



# DOE Transportation Directives Requirements Implementation Matrix

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Advanced Mixed Waste Treatment Project

Approved:

*(Signature on file. See DCR-7339.)*

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09/10/08

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Date



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## **1.0 PURPOSE/SCOPE**

The purpose of this document is to list the DOE transportation directives requirements and the location within the AMWTP documentation system where each requirement is implemented.

## **2.0 DEFINITIONS**

None

## **3.0 REFERENCES**

- (1) 10 CFR 71, Subpart G, Operating Controls and Procedures
- (2) 48 CFR 47.102, Transportation Insurance
- (3) 49 CFR 171, General Information, Regulations, and Definitions
- (4) 49 CFR 172,
- (5) DOD 4500-9, Transportation and Traffic Management
- (6) DOE/CBFO 94-1007, Recovery Guide for TRU Waste Packages
- (7) DOE/CBFO 98-1003, WIPP Transportation Plan
- (8) DOE M 460.2-1, Attachment 2, Contractor Requirements Document
- (9) DOE M 461.1-1, Attachment 2, Contractor Requirements Document
- (10) DOE M 5632.1, Manual for Protection and Control of Safeguards and Security Interests
- (11) DOE O 460.1B, Attachment 2, Contractor Requirements Document
- (12) DOE O 460.2A, Attachment 2, Contractor Requirements Document DOE O 461.1B, Attachment 2, Contractor Requirements Document
- (13) MP-ISIH-2.43, Operating Experience/Lessons Learned
- (14) MP-PCMT-15.1, Acquisition of Material and Services
- (15) MP-RTQP-14.1, Preparation and Administration of Training Plans

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- (16) MP-RTQP-14.4, Personnel Qualification and Certification
- (17) MP-RTQP-14.6, Job Analysis
- (18) MP-RTQP-14.19, Training Records Administration
- (19) MP-TRNS-20.1, Hazardous Material Shipping
- (20) MP-TRNS-20.2, Shipment and Receipt of Hazardous Materials
- (21) MP-TRNS-20.4, Motor Carrier Compliance
- (22) MP-TRUW-8.12, Waste Receipt and Shipping Inspection
- (23) PD-Q&SI-01, Contractor Assurance Program Description
- (24) QAPP-01, Advanced Mixed Waste Treatment Project Quality Assurance Program Plan
- (25) RPT-SCTY-001 AMWTP Transportation Security Plan

#### **4.0 APPENDICES**

Appendix A – Contractor Requirements

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## Appendix A

### Contractor Requirements

Requirement ID	Requirement Description	Implementation Source
<b>DOE O 460.1B, Attachment 2, Contractor Requirements Document</b>		
1	Regardless of the performer of the work, the contractor is responsible for compliance with the requirements of this Contractor Requirements Document (CRD) Packaging and Transportation Safety. The contractor is responsible for flowing down the requirements of this CRD to subcontracts at any tier to the extent necessary to ensure the contractor's compliance with the requirements. In doing so, the contractor shall not unnecessarily or imprudently flow down requirements to subcontracts. That is, the contractor shall both ensure that it and its subcontractors comply with the requirements of this CRD and only incur costs that would be incurred by a prudent person in the conduct of competitive business.	MP-PCMT-15.1, Acquisition of Material and Services
2	Offsite shipment of hazardous materials shall follow the Hazardous Material Regulations of DOT and the applicable tribal, State, and local regulations not otherwise preempted by DOT.	MP-TRNS-20.2, Shipment and Receipt of Hazardous Materials, Section 3.1.1
3	Hazardous Material Regulations with a non-compliant package or shipment shall apply for a DOT exemption through the Field Element to the Office of Environmental Management of the NNSA for processing to DOT.	MP-TRNS-20.1, Hazardous Material Shipping, Section 3.5.2
4	Specific radioactive material packagings the following shall apply...	MP-TRNS-20.2, Section 3.1.1, Following DOT regulations implements these requirements.
5	Contractors who participate in the design, fabrication, procurement, use, or maintenance of a hazardous materials packaging, shall have an approved quality assurance program that, for Type B and fissile radioactive materials packaging, satisfies the applicable requirements of 10 CFR Part 71, Subpart H.	Advanced Mixed Waste Treatment Project Quality Assurance Program Plan, QAPP-01.

