



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

1200 New Jersey Avenue, SE  
Washington, DC 20590

SEP 07 2018

Robert McHale  
Roberts Oxygen Company, Inc.  
17011 Railroad Street  
Gaithersburg, MD 20877

Reference No. 18-0079

Dear Mr. McHale:

This letter is in response to your May 17, 2018, email and letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the requirements for placarding a cargo tank. Specifically, you describe a scenario in which an MC 331 cargo tank motor vehicle (CTMV) is transporting "UN2187, Carbon dioxide, refrigerated liquid" along with cylinders containing hazardous materials. Each side and each end of the CTMV is placarded for each material being transported on the vehicle. The placards are readily visible from each direction they face. However, there are no placards on the cargo tank itself. You ask if the placards must be displayed on the cargo tank.

The answer is no. Affixing placards to the vehicle portion of the CTMV meets the general placarding requirements in § 172.504. Based on your description and the pictures that accompany your request, it is the opinion of this Office that the requirements are met. Furthermore, our response in Letter of Interpretation Ref. No. 10-0126, as referenced in your incoming request, remains valid.

I hope this information is helpful. Please contact us if we can be of further assistance.

Sincerely,

Dirk Der Kinderen  
Chief, Standards Development Branch  
Standards and Rulemaking Division

Ciccarone  
Cargo Tanks  
18-0079

**January, Ikeya CTR (PHMSA)**

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**From:** Ciccarone, Michael (PHMSA)  
**Sent:** Tuesday, May 22, 2018 10:24 AM  
**To:** January, Ikeya CTR (PHMSA)  
**Cc:** DerKinderen, Dirk (PHMSA); Kelley, Shane (PHMSA)  
**Subject:** FW: Roberts Oxygen Co. Inc. - Letter of Interpretation Request - status  
**Attachments:** Ltr\_dot\_Signed.pdf

Ikeya,

Please see the attached interp request for assignment.

Thanks,

Mike

**From:** Gale, Tony (PHMSA)  
**Sent:** Tuesday, May 22, 2018 8:57 AM  
**To:** Ciccarone, Michael (PHMSA) <m.ciccarone@dot.gov>  
**Subject:** FW: Roberts Oxygen Co. Inc. - Letter of Interpretation Request - status

Hey have you had a chance to look in to this yet?

Tony

**From:** Gale, Tony (PHMSA)  
**Sent:** Thursday, May 17, 2018 11:16 AM  
**To:** Ciccarone, Michael (PHMSA) <m.ciccarone@dot.gov>  
**Subject:** FW: Roberts Oxygen Co. Inc. - Letter of Interpretation Request - status

Hey Mike,

Can you please look if y'all ever got this. Not sure if he actually sent it directly to Charles or not, but I told him Charles aint over there anymore. So he should be starting to freak out if he actually did.

Tony

**From:** McHale, Robert M. [<mailto:rmchale@robertsoxygen.com>]  
**Sent:** Thursday, May 17, 2018 11:05 AM  
**To:** Gale, Tony (PHMSA) <tony.gale@dot.gov>  
**Subject:** Roberts Oxygen Co. Inc. - Letter of Interpretation Request - status

Good morning Tony,

I sent the attached letter to Mr. Charles Betts requesting interpretation on a cargo tank question on 8/22/2018. I have received USPS confirmation that it was received by the DOT, but I have not heard any acknowledgement or reply.



17011 Railroad Street  
Gaithersburg, Maryland 2077

August 22, 2017

Charles E. Betts  
Chief, Standards Development  
Office of Hazardous Material Standards  
USDOT/PHMSA  
1200 New Jersey Avenue, SE  
Washington, D.C. 20590

RE: Placarding of cargo tank motor vehicles

Dear Mr. Betts,

We are requesting from the Agency clarification regarding the placarding requirements for cargo tanks as put forth in the Federal Hazardous Materials Regulations (HMR) 49 CFR 172.514.

