



U.S. Department of Transportation
Pipeline and Hazardous Materials
Safety Administration

1200 New Jersey Ave, SE
Washington, D.C. 20590

APR - 2 2010

Mr. James H. Portsmouth
Energy Solutions
2345 Stevens Drive, Suite 240
Richland, WA 99354

Ref. No. 10-0032

Dear Mr. Portsmouth:

This responds to your letter dated February 2, 2010 requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to placarding requirements for Class 7 (radioactive) material. Specifically, you ask for clarification of the placarding requirements for four unique scenarios. Your scenarios and questions are summarized and answered as follows:

Scenario 1:

Four cargo containers (large freight containers with a capacity of approximately 1280 cubic feet each) used to transport LSA and SCO material on an Articulated Bulk Container (ABC) Railcar:

- Each container contains less than an A₂ quantity.
- The containers are transported exclusive use.
- The shipment is excepted from the marking and labeling requirements under 49 CFR 173.427(a)(6)(vi).
- The containers are marked "RADIOACTIVE-LSA" or "RADIOACTIVE-SCO" in accordance with § 173.427(a)(6)(vi).
- Each freight container is placarded on all four opposing sides with Class 7 (radioactive) material placards before being loaded on the ABC railcar.
- The freight containers are loaded on the ABC railcar by the consignor and remain on the ABC car until they are removed by the consignee.
- There is no intermediate loading or unloading associated with the freight containers or transport vehicle.
- There are no subsidiary hazards requiring additional communication.
- The appropriate container testing certifications (e.g., AAR compliance statement) are appropriately affixed.
- A shipping paper (in this case a Uniform Low Level Radioactive Waste Manifest) is properly completed and delivered to the first rail carrier and the consignor.

Q1) Would the markings (i.e., “RADIOACTIVE-LSA” or “RADIOACTIVE-SCO”) and Class 7 (radioactive) material placards on the freight containers described above satisfy the communication requirements for the shipment in accordance with § 173.427?

A1) Yes. Section 172.504 (Table 1, Footnote 1) requires placards to be applied to bulk packages and rail cars containing LSA/SCO transported as “exclusive use” in accordance with §§ 173.427(b)(4) and (5) or (c). Placards displayed on the freight container may be used to satisfy the requirement to placard the railcar provided the placards are clearly visible from the direction they face, except from the direction of another railcar to which the railcar is coupled (see § 172.516).

Scenario 2

Eight packages (containers with a capacity of approximately 96 ft³ each) used to transport LSA and SCO materials in a van trailer (i.e., a closed transport vehicle):

- Each container contains less than an A₂ quantity.
- The containers are transported exclusive use.
- The shipment is excepted from the marking and labeling requirements under § 173.427(a)(6)(vi).
- The containers are marked “RADIOACTIVE-LSA” or “RADIOACTIVE-SCO” in accordance with § 173.427(a)(6)(vi).
- The van trailer (i.e., transport vehicle) is placarded on 4 opposing sides with Class 7 radioactive placards.
- The containers are loaded on the trailer by the consignor and remain on the trailer until they are removed by the consignee.
- There is no intermediate loading or unloading associated with the containers or transport vehicle.
- There are no subsidiary hazards requiring additional communication.
- A shipping paper (in this case a Uniform Low Level Radioactive Waste Manifest) is properly completed and delivered to the carrier and the consignor.

Q2) Would the markings (i.e., “RADIOACTIVE-LSA” or “RADIOACTIVE-SCO”) and Class 7 (radioactive) material placards on the transport vehicle described above satisfy the communication requirements for the shipment in accordance with § 173.427?

A2) No. Section 172.504(e) (Table 1, Footnote 1) requires placards to be applied to bulk packages and transport vehicles containing LSA/SCO transported as “exclusive use” in accordance with §§ 173.427(b)(4) and (5) or (c). Thus, placards are required on the packages for such shipments. Placards must also be affixed to the transport vehicle, however, § 172.516 provides that the requirement to placard a motor vehicle may be met by the placards displayed on a freight container or portable tank loaded on a motor vehicle. For other types of bulk packages, placards must also be displayed on the motor vehicle.

Scenario 3

A shipment of various size radioactive packages meeting the requirements in § 173.24 and § 173.410 in metal boxes (e.g., B-25 box) used to transport radioactive LSA and SCO material:

- Each container contains less than an A₂ quantity.
- The containers are transported exclusive use.
- The shipment is excepted from the marking and labeling requirements under § 173.427(a)(6)(vi).
- The containers are marked “RADIOACTIVE-LSA” or “RADIOACTIVE-SCO” in accordance with § 173.427(a)(6)(vi).
- The packages are shipped on an open flat bed trailer.
- The open flat bed trailer (i.e., transport vehicle) is placarded on four opposing sides with Class 7 placards.
- The trailer is loaded by the consignor and unloaded by the consignee.

