

General comments on directives system – Amended January 16, 2002

RE: New attachment to order reports on DOE packaging and transportation orders 460.1A, 460.2, 461.1

Standards for on-site transportation and packaging

DOE contractors performing transportation activities offsite in commerce are subject to DOT regulations including any pre-transportation activities to prepare shipments for transportation offsite to the extent that DOE considered those activities to be in commerce. Those entities are subject to the jurisdiction and enforcement under the DOT regulations.

As a matter of policy, certain other entities performing similar work of offsite transportation in commerce and pre-transportation activities are exempt from DOT regulations but DOE believes they should be following the same DOT regulatory scheme. These exempt entities include state governmental agencies such as the University of California, the national security transportation program, and DOE employees, DOE imposes these DOT regulations voluntarily by DOE order as incorporated into contracts. These are subject to enforcement by DOE through contractual mechanisms and are not subject to DOT enforcement

For all other packaging and transportation activities involved in the transfer of materials onsite, a performance standard could apply. Consideration should be given to changing the standards for onsite transportation and packaging in the DOE orders. The current orders, however, follow DOE's long-standing policy of following DOT regulations intended for offsite commercial purposes, to be used for transfers onsite, including packaging. DOE has apparently believed that DOE's credibility with the public for safe transportation depends on meeting the public's expectation that DOE will apply the standard DOT regulations applicable to industry and commercial entities as standards at its own sites.

Instead, DOE contractors should be subject to the same standards for onsite transfers as are other large commercial sites such as chemical plants. Those industries do not have to follow DOT regulations onsite and thus DOE contractors should not have to follow DOT regulations or provide a plan showing equivalence with every DOT regulations. Instead, DOE contractors could be required to generally adopt and implement the following performance standard. Such a substitute might read as follows:

Contractors must provide a level of protection for transportation and packaging onsite that is substantially equivalent to or identical to that provided by the DOT regulations for packaging and transfers onsite; and (optionally)

Prepare and submit to DOE for approval a document describing the procedures developed and implemented to provide an equivalent level of protection (equivalent of Transportation Safety Document (TSD) in DOE O 460.1A, and documents in 461.1).

This performance standard could be developed from the bottom up to show an equivalent level of protection without having to show equivalence with each single DOT requirement from the top down. This approach may be appropriate because it would be closer to the private sector practices. In the private sector, sites are subject to OSHA and EPA regulations. Similarly, DOE imposes ES&H standards by order such as DOE O 440.1 to cover industrial safety and health in the OSHA area. Moreover, for DOE's more hazardous facilities, DOE now has adopted significant nuclear safety regulations including Part 835 for worker radiation protection; Part 830 Subpart A for Quality Assurance, and Subpart B for Safety Bases. For the facilities subject to the DOE nuclear regulations, the onsite transportation and packaging activities are clearly covered.

This standard for onsite packaging and transportation would only apply to the onsite transfer of materials. It would not cover any activities related to the offsite regulation (either by DOT or by DOE contract) involved with transportation offsite in commerce.

Further discussion:

For offsite transportation, activities are regulated in two groups: (1) those commercial carriers and contractors directly subject to the jurisdiction of DOT regulations and DOT enforcement, and (2) those governmental contractors and DOE personnel that are not directly subject to DOT regulations. For the second group, DOE has adopted a policy of voluntarily following DOT regulations and providing that those DOT requirements or their equivalent will be met. DOE reflected this policy in its DOE orders which are imposed on DOE personnel and governmental contractors by contract, subject to enforcement under the DOE contract. This group is not subject to DOT enforcement.

Note that DOT's hazardous materials regulations for offsite transportation and packaging activities may reach back into certain activities actually performed onsite. These may include pre-transportation activities such as loading, unloading, packaging, marking, and storage of materials in preparation for offsite transportation in commerce. (DOT is currently seeking comments on a proposed rule to clarify the long-standing confusion in the defining which pre-transportation activities are subject to the hazardous materials regulations. See 66 Fed. Reg. 32419 (June 14, 2001) (NOPV).