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6	Contractors that use Type B, fissile or plutonium packaging specified in 3 above, shall implement operating controls and procedures that satisfy the requirements of 10 CFR Part 71, Subpart G.	AMWTP procedures that deal with the AMWTP use of Type B packages (TRUPACTs) are approved by CBFO which ensures compliance with 10 CFR 71, Subpart G.
7	Contractors may follow international packaging and transportation regulations for domestic segments of transportation by air, vessel, rail, or highway of shipments in international traffic as authorized by the DOT regulations, as appropriate.	MP-TRNS-20.2 Section 3.1.1. Following DOT regulations fulfills this requirement.
8	Comply with 49 CFR 171–180 for onsite hazardous materials transfers or comply with an approved site- or facility-specific Transportation Safety Document.	MP-TRNS-20.2 Section 3.1.1.
9	Motor Carrier Safety: Each person who operates a Government-owned or commercial motor vehicle for transporting hazardous materials offsite shall comply with Federal Motor Carrier Safety Requirements (49 CFR Parts 350-399) and applicable tribal, State, and local regulations not otherwise preempted by DOT.	MP-TRNS-20.4, Motor Carrier Compliance, Section 2.0
10	Implement and/or expand lessons learned programs to include sharing transportation and packaging safety successes and problems throughout the site and with other DOE contractors.	MP-ISIH-2.43, Operating Experience/Lessons Learned

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11	Develop and implement a training program and procedures for the safe packaging, transfer and transportation of hazardous materials; assure that all personnel who support and/or perform packaging, transfer and transportation operations are appropriately trained and qualified; and maintain auditable training records in accordance with site record retention requirements.	MP-RTQP-14.1, Preparation and Administration of Training Plans MP-RTQP-14.4, Personnel Qualification and Certification MP-RTQP-14.6, Job Analysis MP-RTQP-14.19, Training Records Administration
<b>DOE O 460.2A, Attachment 2, Contractor Requirements Document</b>		
1	Conduct operations in compliance with all applicable international, Federal, State, local, and Tribal requirements governing materials transportation, unless exemptions or alternatives are approved.	MP-TRNS-20.2, Section 3.1.1.  MP-TRNS-20.1, Section 3.5.2
2a	Must use an automated transportation management system.	MP-TRNS-20.1, Section 3.9.1.7
2b	Contractor must not expend Government funds to insure property against loss, damage, or destruction while in transit, unless the shipment qualifies as a special circumstance as defined in 48 CFR 47.102.	See Jim Simonds for implementation.
2c	Consign the shipment as: To: U.S. Department of Energy in care of (name of DOE contractor) or From: (name of DOE contractor) on behalf of the U.S. Department of Energy.	MP-TRNS-20.2 Section 3.1.13.
2d	For military air transportation, the contractor must send requests to the Air Force (Department of Defense regulation 4500.9-R, Defense Transportation Regulation).	AMWTP does not use military air transportation. If military air transport is required, this requirement will be implemented.
2e	Special train services must be approved by the DOE field office or program traffic manager.	AMWTP does not use special train services. If special train services are required this requirement will be implemented.

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3	<p>For each shipment of fissile material or more than a Type A quantity of radioactive material the contractor must:</p> <ul style="list-style-type: none"> <li>a. Notify the consignee of the date of shipment, expected date of arrival, and special loading or unloading instructions.</li> <li>b. Require the consignee to notify the shipper by the end of the first working day after the estimated arrival date if the shipments have not been received.</li> </ul>	MP-TRNS-20.2, Section 3.1.17
4a	<p>Upon request from the field organization or other DOE organization, the contractor must evaluate carriers that transport of highway route controlled quantities of radioactive material in less-than-truckload (TL) quantities, any TL quantities of radioactive material, and hazardous waste in any quantity. A copy of the evaluation must be provided by the contractor to the field element within 30 days after completion of the carrier evaluation.</p>	MP-TRNS-20.2, Section 3.1.6.1 The AMWTP will only use carriers evaluated by DOE.
4b	<p>The contractor must ensure that rail tenders and tariffs reflect the lowest available commercial rates for the commodity.</p>	AMWTP does not ship by rail. If rail services are used, this requirement will be implemented.
4c	<p>Only carrier rates on file with field organizations, other Federal agencies, or a State commission will be used for shipments by common carrier on behalf of DOE or NNSA.</p>	MP-TRNS-20.1, Section 3.9.1.9.3
4d	<p>When the contractor uses other than a low-cost carrier or mode of transportation, for any shipment other than overnight express, a written justification or management approval statement must be retained.</p>	MP-TRNS-20.2, Section 3.1.6.1.2

