



DOCUMENT NO.: FBP-WM-PRO-00272	REV. NO. 6	EFFECTIVE DATE: <u>08/29/24</u>
TITLE: On-Site Transportation of Hazardous Materials	<u>5</u> YR PERIODIC REVIEW DATE: <u>08/26/29</u>	
	APPROVED BY: Lindsay Adkins DATE: 08/26/24 (Signature on File)	

USE CATEGORY:	INFORMATION USE	Page 1 of 20
SME: Randy Barr	Writer: Joyce Netter	

Level 2 Administrative Procedure

Revision	Record of Issue/Revision	Affected Pages
6	Minor Revision/Periodic Review. Updated to current template and format. Added new Appendix A, <i>Regulatory Requirements Flow Down</i> , and associated reference step in the Purpose Section. Re-lettered other Appendices. Updated Subject Matter Expert (SME)	All

Previous Record of Issue/Revision information is available from the history files.

TITLE: On-Site Transportation of Hazardous Materials	FBP-WM-PRO-00272
	REV. NO. 6
	Page 2 of 20

CONTENTS

1.0	PURPOSE	3
2.0	SCOPE AND APPLICABILITY	3
3.0	GENERAL INFORMATION	4
4.0	USE REFERENCES	5
5.0	RESPONSIBILITIES	6
6.0	ACTIONS.....	7
6.1	Characterizing the Material To Be Transported.....	7
6.2	Establishing Transport Authorization.....	7
6.3	Identifying an ELS	10
6.4	Developing an ELS	10
6.5	Execution	12
7.0	RECORDS.....	13
7.1	Records Generated	13
7.2	Requirements.....	13
8.0	DEFINITIONS /ACRONYMS	14
8.1	Definitions	14
8.2	Acronyms	14
9.0	SOURCE REFERENCES	15
Appendix A	REGULATORY REQUIREMENTS FLOW DOWN.....	17
Appendix B	SITE BOUNDARY MAP	18
Attachment A	EQUIVALENT LEVEL OF SAFETY (ELS) FOR ON-SITE TRANSPORTATION OF HAZARDOUS MATERIALS	19

TITLE: On-Site Transportation of Hazardous Materials	FBP-WM-PRO-00272
	REV. NO. 6
	Page 3 of 20

1.0 PURPOSE

- 1.1 This procedure provides instructions for transporting hazardous materials on site at the Portsmouth Gaseous Diffusion Plant (PORTS). Hazardous materials are defined by the US Department of Transportation (DOT) and/or the US Environmental Protection Agency (EPA); see Section 8.0 for definitions.
- 1.2 This procedure has been developed to implement requirements from POEF-FBP-010, *Transportation Safety Document for the On-Site Transport of Hazardous Material at the Portsmouth Gaseous Diffusion Plant Piketon, Ohio*.
- 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 the on-site transportation of only hazardous material by employees and contracted labor resources personnel of Fluor-BWXT Portsmouth LLC (FBP).
- 2.2 This procedure applies to the on-site (within the Department of Energy [DOE] reservation boundary) “Transfer” and movement operations of hazards materials where the public has been denied access. The transport of radioactive materials in hazard Category 3 or greater quantities is subject to additional controls as defined in:
 - FBP/PORTS-444, *Documented Safety Analysis for the X-345 and X-744G Facilities at the Portsmouth Gaseous Diffusion Plant Piketon, Ohio*
 - POEF-FBP-001, *Basis for Interim Operation of Former Uranium Enrichment Facilities (FUEF) At the Portsmouth Gaseous Diffusion Plant Piketon, OH (BIO)*.
- 2.3 DOE-STD-1027-92, *Hazard Categorization and Accident Analysis Techniques for Compliance with DOE Order 5480.23, Nuclear Safety Analysis Reports*, provides radiological limits for hazard categories.
- 2.4 This procedure excludes the following:
 - DOT Non-Regulated materials
 - Off-site shipments (Section 6.2.9)
 - Materials of Trade (Section 6.2.4)
 - Fissile Accountable Material (Section 6.2.5)
 - Small Quantity exemptions (Section 6.2.6)

TITLE: On-Site Transportation of Hazardous Materials	FBP-WM-PRO-00272
	REV. NO. 6
	Page 4 of 20

3.0 GENERAL INFORMATION

- 3.1** On-site transportation must be conducted in a manner that protects the safety and health of the public, site personnel, and the environment.
- 3.2** Questions regarding implementation of this procedure or regarding transportation compliance (clarification of small-quantity limitations, etc.) should be directed to an FBP Transportation Specialist (TS) or the Transportation Manager.
- 3.3** If hazardous material is to be transported outside the security fence but inside the DOE Reservation Boundary (See Appendix A) and the route has public access (e.g. Perimeter Road, Hewes Avenue, Fog Road, East and West Access Road) then the route must be shut down completely during transportation to ensure the public cannot impede, encounter, or have access to the shipment. Typically these road closures are executed by Protective Force personnel.