In this respect, onsite would mean those transfers (including packaging) taking place on site which are not "pre-transportation" activities undertaken in preparation for offsite, commercial transportation in commerce. For those pre-transportation activities as well as the actual transportation itself, DOE contractors who are not governmental agencies would still be required to follow the DOT regulations.

In those instances in which the DOE contractor is not legally under the DOT jurisdiction, such as the University of California, Iowa State University, and University of Georgia, DOE should continue to require by order in the contract, that these public entities must follow the DOT regulations for pre-transportation activities as well as the actual transportation in commerce

offsite. This, as pointed out in the Informal Interpretation issued to DOE from DOT (June 3, 1993), will be under the enforcement control of DOE, rather than DOT. In general, the current transportation orders manuals have a confusing inter-connection of applicability and exceptions provisions which must be clarified, e.g., whether provisions apply onsite or offsite, involve national security, involve commercial contractors or public agency contractors, involve shipments in commerce, are subject to DOT regulations or to DOE nuclear safety rules.

Comments of Review Team Representative, Jeanette Helfrich, GC-52, 6-4218, January 17, 2002

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REPORT OF REVIEW TEAM ON DOE O 460.2

Directive Number and Title: DOE O 460.2, "Departmental Materials Transportation and Packaging Management" (Revised as DOE O 460.2A with a new DOE M 460.2-1)

Originating Office: Environmental Management, EM-24

Review Team Members: Ella McNeil, EM-24; Mike Conroy, EM-24; Bob Webb, ME-61; John Evans, S-3.1; Jeanette Helfrich, GC-52; Lester A. Lee, NA-125; Timothy Pflaum, NA-125; Mike Wangler, EM-5; Jim Shuler, EM-5; Steve Thompson, AL (NNSA)

Background

1. Why, when, and how was the order and its contractor requirements document established?

EM issued this order and CRD in 1996 consistent with the institution of the CRD process. The first directive on transportation and packaging was issued in 1970 to provide guidance to the field in conducting shipping and receiving activities for both hazardous and nonhazardous materials. This order (and its predecessor DOE O 1540.1) applies to all of DOE's packaging and transportation operations in commerce except for those which infringe upon the maintenance of classified information. The order reflects DOE's policy that all DOE field offices and DOE contractors must conduct their operations in accordance with the transportation and packaging regulations of the Department of Transportation (DOT).

The DOT regulations, however, only apply to commercial DOE contractors to commercial shippers operating in commerce. They do not apply to governmental agencies such as DOE or to DOE contractors who are governmental agencies. Nevertheless, it has been DOE policy to require by DOE order and contract that all of these entities follow DOT regulations for packaging and transportation in commerce which includes pre-transportation activities such as packaging, loading and storage performed onsite.

2. What major modification and recent updates have been made?

EM is revising this order and issuing a new manual, both of which have just completed the RevCom process. The most significant change is issuance of the new manual, which imposes as requirements a wide array of current practices and protocols for performing radioactive material transportation activities offsite. DOE developed the requirements in the manual based on significant encouragement from stakeholders to codify the varying practices and procedures

found in stakeholder agreements.

Overview of Requirements

1. What is the order's purpose and how is it accomplished?

The purpose of the order is to establish operational requirements for DOE's transportation and packaging activities at all shipping and receiving sites and facilities used for the purpose of offsite shipments (in commerce). The order covers shipment of all materials, both hazardous and nonhazardous. It requires contractors to comply with DOT transportation and packaging regulations for shipments. The order also establishes requirements for insurance, a tracking system, rates, consignee notification, receipt of materials shipments, packaging needs assessments, radioactive materials packaging inventories, and compliance assessments. For those contractors subject to DOT jurisdiction, contractors may file requests with DOT for approval of exemptions from the DOT regulations. For contractors not subject to DOT jurisdiction, exemptions can be requested from DOE using the process in the related DOE transportation order on safety (460.1A).

