPE AND APPLICABILITY

- 2.1** This Level 2 procedure applies to personnel employed by or contracted to FBP at PORTS who generate, manage, characterize, classify, or determine disposition options for waste managed by FBP for the United States Department of Energy (DOE) at PORTS.
- 2.2** This procedure applies to all wastes generated from projects and/or ongoing operations and legacy wastes at PORTS that will be shipped off plant site to an approved Treatment Storage and Disposal Facility (TSDF) or shipped to the On Site Waste Disposal Facility (OSWDF).
- 2.3** This procedure applies to all types and categories of waste generated at PORTS: Legacy, project, spill clean-up, and process wastes.
- 2.4** This procedure applies to product materials stored at the X-744G that are inherently waste like but, are shipped for use, re-use, or recycling. These materials may be shipped to off-site vendors as products but need to follow the procedures outlined in this document.

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2.5 This procedure **excludes** the following:

- Sanitary waste which is handled in accordance with FBP-WM-PRO-00150, *Waste Collection and Disposal of Waste from Dumpsters and Operation of the Site Garbage Truck*
- Environmental discharges made under the Clean Water Act or Clean Air Act
- Environmental samples collected for monitoring.

3.0 GENERAL INFORMATION

A defined waste stream is unique to the individual project/process generating the waste and should be evaluated as such.

4.0 USE REFERENCES

- A.** FBP-BS-PL-00001, *Records Management and Document Control Plan for Fluor-BWXT Portsmouth*
- B.** FBP-BS-PRO-00061, *Document Control Process*
- C.** FBP-BS-PRO-00062, *Records Management Process*
- D.** FBP-BS-PRO-00096, *Project Files Management*
- E.** FBP-EP-PRO-00043, *Vetting of Receipt Facilities for the Off-Site Shipment of Waste and Recyclables*
- F.** FBP-ER-OSDC-WD-PLN-0071, *Waste Acceptance Criteria Implementation Plan for the On-Site Waste Disposal Facility at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio*
- G.** FBP-QA-PRO-00016, *Procurement Quality*
- H.** FBP-RP-PRO-00004, *Release of Material and Equipment from Department Of Energy Control*
- I.** FBP-WM-PL-00008, *Qualifying Waste Streams for Disposal at the Nevada National Security Site*
- J.** FBP-WM-PL-00083, *Waste Characterization Plan*
- K.** FBP-WM-PRO-00012, *Management of Waste Storage Areas*
- L.** FBP-WM-PRO-00039, *Waste Container Operations*
- M.** FBP-WM-PRO-00046, *Waste/Recyclables Tracking*
- N.** FBP-WM-PRO-00050, *Profiling Waste for Disposal at the Nevada National Security Site*

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- O.** FBP-WM-PRO-00059, *Intermodal and Cargo Container Operations*
- P.** FBP-WM-PRO-00063, *Certification of Portsmouth Gaseous Diffusion Plant (PORTS) Waste for Disposal at the Nevada National Security Site (NNSS)*
- Q.** FBP-WM-PRO-00090, *Waste Generation*
- R.** FBP-WM-PRO-00150, *Waste Collection and Disposal of Waste from Dumpsters and Operation of the Site Garbage Truck*
- S.** FBP-WM-PRO-00257, *Certification of Portsmouth Gaseous Diffusion Plant (PORTS) Waste for Nevada National Security Site (Non-NNSS) Shipments*
- T.** FBP-WM-PRO-00329, *Waste Generation Under Activities Governed by Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)*
- U.** FBP-WM-PRO-00330, *Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Waste Storage and Staging Areas*

5.0 RESPONSIBILITIES

5.1 Waste Disposition Specialist (WDS)

- 5.1.1** Acts as the single point of contact responsible for coordinating container selection, characterization, on-site transportation, and disposition of waste material.
- 5.1.2** Collects all information available from the Waste Generator upon notification that a waste has been and/or will be generated under planned work activities.
- 5.1.3** Develops Generator Waste Management Plans (GWMP) and/or Waste Compliance Guides (WCG), as needed.
- 5.1.4** Determines if sufficient information is available to classify waste and if not coordinates the collection of additional data, as needed.
- 5.1.5** Develops Sampling Requests (SR) and Sampling and Analysis Plans (SAP) for the collection of analytical data for wastes.
- 5.1.6** Provides compliant and defensible management activities of waste generated at PORTS.
- 5.1.7** Reviews analytical data for usability in waste characterization and classification.
- 5.1.8** Ensures adequate waste classification and characterization for proper handling, packaging, storage, transportation, treatment, disposition, and compliance with waste acceptance criteria (WAC) of the selected TSDF, including the OSWDF, for all waste.

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5.1.9 Allows material/items to be released to the Asset Recovery Manager (ARM) for recycle/re-use off plant site, and contacts the ARM involving all recycle/re-use of PORTS materials.

5.1.10 Assists Projects with the preparation of documentation for disposal of waste at the OSWDF.

5.1.11 Prepares Open & Inspect (O&I) Waiver Requests, as needed.

5.1.12 Complies with the requirements of DOE Order 435.1 as directed by the DOE Manual 435.1-1.

5.2 Waste Generator (WG) (Project Manager, Project Supervisor, etc.)

5.2.1 Coordinates with assigned Waste Disposition Specialist (WDS) to develop any required documentation for the generation of all waste streams, prior to the generation of any waste.

5.2.2 Works with assigned WDS to provide any applicable information required for characterization of the waste.

5.2.3 Reviews and provides approval on GWMPs.

5.2.4 Generates and compliantly packages, and manages wastes.

5.2.5 Initiates tracking of waste in accordance with procedure FBP-WM-PRO-00046, *Waste/Recyclables Tracking*.

5.2.6 Develops OSWDF Decision Documents.

5.3 Waste Certification (WC)

5.3.1 Provides independent oversight support of opening, packaging, inspection, and certification of all waste to be dispositioned off-site.

5.3.2 Reviews characterization documentation for all waste to be dispositioned off-site.

5.3.3 Ensures compliance with selected TSDF WAC.

5.4 Waste Acceptance Organization (WAO)

5.4.1 Provides independent oversight support of opening, packaging, inspection, and verification of all waste destined to be dispositioned at the OSWDF.

5.4.2 Verifies waste documentation prepared during waste generation meets the requirements of the Waste Acceptance Criteria Implementation Plan (WAC IP)

5.4.3 Reviews and provides approval on GWMPs, as needed.

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5.4.4 Verifies compliance with OSWDF WAC.

5.5 Waste Characterization and Disposition Manager (WCDM)

5.5.1 Provides support to the WDS.

5.5.2 Reviews and provides approval on GWMPs, WCGs, O&I Waiver Requests, and Characterization documentation to ensure compliance with all applicable federal, state, and local laws and regulations.

5.5.3 Compiles all shipment documentation for disposition.

5.6 OSWDF Operations Manager

5.6.1 Reviews and provides approval on GWMPs, as needed.

5.7 Transportation Manager

5.7.1 Reviews and provides approval on GWMPs, as needed.

5.8 Facility Management

5.8.1 Reviews and provides approval on GWMPs, as needed.

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6.0 ACTIONS

6.1 Waste Generation Planning

WCDM

- 6.1.1 Upon receiving request for waste generation, assign a WDS that will be responsible for coordinating the WM activities for the project or waste container.
- 6.1.2 Provide information on the waste generation activities to the WDS to assist in the project planning phase.

NOTE

Normally, waste must be characterized prior to generation and the appropriate TSDF chosen. However, with approval by the WCDM or designee, exceptions can be made.

WDS

- 6.1.3 Once assigned, coordinate with the Waste Generator (WG) to obtain all available information on the waste generation activities to assist in the project planning phase.

NOTE

The WDS must determine specific requirements for each waste stream generated during the course of a project, including but not limited to, compliant packaging and storage, to minimize the potential for re-work.

- 6.1.4 Using the request from the WG determine the need to generate, or revise, a GWMP and/or WCG, as necessary.

NOTE

GWMP generation is required for waste streams that are to be dispositioned to the OSWDF. The packaging and storage requirements, as well as an estimate of the amount and type of waste generated will be conveyed to the WG via the preparation of Appendix F, *Generator's Waste Management Plan (GWMP)*.

WCG generation is required for all waste streams that are to be dispositioned to an off-site TSDF. The packaging and storage requirements will be conveyed to the WG via the preparation of Appendix G, *Waste Compliance Guide (WCG)*.

- 6.1.5 **IF** the waste stream requires a new GWMP, **THEN** go to subsection 6.2.
- 6.1.6 **IF** the waste stream requires a revision to an existing GWMP, **THEN** go to subsection 6.2.
- 6.1.7 **IF** the waste stream requires a new WCG, **THEN** go to subsection 6.3.

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- 6.1.8** IF the waste stream requires a revision to an existing WCG, THEN go to subsection 6.3.
- 6.1.9** Compile and evaluate available characterization data (i.e. analytical data, process knowledge [PK], nondestructive assay [NDA] reports, radiological surveys, etc.) applicable to the waste, as necessary
- 6.1.10** IF available data is deemed applicable and sufficient to properly characterize the waste, THEN no additional characterization data evaluation will be required.

NOTE

For equipment/building materials, any fibrous, fabric, or porous materials of construction (MoC) must be assumed to be potentially asbestos containing material (ACM) unless definitive characterization, Process Knowledge or manufacturer's information regarding MoC is available and proved otherwise.

- 6.1.11** IF an analytical data gap exists, THEN initiate the collection of additional data through sampling methods in accordance with subsection 6.4, *Analytical Data Collection*.
- 6.1.12** Determine Waste Storage requirements, locations, and controls in accordance with Appendix E, *Accumulation Requirements (by Waste Type)*, and Applicable or Relevant and Appropriate Requirements (ARARs).
- 6.1.13** IF the waste stream is to be dispositioned to the OSWDF, THEN prepare a Generator's Profile for tracking within the WM Waste Tracking System in accordance with FBP-WM-PRO-00046, *Waste/Recyclable Tracking*.

WG

- 6.1.14** With assistance from the WDS, IF the waste stream is to be dispositioned to the OSWDF, THEN prepare the Generator portion of the following Waste Acceptance Organization (WAO) Project documentation including, but not limited to the following:
- FBP-FRM-01127, *Project Planning Checklist*
 - FBP-FRM-01129, *Waste Form Compliance Checklist*
 - FBP-FRM-01132, *On Site Waste Disposal Facility (OSWDF) Master Waste Profile*
 - FBP-FRM-01133, *Data Group Form*
 - FBP-FRM-01134, *Material Source Location Form*
 - FBP-FRM-01135, *Material Interim Locations Form*

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6.1.15 Coordinate waste generating activities with other organization that are, or could be, involved. These groups include but are not limited to the following:

- WC
- WAO
- Waste Operations
- Container Management

6.1.16 Ensure required documentation and WM requirements are incorporated into the applicable approved work documents (i.e. procedures, work packages, or other approved work documents) prior to waste generation activities are permitted to begin.

6.2 Generator's Waste Management Plan Generation or Revision

WDS

6.2.1 Obtain all relevant information on any material(s) and/or items that will become or be generated as a waste to be disposition to the OSWDF. This includes, but are not limited to, the following:

- Historical Information
- Past sampling/analytical information
- Past radiological surveys
- NDA data

6.2.2 Obtain approved decision documents from the WG. Decision documents include, but are not limited to the following:

- Criticality Incredible Determination
- Source Term Documentation if the waste originates from any facility currently or previously identified as Hazard Category 2
- OSWDF Hazard Analysis Evaluation
- OSWDF Performance Assessment Evaluation
- Applicable Security Plan

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- 6.2.3** Ensure the documents needed to properly characterize the waste/material are completed. Examples of documents needed to be included but are not limited to include: SRs, SAPs, Radiological Survey Plans, NDA request forms, and FBP-RP-PRO-00004-F01, *Request to Release Material/Equipment from DOE Control* (release of material from radiological controls).
- 6.2.4** Ensure any sample analytical information from a laboratory has been verified (from the Sample Management Office [SMO]) and validated (from Quality Assurance [QA]) prior to use.
- 6.2.5** **IF** required, **THEN** ensure Data Usability Review Forms (FBP-WM-PRO-00264-F07, *Waste Characterization Data Usability Review Radiological Constituents*, FBP-WM-PRO-00264-F08, *Waste Characterization Data Usability Review Hazardous Constituents*, FBP-WM-PRO-00264-F09, *Waste Characterization Data Usability Review Toxic Substances Control Act (TSCA) Polychlorinated Biphenyls (PCBs) Constituents*) have been completed in accordance with subsection 6.5 of this procedure.
- 6.2.6** Use the data/information obtained from steps 6.2.1 through 6.2.5 to determine if waste can be sent to the OSWDF for disposal.
- 6.2.7** **IF** the waste is a candidate for disposal at the OSWDF, **THEN**, initiate form FBP-WM-PRO-00264-F12, *Waste Evaluation and Characterization Standards Checklist* and start the GWMP generation or revision in accordance with the guidance of Appendix F as required.
- 6.2.8** **IF** the waste cannot be sent to the OSWDF for disposal, **THEN** go to subsection 6.3 of this procedure.
- 6.2.9** Obtain a unique GWMP number to be used as identification for the document from the WM coordinator.
- 6.2.10** **IF** waste is being generated without characterization with authorization from the WCDM or designee, **THEN** complete the GWMP with the best available knowledge of the waste and the proper controls.
- See Appendix E, *Accumulation Requirements by Waste Type* and ARARs for controls that may be necessary.
 - It may be necessary to define roles and responsibilities in the GWMP if other contractors are involved with the generation of waste and where confusion may exist amongst the different crafts.
- 6.2.11** Ensure the signed GWMP is sent to Records Management Document Control (RMDC) per the requirements of FBP-BS-PRO-00062, *Records Management Process*.

