



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue SE
Washington, DC 20590

APR 05 2012

Mr. David R. Bacca
DaRuBa Enterprises
PO Box 52858
Riverside, CA 92517-3858

Ref. No. 12-0016

Dear Mr. Bacca:

This responds to your January 17, 2012 letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the requalification and use of Department of Transportation (DOT) 4B, 4B240ET and special permit (SP) cylinders. Your questions are paraphrased and answered as follows:

Q1. Are DOT 4B cylinders manufactured in accordance with DOT-SP 9837 authorized for the transport of hazardous materials?

A1. No. DOT-SP 9837, which authorized the manufacture, mark, sale, and use of DOT 4B cylinders marked with the lot number instead of the serial number, expired on November 30, 2009. No person may use DOT-SP 9837 when the special permit has expired or is otherwise no longer in effect. An individual who wishes to fill and offer a DOT 4B cylinder under the terms of DOT SP-9837 may request the Associate Administrator reissue the special permit with modifications to authorize the continued transportation in commerce of the cylinder.

Q2. Are DOT 4B240ET cylinders that are not marked with the service pressure "240" following the specification authorized by the HMR?

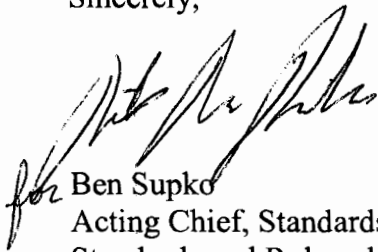
A2. Yes. In the case of a DOT 4B240ET cylinder, 240 psig is the only authorized service pressure. Since the service pressure is part of the specification marking, there is no need to add an additional mark to denote the service pressure.

Q3. The size requirements for DOT 4B240ET cylinders outlined in § 178.55(a), state that the maximum outside diameter is five inches. Are cylinders with an outside diameter less than five inches authorized?

A3. Yes. This provision limits the maximum outside diameter of the cylinder to five inches. The requirement is not intended to imply that the outside diameter of the cylinder must be exactly five inches.

I hope this information is helpful. If you have further questions, please contact this office.

Sincerely,

A handwritten signature in black ink, appearing to read "Ben Supko", written in a cursive style.

for Ben Supko
Acting Chief, Standards Development
Standards and Rulemaking Division

Sent by email: infocntr@dot.gov and letter communication

Leary
§ 173.309.
Fire Extinguishers
12-0016

To: United States Department of Transportation
Pipeline and Hazardous Materials Safety Administration
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Reference: Qualification of cylinders to §180.205(a).

As an instructor for a HAZMAT training company for the requalification of pressure vessels, and an inspector for an approved DOT Independent Inspection Agency, I am writing this letter to receive an interpretation on continuing use and requalification of DOT specification 4B and 4B240ET cylinders manufactured by/for Amerex which may or may not be used as hand-held portable fire extinguishers (i.e. 2½, 5, and 10lb size).

Each year there are requests to perform HAZMAT training and DOT Facility Cylinder Requalification Inspections from companies that are servicing DOT specification portable fire extinguishers. These facilities are required to go thru the inspection and application process that may require upgrading equipment, first time and/or recurrent HAZMAT training, and the expense of the inspection prior to their approval or renewal to hold a current RIN. There is also great effort by these facilities to do the right thing.

Requirements for HAZMAT training have brought into sight the discrepancy of these cylinders. Without a proper message being relayed, the industry is diminished both in its regulatory duties and voluntary compliance by individuals could veer in an adverse direction. Clarification will also solve a problem that has been in the making for many years.

There are 2 classifications for cylinders that are being used as fire extinguishers, non-specification and DOT-specification (refer § 173.309 *Fire Extinguishers*). The "non-specification" cylinders require requalification in accordance with OSHA requirements and the "DOT specification" cylinders require the RIN approval process. The DOT specification cylinders may also be used in other types of gas service(s).

Upon in-depth research it has been found that there are many entities in the fire service which govern these cylinders in their approval and use which have conflicting requirements (i.e. DOT, OSHA, UL, NFPA, and the State Fire Marshall(s)). The controlling authority agency for the cylinder would be the DOT as the other entities reference approved DOT cylinder within their respective documents. Clarification would assist fixing a problem that the fore-mentioned entities and manufacture have not addressed very well.

ISSUE;

Servicing of cylinders which may not be in compliance with DOT regulatory requirements leading to possible adverse legal actions.

REQUIREMENTS; Applying to these specifications, 4B and 4B240ET are;

§ 171.9 *Rules of construction.*

- (a) In this subchapter, unless the context requires otherwise:
- (3) Words imparting the masculine gender include the feminine;
- (b) In this subchapter, the word:
 - (1) "Shall" is used in an imperative sense;
 - (2) "Must" is used in an imperative sense;

§ 178.35 *General requirements for specification cylinders.*

(f) *Markings.* Markings on a DOT Specification cylinder must conform to applicable requirements.