2. What is the CRD's purpose and how is it accomplished?

The CRD's purpose is to establish operational requirements for contractors at all sites and facilities that have shipping and receiving activities used for the purpose of offsite shipping. It ensures that DOE contractors are performing transportation and packaging activities in a compliant, cost-effective, and efficient manner. The purpose is accomplished by including requirements for rate evaluation and use, shipment procedures, consignee notification, packaging inventories and needs assessments, among others. The requirement that the contractor prepare a transportation plan is explained in detail in the new manual. One of the main purposes of the transportation plan is to communicate to DOE's stakeholders the DOE plans for transporting high-visibility nuclear materials. The transportation plan must describe the operational strategy and delineate the steps the contractor will take to comply with DOE regulations and DOE requirements. The plan provides specific information to the corridor states on the material to be shipped, estimated time of shipment, number of shipments, mode of transport, routing information, safe parking arrangements, and recovery and cleanup. A separate CRD is being drafted for the manual requirements.

Analysis

1. Do we still need to apply the Order to contractors?

Yes, as long as DOE's mission includes the packaging and transportation of materials in commerce, the contractors, as well as DOE personnel, need to apply this order. It provides for DOE's protection of the health and safety of the public, workers, and the environment arising from transportation and packaging activities. While packaging and transportation in commerce

are governed by DOT regulations, DOE needs to impose certain additional requirements for operations, planning, and communications with the public.

2. If so, are there attentive less bureaucratic approaches?

No. The latest revision removed much the ambiguity about requirements and applicability. The office of primary interest has reviewed the comments and made necessary changes to provide clear, easily understood requirements that are not prescriptive in how to accomplish the tasks. The review team considered the comments from the field although most comments were cursory and not helpful. Less than half of the sites made comments on the three transportation orders.

Generally, DOE contractors performing packaging and transportation activities in commerce are subject to DOT regulations including any pre-transportation functions to prepare shipments for transportation that are performed onsite. Those entities are subject to the jurisdiction of DOT including enforcement by DOT personnel.

Certain of these entities are not subject to DOT regulations for offsite activities. These include federal, state or local government employees transporting hazardous materials solely for noncommercial governmental purposes. For DOE operations, these include the University of California and other state universities, the DOE national security transportation program, and DOE employees. As a matter of policy, DOE believes these entities should follow the DOT regulations offsite. DOE's credibility with the public for safe transportation depends on meeting the public's expectation that DOE will apply the standard DOT regulations applicable to industry and commercial entities as standards at its own sites. Thus, DOE imposes on these entities DOT regulations as a matter of policy by DOE order for DOE employees and by order for DOE contractors as incorporated into contracts. These offsite activities (including pre-transportation activities performed onsite) are subject to DOE enforcement by order and contractual mechanisms, however, and are not subject to DOT enforcement.¹

This order allows exemptions separate from the directives system. Generally, orders should use the standardized directives system process except in special cases. In transportation activities, specialized procedures may be necessary to harmonize exemption terms and conditions on both the shipping and receiving ends. Other exemption-like processes such as waivers, variances or alternatives should be labeled and treated as exemptions. Requests for DOT exemptions are

¹ DOT is proposing to amend its hazardous materials regulations to clarify long-standing confusion concerning the definition of pre-transportation activities such as loading, unloading, packaging, marking, and storage. The rule would also clarify applicability to governmental agencies such as DOE contractors that are state agencies. It would reflect the Informal Interpretation that DOT issued to DOE on June 3, 1993 that transportation and packaging in commerce offsite performed by state agencies and onsite regulation and enforcement should be under contractual control and enforcement of DOE. See 66 Fed. Reg. 32419, 32431, 32446 (June 14, 2001) (DOT notice of proposed rulemaking).

different, however. While DOE cannot approve these requests, it can and often does require them to be submitted to and approved by DOE before final submission to DOT.