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6.3 Waste Compliance Guide Generation or Revision

WDS

- 6.3.1** Obtain all relevant information on any material(s) and/or items that will become or be generated as a waste to be disposition to an off-site TSDF. This includes, but are not limited to, historical information, past sampling/analytical information, past radiological surveys, NDA data, etc.
- 6.3.2** Ensure the documents needed to properly characterize the waste/material are completed. Examples of documents needed to be included, but are not limited to: SRs, SAPs, Radiological Survey Plans, NDA request forms, and FBP-RP-PRO-00004-F01, *Request to Release Material/Equipment from DOE Control* (release of material from radiological controls).
- 6.3.3** Ensure any sample analytical information from a laboratory has been verified (from the SMO) and validated (from QA) prior to use.
- 6.3.4** **IF** required, **THEN** ensure Data Usability Review Forms (FBP-WM-PRO-00264-F07, *Waste Characterization Data Usability Review Radiological Constituents*, FBP-WM-PRO-00264-F08, *Waste Characterization Data Usability Review Hazardous Constituents*, FBP-WM-PRO-00264-F09, *Waste Characterization Data Usability Review Toxic Substances Control Act (TSCA) Polychlorinated Biphenyls (PCBs) Constituents*) have been completed in accordance with subsection 6.5 of this procedure.
- 6.3.5** Using the information obtained in Steps 6.3.1 through 6.3.4, start the WCG generation or revision in accordance with the guidance of Appendix H, *Characterization Technical Evaluation or Waste Characterization Narrative*, as required.
- 6.3.6** Obtain a unique WCG number to be used as identification for the document from the WM coordinator.
- 6.3.7** **IF** waste is being generated without characterization with authorization from the WCDM or designee, **THEN** complete the WCG with the best available knowledge of the waste and the proper controls.
- See Appendix E, *Accumulation Requirements (by Waste Type)*, and ARARs for controls that may be necessary.
 - It may be necessary to define roles and responsibilities in the WCG if other contractors are involved with the generation of waste and where confusion may exist amongst the different crafts.
- 6.3.8** Ensure the signed WCG is sent to RMDC per the requirements of FBP-BS-PRO-00062, *Records Management Process*.

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6.4 Analytical Data Collection

WDS

6.4.1 Compile the following information to initiate collection of addition analytical data if required:

- Project Charge Code
- Cost Account Manager and Project Controls Lead
- Location and source of waste (e.g. building number and system/location)
- Description of waste
- Number and type of containers/items or volume of waste
- PK/Historical data of waste, if available
- Data required date
- Specific detection limits, if required
- Lab turn-around time requirements

6.4.2 Determine the sampling approach documentation requirement, SR or SAP, in accordance with the guidance provided in FBP-WM-PL-00083, *Waste Characterization Plan*.

- A.** An SAP will be generated when the following conditions, but not limited to, exist:
- To document a statistically based sampling approach
 - To document complex sampling strategies
 - To document sampling requirements for on-going waste generation activities
 - **IF** an SAP is required, **THEN** go to step 6.4.3
- B.** An SR will be generated when the following conditions, but not limited to, exist:
- To verify waste attributes, where sufficient knowledge of the waste exists through PK or historical data
 - To characterize a waste stream that consists of a single container/item

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- To characterize a waste stream where the entire waste population will be sampled
- **IF** an SR is required, **THEN** go to step 6.4.9

NOTE

Refer to FBP-WM-PL-00083, *Waste Characterization Plan* for radiochemical and chemical analytical approaches.

- 6.4.3** **IF** an SAP is required, **THEN** obtain SAP and Data Quality Objectives (DQO) document numbers from RMDC.
- 6.4.4** Coordinate with the QA DQO coordinator to develop and document the DQOs (FBP-WM-PRO-00264-F06, *Data Quality Objectives [DQO] Checklist*) per guidance provided in FBP-WM-PL-00083, *Waste Characterization Plan*.
- 6.4.5** Upon development and documentation of DQOs, develop the SAP per guidance provided in FBP-WM-PL-00083, *Waste Characterization Plan*, ensuring the following information, at a minimum, is included:
- A.** Data users
 - B.** Description of the waste
 - C.** Defined waste population
 - D.** Containers/items to be sampled
 - E.** Sample type (e.g., volumetric, wipe)
 - F.** Analytical approach (contaminants of concern to be analyzed and analytical method to be employed)
 - G.** Sample schedule and required turnaround time
 - H.** DQOs (as an attachment)
- 6.4.6** Upon completion of the SAP, obtain necessary signature approvals as established through the DQO process.
- 6.4.7** Submit a copy of the approved SAP to Environmental Remediation (ER) Field Characterization for execution, and retain a copy to incorporate into the WM file record.
- 6.4.8** Ensure the signed SAP is sent to RMDC per the requirements of FBP-BS-PRO-00062, *Records Management Process*.
- 6.4.9** **IF** an SR is required, **THEN** complete the FBP-FRM-00938, *Sampling Request*, and obtain required signatures.

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6.4.10 Submit signed SR to ER Field Characterization for review and assignment of an SR number.

6.4.11 Obtain an approved, numbered SR to incorporate into the WM file record.

NOTE

ER Field Characterization coordinates the physical collection of all waste samples and delivers them to the Sample Management Office (SMO) per applicable procedures and work packages.

The SMO provides final verified and validated data to the WDS.

6.5 Analytical Data Evaluation

NOTE

Data Usability Reviews are not required to be completed for containers of unused sample portions.

WCDM may exempt the data usability requirements on a case-by-case basis. The exemption will be noted in the characterization narrative.

WDS

6.5.1 Upon receiving V&V data from the SMO, review laboratory data package and electronic deliverable analytical results (i.e. Project Environmental Measurements System [PEMS] report) and document results in all applicable data usability forms:

- A.** FBP-WM-PRO-00264-F07, *Waste Characterization Data Usability Review: Radiological Constituents*
- B.** FBP-WM-PRO-00264-F08, *Waste Characterization Data Usability Review: Hazardous Constituents*
- C.** FBP-WM-PRO-00264-F09, *Waste Characterization Data Usability Review: Toxic Substances Control Act (TSCA) Polychlorinated Biphenyls (PCBs) Constituents*

6.5.2 **IF** data results for matrix spike or matrix spike duplicates are flagged as being outside of the acceptable recovery limits per the analytical method, **THEN** additional consideration must be given to the reported results.

6.5.3 **IF** data results for duplicate samples do not support variability assumptions of the waste, **THEN** additional consideration to the waste matrix or analytical method employed may be required.

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NOTE

Duplicate sample data results are an indication of heterogeneity of the waste, and may suggest the existence of multiple strata.

- 6.5.4** IF lab qualifiers are identified, **THEN** evaluate the flags and determine how to manage the data appropriately.
- 6.5.5** IF non-detects are reported, **THEN** manage them in accordance with FBP-WM-PL-00083, *Waste Characterization Plan* consulting a degreed statistician for assistance, as needed.
- 6.5.6** IF data is reported in solid units (i.e. mg/kg), and is to be compared to toxicity characteristic leaching procedure (TCLP) limits, **THEN** additional consideration must be given to the results when comparing against regulatory limits.
- 6.5.7** Perform an overall review of the data to determine any usability issues not identified above.
- 6.5.8** IF while performing the review, a determination is made to remove a detected result from the data set, **THEN** document the reasoning and obtain the WCDM, or designee, concurrence signature on the applicable data usability form.
- 6.5.9** Sign and date all applicable completed data usability review form(s), identifying any findings or modifications to the data.
- 6.5.10** Maintain records generated as part of this procedure on the established WM share drive, in accordance with FBP-BS-PRO-00061, *Document Control Process*, and maintained per guidance found in FBP-BS-PRO-00096, *Project Files Management*.

6.6 Waste Generation

WDS

- 6.6.1** Determine the required container for the waste stream, as well as the estimated number of containers needed for the project based on the physical, chemical, and radiological properties of the waste/material.
- 6.6.2** Determine the necessary absorbent requirements for non-Nevada National Security Site (NNSS) shipments, in accordance with FBP-SPEC-0WM-0012, *Requirements for Determining Moisture Absorbents for Containerized Waste*.
 - For waste streams to be dispositioned to the NNSS, refer to the Moisture Determination prepared for the NNSS approved profile determined for use to ship the waste, which are located with the NNSS profiles.

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WG

- 6.6.3** Using the guidance from the WDS, initiate FBP-FRM-00869, *Fluor-BWXT Portsmouth LLC (FBP) Container Management Container/Absorbent Request Form*, forward form to the WDS for review and approval.

WDS

- 6.6.4** Review and approve FBP-FRM-00869, *Fluor-BWXT Portsmouth LLC (FBP) Container Management Container/Absorbent Request Form*, and route for final approvals for the delivery of required containers.
- 6.6.5** Obtain Waste Material/Generation (WMG) forms from eMWaste Administrator or designee, in accordance with FBP-WM-PRO-00046, *Waste/Recyclables Tracking*.
- 6.6.6** Distribute WMGs to Waste Management Technicians, or the Generator, as necessary.
- 6.6.7** Provide technical guidance to WG during waste generation and waste packaging.

WG

NOTE

Waste streams generated under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) regulations will be done in accordance with procedure FBP-WM-PRO-00329, *Waste Generation Under Activities Governed by Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)*.

Other, Non-CERCLA waste streams will be generated in accordance with procedure FBP-WM-PRO-00090, *Waste Generation*.

- 6.6.8** Generate the waste and/or Asset Recovery materials/items in accordance with approved Technical Work Documents (procedures, work packages, WAC IP, GWMP, WCG, etc.).

NOTE

The WMG should be forwarded to the WDS within one day of generation to ensure information is entered into the Waste Tracking Data Base for containers whose storage requirements is limited by time such as temporary Polychlorinated Biphenyl (PCB) storage and Central Accumulation Areas.

- 6.6.9** Ensure all waste and asset recovery material is tracked in the Waste Tracking Database per FBP-WM-PRO-00046, *Waste/Recyclables Tracking*.
- 6.6.10** Complete all required generator portions of the WMG form, and forward to the WDS for review and completion.

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NOTE

Waste/material containers generated under CERCLA regulations will be managed in accordance with procedure FBP-WM-PRO-00330, *Comprehensive Environmental Response, Compensation, and Liability Act (CERLCA) Waste Storage and Staging Areas*.

Other, Non-CERCLA waste/material containers will be managed in accordance with procedure FBP-WM-PRO-00090, *Waste Generation*.

- 6.6.11** Ensure waste/material containers are stored in accordance with approved Technical Work Documents (procedures, work packages, WAC IP, GWMP, WCG, etc.)
- 6.6.12** Ensure containers, other than bulk containers (i.e., intermodals, cargos, etc.) are not stored outside subject to the elements, if possible.
- 6.6.13** Initiate any changes to the WMG in accordance with FBP-WM-PRO-00046, *Waste/Recyclables Tracking*, as needed.

WDS

NOTE

The WMG should be completed within two days of generation to ensure information is entered into the Waste Tracking Data Base for containers whose storage requirements is limited by time such as temporary PCB storage and Central Accumulation Areas.

- 6.6.14** Complete WMG form per container or groups of containers.
- 6.6.15** Submit completed WMG form the eMWaste Administrator or designee, in accordance with FBP-WM-PRO-00046, *Waste/Recyclables Tracking* for data entry to the database.
- 6.6.16** Initiate any changes to the WMG form in accordance with FBP-WM-PRO-00046, *Waste/Recyclables Tracking*, as needed

6.7 Previously Packaged Containers

WDS

- 6.7.1** Obtain pertinent information available on containers.
- 6.7.2** **IF** no WMG form is on file for previously packaged containers, **THEN** ensure one is initiated in accordance with procedure FBP-WM-PRO-00046, *Waste/Recyclables Tracking*.

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NOTE

Legacy containers are defined as containers generated by any contractor other than FBP or FBP subcontractors.

The term “legacy containers” does not apply to containers generated by North Wind Dynamics, American Centrifuge Operating, and Mid-American Conversion Services. FBP is required by contract to manage or dispose of, and will be handled as ongoing process waste as opposed to legacy waste.

- 6.7.3** Ensure 100% of legacy containers have the required O&I performed, or otherwise verified prior to characterization and shipment, to ensure the contents are consistent with the treatment and/or disposal profile and TSDF WAC.

NOTE

It may be necessary to O&I a container previously packaged under FBP operations, to determine actual contents, the presence of liquids, and/or the presence of prohibited items.

The O&I will have direct oversight by either WAO and/or WC, as necessary.

Exceptions to the O&I process may be made by the WM Director, or designee, on a case-by-case basis in extenuating circumstances (e.g., safety considerations, strict documentation process controls during waste generation, and/or verifiable and document process knowledge). FBP-WM-PRO-00264-F04, *Open and Inspect Waiver Request*, is used to document waiver approval.

- 6.7.4** Ensure O&I of containers is performed in accordance with FBP-WM-PRO-00039, *Waste Container Operations*, and FBP-WM-PRO-00059, *Intermodal and Cargo Container Operations*, as applicable.
- 6.7.5** Using the information gathered during the O&I of the containers and the available characterization data, identify any data gaps for proper waste characterization and disposition.
- A.** **IF** available data is deemed applicable and sufficient to properly characterize the waste, **THEN** go to subsection 6.9
- B.** **IF** data gaps exist, **THEN** go to subsection 6.4 for analytical data collection.
- 6.7.6** Initiate any changes to the WMG in accordance with FBP-WM-PRO-00046, *Waste/Recyclables Tracking*, as needed.

6.8 Container Movement Coordination

- 6.8.1** When requested, initiate container movements between facilities on site.

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- 6.8.2** Using the available information and/or data for the container, establish preliminary characterization and classifications categories.

NOTE

Hazardous or Mixed Low-Level Waste (MLLW) located in a Central Accumulation Area (CAA) should be moved into Permitted Storage within 75 days to allow for unexpected delays.

- 6.8.3** Hazardous or MLLW located in a CAA shall be moved to Permitted Storage or shipped to a TSDF within 90 days from the Hazardous “Start Date” (the date waste is first placed into a container).
- 6.8.4** Waste located in a PCB Temporary Storage Area has to be removed prior to the 30th day of storage and sent to a PCB storage area that meets the requirements of 40 CFR 761.
- 6.8.5** There are no time limits for storage of RCRA hazardous waste in a Satellite Accumulation Area (SAA). Do not put a RCRA Start Date on the container.
- 6.8.6** Ensure the proposed new storage facility/location is compliant for the waste/material container to be moved.
- 6.8.7** Request container movement in accordance with applicable procedures, which include but are not limited to the following:
- FBP-MC-PRO-00067, *Nuclear Material Container Transfers*
 - FBP-NO-PRO-00101, *Facility Inventory Control*
 - FBP-WM-PRO-00039, *Waste Container Operations*
 - FBP-WM-PRO-00046, *Waste/Recyclables Tracking*

6.9 Unique Characterization Situations

WDS

- 6.9.1** **IF** characterized waste is to be grouted, **THEN** perform the following:
- Verify whether the grouting constitutes treatment of CERCLA hazardous waste and/or removal of Safeguards and Security.
 - **IF** the grouting constitutes treatment of CERCLA hazardous waste, **THEN** verify CERCLA status and ensure waste is hazardous for D004-D011 only.
 - Verify waste is not PCB regulated.
 - Verify ²³⁵U grams using validated analytical data or NDA measurements.

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- Verify grouted waste will meet an exception at 49 CFR 173.453, *Fissile Materials – Exceptions* or the fissile material packaging limits at 10 CFR 71.22.
- Document and sign as verifier, obtain peer review, and submit request to Nuclear Materials Control and Accountability (NMC&A) for the generation of the grout plan.