Q3) Would the marking (i.e., “RADIOACTIVE-LSA” or “RADIOACTIVE-SCO”) and Class 7 (radioactive) material placards on the transport vehicle described above satisfy the communication requirements for the shipment in accordance with § 173.427?

A3) No. Section 172.504 (Table 1, Footnote 1) requires placards to be applied to bulk packages and transport vehicles containing LSA/SCO transported as “exclusive use” in accordance with §§ 173.427(b)(4) and (5) or (c). Therefore, if the packages are bulk packages, they must be placarded in addition to the transport vehicle.

Scenario 4

A shipment of Class 7 (radioactive) material utilizing a radioactive materials cask that is less than 18 m³ used to transport radioactive LSA and SCO material:

- The cask contains less than an A₂ quantity.
- The cask is certified to meet DOT 7A, IP-1 and IP-2 package.
- The shipment is excepted from the marking and labeling requirements under § 173.427(a)(6)(vi).
- The cask is marked “RADIOACTIVE-LSA” or “RADIOACTIVE-SCO” in accordance with § 173.427(a)(6)(vi).
- The cask is transported as an exclusive use shipment.
- The shipment is made by motor vehicle.
- The transport vehicle (i.e., cask trailer) is placarded on 4 opposing sides with Class 7 (radioactive) material placards and the front of the tractor is also placarded.

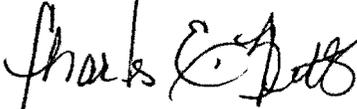
Q4) Would the markings (i.e., “RADIOACTIVE-LSA” or “RADIOACTIVE-SCO”) and five placards on the transport vehicle satisfy the communications requirements for this shipment in accordance with § 173.427?

A4) Yes. Note that placards are only required to be displayed for bulk packages and transport vehicles containing LSA/SCO transported as “exclusive use” in accordance with §§ 173.427(b)(4) and (5) or (c) (see § 172.504(e)(Table 1, Footnote 1).

The package you describe in Scenario 4 is not considered to be a bulk package. Thus, placards are not required to be displayed on either the transport vehicle or the cask.

I hope this answers your inquiry. If you need further assistance, please contact this office at 202-366-8553.

Sincerely,

A handwritten signature in black ink, appearing to read "Charles E. Betts". The signature is written in a cursive style with a large initial "C" and "B".

Charles E. Betts
Chief, Standards Development
Office of Hazardous Materials Standards



Eichenlaub
§173.427
RAM
10-0032

February 2, 2010

FS-NW-LT-5318

Mr. Charles Betts
Mr. Michael Conroy
U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
East Building, 2nd Floor
Mail Stop: E21-317
1200 New Jersey Ave., SE
Washington, DC 20590

Subject: Clarification of Letter of Interpretation

Dear Mr. Betts and Mr. Conroy,

I would like to ask for a formal clarification on a recent letter of interpretation (Ref. Number: 09-0231) dated November 24, 2009 regarding the need to placard radioactive material in a bulk packaging. The purpose of this correspondence is to obtain further clarification from the U.S. Department of Transportation (DOT) on marking, labeling and placarding requirements for shipments of radioactive materials, such as Low Specific Activity (LSA) shipments as well as Surface Contaminated Objects (SCO) normally shipped exclusive use.

To assist in the clarification of this placarding requirement, I would like to ask your interpretation on the following shipment scenarios which are regularly shipped by our company by motor vehicle and rail.

Scenario # 1

Four Cargo Containers (large freight containers with capacity of approximately 1280 ft³ each) used to transport LSA and SCO material on an Articulated Bulk Container (ABC) Railcar:

- Each container contains less than an A₂ quantity.
- The containers are transported exclusive use.
- The shipment is excepted from the marking and labeling requirements under 49 CFR 173.427(a) (6) (vi).
- The containers are marked "RADIOACTIVE-LSA" or "RADIOACTIVE-SCO" in accordance with 49 CFR 173.427(a) (6) (vi).