The order and manual should also use standard terminology and definitions consistent with the other two transportation orders (see recommendation for consolidation below). Moreover, the order should separate out the definitions section for use in the CRDs of both the order and manual.

In general, the three transportation orders require preparation of too many types of plans and procedures that contractors must submit to DOE for approval. This order, however, requires submission of one plan, which covers a limited number of highly-radioactive materials. In addition, planning for shipping those materials is already covered in other types of plans (e.g., WIPP). Wherever possible, the various types of implementation plans and procedures in the three orders should generally be consolidated. Such a change would reflect the practice at most sites of each contractor having only one set of transportation and packaging procedures. Plans should also be incorporated into other existing site-wide plans such as integrated safety management system plans, safety basis analyses, quality assurance plans, and worker protection implementation plans.

Requirements should be eliminated where they overlap with the new nuclear safety rules in 10 C.F.R. Part 830. However, since this order and manual are concerned solely with operations and not with environment, health, and safety matters, there is apparently no overlap to be considered with Part 830. Any other requirements should be deleted which are redundant with other regulations or orders such as any worker protection rules in Part 835 and orders on training, lessons learned, and quality assurance.

The application is not overly broad. This order applies only to shipping or receiver facilities within the DOE complex that support the shipment of goods offsite. It applies to all M&O and M&I contractors and subcontractors that perform transportation and packaging operational activities to support offsite shipments. It does not apply to transfers onsite or to the types of packaging used for transfers onsite. The differing applicability of the manual will be clarified in the CRD for the manual. In general, the three current transportation orders and two manuals have a confusing inter-connection of applicability and exceptions provisions which must be clarified, e.g., whether provisions apply onsite or offsite, involve national security, involve commercial contractors or public agency contractors, involve shipments in commerce, are subject to DOT regulations or to DOE nuclear safety rules.

3. Are there any other useful changes to the contractor requirements document?

Changes recommended by the RevCom comments are being resolved and changes made to a final draft scheduled for issuance in the near future. The comment period closed January 26, 2002. As stated above, additional changes are necessary on exemptions, applicability, transportation plans, standard definitions and terminology for consistency with the other two transportation orders.

Summary Recommendations

1. **Continuance.** The requirements in the order CRD are necessary to ensure the contractor knows DOE's packaging and transportation requirements and compliance expectations for operation of packaging and transportation activities to support offsite shipments in commerce.
2. **Consolidation.** This order should be substantially revised in the short-term. In the long term, it should be consolidated into one order with the two other transportation and packaging orders. The team believes that a consolidation of the three orders is the long-term solution to eliminate the confusing areas of duplicate requirements because of the overlapping applicability provisions, and the profusion of plans and procedures that must be prepared for DOE approval. A single order would have the advantage of providing one set of procedures, standards, and terminology. In the short term, however, the three orders are in various stages of the RevCom process. The team believes that consolidation at this time would delay the revision of the three orders and issuance this spring. Consolidation would take months, if not years. Moreover, consolidating the orders across program lines could raise additional issues since the orders belong to two different programs, EM and NNSA. Thus, for now, the three originating programs believe they can and are committed to working together closely to ensure the orders dovetail precisely and that required plans and procedures are integrated together.

Minority Views - none

Originating Office Comments

The requirements in the CRD are necessary to ensure the contractor is aware of DOE's general policy regarding compliance with applicable transportation requirements. The material specific- or activity specific- requirement advise the contractor of permissible and required activities in what might appear to be an exempt or excepted activity, unique requirements that may exceed regulatory requirements, and information collection requirements to ensure the performance of effective and cost efficient operations. The office of primary interest is currently working the comments from the field and program offices through the RevCom process and there was no indication that any of the requirements were cost prohibitive or operationally prohibitive.

February 6, 2002 send comments to J. Helfrich, 6-4218, GC-52, and Bob Webb, ME-61, 6-8264

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