



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

1200 New Jersey Avenue, SE  
Washington, DC 20590

SEP 20 2019

Connor Orban  
Cryogenic Services, Ltd.  
P.O. Box 417  
Hartville, OH 44632

Reference No. 19-0066

Dear Mr. Orban:

This letter is in response to your May 24, 2019, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to cryogenic liquids. You state that you transport multiple 180 L cylinders at 22 psig by highway. Specifically, you ask for clarification regarding the use of the exceptions for cryogenic liquids as provided in § 173.320.

We have paraphrased and answered your questions as follows:

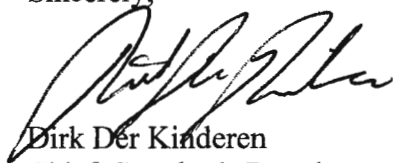
- Q1. You ask whether there is a size limitation on packagings that qualify for the exceptions provided in § 173.320.
- A1. The answer is no. The exception for cryogenic liquids does not limit the size of the packaging; however, it does limit the type of packaging to Dewar flasks, insulated cylinders, insulated portable tanks, insulated cargo tanks, and insulated tank cars that are designed and constructed so that the pressure will not exceed 25.3 psig under ambient conditions.
- Q2. When using the cryogenic liquids exceptions, you ask whether you are required to placard the motor vehicle when transporting a Dewar flask or cylinder at 22 psig or less.
- A2. The answer is no, unless you are transporting refrigerated liquid oxygen (i.e., UN1073, Oxygen, refrigerated liquid (cryogenic liquid)). Liquid oxygen is not excepted from placarding by § 173.320, if applicable (e.g., > 1000 lbs gross weight of non-bulk cylinders on a transport vehicle).
- Q3. You ask whether you are subject to the registration requirements in § 107.601.
- A3. If subject to placarding (e.g., liquid oxygen in non-bulk cylinders exceeding 1000 lbs gross weight), the answer is yes. See § 107.601(a)(6). Otherwise, the answer is no.

Q4. You ask whether § 173.320 specifies how these packages should be secured inside the vehicle.

A4. The answer is no. While § 173.320 provides relief from the specific loading and unloading requirements prescribed in § 177.834, you are still required to comply with the Federal Motor Carrier Safety Administration's regulations (FMCSR), which have requirements that address protection against shifting or falling cargo (see FMCSR; 49 CFR Part 393 Subpart I – Protection Against Shifting and Falling Cargo).

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

Sincerely,

A handwritten signature in black ink, appearing to read "Dirk Der Kinderen", written over a horizontal line.

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

Casey

19-0066

**Dodd, Alice (PHMSA)**

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**From:** INFOCNTR (PHMSA)  
**Sent:** Friday, May 24, 2019 4:25 PM  
**To:** Hazmat Interps  
**Subject:** FW: Letter of Interpretation Request  
**Attachments:** DOT letter of interpretation request.pdf

Hello Alice and Ikeya,

Please see the attached letter of interpretation request. A specialist provided Connor with existing letters of interpretation but he would still like a written letter.

Thanks,

Lynsie Patschke  
HMIC

**From:** admin@cryogenicservicesltd.com [mailto:admin@cryogenicservicesltd.com]  
**Sent:** Friday, May 24, 2019 7:02 AM  
**To:** INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>  
**Cc:** David J. Eigel (deigel@neo.rr.com) <deigel@neo.rr.com>  
**Subject:** Letter of Interpretation 49 CFR 173.320

Hello,

Attached is a formal letter for an interpretation request.

Thanks,

**Connor Orban**  
*Cryogenic Services, Ltd.*  
*President*  
330-495-4666



Date: May 24, 2019

To: Office of Hazard Materials Standards  
Via: Email to: [infocntr@dot.gov](mailto:infocntr@dot.gov)

From: Cryogenic Services, Ltd.  
P.O. Box 417  
Hartville, OH 44632

Re: Request for formal letter of interpretation

Dear PHMSA,

I write to you today for a formal letter of interpretation regarding the applicability of cryogenic exemption under section 173.320 for registration and placarding requirements.

Recently, we have had several of our vendors question us on this exemption. We are therefore seeking clarification on the following questions:

1. Are we required to placard our vehicle if we are hauling any size dewar/cylinder at 22 psi or less? We are under the impression that anything under 25.3 psi is included in the exemption? Currently we are looking to haul multiple (4 or more) 180 L cylinders at 22 psi.
2. Does this exemption have any restrictions in regards to how these cylinders/dewars are secured inside the vehicle?
3. Are there any weight/volume maximums that prohibit this exemption from being applicable?

Thank you in advance for your time and consideration.

**Connor Orban**  
*Cryogenic Services, Ltd.*  
*President*  
330-495-4666