(1) Each cylinder must be marked with the following information:

(i) The DOT specification marking must appear first, followed immediately by the service pressure. For example, DOT-3A1800.

(ii) The serial number must be placed just below or immediately following the DOT specification marking.

(iii) A symbol (letters) must be placed just below, immediately before or following the serial number. Other variations in sequence of markings are authorized only when necessitated by a lack of space. The symbol and numbers must be those of the manufacturer. The symbol must be registered with the Associate Administrator; duplications are not authorized.

(iv) The inspector's official mark and date of test (such as 5-95 for May 1995) must be placed near the serial number.

(4) Unless otherwise specified in the applicable specification, the markings on each cylinder must be stamped plainly and permanently on the shoulder, top head, or neck.

§ 178.50 Specification 4B welded or brazed steel cylinders.

(n) *Markings.* Markings must be stamped plainly and permanently in any of the following locations on the cylinder:

(3) On a cylindrical portion of the shell which extends beyond the recessed bottom of the cylinder, constituting an integral and non-pressure part of the cylinder.

And,

§ 178.55 *Specification 4B240ET welded or brazed cylinders.*

(a) *Type, spinning process, size and service pressure.* A DOT 4B240ET cylinder is a brazed type cylinder made from electric resistance welded tubing. The maximum water capacity of this cylinder is 12 pounds or 333 cubic inches and the service must be 240 psig. The maximum outside diameter of the shell must be five inches and maximum length of the shell is 21 inches.

(o) *Marking.* Markings on each cylinder must be by stamping plainly and permanently on shoulder, top head, neck or valve protection collar which is permanently attached to the cylinders and forming an integral part thereof, provided that cylinders not less than 0.090 inch thick may be stamped on the side wall adjacent to top head.

And,

§ 180.205 *General requirements for requalification of specification cylinders.*

(a) *General.* Each cylinder used for the transportation of hazardous materials must be an authorized packaging. To qualify as an authorized packaging, each cylinder must conform to this subpart, the applicable requirements specified in part 173 of this subchapter, and the applicable requirements of subpart C of part 178 of this subchapter.

And,

DOT-SP 9837
(SEVENTH REVISION)
EXPIRATION DATE: November 30, 2009

2. PURPOSE AND LIMITATIONS:

c. No party to status will be granted to this special permit.

7. SAFETY CONTROL MEASURES: Prescribed packaging is a DOT Specification 4B (' 178.50) cylinder having a service pressure not exceeding 200 psig marked with a lot number instead of the serial number required in § 178.35 (f)(1)(ii). The marking of lot numbers is authorized, for lots of 500 cylinders or less, when the volumetric capacity does not exceed 170 cubic inches.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this special permit for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this special permit.

h. The marking requirement in § 172.301(c) is waived.

EXAMPLE; Cylinder markings and size are;

Approximate 5 lb. size fire extinguisher.

DOT-4B195-I.I.I.-10-95 © 604033

DOT-4B195-I.I.I.-03-95©T 603051

Dimensions for both the above are approximately 4.25 in. outside diameter by 13.0 in long.

And,

Approximate 2½ lb. size fire extinguisher.

DOT 4B240ET-AX-10-00 © 33 BAR B40256

DOT 4B240ET-III-8-85-B247215^{M/14}

Dimensions for both the above are approximately 3.125 in. outside diameter by 12 in. long.

Note; the "©" in the cylinder markings above represents a mark that appears to be a letter "I" inside a circle.

DEDUCTION;

DOT 4B specification cylinders;

The expired special permit would have allowed a variance for marking of the serial number and, the requirement for not marking the special permit on the package. The special permit has expired and there is no party status. There isn't information within the regulations to specify that these cylinders are currently in compliance with DOT requirements.

DOT 4B240ET specification cylinders;

Cylinder is not marked with a service pressure following the specification as required.

The specification clearly states that "the maximum outside diameter must be five inches'. This may or may not be a wording oversight on the writer of this regulation and may need to be overhauled and corrected, but until such time the cylinder would not be in compliance with DOT requirements. No special permit is available for size deviation.

CONCLUSION and INTERPRETATION;

Cylinders previously mentioned are currently out of compliance with applicable DOT requirements as required in §180.205(a) and would no longer be able to pass the requalification process and used in transportation.

CLARIFICATION and NOTIFICATION;

This issue affects the liability of a large number of individuals across a wide area of the US. Due to the entities involved with governing the use of these cylinders, I request assessment of the conclusion and interpretation mention above.

With an agreement to the above conclusion and interpretation, I would request a notification in the Federal Register to assist in notifying the large number of persons affected by this clarification.

Thank you,
Sincerely,

David R. Bacca