

PRINCETON PLASMA PHYSICS LABORATORY

ON-SITE TRANSPORTATION SAFETY PROGRAM

Revision 2

June 2010

Prepared by: _____
Jerry Siminoff, Shipping Coordinator

Prepared by: _____
Maria Pueyo, Waste Management Engineer

Approved by: _____
Robert Sheneman, Head, M&ES Division

PRINCETON PLASMA PHYSICS LABORATORY
ON-SITE TRANSPORTATION SAFETY PROGRAM
Revision 2, June 2010

In 1997 PPPL responded to the Department of Energy's issuance of Order 460.1A, "Packaging and Transportation Safety." At that time PPPL accepted adding DOE O 460.1A to the list of contract directives with exception to item 5 of the Contractor's Requirement Document (CRD). Item 5 of the CRD required the contractor (PPPL) to "comply with the Hazardous Materials Regulations for onsite hazardous materials transfers or comply with an approved site- or facility-specific Transportation Safety Document that describes the methodology and compliance process to meet equivalent safety for any deviation from the Hazardous Materials Regulations." This requirement appeared again with the issuance of DOE O 460.1B as item 7 of the CRD and item 2 of the CRD for DOE O 460.1C, issued on 5/14/2010. The onsite movement of hazardous materials at PPPL was and still is governed by Hazardous Waste Management procedures, Material Control Services Policies & Procedures, Chemical Safety procedures, and Radiological Safety procedures. Creating a separate "Transportation Safety Document" would not add value or safety to the existing program.

During discussions between PPPL and DOE-PSO in 1997, it was agreed that the Materiel and Environmental Services Division (M&ES) would satisfy the intent of this requirement (i.e., developing a "Transportation Safety Document") by providing a brief description of the Hazardous Waste Management procedures, Material Services Policies & Procedures, Chemical Safety procedures, and Radiological Safety procedures that govern on-site movement of hazardous materials at PPPL. This document is issued by M&ES to fulfill this requirement. Following is a list and brief description of procedures that govern the movement of hazardous and radioactive materials at PPPL:

EM-CP-21, "Low-Level Radioactive and Mixed Waste Certification Program Plan:" This Plan describes the organization and methodology for certifying, handling, and characterizing low-level radioactive and mixed waste generated at the Department of Energy's Princeton Plasma Physics Laboratory (DOE-PPPL) for transportation and subsequent burial at the Hanford Burial Site (HBS) or Nevada Test Site (NTS).

EM-CP-22, "Certification of Low-Level Radioactive Waste for Disposal at the Nevada Test Site" This Plan describes the organization and methodology for certifying, handling, storing, characterizing, and shipping low-level radioactive waste generated at the Department of Energy's Princeton Plasma Physics Laboratory (DOE-PPPL) for transportation and subsequent burial at the Nevada Test Site (NTS).

EM-OP-01, "Removal of Asbestos Containing Materials:" This procedure describes the management of asbestos removal projects at PPPL and the handling and removal of waste generated as a result of these projects.

EM-OP-03, “Incompatible Waste Storage in the Hazardous Materials Storage Facility:” This procedure is designed to ensure that incompatible wastes are segregated appropriately and stored properly at the Hazardous Materials Storage Facility to ensure safety and compliance with federal, and state regulations and DOE requirements.

EM-OP-04, “On-Site Collection and Transfer of Hazardous Waste:” This procedure is designed to provide for the safe collection and transfer of hazardous waste from generators to the Hazardous Materials Storage Facility (HMSF).

EM-OP-05, “Receipt Characterization and Packaging of Hazardous Waste:” This procedure is designed to ensure that hazardous wastes collected and transferred to the HMSF by the Waste Management Branch are correctly identified, classified, recorded, handled, packaged, marked, labeled, and verified to ensure safety and compliance with federal, and state regulations and DOE requirements.