Mr. Charles Betts
Mr. Michael Conroy
Page 2
February 2, 2010

FS-NW-LT-5318

- Each freight container is placarded on four opposing sides with Class 7 radioactive placards before being loaded on the ABC car.
- The freight containers are loaded on the ABC car by the consignor and remain on the ABC car until they are removed by the consignee.
- There is no intermediate loading or unloading associated with the freight containers or transport vehicle.
- There are no subsidiary hazards requiring additional communication.
- The appropriate container testing certifications (e.g., AAR compliance statement) are appropriately affixed.
- A shipping paper (in this case a Uniform Low Level Radioactive Waste Manifest) is properly completed and delivered to the first rail carrier and the consignor.

Would the markings (i.e. "RADIOACTIVE-LSA" or "RADIOACTIVE-SCO") and Class 7 radioactive placards on the freight containers described above satisfy the communication requirements for the shipment in accordance with 173.427?

Scenario # 2

Eight packages (containers with capacity of approximately 96 ft³ each) used to transport LSA and SCO materials in a van trailer (i.e., a closed transport vehicle):

- Each container contains less than an A₂ quantity.
- The containers are transported exclusive use.
- The shipment is excepted from the marking and labeling requirements under 49 CFR 173.427(a) (6) (vi).
- The containers are marked "RADIOACTIVE-LSA" or "RADIOACTIVE-SCO" in accordance with 49 CFR 173.427(a) (6) (VI).
- The van trailer (i.e., transport vehicle) is placarded on 4 opposing sides with Class 7 radioactive placards.
- The containers are loaded on the trailer by the consignor and remain on the trailer until they are removed by the consignee.
- There is no intermediate loading or unloading associated with the containers or transport vehicle.
- There are no subsidiary hazards requiring additional communication.
- A shipping paper (in this case a Uniform Low Level Radioactive Waste Manifest) is properly completed and delivered to the carrier and the consignor.

Would the markings (i.e., "RADIOACTIVE-LSA" or "RADIOACTIVE-SCO") and Class 7 radioactive placards on the transport vehicle described above satisfy the communication requirements for the shipment in accordance with 173.427?

Scenario # 3

A shipment of various size radioactive packages meeting the requirements in 173.24 and 173.410 in metal boxes (e.g., B-25 box) used to transport radioactive LSA and SCO material

- Each container contains less than an A₂ quantity of material.
- The containers are marked either “RADIOACTIVE-LSA” or “RADIOACTIVE-SCO”.
- The radioactive material is being shipped under 49 CFR 173.427(a) (6) (vi) and are excepted from the marking and labeling requirements.
- The various sized containers are shipped on an open flat bed trailer.
- The open flat bed trailer (i.e., transport vehicle) is placarded on four opposing sides with Class 7 radioactive placards.
- The shipment is loaded by the consignor and unloaded by the consignee.
- The shipment is shipped as exclusive use.

Would the marking (i.e., “RADIOACTIVE-LSA” or “RADIOACTIVE-SCO”) and Class 7 radioactive placards on the transport vehicle described above satisfy the communications requirements for the shipment in accordance with 173.427?

Scenario # 4:

A shipment of a radioactive material utilizing a radioactive materials cask that is less than 18 m³ (640 ft³) used to transport radioactive LSA and SCO material.

- The cask contains less than an A₂ quantity.
- The cask is certified to meet DOT 7A, IP-1 and IP-2 package.
- The shipment is excepted from the marking and labeling requirements under 49 CFR 173.427(a) (6) (vi).
- The cask is marked “RADIOACTIVE-LSA” or “RADIOACTIVE-SCO” in accordance with 49 CFR 173.427.
- The cask is transported as an exclusive use shipment.
- The shipment is made by motor vehicle.
- The transport vehicle (i.e. cask trailer) is placarded on 4 opposing sides with Class 7 radioactive placards and the front of the tractor is also placarded.

Would the markings (i.e. “RADIOACTIVE-LSA” or “RADIOACTIVE-SCO”) and five placards on the transport vehicle satisfy the communications requirements for this shipment 173.427?

49 CFR 173.427 (a) (6) (v) states that the vehicle must be placarded in accordance with subpart F of part 172. Therefore, we want to either placard the vehicle or else placard the packages in such a way as to satisfy the requirement to placard the vehicle.

Mr. Charles Betts
Mr. Michael Conroy
Page 4
February 2, 2010

FS-NW-LT-5318

Thank you for your time and consideration of these questions. I look forward to your response.

Sincerely,

A handwritten signature in cursive script that reads "James H. Portsmouth". The signature is written in black ink and is positioned above the typed name and title.

James H. Portsmouth
Director of Transportation and Logistics
Federal Services Group

jmr