CAUTION

Make sure that you verify any and all segregation and separation requirements prior to moving!

- 3.4** This procedure distinguishes between the following terms:
- *Transfer* – A change in location within on-site boundaries that exclude access by the general public.
 - *Transportation* – Any change in location conducted on a vehicle designed for over the road transport outside of a structure.
 - *Movement* – A change in location that is within a contiguous boundary defined by the scope of the safety basis and associated documents. Movements may be between buildings, pads, or other structures that are within the safety basis contiguous boundaries.
 - *Routine Transfer* – Any transfer of hazardous material that has an established method of performance and has been evaluated, documented, and approved by a Transportation Manager or is conducted in accordance with a configuration already authorized in accordance with the Document Safety Analysis (DSA) or Basis of Interim Operation (BIO).
 - *Non-Routine Transfer* – Any transfer of hazardous material that has not been evaluated, documented, and approved by the Transportation Manager [i.e., that does not have an Equivalent Level of Safety (ELS)] and has not already been authorized under the DSA or BIO. The evaluation must follow the process detailed in the Transportation Safety Document and must be documented in an ELS. This ELS will require an evaluation by the Unreviewed Safety Question (USQ) process and review by Nuclear Criticality Safety (NCS). Once documented and approved by the Transportation Manager, a transfer is considered a Routine Transfer.

TITLE: On-Site Transportation of Hazardous Materials	FBP-WM-PRO-00272
	REV. NO. 6
	Page 5 of 20

- *Separation and Segregation Requirements – Refer to 49 CFR 177.848 Segregation Table for Hazardous Material.*
 - a. The absence of any hazard class or division or a blank space in the table indicates that no restrictions apply.
 - b. The letter “X” in the table indicates that these materials may not be loaded, transported, or stored together in the same transport vehicle or storage facility during the course of transportation.
 - c. The letter “O” in the table indicates that these materials may not be loaded, transported, or stored together in the same transport vehicle or storage facility during the course of transportation unless separated in a manner that, in the event of leakage from packages under conditions normally incident to transportation, commingling of hazardous materials would not occur. Notwithstanding the methods of separation employed, Class 8 (corrosive) liquids may not be loaded above or adjacent to Class 4 (flammable) or Class 5 (oxidizing) materials; except that shippers may load truckload shipments of such materials together when it is known that the mixture of contents would not cause a fire or a dangerous evolution of heat or gas.

3.5 Drivers transporting hazardous material via commercial motor vehicles must have a valid commercial driver’s license, appropriate for the size of the vehicle they will drive, with an additional Hazardous Material (HAZMAT) endorsement; drivers transporting hazardous materials via tankers also must have a Tanker endorsement. Drivers must be actively enrolled in the site driver program and comply with all motor carrier requirements as specified in FBP-WM-PRO-00052, *Portsmouth Gaseous Diffusion Plant (PORTS) Motor Carrier Operations*.

3.6 Operators of industrial powered equipment moving hazardous materials (forklifts, carts, cylinder haulers, etc.) must be qualified in accordance with FBP-OS-PRO-00057, *Powered Industrial Trucks*.

4.0 USE REFERENCES

- A.** FBP-BS-PRO-00061, *Document Control Process*
- B.** FBP-BS-PRO-00062, *Records Management Process*
- C.** FBP-OS-PRO-00057, *Powered Industrial Trucks*
- D.** FBP-RP-PRO-00036, *Radiological Surveys for the Receipt, Transport, and Movement of Radioactive Materials*
- E.** FBP-WM-PRO-00007, *Waste Characterization and Classification*
- F.** FBP-WM-PRO-00039, *Waste Container Operations*
- G.** FBP-WM-PRO-00044, *Preparing Off-Site Shipments of Hazardous Materials*

TITLE: On-Site Transportation of Hazardous Materials	FBP-WM-PRO-00272
	REV. NO. 6
	Page 6 of 20

H. FBP-WM-PRO-00052, *Portsmouth Gaseous Diffusion Plant (PORTS) Motor Carrier Operations*

I. FBP-WM-PRO-00093, *Nuclear Criticality Safety (NCS) Controls for Fissile Material Transport*

5.0 RESPONSIBILITIES

5.1 Transportation Manager

Ensures compliant implementation of the Transportation Safety Document (TSD) as referenced in POEF-FBP-010.

5.2 Transportation Specialist (TS)

Ensures proper identification, classification, communication, containment, and control of hazardous materials being offered for transport.

5.3 Waste Disposition Specialist (WDS)

Provides management and guidance to FBP personnel for the characterization and packaging requirements for materials being sent for treatment, storage, disposal, and recycling.

5.4 Supervisor

Authorized FBP personnel that provides daily direction for work performance to ensure approved work scope is performed safely, compliantly and efficiently.