6.9.2 IF characterized waste is to be batched, **THEN** perform the following:

- Ensure proposed containers for batching are like wastes/materials.
- Verify the final container meets an exception at 40 CFR 173.453, *Fissile Materials – Exceptions*, the fissile material packaging limits at 10 CFR 71.22, or the Type AF/Type B package payload limit.
- Submit request to NMC&A for the generation of the batch plan.

6.9.3 IF characterized waste is a container of contaminated metal that originates from locations that have different enrichment assignments from Nuclear Criticality Safety (NCS), **THEN** perform the following:

- Complete FBP-WM-PRO-00264-F10, *Calculated Assay Sheet for Containers of Contaminated Metal*
- Sign as creator, obtain peer review, and submit completed form to NDA and NCS for review and concurrence via email.
- The calculated assay will be used by NDA, NMC&A, and WM for the radiological characterization of the applicable container.

6.10 Waste Characterization and Documentation

WDS

6.10.1 Compile and evaluate all available characterization and classification data (i.e., analytical data, PK, NDA reports, etc.) applicable to the waste.

6.10.2 Classify the waste into one of the following waste classifications:

- Recyclable Materials
- Reuse Materials
- Sanitary/Industrial Waste
- Universal Waste
- Low-Level Waste (LLW) – Appendix B, *LLW Classification Flowchart*

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- Hazardous Waste (regulated by either CERCLA or RCRA) – Appendix C, *Hazardous Waste Classification Flowchart*
- Toxic Substances Control Act (TSCA) Waste – Appendix D, *TSCA Waste Classification Flowchart*
- LLW/RCRA/TSCA Mixed Low-Level Waste (MLLW)
- Asbestos Containing Material (ACM)
- Regulated Beryllium

6.10.3 Evaluate TSDF options, and determine TSDF to be utilized for the treatment and/or disposal of the waste/material, including the OSWDF.

6.10.4 Verify the waste/material meets the selected TSDF's WAC.

- **IF** the waste is radioactive, **THEN** consideration of ²³⁵U gram uncertainty regarding shipment to a specific TSDF WAC or license criteria must be conducted in accordance with WM-PROGRAMS-12-001, *Application of Uncertainty Associated with Radiological Measurements at PORTS to Support Waste Determinations and Transportation of Portsmouth Facility Components, Nuclear Materials, and Wastes*.

6.10.5 **IF** the waste is classified as LLW or MLLW, **THEN** ensure a 435.1 evaluation has been completed as directed by DOE Manual 435.1-1 *Radioactive Waste Management Manual*, from the WDS responsible for managing the DOE Manual 435.1 program.

NOTE

Waste/Materials that are classified as either Recyclable Materials, Reuse Materials, Sanitary/Industrial Waste, or Universal Waste are not subject to the requirement for a Technical Narrative in accordance with Step 6.10.6.

For wastes to be dispositioned to the OSWDF, the technical narrative may be written to cover multiple waste streams as opposed to a waste stream basis as directed in Appendix D, *Characterization Technical Evaluation or Waste Characterization Narrative*.

6.10.6 Write Technical Narrative in accordance with the guidelines of Appendix D, *Characterization Technical Evaluation or Waste Characterization Narrative*. Each waste stream should have its own separate Technical Narrative.

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NOTE

FBP-WM-PRO-00264-F11, *Releasing Material/Item(s) for Recycle or Reuse Checklist*, was designed to be used with the PORTS Asset Recovery Program.

- 6.10.7 IF** material/item has been classified as recycle or reuse, **THEN** then complete and sign/date form FBP-WM-PRO-00264-F11, *Releasing Material/Item(s) for Recycle or Reuse Checklist*.
- A.** Ensure the checklist has been reviewed and approved by the WCDM.
 - B.** Forward completed characterization packet which includes the completed WMG, approved FBP-RP-PRO-00004-F01, *Request to Release Material/Equipment from DOE Control* or equivalent release of material/item, and approved checklist to the ARM, indicating recommended disposition of material/item.
- 6.10.8 IF** waste has been classified as either Sanitary/Industrial Waste or Universal Waste, **THEN** neither FBP-WM-PRO-00264-F11, *Releasing Material/Item(s) for Recycle or Reuse Checklist* nor FBP-WM-PRO-00264-F13, *Waste Characterization and Classification Checklist* are required to be completed.
- A.** Forward completed characterization packet which includes the completed WMG and approved FBP-RP-PRO-00004-F01, *Request to Release Material/Equipment from DOE Control*, or equivalent release of material/item to the WDS responsible for the compilation of Sanitary/Industrial Waste Shipments or Universal Waste Shipments, indicating recommended disposition of the waste.

NOTE

FBP-WM-PRO-00264-F12, *Waste Evaluation and Characterization Standards Checklist* can be developed to cover multiple OSWDF waste types (i.e., Type 1 and Type 2) generated from the same project provided all waste types meet the same waste classification (i.e., LLW, RALLW).

- 6.10.9 IF** the waste is to be dispositioned to the OSWDF, **THEN** complete and sign/date form FBP-WM-PRO-00264-F12, *Waste Evaluation and Characterization Standards Checklist*.
- A.** Ensure the checklist has been reviewed and approved by the WCDM.
 - B.** Ensure the data summary is included as an attachment to the technical narrative, if characterization is based on analytical data.

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- C. Forward approved characterization packet which includes the technical narrative, supporting characterization document (i.e., analytical data with completed data usability forms, NDA reports, surveys, etc.), and completed checklist to the WAO, indicating recommended disposition of material/item.

6.10.10 IF the waste is to be dispositioned to an off-site TSDF, **THEN** assign TSDF specific profile number, as applicable.

- A. Complete and sign/date FBP-WM-PRO-00264-F13, *Waste Characterization and Classification Checklist*.
- B. Complete and sign/date FBP-WM-PRO-00264-F03, *Waste Package File Checklist*
- C. Ensure the characterization packet which includes the technical narrative, supporting characterization documents (i.e., analytical data with completed data usability forms, NDA reports, surveys, etc.), and required checklists have been peer reviewed by a qualified WDS.
- D. Ensure the characterization packet has been reviewed and approved by the WCDM or designee.

6.10.11 Develop or modify existing TSDF profiles, as necessary.

- A. **IF** the waste is bound for NNSS, **THEN** ensure there is an approved NNSS profile in accordance with FBP-WM-PL-00008, *Qualifying Waste Streams for Disposal at the Nevada National Security Site*.
- B. **IF** the waste is bound for NNSS and a profile is not in place, **THEN** generate the profile in accordance with FBP-WM-PRO-00050, *Profiling Waste for Disposal at the Nevada National Security Site*.
- C. **IF** waste falls into either of the following categories, **THEN** complete a pre-treatment notification in accordance with FBP-WM-PRO-00050.
 - RCRA characteristic hazardous waste undergoing treatment to remove the hazard prior to disposal as LLW; or
 - RCRA hazardous waste undergoing treatment to render it compliant with Land Disposal Restrictions (LDRs).

WCDM or designee

6.10.12 IF the waste is to be dispositioned to an off-site TSDF, **THEN** forward the approved characterization packet to WC for review and approval before shipment.

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6.11 Off-Site Shipment Compilation

WCDM or designee

- 6.11.1 Identify all containers designated for shipment, ensure all characterization packets have been reviewed and approved by the WCO.
- 6.11.2 **IF** the waste is not bound for NNSS, **THEN** verify disposition site is authorized to receive material, which includes, but is not limited to the following:(Check license, WAC, Permit, and/or Authorizations).
 - Ensure the TSDF is vetted in accordance with FBP-EP-PRO-00043, *Vetting of Receipt Facilities for Off-Site Shipment of Waste and Recyclables*
 - Ensure a contract is in place for the selected TSDF and there is funding in place to cover the cost of the proposed shipment
 - Ensure the TSDF is active on the Qualified Suppliers List (QSL) in accordance with FBP-QA-PRO-00016, *Procurement Quality*.
 - Ensure the waste streams have a current DOE 435.1 Evaluation completed, as applicable.
- 6.11.3 **IF** the waste is bound for NNSS, **THEN** verify the total PE-g for the proposed conveyance load.
- 6.11.4 Request shipment surveys from the Radiation Protect Department.
- 6.11.5 Assign applicable shipment numbers.
- 6.11.6 Complete and sign/date FBP-WM-PRO-00264-F05, *Shipment File Checklist*.
- 6.11.7 Transfer the shipment file, including the characterization packets, to the Transportation department once all required documents are compiled.
- 6.11.8 Forward the shipment information for the shipment to the Transportation department and WC via email.

7.0 RECORDS

7.1 Records Generated

- A. FBP-FRM-00869, *FBP Container Management /Absorbent Request Form*
- B. FBP-FRM-00938, *Sampling Request*
- C. FBP-RP-PRO-00004-F01, *Request to Release Material/Equipment From DOE Control*
- D. FBP-WM-PRO-00264-F03, *Waste Package File Checklist*

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- E.** FBP-WM-PRO-00264-F04, *Open and Inspect Waiver Request*
- F.** FBP-WM-PRO-00264-F05, *Shipment File Checklist*
- G.** FBP-WM-PRO-00264-F06, *Data Quality Objectives (DQO) Checklist*
- H.** FBP-WM-PRO-00264-F07, *Waste Characterization Data Usability Review Radiological Constituents*
- I.** FBP-WM-PRO-00264-F08, *Waste Characterization Data Usability Review Hazardous Constituents*
- J.** FBP-WM-PRO-00264-F09, *Waste Characterization Data Usability Review Toxic Substances Control Act (TSCA) Polychlorinated Biphenyls (PCBs) Constituents*
- K.** FBP-WM-PRO-00264-F10, *Calculated Assay Sheet for Containers of Contaminated Metal*
- L.** FBP-WM-PRO-00264-F11, *Releasing Material/Item(s) for Recycle or Reuse Checklist*
- M.** FBP-WM-PRO-00264- F12, *Waste Evaluation and Characterization Standards Checklist*
- N.** FBP-WM-PRO-00264-F13, *Waste Characterization and Classification Checklist*
- O.** *Generation Waste Profiles (eMWaste)*
- P.** *Generator's Waste Management Plan*
- Q.** *Waste Compliance Guide (WCG)*

7.2 Requirements

- A.** Records generated or received as a result of performing this procedure shall be managed according to FBP-BS-PRO-00062, *Records Management Process*.
- B.** Records shall be maintained within the project files and/or on the established Waste Management share drive, in accordance with FBP-BS-PL-00001, *Records Management and Document Control Plan for Fluor-BWXT Portsmouth LLC Piketon, Ohio*, and maintained per guidance found in FBP-BS-PRO-00096, *Project Files Management*.

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8.0 DEFINITIONS/ACRONYMS

8.1 Definitions

- A. Asbestos Containing Material (ACM)** – Material containing more than 1% asbestos fibers determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, *Polarized Light Microscopy (PLM)*. There are two types of ACM – friable and non-friable.
- B. Asset Recovery/Recycle Manager** – Coordinates the off-site recycle of equipment and material not addressed under the standard sanitary recycle streams (e.g., aluminum and plastic beverage containers and paper).
- C. Data Quality Objective (DQO) Process** – Process used to develop performance and acceptance criteria (or data quality objectives) that clarify study objectives, define the appropriate type of data, and specify tolerable levels of potential decision errors that will be used as the basis for establishing the quality and quantity of data needed to support decisions.
- D. Environmental Remediation (ER) Field Characterization** – Coordinates the physical collection of all waste samples and delivers them to the Sample Management Office (SMO) per applicable procedures and work packages.
- E. Hazardous Pending Analysis** – A condition that exists when a waste is being managed as hazardous while awaiting analytical information or data from a sampling evolution.
- F. Hazardous Waste** – Any waste that is dangerous or potentially harmful to health or the environment, as defined by RCRA (40 CFR Subpart 261). They can be liquids, solids, gases, or sludges, and can be discarded commercial products, like cleaning fluids or pesticides, or the by-products of manufacturing processes.
- G. Low-Level Waste (LLW)** – Waste that does not meet the criteria for any of three other categories of radioactive waste – spent nuclear fuel and high level waste, transuranic waste, or byproduct materials, such as uranium mill tailings (11.e.2 waste). Its categorization does not depend on the level of radioactivity it contains.
- H. Mixed Low-Level Waste (MLLW)** – Low-level waste that also contains RCRA regulated wastes constituents
- I. Process Knowledge (PK)** – Includes information such as the physical and chemical form of the wastes, the base materials composing the waste, the nature of the radioactivity present, and the process(es) generating the waste.
- J. Records Custodian** – Responsible for compliance with RMDC plans and procedures.

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- K. Recycle Waste** – A material that is used, reused, or reclaimed (40 CFR 261.1(c)(7)). A material is used or reused if it is either employed as an ingredient in an industrial process to make a product or if it is an effective substitute for commercial product. A material is reclaimed if it is processed to recover a usable product or if its regenerated.
- L. Solid Waste** – Any garbage, refuse, sludge from a wastewater treatment plant, or air pollution control facility, and other discarded material, including solid, liquid, semisolid, or contained gaseous material, resulting from industrial, commercial, mining, and agricultural operations from community activities (40 CFR 261.2)
- M. TSCA Waste** – Waste that meets the criteria for any of the following PCB waste categories – PCB item, PCB bulk product waste, PCB remediation waste, or PCB spill cleanup waste.
- N. Universal Waste** – Any of the following hazardous wastes that are managed under the Universal Waste requirements of 40 CFR 273 and OAC 3745-273:
 - Batteries as described in 40 CFR 273.2 and OAC 3745-273-02,
 - Mercury containing equipment as described in 40 CFR 273.4 and OAC 3745-273-04,
 - Lamp as described in 40 CFR 273.9 and OAC 3745-273-05.
- O. Waste Disposition Specialist** – Coordinates characterization, classification, packaging, and disposition of waste and acts as Waste Management liaison to the projects and waste generators.
- P. Waste Generator** – any person or entity whose act or process produces waste of whose act first causes a material to become a waste, be it sanitary, universal, radioactive, chemical, or hazardous waste.