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5	The contractor must include in shipping papers a 24-hour emergency response phone number as required by 49 CFR 172.604. The contractor must perform periodic tests/drills to ensure that the 24-hour emergency response system is operable.	Complying with DOT regulations invokes the first part of this requirement. AMWTP uses the WCC for the 24 hour emergency response phone number, except for WIPP shipments where the WIPP 24 hour number is used.
6a	The contractor must ensure that shipments are inspected upon receipt for damage or loss and evidence of leakage: (1) Radioactive material shipments must be inspected for external contamination and radiation levels (10 CFR 835.405, Occupational Radiation Protection). (2) Claims will be filed according to the provisions of the DOE Accounting Handbook and facility procedures.	MP-TRNS-20.2, Section 3.17
6b	If a delivery conveyance is contaminated by the radioactive cargo or when surveys indicate potential exposure above acceptable limits, the transport vehicle must be detained and the carrier notified immediately to ensure that other potentially contaminated vehicles can be surveyed. (Release limits are specified in 49 CFR 177.843, Contamination of Vehicles.) Specific response will follow facility procedures.	MP-TRNS-20.2, Section 3.1.7.3.2
6c	Perform additional transfer checks and receipt measurements for nuclear materials (which have not been discarded as waste).	AMWTP does not handle these materials. If explosives are transported this requirement will be implemented.
7	Transport of explosive substances and articles	AMWTP does not transport these materials. If explosives are transported this requirement will be implemented.
8	The contractor must perform a self-assessment of transportation and packaging operations at least every 3 years to ensure compliance with applicable regulations.	MP-TRNS-20.2

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<b>DOE M 460.2-1, Attachment 2, Contractor Requirements Document</b>		
1	All shipments will be undertaken in accordance with the requirements of 49 CFR 100-185, except those that infringe upon maintenance of classified information.	MP-TRNS-20.2, Section 3.1.1.
2a	Transportation Planning. The contractor must prepare a transportation plan with information on shipments of spent nuclear fuel, high-level waste, tritium-bearing reactor components, and transuranic waste shipments and submit it to the appropriate field element. TRU waste shipments shall follow the WIPP Transportation Plan (DOE/CBFO 98-3103)	DOE/CBFO 98-3103 for WIPP shipments. The AMWTP does not ship spent nuclear fuel, high-level waste, tritium-bearing reactor components. If these materials were to be shipped, a transportation plan would be prepared.
2b	For nonclassified shipments (by highway and rail) of spent nuclear fuel, high-level waste, and tritium-bearing reactor components, the contractor must perform an analysis of proposed routes using transportation models such as Transportation Routing Analysis Geographic Information System.	AMWTP does not ship spent nuclear fuel, high-level waste, or tritium-bearing reactor components. If these materials were to be shipped, this requirement would be implemented.
2c	The contractor must ensure that a security plan is developed and includes an assessment of possible transportation security risks for radioactive shipments. The plan must contain sufficient background to understand the nature of threats against the radioactive shipment, the means to identify the vulnerabilities to those threats; and an approach to address the vulnerabilities.	RPT-SCTY-001 AMWTP Transportation Security Plan.
2d	Carrier/Driver Requirements. Upon request from the field element or DOE, the contractor must evaluate carriers. For carriers that transport highway route controlled quantities of radioactive material in less-than-truckload (TL) quantities, any TL quantities of radioactive material will be evaluated by the contractor. A copy of the evaluation document must be provided by the contractor to the field element within 30 days after completion of the carrier evaluation.	MP-TRNS-20.2 Section 3.1.6 The AMWTP will only use carriers evaluated by DOE.

