



U.S. Department
of Transportation
**Research and
Special Programs
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

JUL 15 2008

Mr. Bruce J. Euler
Director of Engineering
Argus Fire Control
2301 Distribution Street
Charlotte, NC 28203

Ref. No. 02-0130

Dear Mr. Euler:

This is in response to your letter requesting clarification on whether a DOT specification 39 cylinder may be used as a fire extinguisher under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). I apologize for the delay in responding and hope it has not caused any inconvenience.

In your letter you describe a fire extinguishing system consisting of a DOT specification 39 cylinder with a volumetric capacity of 1720 ml (104 cu in), an operating pressure of 150 psi, and a minimum burst pressure of 1440 psi. This system is intended to be sold to end-users as a complete self-contained pressurized system capable of being refilled and recharged by distributors. You further state that, after the extinguishing system is discharged or emptied, it is returned to the distributor, refilled and pressurized, transported back to the end-user, and reinstalled into the system.

Your specific questions are paraphrased and answered below:

Q1. You asked if a DOT 39 cylinder may be used as a fire extinguisher under the HMR. You also asked whether the cylinder once installed into the fire extinguishing system would be considered a nonspecification cylinder.

A1. The answer is no. Hazardous materials transported under the proper shipping name "Fire extinguisher" must be packaged in accordance with §173.309. Section 173.309(a) allows the use of non-specification cylinders as fire extinguishers, if all criteria listed therein are met. If the requirements of § 173.309(a) cannot be met, a DOT specification 3A, 3AA, 3E, 3AL, 4B, 4BA, 4B240ET, or 4BW (§§ 178.36, 178.37, 178.42, 178.46, 178.50, 178.51, 178.55, and 178.61) cylinder must be used in accordance with § 173.309(b). In addition, although a specification cylinder is installed into an extinguishing system, the cylinder is marked to indicate conformance with the specific requirements applicable to the packaging, and thus remains a specification packaging.



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- Q2: You ask if there are special requirements applicable to cylinders used as fire extinguishers?
- A2: Materials transported under the proper shipping name "Fire extinguisher" must be packaged in accordance with §173.309.
- Q3: After initial shipment and installation can this cylinder be transported for refilling or recharging if discharged?
- A3: The answer is no. A DOT 39 specification cylinder charged with a hazardous material, transported, and emptied, may not be refilled with a hazardous material and transported a second time (see § 178.65).
- Q4: Does this system require requalification testing and inspection?
- A4: Under the HMR, each specification cylinder used as a fire extinguisher and meeting Special Provision 18 in § 172.102(c)(1) must be requalified. (see § 180.209(j)). Additionally, each nonspecification cylinder used as a fire extinguisher must be in compliance with the retest requirements of the Occupational Safety and Health Administration Regulations of the Department of Labor, 29 CFR 1910.157(e) (see § 173.309(3)(iv)).

I trust this satisfies your request. If you need additional assistance, do not hesitate to contact this office.

Sincerely,



Susan Gorsky

Senior Transportation Regulations Specialist
Office of Hazardous Materials Standards

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Webb
§173.34
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Cylinders
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Fax

Attn: Mr. Edward Mazzullo
Director, Office of HazMat Standards
US DOT/RSPA (DHM-10)

From: Bruce J. Euler *BE*
Director of Engineering

To: US DOT

Date: 7 May 2002

Fax #: 202-366-3012

Tel #: 1-800-467-4922

Re: Use of "DOT-39 NRC" Cylinder

Pages: 1 of 2

Dear Mr. Mazzullo

Mr. Cameron Satterthwaite recommended that I forward this request for interpretation to you.

Background:

The cylinder in question has in raised lettering DOT-39 NRC 500/625 M1039 TC-39M NRC 34/43 stamped on the bottom. Its specifications are as follows: 3.543" OD X 13.562" L; flat bottom; Volume 1720ml (104 cu in); min. burst pressure 1440 psi; approval -DOT spec 39.

The cylinder will be used in a fixed fire extinguisher system that is pressurized to 150 psi at 70F and has a working temperature of 32F to 120F. The system will use between 2 to 2.5 lbs of multi-purpose dry chemical with dry nitrogen gas being used as the propellant.

The fire protection standard (NFPA-17) that we need to meet requires that the storage container used shall be designed to meet the requirements of US DOT or Transport Canada if used as shipping containers under pressure.

The system would be sold to end-users as a complete self-contained pressurized system. We would need the system to be capable of being refilled and recharged by distributors. The system after being discharged would be transported empty to the distributors shop, refilled and pressurized. After being recharged it would be transported back to the end user and reinstalled.

Questions:

1. Can this cylinder be used in this application? Is this cylinder (or application) considered a nonspecification cylinder?
2. Is there anything special that we must do?
3. Can this cylinder after initial shipment and installation, be transported for refilling and recharging if discharged?
4. Does this system require hydrostatic testing? If so at what frequency? Does it need to have an internal visible inspection performed? If so at what frequency?

The paragraphs that I have been reviewing are as follows: 173.309 (a) (3); 29 CFR 1910.157 (e); 173.34 (e); 173.28 (e); and 178.65.

Can you please provide answers to these questions so that I can clarify my position with regards to using the above referenced cylinders? Your immediate response would be greatly appreciated because I must make a decision on the use of these cylinders as soon as possible.