8.2 Acronyms

- A. ACM** – Asbestos Containing Material
- B. ARAR** – Applicable or Relevant and Appropriate Requirements
- C. ARM** – Asset Recovery Manager
- D. CERCLA** – Comprehensive Environmental Response, Compensation and Liability Act
- E. DOE** – Department of Energy
- F. DQO** – Data Quality Objective
- G. ER** – Environmental Remediation

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- H. FBP** – Fluor-BWXT Portsmouth, LLC
- I. GWMP** – Generator’s Waste Management Plan
- J. LDR** – Land Disposal Restriction
- K. LLW** –Low Level Waste
- L. MLLW** – Mixed Low Level Waste
- M. MoC** – Materials of Construction
- N. NDA** – Nondestructive Assay
- O. NMC&A** – Nuclear Material Control and Accounting
- P. NNSA/NFO** – National Nuclear Security Administration/Nevada Field Office
- Q. NNSS** – Nevada National Security Site
- R. O&I** – Open & Inspect
- S. OSWDF** – On Site Waste Disposal Facility
- T. PCB** – Polychlorinated Biphenyl
- U. PEMS** – Project Environmental Measurements System
- V. PK** – Process Knowledge
- W. PORTS** – Portsmouth Gaseous Diffusion Plant
- X. QA** – Quality Assurance
- Y. QSL** – Quality Services List
- Z. RCRA** – Resource Conservation Recovery Act
- AA. RMDC** – Records Management and Document Control
- BB. RP** – Radiation Protection
- CC. SAA** – Satellite Accumulation Area
- DD. SAP** – Sample and Analysis Plan
- EE. SMO** – Sample Management Office
- FF. SR** – Sample Request
- GG. TCLP** – Toxicity Characteristic Leaching Procedure

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- HH. TSCA** - Toxic Substance Control Act
- II. TSDF** – Treatment Storage and Disposal Facility
- JJ. WAC** – Waste Acceptance Criteria
- KK. WAC IP** – Waste Acceptance Criteria Implementation Plan
- LL. WAD** – Work Authorization Document
- MM. WAO** – Waste Acceptance Organization
- NN. WCDM** – Waste Characterization and Disposition Manager
- OO. WCG** – Waste Compliance Guide
- PP. WC** – Waste Certification
- QQ. WDS** – Waste Disposition Specialist
- RR. WG** – Waste Generator
- SS. WM** – Waste Management
- TT. WMG** – Waste/Material Generation

9.0 SOURCE REFERENCES

- A.** Department of Energy Manual 435.1-1, *Radioactive Waste Management Manual*
- B.** DOE Order 436.1, *Department Sustainability*
- C.** DOE P 450.4A, *Integrated Safety Management System (ISMS)*, for routine Waste Management activities and non-repetitive project/process activities which generate waste.
- D.** EPA QA/G-4, *Guidance on Systematic Planning Using the Data Quality Objectives Process*
- E.** FBP-ER-OSDC-WD-PLN-0071, *Waste Acceptance Criteria Implementation Plan or the On-Site Waste Disposal Facility at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio*
- F.** FBP-OS-PL-00003, *Integrated Safety Management System Plan*
- G.** FBP-PDD-00001, *Integrated Safety Management System*
- H.** FBP-WM-PL-00001, *Waste Management Plan*
- I.** FBP-WM-PRO-00047, *Procurement and Inspection of Items Critical to the Portsmouth Waste Certification Program*

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- J.** FBP-EP-PL-00018, *Waste Packaging Requirement for Disposal at the Nevada National Security Site (NNSS)*
- K.** FBP-SPEC-0WM-0012, *Requirements for Determining Moisture Absorbents for Containerized Waste*
- L.** WM-PROGRAMS-12-0001, *Application of Uncertainty Associated with Radiological Measurements at PORTS to Support Waste Determinations and Transportation of Portsmouth Facility Components, Nuclear Materials and Wastes*
- M.** Title 10 CFR, *Nuclear Regulatory Commission*
- N.** Title 40 CFR, *Protection of Environment*
- O.** Title 49 CFR, *Transportation*

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Appendix A
REGULATORY REQUIREMENTS FLOW DOWN

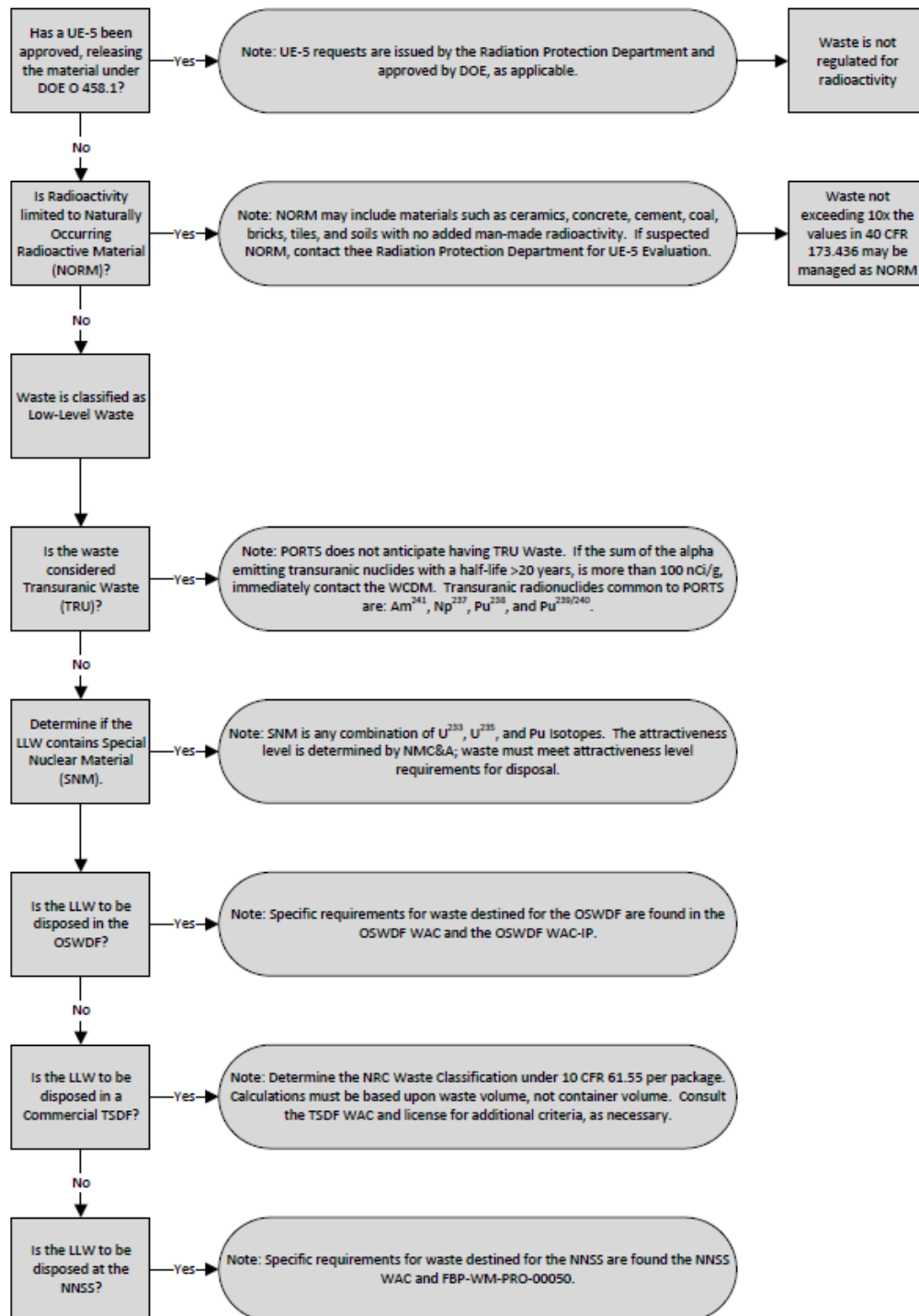
1. Department of Energy Manual 435.1-1, *Radioactive Waste Management Manual*
2. DOE Order 436.1, *Department Sustainability*
3. DOE P 450.4A, *Integrated Safety Management System (ISMS)*, for routine Waste Management activities and non-repetitive project/process activities which generate waste
4. EPA QA/G-4, *Guidance on Systematic Planning Using the Data Quality Objectives Process*
5. Title 10 CFR, *Nuclear Regulatory Commission*
6. Title 40 CFR, *Protection of Environment*
7. Title 49 CFR, *Transportation*

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Appendix B

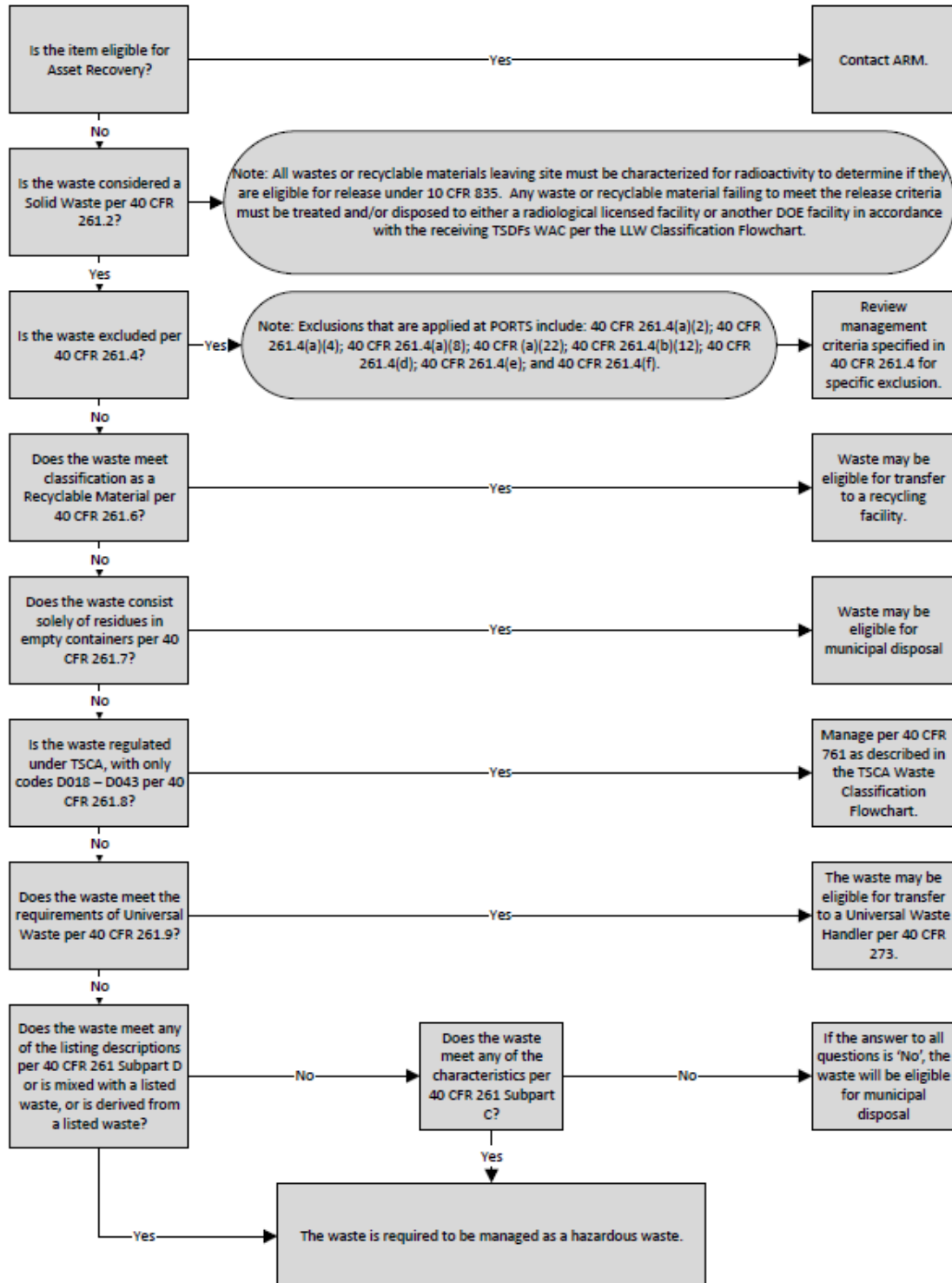
LLW CLASSIFICATION FLOWCHART

Radioactive Waste Classification and Management



Appendix C HAZARDOUS WASTE CLASSIFICATION FLOWCHART

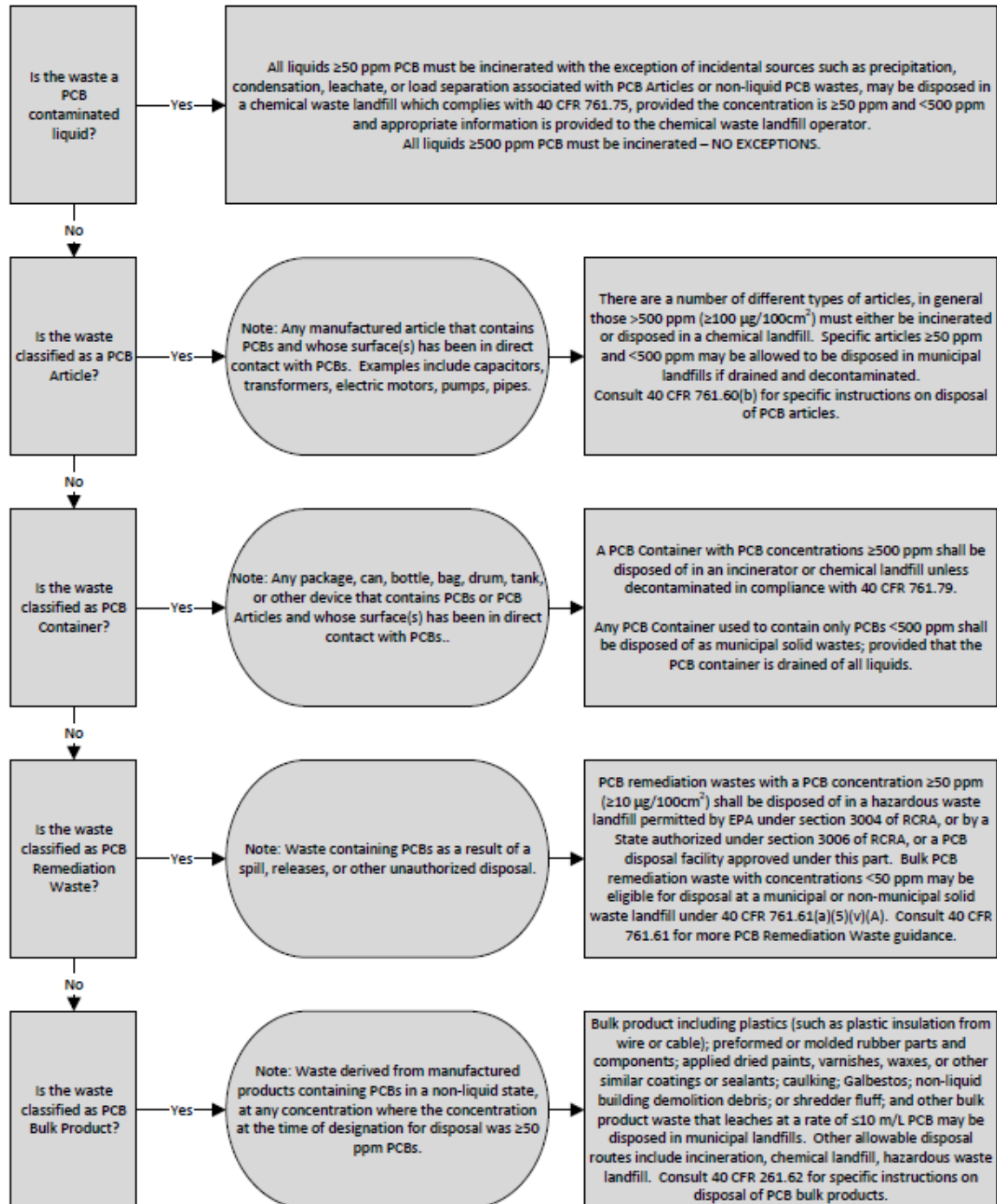
Hazardous Waste Classification and Management



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Appendix D TSCA WASTE CLASSIFICATION FLOWCHART

TSCA Waste Classification and Management



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Appendix E
ACCUMULATION REQUIREMENTS (BY WASTE TYPE)
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Note: Containers holding ignitable or reactive waste must be located at least 15 meters (50 feet) from the facility’s property line, per 3745-55-76, *Special Requirements for Ignitable or Reactive Waste*.