During a recent DOT inspection in Frederick, VA by the Virginia State Police of one of our delivery vehicles, we were cited with a violation of the aforementioned HMR, stating in part:

*"MC 331 Cargo Tank is NOT Displaying Class 2 Non Flammable Gas Placards for UN2187 Carbon Dioxide Refrigerated Liquid 2.2 anywhere on MC 331 Cargo Tank". (see ATTACHMENT 1)*

Our cargo tank motor vehicle is a commercial motor vehicle with a 4000 lb. (less than 1000 gallons volume) MC 331 bulk tank permanently affixed, containing Carbon Dioxide, Refrigerated Liquid, for delivery to our customers. The cargo tank is correctly labeled with the orange panels displaying "2187" and the proper shipping name "CARBON DIOXIDE, REFRIGERATED LIQUID" (see ATTACHMENT 2 for pictures). The cargo tank motor vehicle is also configured to carry additional hazardous material cylinders for delivery in the cargo area.

We hold this cargo tank motor vehicle to be appropriately placarded for both the cargo tank, with the 2.2 nonflammable placard inclusive of UN2187, and the 2.1 flammable placard for both 2.1 & 2.2 cylinders on board (ref. 172.504.f.2). The placards are readily visible on all four sides and not obscured by appurtenances.

A Letter of Interpretation from your office, dated October 28, 2010 (Ref. No.: 10-0126, see ATTACHMENT 3), regarding placarding and marking of a cargo tank motor vehicle states in part:

*"Generally, placards on the sides and ends of the cargo-carrying portion of a vehicle's cargo body satisfy requirements for placarding the sides and ends, as long as they are readily visible and not obscured by appurtenances in the direction they face."*



**Question:** On our cargo tank motor vehicle, carrying bulk Carbon Dioxide, Refrigerated Liquid, must the placarding be displayed on the bulk packaging (cargo tank) itself or may the required placards, inclusive of UN2187 be mounted, displayed and readily visible on all four sides of the vehicle?

If you have need of any further explanations or clarifications, please feel free to contact me at the below numbers and addresses any time.

Thank you in advance for your consideration of our inquiry. We look forward to your response.

Sincere regards,

A handwritten signature in black ink that reads "R. McHale".

Robert M. McHale

Manager of Safety and Training

**Roberts Oxygen Company, Inc.**

rmchale@robertsoxygen.com

301-948-8105 x10133 (office)

301-370-0389 (cell)

cc: Mark Udy, Fleet Coordinator, Roberts Oxygen Company, Inc.

Would you be able to point me to the right person / office / email to find out the status of this request. My boss is interested in the progress.

Any help with this would be greatly appreciated.

Sincere regards,  
Bob McHale

Robert M. McHale  
**Roberts Oxygen Company, Inc.**  
301-948-8105 x10133 (work)  
301-948-2465 (fax)  
301-370-0389 (cell)



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**DRIVER/VEHICLE EXAMINATION REPORT**

Aspen 3.0.0.17



Virginia State Police  
 Motor Carrier Safety  
 P O Box 27472  
 Richmond, VA 23261-7472  
 Phone: (804)674-2005 Fax: (804)674-2916

Report Number: VA3927007912  
 Inspection Date: 03/17/2017  
 Start: 08:45 AM ET End: 9:29:51 AM ET  
 Inspection Level: I - Full  
 HM Inspection Type: Both Bulk & Non-Bulk

ROBERTS OXYGEN COMPANY INC  
 17011 RAILROAD STREET  
 GAITHERSBURG, MD 20877

USDOT#: 00094099 Phone#: (301)948-8100  
 MC/MX#: Fax#:  
 State#:

Location: STEPHENS CITY SCALES SOUTH  
 Highway: I-81 SOUTH  
 County: FREDERICK, VA

MilePost:  
 Origin: WINCHESTER, VA  
 Destination: LINDEN, VA

Driver: WILSON, ROBERT W  
 License#: T60861715 State: VA  
 Date of Birth: 05/21/1965  
 CoDriver:  
 License#: State:  
 Date of Birth:

Shipper: ROBERTS OXYGEN COMPANY INC  
 Bill of Lading: 31717  
 Cargo: ACETYLENE DISSOLVED AND

**VEHICLE IDENTIFICATION**

Unit	Type	Make	Year	State	Plate #	Equipment ID	VIN	GVWR	CVSA #	CVSA Issued #	OOS Sticker
1	TR	KW	2014	MD	352E88	441	2NKHHN7X1EM386402	33,000			