5.5 Facility Manager (Responsible for Moving Hazardous Materials)

Implements requirements from the TSD and this procedure.

5.6 Qualified Workers (Operating Vehicles To Transport/Move Hazardous Materials)

5.6.1 Maintains qualifications to operate assigned equipment.

5.6.2 Follows this procedure with respect to understanding and implementing requirements of an ELS and the applicable DOT Emergency Response Guide (ERG) or other hazardous communication documents such as the applicable Material Safety Data Sheet/Safety Data Sheets (MSDS/SDS).

TITLE: On-Site Transportation of Hazardous Materials	FBP-WM-PRO-00272
	REV. NO. 6
	Page 7 of 20

6.0 ACTIONS

NOTE

The requirements in this procedure are IN ADDITION TO and NOT in lieu of requirements for safe vehicle operations, material movement authorizations, or waste tracking requirements.

ALL personnel dealing with hazardous materials, including in transport, have a RIGHT TO KNOW the hazards involved and are afforded access to data pertinent to the material being moved and the actions to take in case of an emergency.

6.1 Characterizing the Material To Be Transported

WDS

- 6.1.1 Identify containers/equipment/items to be transported.
- 6.1.2 Identify current packaging type(s) that material is contained in, if any.
- 6.1.3 IF material is a waste, THEN ensure characterization is completed in accordance with FBP-WM-PRO-00007, *Waste Characterization and Classification*.

6.2 Establishing Transport Authorization

NOTE

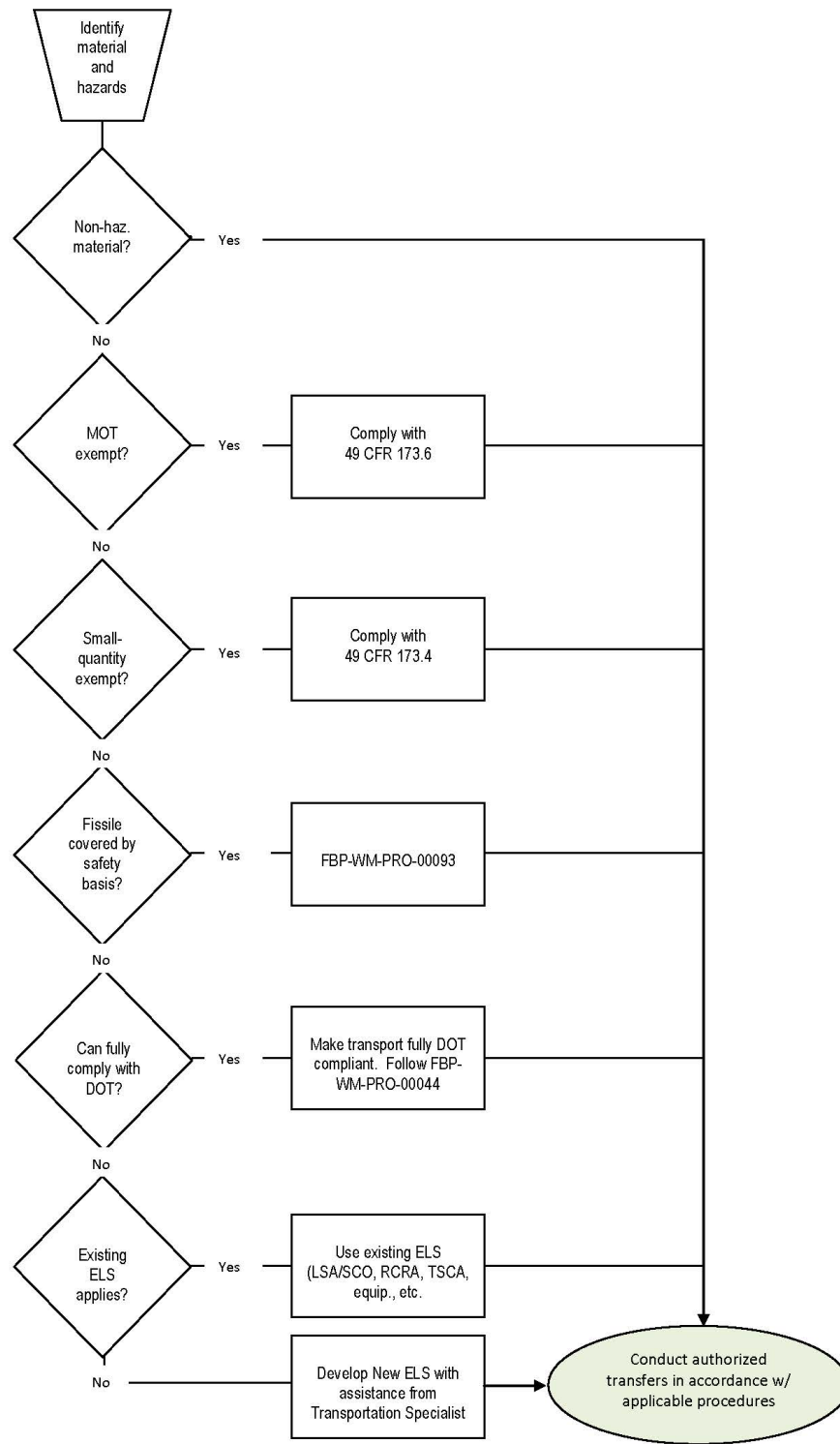
On-site transportation conditions can be less hazardous than those encountered in commerce; thus, the on-site transportation process can deviate from DOT regulations (in terms of placarding, etc.) if an ELS can be established as allowed by the TSD.