Note: Regulatory requirements are listed in the “Source Documents” section of this procedure; consult Compliance personnel for specific application.

Waste Type	Volume or Concentration Limit	Start Date Criterion	Approved Staging/Storage Area Type	Time Limits
<i>LLW, Including fissile material</i>				
LLW	n/a	Date of first waste placement in container	Any RMA or as dictated by Radiation Protection	To comply with DOE O 435.1, ship within 1 year from start date.
<i>CERCLA Hazardous Waste, Including MLLW</i>				
CERCLA Hazardous Waste	n/a	Date of first waste placement in container	CERCLA Interim Waste Area	Within 7 days of start date, move the container to an approved CERCLA Staging or Storage Area.
			CERCLA Staging Area	n/a
			CERCLA Storage Area	n/a
CERCLA Hazardous Pending Analysis	Manage as CERCLA Hazardous	Manage as CERCLA Hazardous	Manage as CERCLA Hazardous	Treat pending container as RCRA or MLLW as applicable. Tags or labels should be removed and applicable information shall be added to the container within 7 to 10 working days after data evaluation.
Any Ignitable Liquid	n/a	Date of first waste placement in container	CERCLA Staging or Storage Area AND obtain approval of Fire Protection Engineer	n/a

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ACCUMULATION REQUIREMENTS (BY WASTE TYPE)
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Waste Type	Volume or Concentration Limit	Start Date Criterion	Approved Staging/Storage Area Type	Time Limits
<i>Non-CERCLA RCRA Hazardous Waste, Including MLLW</i>				
RCRA Hazardous	<55 gallons	When container is full (55 gallons or more of hazardous waste)	RCRA SAA	<p>Within 3 days of start date, either move the container to CAA, move to permitted storage, or ship to treatment/disposal facility.</p> <p>Do not put start date on container when in SAA.</p> <p>Ship off-site within 1 year from start date.</p>
	≥55 gallons	When container is first added to CAA	RCRA CAA	<p>Within 90 days of start date, either move the container to permitted storage, or shipment to treatment/disposal facility.</p> <p>Ship off-site within 1 year from start date.</p>
	n/a	When container is first added to CAA	RCRA Part B Permitted Storage Area	As regulated per the PORTS Site Treatment Plan.
RCRA <i>acutely</i> Hazardous	< 1 liter	When container is full (1 liter or more of acutely hazardous waste)	RCRA SAA	<p>Within 3 days of start date, either move the container to CAA, move to permitted storage, or ship to treatment/disposal facility.</p> <p>Do not put start date on container when in SAA.</p> <p>Ship off-site within 1 year from start date.</p>
	≥1 liter	When container is first added to CAA	RCRA CAA	<p>Within 90 days of start date, either move the container to permitted storage, or shipment to treatment/disposal facility.</p> <p>Ship off-site within 1 year from start date.</p>
	n/a	When container is first added to CAA	RCRA Part B Permitted Storage Area	As regulated per the PORTS Site Treatment Plan.
RCRA Hazardous Pending Analysis	Manage as RCRA Hazardous	Manage and RCRA Hazardous	Manage as RCRA Hazardous	<p>Treat pending container as RCRA or MLLW as applicable.</p> <p>Tags or labels should be removed and applicable information shall be added to the container within 7 to 10 working days after data evaluation.</p>

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ACCUMULATION REQUIREMENTS (BY WASTE TYPE)
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Waste Type	Volume or Concentration Limit	Start Date Criterion	Approved Staging/Storage Area Type	Time Limits
Non-Rad TSCA PCB Waste				
TSCA PCB Waste	>50 ppm, < 500 ppm	Date of first waste placement in container	TSCA 30-day Area	<p>Within 30 days of start date, either move the container to approved PCB storage area, or shipment to treatment/disposal facility.</p> <p>Ship off-site within 9 months from start date.</p> <p>(NOTE: Waste must be disposed of within 1 year).</p>
TSCA PCB Waste	>500 ppm	Date of first waste placement in container	Approved PCB Storage Area	<p>On start date, move to approved PCB storage area.</p> <p>Ship off-site within 9 months from start date.</p> <p>(NOTE: Waste must be disposed of within 1 year.)</p>
MLLW TSCA PCB Waste				
MLLW TSCA PCB Waste	>50 ppm, < 500 ppm	Date of first waste placement in container	TSCA 30-day Area	<p>Within 30 days of start date, either move the container to approved PCB storage area, or shipment to treatment/disposal facility.</p> <p>As a best management practice - ship off-site within 9 months from start date.</p> <p>(NOTE: Waste must be disposed of within 1 year or a Memo-to-File must be created).</p>
MLLW TSCA PCB Waste	>500 ppm	Date of first waste placement in container	Approved PCB Storage Area	<p>On start date, move to approved PCB storage area.</p> <p>As a best management practice - ship off-site within 9 months from start date.</p> <p>(NOTE: Waste must be disposed of within 1 year or a Memo-to-File must be created).</p>

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Waste Type	Volume or Concentration Limit	Start Date Criterion	Approved Staging/Storage Area Type	Time Limits
Universal Waste (See FBP-WM-PRO-00329)				
Batteries	n/a	Date the battery is discarded	CERCLA Universal Waste Area	As a best management practice - ship off-site within 1 year from start date.
Mercury Containing Equipment	n/a	Date the equipment was removed from service		
Lamps	n/a	Date of first waste placement in container		

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Appendix F
GENERATORS WASTE MANAGEMENT PLAN (GWMP)
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- A. The following are sections that at a minimum, all GWMPs must have:
 - 1) Background
Which must include Scope, Project Description and Roles and Responsibilities including but not limited to Waste Generator, WAO, OSWDF personnel, etc.
 - 2) Waste Management Requirements
 - 3) Waste Stream Descriptions
 - 4) Waste Stream Requirements (usually in some Tabular Form)
 - 5) WAC IP Discussions
 - 6) Anamolous or Unexpected Conditions
 - 7) Special Project Consideration (N/A if none)
 - 8) Pollution Projection
 - 9) Attachments/Appendices as needed
- B. Additional sections may be added as necessary/required on a project by project basis.
- C. Ensure a GWMP has a document number and in proper FBP format prior to obtaining signatures.
- D. Obtain signatures.
- E. Submit to Document Control for inclusion.

The following is an example of a GWMP.

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GENERATORS WASTE MANAGEMENT PLAN (GWMP)
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GENERATOR WASTE MANAGEMENT PLAN

PIKETON, OHIO

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

Date Issued –

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

This document contains ____ pages.

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 Rev. ____

APPROVALS

Fluor-BWXT Portsmouth LLC
GENERATORS WASTE MANAGEMENT PLAN
NOVEMBER 2024

Approval		
	Waste Disposition Specialist Portsmouth D&D Project Fluor-BWXT Portsmouth LLC	Date
Approval		
	Project Manager Portsmouth D&D Project Fluor-BWXT Portsmouth LLC	Date
Approval		
	Facility Manager Portsmouth D&D Project Fluor-BWXT Portsmouth LLC	Date
Approval		
	Waste Acceptance Official or Designee Portsmouth D&D Project Fluor-BWXT Portsmouth LLC	Date
Approval		
	Transportation Manager Portsmouth D&D Project Fluor-BWXT Portsmouth LLC	Date
Approval		
	Waste Characterization and Disposition Manager Portsmouth D&D Project Fluor-BWXT Portsmouth LLC	Date

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1.2	Scope.....	4
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2.0	WASTE MANAGEMENT REQUIREMENTS.....	4
3.0	WASTE STREAM DESCRIPTIONS.....	4
4.0	INDIVIDUAL WASTE STREAM MANAGEMENT REQUIREMENTS.....	4
5.0	WASTE ACCEPTANCE CRITERIA – IMPLEMENTATION PLAN (WAC-IP) COMPONENTS DISCUSSION.....	4
6.0	ANOMALOUS or UNEXPECTED CONDITIONS.....	4
7.0	SPECIAL PROJECT CONSIDERATIONS	4
8.0	POLLUTION PREVENTION.....	4
9.0	ATTACHMENTS/APPENDICES	4

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1.0 BACKGROUND

- 1.1 Project Description
- 1.2 Scope
- 1.3 Waste Management Roles and Responsibilities

2.0 WASTE MANAGEMENT REQUIREMENTS

3.0 WASTE STREAM DESCRIPTIONS

4.0 INDIVIDUAL WASTE STREAM MANAGEMENT REQUIREMENTS

**5.0 WASTE ACCEPTANCE CRITERIA – IMPLEMENTATION PLAN (WAC-IP)
COMPONENTS DISCUSSION**

6.0 ANOMALOUS or UNEXPECTED CONDITIONS

7.0 SPECIAL PROJECT CONSIDERATIONS

8.0 POLLUTION PREVENTION

9.0 ATTACHMENTS/APPENDICES

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Appendix G
WASTSE COMPLIANCE GUIDE
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A. The following are sections that at a minimum, all WCGs must have:

- 1) Purpose
- 2) Scope
- 3) Roles and Responsibilities
- 4) Approvals
- 5) Waste Stream Descriptions and Requirements (usually in some Tabular Form)

Additional sections may be added as necessary/required on a project by project basis.

- B. Ensure a WCG has a document number and in proper FBP format prior to obtaining signatures.
- C. Obtain signatures.
- D. Submit to Document Control for inclusion.

The following is an example of a WCG.

TITLE:	Waste Characterization and Disposition	FBP-WM-PRO-00264
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WASTE COMPLIANCE GUIDE							
Compliance Guide No.	FBP-WM-WCG-__	Revision No.	General or Job-Specific	Issue Date	Specific Location		
Purpose:							
Scope:							
Roles and Responsibilities:							
Waste Generator (WG):							
Role:		Anyone who generates, handles, or stores waste.					
Responsibilities:		The WG will be responsible for the compliant waste generating, packaging, marking, labeling, and storing of waste in accordance with the requirements of FBP-WM-PRO-00329, <i>Waste Generation Under Activities Governed by CERCLA</i> , and FBP-WM-PRO-00330, <i>CERCLA Waste Storage</i> , and any other applicable approved work documents, including but not limited to Generator Waste Management Plan (GWMP), Integrated Work Document (IWD), or procedure.					
Waste Management (WM):							
Role:		WM provides oversight for waste that will be shipped to the On-Site Waste Disposal Facility (OSWDF) or Off-site for treatment and/or disposal. WM ensures that waste is compliantly stored on-site, properly characterized, shipped, and disposed with applicable federal regulations, site governing documents, and procedures.					
Responsibilities:		WM will work with the WG to ensure the compliant waste generation, packaging, marking, labeling, and storage or waste in accordance with the requirements of FBP-WM-PRO-000329, <i>Waste Generation Under Activities Governed by CERCLA</i> , and FBP-WM-PRO-00330, <i>CERCLA Waste Storage</i> , and any other applicable federal regulations, approved work documents, including by not limited to GWMP, IWD, or procedure.					
Approvals:							
Waste Disposition Specialist				Waste Characterization and Disposition Manager			

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Compliance Guide No.	FBP-WM-WCG-___	Revision No.		General or Job-Specific		Issue Date		Specific Location	
Acronyms:									
<div>Example</div>									

TITLE: <div>Waste Characterization and Disposition</div>	FBP-WM-PRO-00264
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WASTE COMPLIANCE GUIDE									
Compliance Guide No.	FBP-WM-WCG-__	Revision No.		General or Job-Specific		Issue Date		Specific Location	
Table of Contents:									
Waste Stream:					Compliance Guide Page Number:				
<div>Example</div>									

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WASTE COMPLIANCE GUIDE							
Compliance Guide No.	FBP-WM-WCG-___	Revision No.	General or Job-Specific	Issue Date	Specific Location		
Waste Stream Management Requirements:							
Item:							
Item Description:							
Regulatory Classification:							
Suggested Container:							
Special Packaging Requirements:							
Marking and Labeling Requirements:							
Storage Requirements:							
Additional Comments:							

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Appendix H
CHARACTERIZATION TECHNICAL EVALUATION OR WASTE CHARACTERIZATION
NARRATIVE
Page 1 of 3

Note: Each type of waste will have its own narrative. Do not mix different types of waste into one narrative. LLW will have its own narrative; MLLW its own narrative, etc.

Note: This narrative is the supporting documentation for the characterization checklist required by FBP-WM-PRO-00264-F09. That information is required per FBP-WM-PRO-00264, when filling out the waste stream/container checklist.

Date: (This is when the narrative was developed and should match the same date as signed by the Waste Disposition Specialist.)

Revision: (Each time a narrative is changed after the date developed, it will be a new revision. Editorials or changes made can be done by a pen and ink change on the document. This means if an error or change is needed during Peer or Managers Review, then a new revision is required.)

WMG ID Numbers, if available

List or attach a list of WMG's to which this narrative applies.

Waste Determination Summary

State what is the waste characterization and classification.

Project/Material Background

Provide background on how the waste was generated, containing enough information someone not associated with the waste can understand the circumstances of how the waste was generated. A simple sentence regarding what kind of waste (MLLW, LLW, ACM, regulated PCB, etc.) can be made in this paragraph. The justification will be given below.

Reference to any Sample and Analysis Plan (SAP), NDA reports, Sample Request Form(s), and any other reports/information used, shall be referenced here.

Radiological Determination

This section is used to describe and justify whether or not the waste is LLW or free released. It is also used to justify values used for shipment input into eMWaste, as well as, filling out the characterization checklist.

List any and all assumptions.