**BRAKE ADJUSTMENTS**

Axle #	1	2	3
Right	1	N/M	7/8
Left	7/8	N/M	1
Chamber	C-20	C-20	C-30

**VIOLATIONS**

The Officer involved admitted he did not see the data plate: Mfg. date = 02/2013. Violations

Vio Code	Section	Unit	OOS	Citation #	Verify	Crash	Violations Discovered
180.415B	180.415(b)	1	N		N	N	Cargo tank test or inspection markings: Cargo Tank is Missing Internal Inspection Test Marking (I) for MC331 Cargo Tank.
180.415B	180.415(b)	1	N		N	N	Cargo tank test or inspection markings: Cargo Tank is Missing Pressure Test Marking "P". for MC331 Cargo Tank.
172.514A	172.514(a)	1	N		N	N	Offering a bulk package that is not properly placarded: MC 331 Cargo Tank is NOT Displaying Class 2 Non Flammable Gas Placards Placards for UN2187 Carbon Dioxide Refrigerated Liquid 2.2. anywhere on MC331 Cargo Tank.
171.2A	171.2(a)	1	N		N	N	Failure to comply with Hazardous Materials regulations: 172.202(a)(7) - Number of Package for Cargo Tank is Missing.

HazMat: 2.1 LPG; 2.2 Nonflammable gas

Placard: Yes Cargo Tank: 331

Special Checks: No Data for Special Checks.

*+LACERED ON TRUCK*

*590-308-8336*

*1772 (A)(7)  
(1) Bulk Pack*

Report Prepared By:  
 KEVIN J. TETER

Badge #:  
 3927

Copy Received By:  
 ROBERT WILSON

Page 1 of 2



00094099 VA VA3927007912

X

X \_\_\_\_\_



**Cargo tank** means a bulk packaging that

- (1) Is a tank intended primarily for the carriage of liquids or gases and includes appurtenances, reinforcements, fittings, and closures (for the definition of a tank, see 49 CFR 172.302, 172.332-1, or 172.336-1, as applicable)
- (2) Is permanently attached to or forms a part of a motor vehicle, or is not permanently attached to a motor vehicle but which, by reason of its size, construction or attachment to a motor vehicle is loaded or unloaded without being removed from the motor vehicle, and
- (3) Is not fabricated under a specification for cylinders, intermediate bulk containers, multi-unit tank car tanks, portable tanks, or tank cars.

**Cargo tank motor vehicle** means a motor vehicle with one or more cargo tanks permanently attached to or forming an integral part of the motor vehicle.

**§172.328 Cargo tanks.**

(a) **Providing and affixing identification numbers.** Unless a cargo tank is already marked with the identification numbers required by this subpart, the identification numbers must be provided or affixed as follows

(a)(1) A person who offers a hazardous material to a motor carrier for transportation in a cargo tank shall provide the motor carrier the identification numbers on placards or shall affix orange panels containing the required identification numbers, prior to or at the time the material is offered for transportation.

(a)(2) A person who offers a cargo tank containing a hazardous material for transportation shall affix the required identification numbers on panels or placards prior to or at the time the cargo tank is offered for transportation.

(a)(3) For a cargo tank transported on or in a transport vehicle or freight container, if the identification number marking on the cargo tank required by §172.302(a) would not normally be visible during transportation—

(a)(3)(i) The transport vehicle or freight container must be marked as required by §172.310 on each side and each end with the identification number specified for the material in the §172.101 Table, and

(a)(3)(ii) When the cargo tank is permanently installed within an enclosed cargo body of the transport vehicle or freight container, the identification number marking required by §172.302(a) need only be displayed on each side and end of a cargo tank that is visible when the cargo tank is accessed.

**§172.302 General marking requirements for bulk packagings.**

(a) **Identification numbers.** Except as otherwise provided in this subpart, no person may offer for transportation or transport a hazardous material in a bulk packaging unless the packaging is marked as required by §172.332 with the identification number specified for the material in the §172.101 Table—

(a)(1) On each side and each end, if the packaging has a capacity of 3,785 L (1,000 gallons) or more,

(a)(2) On two opposing sides, if the packaging has a capacity of less than 3,785 L (1,000 gallons), or

(a)(3) For cylinders permanently installed on a tube trailer motor vehicle, on each side and each end of the motor vehicle.