WDS/Supervisor/Facility Manager

- 6.2.1 With assistance from a TS as needed, use the flow chart below (Figure 1) to determine the transport authority for the type of shipment being made.

TITLE: On-Site Transportation of Hazardous Materials	FBP-WM-PRO-00272
	REV. NO. 6
	Page 8 of 20

FIGURE 1



TITLE: On-Site Transportation of Hazardous Materials	FBP-WM-PRO-00272
	REV. NO. 6
	Page 9 of 20

- 6.2.2** Determine whether the material to be transported is a Hazardous Material per 49 CFR 171.8.
- 6.2.3** **IF** the material is not a Hazardous Material per 49 CFR 171.8, **THEN** exit this procedure.
- 6.2.4** **IF** the material meets “*Materials of trade* (MOT) exceptions” per 49 CFR 173.6, **THEN** see below for guidance on making the determination.
- To meet the MOT exemption, hazardous materials must be carried by a private motor carrier (FBP) to directly support a principal business function that is **NOT** transportation. Materials being carried for the purpose of executing work **MAY** be MOT (e.g., if Maintenance moves hazardous material required to perform maintenance activities, the material **MAY** be considered MOT if the material meets the quantity limitations of 49 CFR 173.6. However, if Stores moves hazardous material, the move is considered a hazardous material shipment under the TSD because the personnel moving it will not use the material for a work function.)
 - MOT includes hazardous materials that are carried on motor vehicles for either or both of the following purposes:
 - To protect the health and safety of the motor vehicle, operator, or passengers (e.g., insect repellant, fire extinguishers).
 - To support the operation or maintenance of motor vehicles and auxiliary equipment [e.g., engine starting fluid, gasoline (limitations apply), spare battery].
- 6.2.5** **IF** the material meets the MOT exceptions per 49 CFR 173.6, **THEN** this procedure does not apply so exit this procedure.
- 6.2.6** **IF** the material meets “Small quantity” exemptions per 49 CFR 173.4, **THEN** this procedure does not apply; exit this procedure.

CAUTION

Not all fissile movements can take place under FBP-WM-PRO-00093, *Nuclear Criticality Safety (NCS) Controls for Fissile Material Transport*; the DSA and BIO must address the particular facility and movement.

- 6.2.7** Contact the Facility Managers (for both the shipping and the receiving facilities) to determine whether the transfer has been evaluated in the safety basis for both facilities.
- **IF** the transfer is being made and has been evaluated in a safety basis document, **THEN** FBP-WM-PRO-00093 will apply; ensure appropriate hazards communications (e.g., ERG and/or MSDS/SDSs if applicable) are supplied and then exit this procedure.

TITLE: On-Site Transportation of Hazardous Materials	FBP-WM-PRO-00272
	REV. NO. 6
	Page 10 of 20

- **IF** the transfer involves materials otherwise analyzed and specifically considered in the DSA or BIO (e.g., UF₆ cylinders), **THEN** ensure appropriate hazards communications (e.g., ERG and/or MSDS/SDSs) are supplied and then exit this procedure.

Transportation Specialist

- 6.2.8** **IF** the materials will be transferred in full compliance with DOT requirements, **THEN** exit this procedure and follow FBP-WM-PRO-00044, *Preparing Off-Site Shipments of Hazardous Materials*.
- 6.2.9** **IF** the material cannot be transferred in full compliance with specific applicable DOT requirements, **THEN** an ELS shall be used in accordance with Subsection 6.3.

6.3 Identifying an ELS

WDS

- 6.3.1** Review existing ELSs and determine whether any may be used for the material.
- 6.3.2** **IF** suitable ELS exists, **THEN** inform the Supervisor/Facility Manager to **go to** Subsection 6.5 and execute the selected ELS; otherwise, proceed.