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2e	<p>Shipment Pre-notification. Before shipping spent nuclear fuel or high-level waste within or through a State or tribal jurisdiction, the contractor must prepare a letter, to be sent by registered mail with return receipt, to the State Governor (or the Governor’s designee) and tribal President or Governor (or tribal designee) postmarked at least 7 days before the shipment. Alternatively, a notification may be delivered by messenger to these same representatives at least 4 days before a shipment is transported within or through the State or tribal jurisdiction. A record must be retained in the shipping records file that includes the names of the persons contacted and the dates and times of the contacts. For low-level or mixed-low-level waste, or other radioactive shipments, the contractor must provide notification to affected States based on negotiated agreements.</p>	<p>AMWTP does not ship spent nuclear fuel or high-level waste. If these materials were to be shipped, this requirement would be implemented. For low-level or mixed-low-level waste, there are no affected States based on negotiated agreements at this time. If agreements were to be negotiated, this requirement would be implemented.</p>
2f	<p>Transportation Operational Contingencies. For spent fuel, high-level waste, tritium-bearing reactor components, and transuranic waste shipments, the contractor must concur with the carrier that travel conditions are considered acceptable before dispatch. In the event of any substantial unanticipated delay in transit (greater than 2 hours), the contractor will notify the affected States and Tribes of the event through the DOE Transportation Tracking and Communication System (TRANSCOM).</p>	<p>This requirement is met through the shipper/driver/WIPP conference call required by MP-TRUW-8.12, Waste Receipt and Shipping Inspection, for WIPP shipments. AMWTP does not ship spent fuel, high-level waste, and tritium-bearing reactor components. If these materials were to be shipped, this requirement would be implemented.</p>

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2g	<p>Tracking. The contractor must use TRANSCOM for tracking and monitoring the following categories of shipments:</p> <ol style="list-style-type: none"> <li>1. Spent nuclear fuel (see DOE M 5632.1 C-1, Chapter 4</li> <li>2. Tritium-bearing reactor components</li> <li>3. High-level waste</li> <li>4. Transuranic waste (unless other arrangements have been made).</li> </ol>	<p>This requirement is met per MP-TRUW-8.12 for transuranic waste shipments. AMWTP does not ship spent fuel, high-level waste, and tritium-bearing reactor components. If these materials were to be shipped, this requirement would be implemented.</p>
2h	<p>Inspections. The contractor must ensure preshipment inspections are done by the shipper and/or carrier to ensure that shipments meet the regulatory standards. For highway shipments of spent nuclear fuel, high-level waste, tritium-bearing reactor components, and transuranic waste, the contractor must ensure shipments are made available, before departure, for inspection by certified State inspectors (Commercial Vehicle Safety Alliance Enhanced North American Standard Procedures (Level VI)] unless other arrangements have been made with the State.</p>	<p>This requirement is met per MP-TRUW-8.12, for transuranic waste shipments.</p> <p>AMWTP does not ship spent fuel, high-level waste, or tritium-bearing reactor components. If these materials were to be shipped, this requirement would be implemented.</p>
2i	<p>Recovery and Cleanup. The contractor must review truckload carrier's plans for recovery and cleanup or verify they have a contract with a remediation company. For shipments of spent nuclear fuel, high-level waste, tritium-bearing reactor components, and transuranic waste, the contractor must ensure carriers have specific written plans and procedures for providing recovery and cleanup in the event of an accident or incident.</p>	<p>This requirement is met per DOE/CBFO 94-1007, Rev. 3, Recovery Guide For TRU Waste Packages, for transuranic waste shipments. AMWTP does not ship spent fuel, high-level waste, and tritium-bearing reactor components. If these materials were to be shipped, this requirement would be implemented.</p>

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<b>DOE M 461.1-1, Attachment 2, Contractor Requirements Document</b>		
All		Section 2 of this Manual states that the requirements apply only to onsite packaging and transfer activities at DOE facilities that retain and transport nuclear explosives, per DOE O 452.2B, Safety of Nuclear Explosive Operations, and special nuclear material, nuclear components, or special assemblies, pursuant to DOE O 461.1B. The AMWTP does not conduct any onsite or offsite packaging and transfer activities of any of these materials. In addition, DOE O 461.1B does not apply to the AMWTP.
<b>DOE O 461.1A, Attachment 2, Contractor Requirements Document</b>		
All		Per Section 3.c.3, this Order is not applicable to packaging and transportation of hazardous materials subject to DOE O 460.1B and DOE O 460.2, Chg 1, both of which are applied to the AMWTP.