



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

1200 New Jersey Avenue, SE
Washington, DC 20590

December 7, 2021



Reference No. 21-0088

Dear [REDACTED]:

This letter is in response to your August 25, 2021, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to Department of Transportation (DOT) 4B specification cylinders. In your email, you request clarification regarding lot sizes of cylinders related to the mechanical testing requirements and the associated reporting requirements in Compressed Gas Association (CGA) C-11 (2013), incorporated by reference in § 171.7 and cited in § 178.35. Specifically, you ask: (1) when should mechanical testing be conducted for small batches of cylinders produced over a period of time; (2) how to document production over a period of time; and (3) when is the shipping of such cylinders authorized.

The HMR outline the specifications for DOT 4B welded or brazed steel cylinders in § 178.50. The requirements for mechanical testing in § 178.50(j) state that testing is required on two specimens removed from one cylinder, or part thereof, and with specimen samples selected in accordance with appendix A to Part 178 after heat treatment. Paragraph (c) of § 178.35 requires that a cylinder inspection must conform to CGA C-11 (2013), except as otherwise specified in the applicable specification. CGA C-11 (2013) describes a “lot” as “a quantity of cylinders having the same size, design, construction, material grade, and heat treatment—when applicable—that are designated by the manufacturer for approval through sample testing as defined by the applicable regulations.” Therefore, since each batch of DOT 4B cylinders requires heat treatment (see § 178.50(g)), the batches of cylinders you describe would be considered a lot on their own, and each lot would be subject to mechanical testing. This testing is required to be documented in accordance with Appendix E to CGA C-11 (2013). Cylinder lots that conform to the mechanical testing requirements and documented in accordance with Appendix E to CGA C-11 (2013) would be authorized for transportation under the HMR.

Finally, please note that as specified in § 178.50(j)(1), mechanical tests are authorized to be made on a ring at least 8 inches long removed from each cylinder and subjected to the same heat treatment as the finished cylinder for lots of 30 cylinders or fewer.

If you are unable to demonstrate compliance with the testing requirements, you may apply for a special permit by submitting an application to the Associate Administrator for Hazardous Materials Safety in conformance with the requirements prescribed in 49 CFR Part 107, Subpart B. You may obtain information on the special permit application process from our website at <https://www.phmsa.dot.gov/approvals-and-permits/hazmat/hazardous-materials-approvals-and-permits-overview>, or by calling PHMSA's General Approvals and Permits branch within the Standards and Rulemaking Division at (202) 366-4511.

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

Sincerely,

A handwritten signature in blue ink that reads "T. Glenn Foster". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

T. Glenn Foster
Chief, Regulatory Review and Reinvention Branch
Standards and Rulemaking Division

Andrews

21-0088

From: [INFOCNTR \(PHMSA\)](#)
To: [Dodd, Alice \(PHMSA\)](#)
Cc: [Hazmat Interps](#)
Subject: FW: Test requirements for a small volume manufacturer of DOT 4B cylinders
Date: Friday, August 27, 2021 12:57:23 PM
Attachments: [image010.png](#)
[image011.png](#)
[image012.png](#)

Hello Alice,

Please see the below interpretation request from [REDACTED].

Let us know if you need anything else from us.

Regards,

-Breanna

From: Approvals (PHMSA) <Approvals@dot.gov>
Sent: Friday, August 27, 2021 7:02 AM
To: INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>
Subject: FW: Test requirements for a small volume manufacturer of DOT 4B cylinders

letter of Interpretation request

Neil Benninghoven

Transportation Specialist, Pressure Vessels Branch PHH25

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1200 New Jersey Ave., SE
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From: [REDACTED] >
Sent: Thursday, August 26, 2021 3:37 PM
To: Approvals (PHMSA) <Approvals@dot.gov>
Subject: RE: Test requirements for a small volume manufacturer of DOT 4B cylinders

CAUTION: This email originated from outside of the Department of Transportation (DOT). Do not click on links or open attachments unless you recognize the sender and know the content is safe.

I neglected to add that the request for interpretation as well as our correspondence related to

this inquiry should be treated as confidential information as per 49 CFR 105.30.

By the way our [REDACTED].

Best Regards,

[REDACTED]

[REDACTED]

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From: [REDACTED]

Sent: Wednesday, August 25, 2021 12:34 PM

To: Approvals (PHMSA) <Approvals@dot.gov>

Subject: Test requirements for a small volume manufacturer of DOT 4B cylinders

We request a letter of Interpretation regarding clarification of a lot size, mechanical testing requirements, and CGA C-11 reporting requirements.

We are a small volume manufacturer and produce a lot over a period of time in small batches of 10 cylinders or less. It may be up to a year or more before we complete a lot size of 200 for a particular group of DOT 4B cylinders. Currently, hydrostatic testing and mechanical tests are performed on the first small batch of cylinders within a lot. We are asking for clarification as to when mechanical testing should be conducted for a lot produced over a period of time in small batches within the same lot, how to document lot production over time and when shipping of cylinders within a lot is authorized.

Thanks in advance,

Best Regards,



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