6.4 Developing an ELS

WDS

- 6.4.1** Provide the following information to the TS who will create the ELS:
- Building numbers of sending and receiving facilities
 - Characterization data
 - Documentation used to determine characterization/classification of material in shipment
 - Load list
 - Load restrictions
 - MSDS, as applicable
 - Proposed vehicle to be used to transfer the package
 - Software data that supports material classification decisions
 - Spacing restrictions
 - Transfer route

TITLE: On-Site Transportation of Hazardous Materials	FBP-WM-PRO-00272
	REV. NO. 6
	Page 11 of 20

TS

- 6.4.2** Obtain the next sequential unique identification number from the FBP ELS Log maintained on the X drive.
- 6.4.3** Use the template (Attachment A, FBP-WM-PRO-00272-F01, *Equivalent Level of Safety [ELS] for On-Site Transportation of Hazardous Materials*) to draft an ELS. Consider:
- Building numbers of sending and receiving facilities
 - Characterization data
 - Documentation used to determine characterization/classification of material in shipment
 - Load list
 - Load restrictions
 - MSDS/SDS, as applicable
 - Proposed vehicle to be used to transfer the packages
 - Software data that supports material classification decisions
 - Spacing restrictions
 - Transfer route

NOTE

Transportation security plans are developed by North Wind Dynamics (NWD). An umbrella transportation security plan is on file with NWD Security; if a transport requires deviations or additions to that plan, then NWD Security will develop a transfer-specific plan.

- 6.4.4** **IF** the transport contains classified waste requiring protection from visual observation, **THEN** contact NWD Security to ensure that a security plan for the transfer is implemented as needed.
- 6.4.5** As appropriate, attach the following to the ELS:
- Security plan, if applicable
 - DOT proper shipping name
 - ERG
 - MSDS/SDSs

TITLE: On-Site Transportation of Hazardous Materials	FBP-WM-PRO-00272
	REV. NO. 6
	Page 12 of 20

FBP Transportation Manager

6.4.6 Review ELS and, if acceptable, sign approval.

TS

6.4.7 Obtain approved ELS from Transportation Manager.

6.4.8 Obtain a USQ review and approval of the ELS from NS.

6.4.9 **WHEN** the ELS is approved by NS, **THEN** place it under document control with all supporting documentation (refer to FBP-BS-PRO-00061, *Document Control Process*, for additional information as needed).

6.4.10 Maintain a copy of the approved ELS on the X drive.

FBP Transportation Manager

6.4.11 Serve as a concurrence signatory on any work package used in conjunction with the ELS if applicable.

WDS/Supervisor/Facility Manager

6.4.12 **WHEN** the ELS is approved, **THEN** proceed to Subsection 6.5 to execute the ELS.

6.5 Execution

6.5.1 Hazard Communication

WDS/Supervisor/Facility Manager

- **IF** the transfer involves a reportable quantity of nuclear material, **THEN** obtain authorization from Nuclear Materials Control & Accountability (NMC&A) to conduct the transfer.
- Request Project Supervisor to coordinate with Radiological Control Technician (RCT) to perform radiological surveys on the packages.
- Request Project Supervisor to schedule container/equipment pickup and delivery.
- Ensure personnel comply with applicable procedures during loading/unloading of conveyance.
- Provide to the eMWaste Administrator any additional tracking forms, supporting documentation, and completed radiological surveys (FBP-RP-PRO-00001-F01, *Radiological Survey Form*, and FBP-RP-PRO-00036, *Radiological Surveys for the Receipt, Transport, and Movement of Radioactive Materials*, signed by both the RCT and Radiation Protection [RP] Supervisor).

TITLE: On-Site Transportation of Hazardous Materials	FBP-WM-PRO-00272
	REV. NO. 6
	Page 13 of 20

6.5.2 Coordination

Supervisor Directing Hazardous Material Transport

- **IF** an ELS is required (per Subsection. 6.2) **THEN** obtain from either the WDS or the intranet the appropriate ELS for the hazardous material configuration to be moved.
- Ensure the appropriate ERG guide is attached to the ELS for the hazardous material being moved.
- Provide a copy of the ELS (if any) and ERG pages to affected workers (minimally, the vehicle operator).
- Review the ELS (if any) and ERG pages with affected workers to ensure they are aware of special instructions on both the ELS and the ERG pages.
- Ensure that any vehicle that transports hazardous waste onsite has a spill kit onboard for use in mitigating the effects of spills or leakage.

Qualified Workers

- Read and understand and comply with the ELS (if any) and ERG instructions.
- Keep a copy of the ELS (if any), ERG and any other applicable documentation in the transport vehicle.
- In event of an accident while transferring hazardous material under this procedure, provide the ELS (if any) and ERG to first responders.

7.0 RECORDS

7.1 Records Generated

- FBP-WM-PRO-00272-F01, *Equivalent Level of Safety (ELS) for On-Site Transportation of Hazardous Materials*
- FBP-RP-PRO-00001-F01, *Radiological Survey Form*

7.2 Requirements

- Records generated or received as a result of performing this procedure shall be managed according to FBP-BS-PRO-00062, *Records Management Process*.
- Approved ELSs will be uploaded to the intranet as controlled documents.