Supporting information can be referenced in this section, such as: analytical data, emails, NDA reports, technical basis documents, white papers, trending spreadsheets, etc. **Remember: If you state something is attached, then ensure it is attached.**

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CHARACTERIZATION TECHNICAL EVALUATION OR WASTE CHARACTERIZATION
NARRATIVE
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Information needed here includes:

- a) Basis for Tc-99 value
- b) % assay and how it was obtained. (Calculated through lab analysis, NMC&A values, etc.)
- c) Surface Area, if survey data is used to determine isotopic calculations (write ups can be referenced and attached).
- d) If using survey data, then this is where one states how the alpha and beta gamma value for input into a spread sheet has been determined. For example; using the highest value from all the surveys; using the average value calculated from the surveys; is MDA being used; are only the actual positive values being used in an average, etc.
- e) The radiological survey identification number of the form as assigned by the Radiological Controls Organization that are used for characterization purposes shall be referenced in the Narrative body. The same survey ID numbers shall be part of the information contained in the Nuclide Activity Calculator spread sheet(s).
- f) If using NDA information, then include the NDA reference number(s) in the body of the narrative and include them in the NAC.
- g) Nuclide Activity Calculator spread sheet(s).
- h) Compliance Spreadsheets, if needed.
- i) Basis for determination of Class; (A, greater than C, C) include calculations.
- j) Basis for determining fissile vs. fissile excepted; include calculations.

Reference to the Data Usability Review should be made if analytical data was used to determine values. The Data Usability Review must be included as an attachment. If the WDS deviates from the Data Usability Review synopsis, then this section should state why and what the disagreement may be.

Profile Compliance

This section is used to provide evidence the container's assigned radiological values meet the selected TSDF profile.

RCRA Characterization

This section is used to make the determination if the waste is a regulated hazardous waste, in accordance with 40 CFR 261.

If Process Knowledge is used, then state what it is; if analytical is used, then provide the analytical and Data Usability Review. Process Knowledge can be old analytical information a Data Usability Review cannot be done or it is impractical to do so.

EPA ID codes shall be specified in this section. Actual values for each ID should be referenced and how that value was obtained. For example, the highest value in a set of analytical numbers or the average of the analytical numbers. Document number and how it was derived.

MSDS of SDSs should be included, if necessary. If using a MSDS/SDS to justify characterization of a chemical, then it must be included as an attachment.

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Appendix H
CHARACTERIZATION TECHNICAL EVALUATION OR WASTE CHARACTERIZATION
NARRATIVE
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PCB (TSCA) Characterization

This section is used to determine whether or not a waste is not only regulated for PCB, but also if there are reportable values of PCBs in the waste. If there are not any reportable values of PCB in the waste, then mark the sections on the Characterization Checklist N/A.

Data and Data Usability Review should be referenced in this section and provided as an attachment. If Process Knowledge is used to make a determination, then state what is the Process Knowledge. Such as: system design, visual observations (no staining of material from the Process Buildings, no history of PCBs in a facility or outside, etc.).

PCB wipes and analytical are used as quantitative values. When using analytical, one must sum all the aroclors to get a total PCB concentration. This total is used to determine the actual value and whether the waste is regulated or not.

Other information to include is what type of PCB waste the material might be. Is it Bulk Product waste, remediation waste, a PCB Article, item, etc.? Use the definitions in 40 CFR 761 and guidance documentation in making a decision.

Asbestos Characterization

This section is used to make an asbestos determination. In most cases Waste Management does not sample for asbestos; therefore, the decision is based on material type and other types of Process Knowledge. State what the process knowledge is and how the decision is being made.

If the waste is or contains asbestos, then a friable vs. non-friable decision must be obtained. For the most part this determination is made by qualified IH personnel.

ACM data is not validated by FBP PORTS Sample Management Group; it either is or is not asbestos.

Beryllium Concerns

Typically, beryllium concerns are driven by where the waste was generated, in addition to what the waste is or it was generated. There is a document (POEF-USEC-61, beryllium Surface Contamination Initial Characterization) that states all of the buildings and facilities at PORTS that has beryllium concerns, how the waste came about and whether or not the area/facility was decontaminated. Waste Management has hard copies of this document and there is also an electronic copy in the Waste Management X: file

Beryllium contamination on plant site is primarily in the shops where machining of metal containing beryllium was worked. The machining process contaminated the areas around the machines. Many of the spark-proof tools contain beryllium as an alloy so where these articles were kept was another source of contamination.

Waste Determination

Repeat characterization/classification. This is where all of the information provided above should be summarized in a brief sentence.

“This is Low Level Radioactive Waste (LLW)” for example.

_____/_____
Waste Disposition Specialist / Date

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Attachment A
DATA QUALITY OBJECTIVES (DQO) CHECKLIST



DATA QUALITY OBJECTIVES (DQO) CHECKLIST

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Data Quality Objectives (DQO) Document No.	
Sampling and Analysis Plan (SAP) Reference	
DQO Step 1: The problem	
What is a description of the waste?	
Who are the data users?	
What are the contaminants/analytes of interest?	
DQO Step 2: The decision	
What is the purpose of obtaining the data?	
What are the objectives of obtaining the data?	
DQO Step 3: Inputs to the decision	
What historical data exists?	
What process knowledge (PK) exists?	
What additional data needs to be collected?	
DQO Step 4: Study boundaries	
What is the potential contamination?	
What considerations affect the number of the samples?	
Are there sampling problems?	
Are there other sampling constraints, such as temporal, schedule, seasonal concerns, regulatory requirements, etc?	
DQO Step 5: Decision rule	
IF upon receiving validated data and expected results are not obtained, THEN what steps are to be taken?	
DQO Step 6: Decision errors	
What are the steps to be taken after the analytical results are received?	
How will the data support project objectives and decisions?	
DQO Step 7: Design for obtaining data	
State the type of data to be obtained.	
State the approach to sample selection.	

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Attachment B WASTE CHARACTERIZATION DATA USABILITY REVIEW RADIOLOGICAL CONSTITUENTS



WASTE CHARACTERIZATION DATA USABILITY REVIEW RADIOLOGICAL CONSTITUENTS

SR / SAP Document Number and Title:		Rev.	
Waste Description:			
EXTRACT PEMS REPORT, INCLUDING ONLY RADIOLOGICAL CONSTITUENTS (LABORATORY DATA REPORTS IF PEMS REPORT NOT AVAILABLE)			
SAMPLE VERIFICATION			
Do sample containers correspond with the applicable SR or SAP?	n/a	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
If "No", STOP. Contact responsible WDS for resolution.			
If "n/a", describe source of data below.			
If "n/a", response:			
FIELD SAMPLE DUPLICATES			
Do field sample duplicates support variability assumptions of the sampling strategy?	n/a	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
If "No", describe below and specify if any additional sampling is recommended. (This may be an indication of multiple strata or heterogeneity of the waste.)			
If "No", response:			
DATA QUALIFIERS (OTHER THAN NON-DETECTS)			
Based upon data qualifiers, is data usable for intended purpose?	n/a	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
If "No", specify if any additional sampling is recommended or other adjustments to data.			
If "No", response:			
RADIOCHEMICAL CONSTITUENTS			
Describe radionuclides detected in the waste. <i>NOTE: The recommended radionuclides are based solely on analytical data. It is the data user's responsibility to determine if these or any additional radiochemical contributors are present.</i>			
Describe:			
ADDITIONAL INFORMATION			
Describe:			
SUPPORTING DOCUMENTATION			
Attach supporting documentation (e.g. ProUCL/VSP output file, statistician consultation).			
REVIEWER, SIGNATURE/DATE			
SR. MANAGER, WASTE PROGRAMS, CONCURRENCE SIGNATURE/DATE (IF REQUIRED)			

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Attachment C
WASTE CHARACTERIZATION DATA USABILITY REVIEW HAZARDOUS
CONSTITUENTS
Page 1 of 3



WASTE CHARACTERIZATION DATA USABILITY REVIEW
HAZARDOUS CONSTITUENTS

SR / SAP Document Number and Title:		Rev.	
Waste Description:			
EXTRACT PEMS REPORT, INCLUDING ONLY RCRA CONSTITUENTS (Laboratory Data Reports if PEMS Report not available)			
SAMPLE VERIFICATION			
Do sample containers correspond with the applicable SAP or SR? If "No", STOP. Contact responsible WDS for resolution. If "n/a", describe source of data below.	n/a	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
If "n/a", response:			
MATRIX SPIKE AND MATRIX SPIKE DUPLICATES			
Are matrix and matrix spike duplicates within the acceptable recovery limits? If "Yes", STOP, no further review of matrix spike and matrix spike duplicates is required.	n/a	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
If "No", response:			
If outside of acceptable recovery limits, is data usable? If "Yes", describe adjustments, if any, to data to take into consideration recovery rate. If "No", specify if any additional sampling is recommended.	n/a	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
If "No", response:			
FIELD SAMPLE DUPLICATES			
Do field sample duplicates support variability assumptions of the sampling strategy? If "No", describe below and specify if any additional sampling is recommended. (This may be an indication of multiple strata or heterogeneity of the waste. Data validated with a "J" qualifier may indicate the duplicate was outside acceptable limits.) <i>It may be appropriate to utilize the sample duplicate result if it is higher than the primary sample result.</i>	n/a	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
If "No", response:			
DATA QUALIFIERS (OTHER THAN NON-DETECTS)			
Based upon data qualifiers, is data usable for intended purpose? If "No", specify if any additional sampling is recommended or other adjustments to data.	n/a	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
If "No", response:			
NON-DETECTS			
For samples flagged as 'non-detects', are all detection limits below the regulatory decision limits? If "Yes", the result(s) may be considered as non-detect. If "No", any detection limit above the regulatory decision limit is considered the sample result and cannot be removed from the data set. Specify if any additional sampling is recommended.	n/a	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
If "No", response:			

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Attachment C
WASTE CHARACTERIZATION DATA USABILITY REVIEW HAZARDOUS
CONSTITUENTS
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WASTE CHARACTERIZATION DATA USABILITY REVIEW
HAZARDOUS CONSTITUENTS

SR / SAP Document Number and Title:					Rev.			
Waste Description:								
REPORTING UNITS								
Are data results to be compared to TCLP limits reported in liquid units (mg/L)? If "Yes", compare to regulatory decision limits with no further adjustments to data. If "No", for <u>SOLIDS</u> , the "Rule of 20" is applied and results transformed to take into consideration the 20 times dilution required for leaching. If "No", for <u>SLUDGES</u> , results in mg/kg (ppm) are evaluated against the decision limits reported in mg/L; the "Rule of 20" cannot be applied. <i>If results exceed regulatory decision limits, additional testing utilizing TCLP may be appropriate.</i> If "No", for <u>LIQUID, OIL or GREASE</u> , results in mg/kg (ppm) are already adjusted for density and are to be evaluated against the decision limits reported in mg/L.					Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
If "No", response:								
CERCLA WASTE TREATED FOR HAZARDOUS TOXICITY CHARACTERISTIC METALS (D004 – D011)								
Are data results for grouted wastes intended to meet treatment standards for hazardous wastes subject to Land Disposal Restrictions? If "No", STOP, no further review required.					Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
If "Yes", verify applicable concentration-based treatment standards below:								
CONSTITUENT	CONCENTRATION (mg/L TCLP)	n/a	Yes	No				
Antimony	1.15							
Arsenic	5.0							
Barium	21							
Beryllium	1.22							
Cadmium	0.11							
Chromium	0.60							
Lead	0.75							
Mercury	0.025							
Nickel	11							
Selenium	1.0							
Silver	0.14							
Thallium	0.20							
Vanadium	1.6							
Zinc	4.3							
If "No", response:								

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WASTE CHARACTERIZATION DATA USABILITY REVIEW
HAZARDOUS CONSTITUENTS

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Waste Description:			
HAZARDOUS CONSTITUENTS			
Describe characteristic EPA Hazardous Waste Numbers that exceed regulatory limits/treatment standards. <i>NOTE: The recommended hazardous waste codes are based solely on the analytical data and address only the characteristic hazards; it is the data user's responsibility to review the origin of the waste to determine if these or any additional codes apply.</i> <i>NOTE: For treated CERCLA waste, list constituents that do not meet treatment standards.</i>			
ADDITIONAL INFORMATION			
Describe:			
SUPPORTING DOCUMENTATION			
Attach supporting documentation (e.g. ProUCL/VSP output file, statistician consultation).			
REVIEWER, SIGNATURE/DATE			
SR. MANAGER , WASTE PROGRAMS, CONCURRENCE SIGNATURE/DATE (IF REQUIRED)			

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Attachment D
WASTE CHARACTERIZATION DATA USABILITY REVIEW TOXIC SUBSTANCES
CONTROL ACT (TSCA) POLYCHLORINATED BIPHENYLS (PCBS) CONSTITUENTS
Page 1 of 3



WASTE CHARACTERIZATION DATA USABILITY REVIEW
TOXIC SUBSTANCES CONTROL ACT (TSCA) POLYCHLORINATED BIPHENYLS (PCBs) CONSTITUENTS

SR / SAP Document Number and Title:		Rev.	
Waste Description:			
EXTRACT PEMS REPORT, INCLUDING ONLY PCBs (Laboratory Data Reports if PEMS Report not available)			
SAMPLE VERIFICATION			
Do sample containers correspond with the applicable SAP or SR? If "No", STOP. Contact responsible WDS for resolution. If "n/a", describe source of data below.	n/a	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
If "n/a", response:			
% MOISTURE (NON-LIQUID PCBs ONLY)			
Are results reported on a dry weight basis? If "Yes", STOP, no further review of % moisture is required.	n/a	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
Is % moisture identified for results reported on an "as is" /wet weight basis?	n/a	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
If "No", response:			
If % moisture is not identified, assuming 95% moisture, would the modified results be below the decision limit? If "No", specify if any additional sampling is recommended.	n/a	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
If "No", response:			
If % moisture is not identified, is the data still considered usable?	n/a	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
If "No", response:			
MULTIPHASIC MATRIX (PCBs ONLY)			
Does the waste matrix consist of a single phase? If "No", describe multiple phases below. If "Yes", STOP, no further review of multiphasic matrix is required.	n/a	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
If "No", response:			
Do multiphasic PCBs consist solely of an oil and aqueous phase? If "No", ALL phases must be analyzed independently and the highest resulting concentration applied to the matrix. If "Yes", results for the oil phase need be considered only.	n/a	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
Response:			
MATRIX SPIKE AND MATRIX SPIKE DUPLICATES			
Are matrix and matrix spike duplicates within the acceptable recovery limits? If "Yes", STOP, no further review of matrix spike and matrix spike duplicates is required.	n/a	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
If "No", response:			

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WASTE CHARACTERIZATION DATA USABILITY REVIEW
TOXIC SUBSTANCES CONTROL ACT (TSCA) POLYCHLORINATED BIPHENYLS (PCBS) CONSTITUENTS