EM-OP-06, “Off-Site Shipments of Hazardous, Radioactive, Mixed, and Non-Regulated Wastes:” This procedure is designed to provide for the safe, off-site shipment of hazardous, radioactive, and mixed wastes, and all other non-regulated wastes processed through the Waste Management Branch of ER/WM. ER/WM is responsible for ensuring that all such shipments are performed in accordance with Federal, State, and local regulations and DOE requirements.

EM-OP-07, “Solid Radioactive Waste Packaging:” This procedure provides the PPPL requirements for packaging of compactable and non-compactable radioactive debris/waste for transportation as defined in the Code of Federal Regulations (CFR) Title 49, Part 173. It applies only to wastes to be packaged in steel boxes and steel drums. The following procedure assures that packages are in compliance with Federal, State, DOE, and burial facility (Hanford, NTS, and others) requirements.

EM-OP-09, “Radioactive waste Characterization:” The purpose of this procedure is to delineate acceptable methods for characterization of low-level radioactive (LLW) and mixed low-level radioactive waste (MLLW) generated at the Department of Energy’s Princeton Plasma Physics Laboratory (DOE-PPPL) packaged for shipment to the Hanford site, the Nevada Test Site (NTS), and/or other facilities licensed to receive radioactive waste.

EM-OP-28, “Liquid Radioactive Waste Packaging:” The purpose of this procedure is to provide ER/WM personnel with proper instructions and guidance for the packaging of liquid radioactive waste. This material will be packaged for transportation in accordance with Federal, State, Department Of Energy (DOE), and Burial Facility requirements.

ESH 5008, “PPPL Environment, Safety, and Health Directives,” Section 8, Chapter 1, “Chemicals,” and Chapter 12, “Hazard Communication:” These sections cover the safe handling and storage and labeling of chemicals at the facility.

MCP&P 100.2, “Materiel Services Group Environment, Safety, and Health Policy.” This procedure describes Materiel Control’s ES&H objectives of a safe and healthy working environment, and compliance with all applicable safety and environmental regulations. It also describes the training requirements for Materiel Control Services personnel involved in the

handling of hazardous and radioactive material (reference Materiel Control Services employee training matrix).

MCP&P 301.3, “Receipt and Inspection of Materials Requisitioned by the Stockroom.” This procedure includes assurances for the proper handling and control of items moving between the warehouse and the stockroom.

MCP&P 401. “Receipt, Processing, Delivery, and Shipment of Materials Policy.” This procedure describes the efficient handling, protection, and control of materials during receipt at the warehouse, and delivery to onsite personnel.

MCP&P 401.5, “Traffic Management” This procedure includes assurances that materials are properly identified, described, and packaged to ensure safe handling and shipping.

MCP&P 401.6, “Shipping Hazardous Materials.” The purpose of this procedure is to assure the use of applicable DOE Orders, CFRs, and ES&H directives for the movement of hazardous materials. It describes the responsibilities of the custodian of the hazardous material and Shipping Office personnel to review and prepare the material before onsite movement to the warehouse. This section also references the hazardous training requirements for personnel handling hazardous materials.

MCP&P 401.8, “Shipment of Material/Equipment to Offsite Locations.” This procedure includes assurances that Hazardous Materials will be picked up onsite according to MCP&P 401.6.

MCP&P 401.10, “Receipt of Hazardous Materials at Receiving 3.” This procedure describes proper review, identification, and approval of hazardous materials before they are permitted onsite. Materials must be properly labeled and packaged, and a Material Safety Data Sheet must be available with the material while onsite.

ES&H – 004, Job Hazard Analysis (Materiel Control Services)

- Receipt, Storage, and Delivery of Materials
- Warehouse Packaging and Transportation
- Contractor Delivery and Pickup of Compressed Gas Cylinders

These documents lists the hazards involved in cited activities and the corresponding safety control measures that are in place to mitigate hazards.

ES&HD 5008, Section 9, Chapter 2, “Compressed Gas Cylinder Safety.” This procedure provides guidelines for the identification, inspection, transportation, storage, installation, use, and disposal of compressed gas cylinders.