TITLE: On-Site Transportation of Hazardous Materials	FBP-WM-PRO-00272
	REV. NO. 6
	Page 14 of 20

8.0 DEFINITIONS /ACRONYMS

8.1 Definitions

- A. Hazardous Material** – Any item or agent (biological, chemical, physical) that has the potential to harm humans, animals, or the environment, either by itself or through interaction with other factors. DOT defines hazardous materials (49 CFR 171.8) as a substance or material that the Secretary of Transportation has determined is capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and is designated as hazardous under section 5103 of Federal hazardous materials transportation law (49 U.S.C. 5103). The term includes hazardous substances, hazardous wastes, marine pollutants, elevated-temperature materials, materials designated as hazardous in the Hazardous Materials Table of 49 CFR 172.101, and materials that meet the defining criteria for hazard classes and divisions in part 173 of subchapter C of 49 CFR 173 Subpart D and I.
- B. Materials of trade (MOT)** – Hazardous materials that are (1) carried on motor vehicles to protect the health and safety of the motor vehicle, operator, or passengers (e.g., insect repellent, fire extinguishers); (2) carried on motor vehicles to support the operation or maintenance of motor vehicles or auxiliary equipment [e.g., engine starting fluid, gasoline (limitations apply), spare battery]; or (3) carried by a private motor carrier (including vehicles operated by a rail carrier) in direct support of a principal business other than transportation by motor vehicle (e.g., plumbing, painting, laboratory research).

8.2 Acronyms

- A. BIO** – Basis of Interim Operation
- B. DOE** – Department of Energy
- C. DOT** – US Department of Transportation
- D. DSA** – Document Safety Analysis
- E. ELS** – Equivalent Level of Safety
- F. EPA** – US Environmental Protection Agency
- G. ERG** – Emergency Response Guide
- H. FBP** – Fluor BWXT Portsmouth LLC
- I. MSDS/SDS** – Material Safety Data Sheet/Safety Data Sheets
- J. NS** – Nuclear Safety
- K. NCS** – Nuclear Criticality Safety
- L. NWD** – North Wind Dynamics

TITLE: On-Site Transportation of Hazardous Materials	FBP-WM-PRO-00272
	REV. NO. 6
	Page 15 of 20

M. PORTS – Portsmouth Gaseous Diffusion Plant

N. RCT – Radiological Control Technician

O. TS – Transportation Specialist

P. TSD – Transportation Safety Document

Q. USQ – Unreviewed Safety Question

R. WDS – Waste Disposition Specialist

9.0 SOURCE REFERENCES

- 10 CFR 830, *Nuclear Safety Management*
- 10 CFR Chapter I, Part 71, *Packaging and Transportation of Radioactive Material*
- 29 CFR Chapter XVII, Part 1910, Subpart H, *Hazardous Materials*
- 29 CFR Chapter XVII, Part 1910, Subpart Z, *Toxic and Hazardous Substances*
- 40 CFR Volume 27, Chapter I, Parts 260–265 (Hazardous Waste Management Regulations)
- 40 CFR Volume 32, Chapter I, 700–789 (Toxic Substances Control Act Regulations)
- 49 CFR Chapter I, Parts 171–180 (Hazardous Materials Regulations)
- 49 CFR Chapter II, Parts 300–399, *Federal Motor Carrier Safety Regulations*
- 49 CFR Part 40, *Procedures for Transportation Workplace Drug and Alcohol Testing Programs*
- 49 CFR Parts 300-399, *Federal Motor Carriers Safety Administration (FMCSA), DOT Regulations*
- DOE Order 460.1D, *Hazardous Material Packaging and Transportation Safety*
- FBP-WM-PDD-00001, *Transportation Program Description Document*
- FBP-WM-PL-00004, *Transportation Execution Plan*
- FBP-WM-PL-00048, *Logistics Operations Program Plan*
- FBP-WM-PL-00049, *Motor Carrier Compliance Plan*
- FBP-WM-PL-00051, *Transportation Training Plan*
- FBP-WM-PRO-00009, *Shipping Hazardous Samples Off-Site*

TITLE: On-Site Transportation of Hazardous Materials	FBP-WM-PRO-00272
	REV. NO. 6
	Page 16 of 20

- FBP-WM-PRO-00028, *Preparing Off-Site Shipments of Non-Hazardous Materials*
- FBP-WM-PRO-00044, *Preparing Off-Site Shipments of Hazardous Materials*
- FBP-WM-PRO-00046, *Waste/Recyclables Tracking*
- FBP-WM-PRO-00051, *Motor Carrier Evaluation Program (MCEP) Carriers*
- FBP-WM-PRO-00061, *Material Handling*
- FBP-WM-PRO-00254, *Waste Handling*