SR / SAP Document Number and Title:		Rev.	
Waste Description:			
If outside of acceptable recovery limits, is data still considered usable?	n/a	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
If "Yes", describe adjustments, if any, to data to take into consideration recovery rate.			
If "No", specify if any additional sampling is recommended.			
If "No", response:			
FIELD SAMPLE DUPLICATES			
Do field sample duplicates support variability assumptions of the sampling strategy?	n/a	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
If "No", describe below and specify if any additional sampling is recommended. (This may be an indication of heterogeneity of the waste. Data validated with a "J" qualifier may indicate the duplicate was outside acceptable limits.) <i>It may be appropriate to utilize the sample duplicate result if it is higher than the primary sample result.</i>			
If "No", response:			
DATA QUALIFIERS (OTHER THAN NON-DETECTS)			
Based upon data qualifiers, is data usable for intended purpose?	n/a	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
If "No", specify if any additional sampling is recommended or other adjustments to data.			
If "No", response:			
NON-DETECTS			
For samples flagged as 'non-detects', are detection limits <50 ppm for bulk concentrations or ≤10 µg/100 cm ² for wipe concentrations, the applicable regulatory decision limit?	n/a	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
If "Yes", applicable aroclor(s) may be removed from the data set as a waste constituent(s). STOP, no further review of applicable non-detects is required.			
If "No", describe below and specify if any additional sampling is recommended.			
If "No", response:			
AROCLOR CONSTITUENTS			
Describe aroclors that exceed the regulatory limit. (The sum of individual aroclors reported above the detection limit must be compared to the applicable regulatory decision limit.) NOTE: The recommended aroclors are based solely on analytical data. It is the data user's responsibility to make the final TSCA waste determination.			
ADDITIONAL INFORMATION			
Describe:			
SUPPORTING DOCUMENTATION			
Attach supporting documentation (e.g. ProUCL/VSP output file, statistician consultation).			
REVIEWER, SIGNATURE/DATE			

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CONTROL ACT (TSCA) POLYCHLORINATED BIPHENYLS (PCBS) CONSTITUENTS
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WASTE CHARACTERIZATION DATA USABILITY REVIEW
TOXIC SUBSTANCES CONTROL ACT (TSCA) POLYCHLORINATED BIPHENYLS (PCBS) CONSTITUENTS

SR / SAP Document Number and Title:		Rev.	
Waste Description:			
SR. MANAGER , WASTE PROGRAMS, CONCURRENCE SIGNATURE/DATE (IF REQUIRED)			

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Attachment E
OPEN AND INSPECT WAIVER REQUEST
Page 1 of 4



[Insert Title] Open and Inspect Waiver Request

Fluor-B&W Portsmouth LLC

Prepared By: [Your Name Here]

Date

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OPEN AND INSPECT WAIVER REQUEST
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[Insert Title] Open and Inspect Waiver Request

Date
Document Number

Package Contents

[Insert Material Type] Waste Stream Description and Waiver Request Documentation
 Attachment 1: [Insert Inventory Listing]
 Additional Attachments as required (e.g., Signed Statements)

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[Insert Title] Open and Inspect Waiver Request

Date
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(Paragraph 1) Description of waste generating process

(Paragraph 2) Description of controls in place during containerization

(Paragraph 3) Description of Impact to Health, Safety and/or Environment of conduction Open and Inspect operations

(Paragraph 4) Other impacts or considerations (Optional)

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[Insert Title] Open and Inspect Waiver Request

Date
Document Number

Conclusion Statement

Based on the factors listed above, there is a preponderance of evidence that these containers do not contain prohibited items and it is recommended that these containers be considered for shipment to [INSERT TSDF] without further visual inspection of the contents.

Signature Statement

To the best of my knowledge, the information in this document and referenced data is true and accurate. Willful and deliberate omissions have not been made.

Prepared By _____

Signature _____

Date _____

Waste Certification Official Conclusion Statement (Required for all shipment to NNSS)

Based on the following reasons, as the Waste Certification Official for the NNSS, I am recommending a waiver to Open and Inspect requirements for this inventory of (Insert Material) be granted:

1. Reason 1 [Click here to enter text.](#)
2. Reason 2 [Click here to enter text.](#)
3. Reason 3 [Click here to enter text.](#)

WCO Approval (if applicable) _____

Signature _____

Date _____

WCDM Approval _____

Signature _____

Date _____

WM Director Concurrence _____

Signature _____

Date _____

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Attachment F
CALCULATED ASSAY SHEET FOR CONTAINER OF CONTAMINATED METAL



CALCULATED ASSAY SHEET FOR
CONTAINERS OF CONTAMINATED METAL

WMG #:

Total # of Pieces in Box ^A:

Origin Location	NCS Provided Enrichments ^B	Number of Pieces from Origin Location ^C	Enrichment * Number of Pieces from Location ^{(B*C)=D}
Sum ^E :			
Calculated Assay for Container ^{(E/A) =F} :			

Created By:	Signature:	Date:

Reviewed By:	Signature:	Date:

1. Using the contents page for each WMG, enter total number of pieces on Line A;
2. Using origin locations listed on the contents page for each WMG, enter total number of pieces from each origin location into column C;
3. Multiply NCS Provided Enrichments, [Column B], by the Number of Pieces from each origin location, [Column C] enter the value into Column D;
4. Sum all values in Column D and enter values in Box E;
5. Divide the Sum, [Box E], by the total number of pieces, [Line A], enter the calculated percentage value into Box F.

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Attachment G
RELEASING MATERIAL/ITEM(S) FOR RECYCLE OR REUSE CHECKLIST
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RELEASING MATERIAL/ITEM(S) FOR RECYCLE OR REUSE CHECKLIST

WMG Number(s):	
Material/Item(s) Description:	
Radiological Assessment:	
<input type="checkbox"/>	Material/item(s) is directly traceable to a signed <i>UE-5 Request for Release of Equipment/Material From DOE Control</i> form, FBP-RP-PRO-00004-F01 (<i>required for release of material/item(s) for recycle</i>).
<input type="checkbox"/>	Material/item(s) to be managed as Radiological Material (<i>applies to material/item(s) for reuse only</i>).
<input type="checkbox"/>	Radiological information is available (process knowledge, radiological data and surveys) regarding material/item(s) and has been provided to the intended receiving facility.
<input type="checkbox"/>	For non-DOE sites, the intended receiving facility site license has been reviewed and the material/item(s) complies with license requirements.
<input type="checkbox"/>	Written acceptance of the material/item(s) has been obtained from the intended receiving facility.
Waste Disposition Specialist Signature/Date:	
TSCA (PCB) Assessment:	
<input type="checkbox"/>	Material/item(s) does not contain PCBs based on available data or knowledge of materials of construction and management of the material/item(s).
<input type="checkbox"/>	Material/item(s) have PCBs detectable above the analytical method detection limit, but the material/item(s) meets the criteria established in 40 CFR 761.20 for Distribution in Commerce. Environmental Protection has been notified and the following restrictions apply to reuse or recycle: <i>List "No Restrictions" if Environmental Protection states no restrictions.</i>
Restrictions:	
<input type="checkbox"/>	Material/item(s) have PCBs above the criteria established in 40 CFR 761.20 and <u>cannot</u> be Distributed in Commerce.
Waste Disposition Specialist Signature/Date:	
Asbestos Assessment: For equipment/building materials, any fibrous, fabric or porous materials of construction must be assumed to be potentially asbestos containing material, unless definitive characterization or manufacturer's information regarding materials of construction or date of manufacture is available and can be proven otherwise.	
<input type="checkbox"/>	Material/item(s) contains Regulated Asbestos Containing Material (RACM) and must be labeled per Ohio Administrative Code 3745-20-05, <i>Standard for Asbestos Waste Handling</i> .
<input type="checkbox"/>	Material/item(s) contains Category/Class I non-friable asbestos that if subjected to sanding, grinding, cutting or abrading will be considered RACM; or Category/Class II non-friable asbestos which if breached by mechanical means may become friable and will be considered RACM. Does not contain RACM and does not require labeling for asbestos <u>as shipped</u> .
<input type="checkbox"/>	Material/item(s) has inaccessible areas that prevent it from being declared as free from Asbestos Material (regulated or unregulated).
<input type="checkbox"/>	Material/item(s) has been inspected and all surfaces are accessible and there is no fibrous or porous material present; or testing has been conducted to confirm any fibrous or porous material present is not Asbestos Containing Material.
Waste Disposition Specialist Signature/Date:	

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Attachment G
RELEASING MATERIAL/ITEM(S) FOR RECYCLE OR REUSE CHECKLIST
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RELEASING MATERIAL/ITEM(S) FOR RECYCLE OR REUSE CHECKLIST

WMG Number(s):	
Material/Item(s) Description:	
Beryllium (Be) Assessment:	
<input type="checkbox"/>	Material/item(s) did not originate in an area identified as a Beryllium Control Area or Beryllium Regulated Area AND available information does not indicate beryllium as a material of construction.
<input type="checkbox"/>	Material/item(s) was assessed for beryllium and beryllium was not detected.
<input type="checkbox"/>	Material/item(s) was assessed for beryllium and beryllium was detected. If data was not provided by Industrial Hygiene, a copy of the data has been submitted to Industrial Hygiene.
Waste Disposition Specialist Signature/Date:	
Additional Hazard Assessment:	
Other chemical or physical hazards such as metals in paint, battery fluids or other fluids are described below: <i>May reference and add attachment.</i>	
Other Hazards:	
Waste Disposition Specialist Signature/Date:	

RECOMMENDED DISPOSITION:	
<input type="checkbox"/>	Material/item(s) may <u>NOT</u> be released for (circle one) RECYCLE / REUSE
<input type="checkbox"/>	Material/item(s) may be released for (circle one) RECYCLE / REUSE
<input type="checkbox"/>	Material/item(s) may be released for (circle one) RECYCLE / REUSE with the following controls or notifications:
Supervisor, Waste Disposition Concurrence Signature/Date:	

A copy of this completed checklist and all supporting documentation must be provided to the Asset Recovery and Recycle Manager and the originals maintained in the Waste Management Project Files.

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Attachment H
WASTE EVALUATION AND CHARACTERIZATION STANDARDS CHECKLIST
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Waste Evaluation and Characterization Standards Checklist

PPCL-		PROJECT NAME:			
Waste Types associated with this checklist.					
1; Soil, Soil-Like		2; Debris	3; Large Debris	4; Decomposable	5; Special Handling
Sampling Request (SR); Sampling and Analysis Plan (SAP); Analytical; References:					
Section A: Radiological Characterization and Classification					
Basis of Characterization (check all that apply):					
<input type="checkbox"/> Process Knowledge (PK)		<input type="checkbox"/> Radiological Surveys or Wipes		<input type="checkbox"/> Analytical Data	
				<input type="checkbox"/> Nondestructive Assay (NDA)	
Evaluation:				Yes	No
Laboratory and data validation flags addressed					
Radioactive					
PROHIBITIONS (WAC IP Tables 3.2 & 3.6): IF YES", THEN STOP; waste does not meet requirements of WAC IP.					
High Level Waste (HLW; spent nuclear reactor fuel, or waste remaining after reprocessing of spent fuel).					
Transuranic Waste (TRU; sum of alpha emitting transuranic nuclides with half-lives > 20 years in a concentration > 100 nCi/g)					
Waste from Off-PORTS generating sources (excluding lab returns and treatability testing wastes, and material currently stored on the facility)					
X-326 Compressors, Converters and Coolers					
Containerized nuclear material inventories of uranium compounds exhibiting enrichments greater than 20 percent (excluding items with only residual contamination packaged for ease of handling and safety)					
Cylinders containing DUF ₆ oxides or DUF ₆ oxides removed from cylinders					
Uranium residues removed or containerized from process gas equipment and piping systems, regardless of enrichment					
Uranium Management Center (UMC) lots and containerized nuclear material product inventories					
X-330 and X-333 barrier material from converters					
RADIOLOGICAL WASTE CLASSIFICATION:			LOW-LEVEL WASTE	RADIOLOGICALLY CLEAN	
Section B: RCRA Characterization and Classification					
Basis of Characterization (check all that apply):					
<input type="checkbox"/> Process Knowledge (PK)		<input type="checkbox"/> Analytical Data			
Evaluation:				Yes	No
Laboratory and data validation flags addressed					
RCRA-regulated					
Hazard Waste Codes that apply to the waste or NA:					
Meets applicable requirement(s) below (WAC IP Table 3.3), if applicable:					
<input type="checkbox"/> <u>Hazardous waste – CAMU ineligible</u> ; Meets treatment standards located in "Treatment Standards for Hazardous Waste" table in OAC 3745-270-40. <input type="checkbox"/> <u>Hazardous waste contaminated debris</u> ; Meets alternate treatment standards located in OAC 3745-2570-45. <input type="checkbox"/> <u>Hazardous waste contaminated soil</u> ; Meets alternate treatment standards located in OAC 3745-2570-49. <input type="checkbox"/> <u>CAMU-eligible hazardous waste</u> ; Trichloroethene (TCE) maximum concentration of 5,000 ppm.					