(b) **Size of markings.** Except as otherwise provided, markings required by this subpart on bulk packagings must—

(b)(1) Have a width of at least 6.0 mm (0.24 inch) and a height of at least 100 mm (3.9 inches) for rail cars,

(b)(2) Have a width of at least 4.0 mm (0.16 inch) and a height of at least 25 mm (one inch) for portable tanks with capacities of less than 3,785 L (1,000 gallons) and IBCs, and



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

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

OCT 28 2010

Mr. Michael Ritchie  
Hazardous Materials Specialist  
Minnesota Department of Transportation  
Commercial Vehicle Operations Section  
395 John Ireland Boulevard  
St. Paul, MN 55155

Ref. No.: 10-0126

Dear Mr. Ritchie:

This responds to your letter regarding placarding and marking of cargo tank motor vehicles in accordance with the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). You asked whether the required placards and markings, including the proper shipping name or common name and the INHALATION HAZARD marking, must be displayed directly on the cargo tank, or may the markings and placards be displayed on the "vehicle equipment boxes" or other appurtenances, as shown in the enclosed photographs of cargo tank motor vehicles in Liquefied Petroleum Gas (LPG) and Anhydrous Ammonia service, as long as the placards and markings are clearly visible.

A cargo tank meets the definition of a bulk packaging and must be placarded on each side and each end. Section 172.516 states that each placard on a motor vehicle must be readily visible from the direction it faces except from the direction of another transport vehicle to which the motor vehicle is coupled. Generally, placards on the sides and ends of the cargo-carrying portion of a vehicle's cargo body satisfy requirements for placarding the sides and ends, as long as they are readily visible and not obscured by appurtenances in the direction they face.

It is the opinion of this Office that a cargo tank motor vehicle placarded and marked with an identification number display, including the proper shipping name or common name and the INHALATION HAZARD marking, as depicted in your photographs, complies with the requirements in §172.516 for visibility and display.

I hope this information is helpful. If we can be of further assistance, please contact us.

Sincerely,

A handwritten signature in black ink that reads "Ben Supko".

Ben Supko  
Acting Chief, Standards Development  
Office of Hazardous Materials Standards



Minnesota Department of Transportation

Office of Freight and Commercial Vehicle Operations  
395 John Ireland Blvd.  
St. Paul, MN 55155-1899

Engrum  
§172.313  
§172.328  
§172.504  
Marking/Placarding  
10-0126

June 7, 2010

Charles E. Betts  
Chief, Standards Development  
Office of Hazardous Material Standards  
USDOT/PHMSA  
1200 New Jersey Avenue, SE  
Washington, DC 20590

Re: Placarding and marking of cargo tank motor vehicles

Dear Mr. Betts,

The Federal hazardous material regulations require placarding and marking of both bulk hazmat packages and vehicles transporting hazardous materials. 49 CFR 172.504 requires placarding of each bulk packaging and transport vehicle, unless excepted. Section 172.514 requires each person offering a bulk packaging containing hazardous material to affix the placards specified for that material to the bulk packaging. Section 172.328 requires cargo tanks transporting Class 2 compressed gases to display the proper shipping name or common name of the material, and its ID number. Section 172.313 requires bulk packaging containing materials poisonous by inhalation to be marked INHALATION HAZARD on two opposing sides.

Enclosed are photographs of two cargo tank motor vehicles. One is in propane service, the other in anhydrous ammonia service. Both display placards and markings on the equipment boxes attached to the vehicles, not on the bulk packaging itself. The placards and markings are clearly visible from the direction they face.

**Question:** On a cargo tank motor vehicle in LPG or anhydrous ammonia service, must the required placarding and marking be displayed on the bulk packaging (the cargo tank) or may the required placards and marks, including the shipping name and the INHALATION HAZARD marking, when appropriate, be displayed on vehicle equipment boxes or other appurtenances, as long as those marks and placards are clearly visible?

Yours truly,

Michael Ritchie  
Hazardous Materials Specialist  
Minnesota Department of Transportation  
Commercial Vehicle Operations Section  
395 John Ireland Boulevard  
St. Paul, MN 55155  
(651) 366-3697