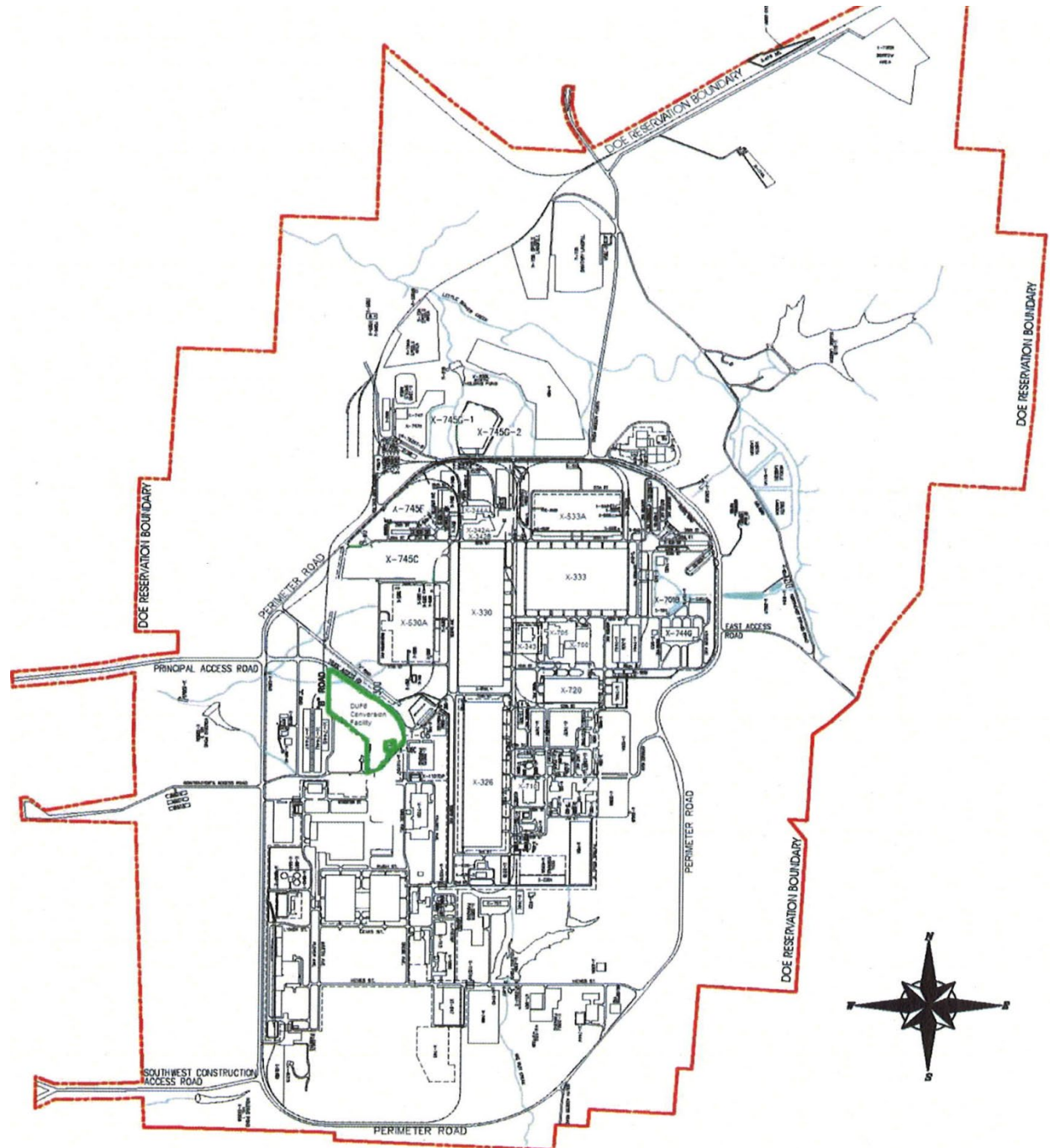
TITLE: On-Site Transportation of Hazardous Materials	FBP-WM-PRO-00272
	REV. NO. 6
	Page 17 of 20

Appendix A
REGULATORY REQUIREMENTS FLOW DOWN

1. 10 CFR 830, *Nuclear Safety Management*
2. 10 CFR Chapter I, Part 71, *Packaging and Transportation of Radioactive Material*
3. 29 CFR Chapter XVII, Part 1910, Subpart H, *Hazardous Materials*
4. 29 CFR Chapter XVII, Part 1910, Subpart Z, *Toxic and Hazardous Substances*
5. 40 CFR Volume 27, Chapter I, Parts 260–265 (Hazardous Waste Management Regulations)
6. 40 CFR Volume 32, Chapter I, 700–789 (Toxic Substances Control Act Regulations)
7. 49 CFR Chapter I, Parts 171–180 (Hazardous Materials Regulations)
8. 49 CFR Chapter II, Parts 300–399, *Federal Motor Carrier Safety Regulations*
9. 49 CFR Part 40, *Procedures for Transportation Workplace Drug and Alcohol Testing Programs*
10. 49 CFR Parts 300-399, *Federal Motor Carriers Safety Administration (FMCSA), DOT Regulations*
11. DOE Order 460.1D, *Hazardous Material Packaging and Transportation Safety*