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Attachment H
WASTE EVALUATION AND CHARACTERIZATION STANDARDS CHECKLIST
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Waste Evaluation and Characterization Standards Checklist

PPCL-		PROJECT NAME:				
Section B: Chemical Characterization and Classification (continued)						
<u>PROHIBITIONS</u> (WAC IP Table 3.2); IF "YES", THEN STOP; waste does not meet the requirements of WAC IP.						
Evaluation:				Yes	No	NA
CAMU-ineligible RCRA hazardous waste that does not meet LDR treatment standards						
CAMU-eligible waste that does not meet the adjusted minimum treatment standard (5,000 ppm) for the Principal Hazardous Constituent of TCE.						
Ignitable or reactive waste per RCRA.						
Refrigeration equipment with remaining refrigerant per Ozone Standards.						
Acid batteries.						
Bulk used oils in liquid form.						
Pyrophoric materials contained in waste that have not been treated, prepared, and packaged to be nonflammable.						
Waste readily capable of detonation or of explosive decomposition or reaction at normal pressures and temperatures, or of explosive reaction with water.						
Waste containing or capable of generating quantities of toxic gases, vapors, or fumes harmful to persons transporting, handling, or disposing of the waste.						
RCRA hazardous waste containing bulk or noncontainerized liquid hazardous waste or hazardous waste containing free liquids (whether or not sorbents have been added).						
Bulk or noncontainerized liquid hazardous waste or free liquids contained in hazardous waste (whether or not sorbents have been added) in any CAMU except where placement of such wastes facilitates the remedy selected for the waste. (This prohibition applies to CAMU-eligible waste.)						
RCRA WASTE CLASSIFICATION:			HAZARDOUS WASTE	NON-HAZARDOUS		
Section C: TSCA (PCBs) Characterization and Classification						
Basis of Characterization (check all that apply):						
<input type="checkbox"/> Process Knowledge (PK)			<input type="checkbox"/> Analytical Data			
Evaluation:				Yes	No	NA
Laboratory and data validation flags addressed						
PCB-regulated						
PCB Waste Identification, if applicable						
<input type="checkbox"/> PCB-contaminated equipment/article, drained <input type="checkbox"/> PCB Remediation Waste <input type="checkbox"/> PCB Bulk Product Waste <input type="checkbox"/> Other, describe:						
<u>PROHIBITIONS</u> (WAC IP Table 3.2); IF "YES", THEN STOP; waste does not meet the requirements of WAC IP.						
PCB-contaminated electrical equipment (except capacitors) containing free-flowing liquids.						
PCB-contaminated articles containing free-flowing liquids.						
PCB liquids drained from electrical equipment.						
PCB WASTE CLASSIFICATION:			PCB-REGULATED	NON-PCB		

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WASTE EVALUATION AND CHARACTERIZATION STANDARDS CHECKLIST
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Waste Evaluation and Characterization Standards Checklist

PPCL-		PROJECT NAME:			
Section D: Asbestos Characterization and Classification					
Basis of Characterization (check all that apply):					
<input type="checkbox"/> Process Knowledge (PK)			<input type="checkbox"/> Analytical Data		
Evaluation:				Yes	No
Laboratory and data validation flags addressed					
Contains Asbestos					
Asbestos fibers > 1% per Polarized Light Microscopy (PLM)					
Asbestos Category, if applicable:					
<input type="checkbox"/> Category I Nonfriable - asbestos containing packings, gaskets, resilient floor covering and asphalt roofing products (Not Regulated) <input type="checkbox"/> Category II Nonfriable - excluding Category I material, when dry, cannot be crumbled, pulverized, or reduced to powder by hand (Not Regulated) <input type="checkbox"/> Friable (Regulated Asbestos Containing Material - RACM)					
ASBESTOS WASTE CLASSIFICATION:		REGULATED ACM	ACM (NON-REGULATED)	NON-ACM	
Section E: Beryllium (Be) Characterization and Classification					
Basis of Characterization (check all that apply):					
<input type="checkbox"/> Process Knowledge (PK)			<input type="checkbox"/> Analytical Data		
Evaluation:				Yes	No
Laboratory and data validation flags addressed					
Beryllium Classification:					
<input type="checkbox"/> Regulated Beryllium <input type="checkbox"/> $\leq 0.2 \mu\text{g}/100 \text{ cm}^2$ OR $< 0.1\%$ elemental beryllium and any insoluble beryllium compound or alloy that may be released as an airborne particulate (Non-Regulated)					
WASTE CLASSIFICATION					
LLW		RCRA		Regulated PCB	
<input type="checkbox"/> YES <input type="checkbox"/> NO		<input type="checkbox"/> YES <input type="checkbox"/> NO		<input type="checkbox"/> YES <input type="checkbox"/> NO	
RACM					
<input type="checkbox"/> YES <input type="checkbox"/> NO					
Regulated Beryllium					
<input type="checkbox"/> YES <input type="checkbox"/> NO					
PREPARER – WM Specialist; Signature/Date					
APPROVAL – WM Manager or designee; Signature/Date					

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Attachment I
WASTE CHARACTERIZATION AND CLASSIFICATION CHECKLIST
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Waste Characterization and Classification Checklist

PROJECT DESCRIPTION:			
Container IDs:			
Sampling Request (SR); Sampling and Analysis Plan (SAP); Survey Plan; UE-5; References:			
Section A: Radiological Characterization and Classification			
Basis of Characterization (check all that apply):			
<input type="checkbox"/> Process Knowledge (PK)	<input type="checkbox"/> Radiological Surveys or Wipes	<input type="checkbox"/> Analytical Data	<input type="checkbox"/> Nondestructive Assay (NDA)
Data Evaluation:	Yes	No	NA
Data Usability Review-Radiological Constituents received (analytical data ONLY)			
Data cross-referenced to project			
Laboratory and data validation flags addressed			
Population statistics independently verified			
Total fissile gram calculations verified			
NNSS ONLY: Sealed Sources (individual source activities):	< 100 µCi	≥ 100 µCi	
Radiological Classification:	Yes	No	NA
Radioactive (If "No", remainder of Radiological Characterization and Classification section is NA)			
11e.(2) Byproduct Material or NORM (Naturally Occurring Radioactive Material)			
TRU (alpha emitting transuranic nuclides with half-lives > 20 years in a concentration > 100 nCi/g) (For Sealed Sources: the mass of the source and any component integral to the source used to determine TRU activity concentration)			
Enrichment:	Yes	No	NA
Enriched (> 0.712 wt % ²³⁵ U)			
Natural (0.710 - 0.712 wt % ²³⁵ U)			
Depleted (< 0.710 wt % ²³⁵ U)			
Fissile Evaluation (Fissile nuclides – ²³⁹ Pu, ²⁴¹ Pu, ²³³ U, ²³⁵ U):			
Depleted U – Non-Fissile			
Container IDs:			
Natural U – Non-Fissile			
Container IDs:			
49 CFR 173.453, Fissile materials-exceptions:			
a.) ≤ 2 g fissile material			
Container IDs:			
b.) ≤ 15 g fissile material; 200 g solid non-fissile material to every g fissile material (mass of package included)			
Container IDs:			
c.) 2000 g solid non-fissile material to every g solid fissile material; ≤ 180 g fissile distributed within 360 kg contiguous non-fissile mass (mass of package NOT included)			
Container IDs:			
d.) ²³⁵ U enrichment ≤ 1% by weight; total Pu and ²³³ U content ≤ 1% of the ²³⁵ U mass			
Container IDs:			
e.) Liquid uranyl nitrate solutions at ²³⁵ U enrichment ≤ 2% by mass; total Pu and ²³³ U content ≤ 0.002% of U mass			
Container IDs:			
Non-NNSS: Fissile – Does not meet an exception at 49 CFR 173.453			
Container IDs:			

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WASTE CHARACTERIZATION AND CLASSIFICATION CHECKLIST
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Waste Characterization and Classification Checklist

PROJECT DESCRIPTION:			
Container IDs:			
Section A: Radiological Characterization and Classification (Continued)			
Fissile Evaluation (continued):			
<u>NNSS ONLY:</u> Fissile; NNSSWAC 3.1.5.1, Fissile Material and Nuclear Criticality Safety Waste Packages Limits:			
<ul style="list-style-type: none"> Criticality Safety Index equal to 0 Container IDs: 			
<ul style="list-style-type: none"> ≤ 350 g ^{235}U FGE; < 2 g ^{235}U FGE per kilogram of waste (mass of package NOT included; applies to 55-gallon metal drums and larger containers; does not apply to soft-sided, wood or plastic containers) Container IDs: 			
<ul style="list-style-type: none"> Does not exceed the limits and package meets the conditions specified in Table 3.7 of the NNSSWAC Container IDs: 			
<ul style="list-style-type: none"> Does not exceed the limits and package meets the conditions specified in Tables 3.8 and 3.9 of the NNSSWAC Container IDs: 			
<ul style="list-style-type: none"> Does not comply with any of the above – NCSE required Container IDs: 			
<u>NNSS Only:</u> ^{239}Pu Equivalent Grams (PE-g) per package: <input type="checkbox"/> < 300 <input type="checkbox"/> ≥ 300 (Requires NNSS Deviation)			
10 CFR 61.55, Waste Classification (<i>"NA" for wastes destined for NNSS</i>):			
<ul style="list-style-type: none"> Class A Container IDs: 			
<ul style="list-style-type: none"> Class B Container IDs: 			
<ul style="list-style-type: none"> Class C Container IDs: 			
<ul style="list-style-type: none"> Greater than Class C (GTCC) Container IDs: 			
Section B: RCRA Characterization and Classification			
Basis of Characterization (check all that apply):			
<input type="checkbox"/> Process Knowledge (PK) <input type="checkbox"/> Analytical Data			
Data Evaluation:	Yes	No	NA
<u>Data Usability Review-RCRA Constituents</u> received (analytical data ONLY)			
Data cross-referenced to project			
Laboratory and data validation flags addressed			
<u>Solids ONLY:</u> Non-leached values properly converted from solid units to liquid units			
Population statistics independently verified			
RCRA Classification:	Yes	No	NA
RCRA-regulated			
Formerly classified as Characteristic Waste under RCRA that meets applicable Land Disposal Restrictions (LDR) as specified in 40 CFR 268.			
Characteristic Hazards identified:			
<input type="checkbox"/> Ignitability (D001) <input type="checkbox"/> Corrosivity (D002) <input type="checkbox"/> Reactivity (D003)			
<input type="checkbox"/> Toxicity (D004 – D043): 			

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WASTE CHARACTERIZATION AND CLASSIFICATION CHECKLIST
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Waste Characterization and Classification Checklist

PROJECT DESCRIPTION:			
Container IDs:			
Section B: RCRA Characterization and Classification			
RCRA Classification (continued):	Yes	No	NA
Underlying Hazardous Constituents (UHCs) identified:			
Listed Hazards identified (F, P and U codes):			
<ul style="list-style-type: none"> Does NOT meet applicable LDR as specified in 40 CFR 268 Meets applicable LDR as specified in 40 CFR 268 			
Section C: TSCA (PCBs) Characterization and Classification			
Basis of Characterization (check all that apply):			
<input type="checkbox"/> Process Knowledge (PK) <input type="checkbox"/> Analytical Data			
Data Evaluation:	Yes	No	NA
<i>Data Usability Review-TSCA Constituents received (analytical data ONLY)</i>			
Data cross-referenced to project			
Laboratory and data validation flags addressed			
Wipe data for non-porous media			
Volumetric data for porous media			
Results evaluated on a dry weight basis for non-liquid PCBs			
Population statistics independently verified			
PCB Classification (<i>"NA" for wastes destined for NNSS</i>):	Yes	No	NA
Contains PCBs (If "No", remainder of TSCA (PCBs) Characterization and Classification section is NA)			
< 50 ppm (< 10 µg/100 cm ²) PCBs			
≥ 50 ppm and < 500 ppm (≥ 10 µg/100 cm ² and < 100 µg/100 cm ²) PCBs			
≥ 500 ppm (> 100 µg/100 cm ²) PCBs			
PCB Waste Identification (<i>"NA" for wastes destined for NNSS</i>):	Yes	No	NA
PCB Oil, Off Spec (> 2 ppm and < 50 ppm)			
PCB Article/Equipment/Item			
PCB Empty Container			
PCB Bulk Product Waste			
PCB Remediation Waste			
NNSS ONLY: PCB Waste Identification:	Yes	No	NA
Regulated PCBs (If "No", remainder of TSCA (PCBs) Characterization and Classification section is NA)			
PCB Articles:			
<ul style="list-style-type: none"> PCB Small Capacitor Hydraulic Machines – Drained (≥ 50 ppm and < 1000 ppm) Hydraulic Machines – Flushed (≥ 1000 ppm) Electrical Equipment (≥ 50 ppm and < 500 ppm) Other Intact PCB Articles (< 500 ppm) Light Ballast with PCBs in Non-leaking Capacitor 			
PCB Empty Container (< 500 ppm)			

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WASTE CHARACTERIZATION AND CLASSIFICATION CHECKLIST
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Waste Characterization and Classification Checklist

PROJECT DESCRIPTION:			
Container IDs:			
Section C: TSCA (PCBs) Characterization and Classification (Continued)			
NNSS ONLY: PCB Waste Identification (continued):	Yes	No	NA
PCB Bulk Product Waste:			
• Light Ballast containing PCBs in the Potting Material			
• Non-intact PCBs Article			
• Plastic, rubber, applied dried coatings/sealants, caulking, Galbestos, non-liquid building demolition debris			
• Other, sampled and demonstrated to leach < 10 µg/L PCBs			
• Sampled and demonstrated to leach ≥ 10 µg/L PCBs or cannot be tested (<i>Disposal in RCRA Part B Permitted Cell required</i>)			
PCB Remediation Waste:			
• < 50 ppm PCB			
• ≥ 50 ppm PCB (<i>Disposal in RCRA Part B Permitted Cell required</i>)			
Landfill Disposal Authorization:	Yes	No	NA
• Municipal or non-municipal non-hazardous landfill.			
• Hazardous waste landfill permitted by a state authority under section 3006 of RCRA			
Section D: Asbestos Characterization and Classification			
Basis of Characterization (check all that apply):			
<input type="checkbox"/> Process Knowledge (PK) <input type="checkbox"/> Analytical Data			
Asbestos Characterization – <i>Industrial Hygiene is responsible for all asbestos sampling and data evaluation.</i>	Yes	No	NA
Asbestos fibers > 1% per Polarized Light Microscopy (PLM)			
Asbestos Classification:	Yes	No	NA
Contains Asbestos (If "No", remainder of Asbestos Characterization and Classification section is NA)			
Asbestos Category:			
Category I Nonfriable - asbestos containing packings, gaskets, resilient floor covering and asphalt roofing products (Not Regulated)			
Category II Nonfriable - excluding Category I material, when dry, cannot be crumbled, pulverized, or reduced to powder by hand (Not Regulated)			
Friable (Regulated Asbestos Containing Material - RACM)			
Section E: Beryllium (Be) Characterization and Classification			
<i>Only buildings identified on the site Beryllium Characterization Study are to be considered for additional Be sampling</i>			
Basis of Characterization (check all that apply):			
<input type="checkbox"/> Process Knowledge (PK) <input type="checkbox"/> Analytical Data			
Data Evaluation	Yes	No	NA
Data cross-referenced to project			
Laboratory and data validation flags addressed			
Beryllium Classification:	Yes	No	NA
Regulated Beryllium (If "No", remainder of Beryllium (Be) Characterization and Classification section is NA)			
≤ 0.2 µg/100 cm ² OR < 0.1% elemental beryllium and any insoluble beryllium compound or alloy that may be released as an airborne particulate (Non-Regulated)			
> 0.2 µg/100 cm ² OR ≥ 0.1% elemental beryllium and any insoluble beryllium compound or alloy that may be released as an airborne particulate (Regulated)			

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Waste Characterization and Classification Checklist

PROJECT DESCRIPTION:	
Container IDs:	
CHARACTERIZATION & CLASSIFICATION COMMENTS:	

WASTE CLASSIFICATION				
LLW	RCRA	Regulated PCB	RACM	Regulated Beryllium
<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO

PREPARER – Waste Disposition Specialist	
Signature	Date
PEER REVIEW	
Signature	Date
APPROVAL - Waste Management Manager or designee	
Signature	Date

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Attachment J
WASTE PACKAGE FILE CHECKLIST



WASTE PACKAGE FILE CHECKLIST
(Items may be completed in any order)

Project or Origin Location: _____

TSDF: _____ Profile Number: _____

WMG(s):	Nominal U-235 (g)	U-235 + Uncertainty (g)	Assay (%)	PE-g

I certify the above listed container(s) meet the associated profile and TSDF Waste Acceptance Criteria:
WDS Signature / Date

Waste Certification Review Completed by:
Waste Certification Representative / Date