TITLE:	FBP-WM-PRO-00272	
	REV. NO. 6	
	Page 18 of 20	

Appendix B SITE BOUNDARY MAP



TITLE: <p style="text-align: center;">On-Site Transportation of Hazardous Materials</p>	FBP-WM-PRO-00272
	REV. NO. 6
	Page 19 of 20

Attachment A
EQUIVALENT LEVEL OF SAFETY (ELS) FOR ON-SITE TRANSPORTATION
OF HAZARDOUS MATERIALS
Page 1 of 2



EQUIVALENT LEVEL OF SAFETY (ELS) FOR ON-SITE
TRANSPORTATION OF HAZARDOUS MATERIALS

Page ____ of ____

ELS Number: ELS- Emergency Response Guide Number: _____

ELS Revision: _____ ELS Title: _____

Purpose: _____

Scope: _____

Technical Contact & Emergency Contact #: _____

Shipping Name: _____

DOT Requirement:	Equivalency :
DOT approved/equivalent packaging: 49 CFR Part 173	
Placarding: 49 CFR Part 172, Subpart F	
Container marking/labeling: 49 CFR Part 172, Subparts D & E	
Shipping papers: 49 CFR Part 172, Subpart C	
Container securement/blocking & bracing: 49 CFR Part, 393 Subpart I	
Load restrictions:	
Vehicle inspection:	Ensure vehicle is properly inspected prior to transport, per FBP-WM-PRO-00052.
Training:	Ensure employees are trained per FBP-WM-PL-00051, <i>Transportation Training Plan</i> .
Radiation protection:	
Separation & Segregation Requirements:	
Special Instructions:	

Transportation Specialist	Date
Transportation Manager	Date

TITLE:	FBP-WM-PRO-00272
	REV. NO. 6
	Page 20 of 20

Attachment A
EQUIVALENT LEVEL OF SAFETY (ELS) FOR ON-SITE TRANSPORTATION
OF HAZARDOUS MATERIALS
Page 2 of 2



EQUIVALENT LEVEL OF SAFETY (ELS) FOR ON-SITE
TRANSPORTATION OF HAZARDOUS MATERIALS

Page ____ of ____

ELS- _____

Instructions for Completing an ELS

ELS Number: Unique identifier kept in log, beginning with ELS- .

Emergency Response Guide Number: Emergency response information for the hazardous material being transported. (Example: "ERG 162.")

Purpose: What DOT requirements cannot be met, and why? (Example: "Packaging requirements listed in 49 CFR 173 cannot be met for this on-site transfer.")

Scope: What transport will be covered by this ELS? (Example: "SCO-II in an excepted package.")

Technical Contact and Emergency Contact Number: Transportation representative to be contacted in the event of an emergency, and phone number. (Example: "Bill Smith, at 740-897-3025.")

Shipping Name: Generic description of material being moved i.e. Limited Quantity, LSA-I, LSA-II, SCO-I, SCO-II.

Equivalency: Specify the equivalency that will be used in lieu of the DOT requirement that cannot be met Provide specific citation. (Example: "Facility Manager's Inventory Control Check Sheet will be used instead of Shipping Papers required by 49 CFR 17.101 – Preparation and Retention of Shipping Papers, Subpart C")

Separation & Segregation: Refer to 49 CFR 177.848 Segregation Table for Hazardous Material.

- The absence of any hazard class or division or a blank space in the table indicates that no restrictions apply.
- The letter "X" in the table indicates that these materials may not be loaded, transported, or stored together in the same transport vehicle or storage facility during the course of transportation.
- The letter "O" in the table indicates that these materials may not be loaded, transported, or stored together in the same transport vehicle or storage facility during the course of transportation unless separated in a manner that, in the event of leakage from packages under conditions normally incident to transportation, commingling of hazardous materials would not occur. Notwithstanding the methods of separation employed, Class 8 (corrosive) liquids may not be loaded above or adjacent to Class 4 (flammable) or Class 5 (oxidizing) materials; except that shippers may load truckload shipments of such materials together when it is known that the mixture of contents would not cause a fire or a dangerous evolution of heat or gas.

MAKE SURE THAT YOU VERIFY ANY AND ALL SEGREGATION AND SEPARATION REQUIREMENTS PRIOR TO MOVING!!

Special Instructions: Any other controls that need to be imposed to support equivalency for DOT requirements. (Examples may include route restrictions, speed limits, escorts, etc.)