



U.S. Department
of Transportation

1200 New Jersey Avenue SE
Washington, DC 20590

**Pipeline and Hazardous
Materials Safety
Administration**

SEP 21 2015

David R. Bacca
Program Manager / Executive Technical Assistant
Authorized Testing Inc., IA02
2522 Kansas Ave.
Riverside, CA 92507-2637

Ref. No.: 15-0062

Dear Mr. Bacca:

This is a response to your March 25, 2015 email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to Specification 4B welded or brazed steel cylinders. In your email, you state that you are an approved independent inspection agency (IA02) for the manufacture of Department of Transportation (DOT) pressure vessels. You note that the current language in § 178.50(a) states:

“Type, size, and service pressure. A DOT 4B is a welded or brazed steel cylinder with longitudinal seams that are forged lap-welded or brazed and with water capacity (nominal) not over 1,000 pounds and a service pressure of at least 150 but not over 500 psig. Cylinders closed in by spinning process not authorized.”

You further note that the language in § 178.50-2(a) previously stated:

“Type and size. Must be welded or brazed type; longitudinal seams must be forged lap-welded or brazed; not over 1,000 pounds water capacity (nominal). Cylinders closed in by spinning process not authorized.”

In your email, you assert your belief that the current language is incorrect and does not recognize that the previously-worded requirement did not require a longitudinal weld. Rather, it was implied that if one elected to have a longitudinal weld it would be required to meet the referenced weld / brazing criteria. You ask what prompted this HMR language change and when it occurred, and request an interpretation on the manufacture and continued use of DOT Specification 4B welded or brazed steel cylinders manufactured without a longitudinal weld.

Under rulemaking HM-220B [61 FR 25940; May 23, 1996], we restructured the cylinder specification requirements by consolidating repetitive requirements and implementing other formatting changes. However, in doing so, the language for a DOT Specification 4B cylinder was inadvertently changed to the way it reads currently. Prior to HM-220B, a longitudinal seam was an option (i.e. not mandatory). However, after HM-220B, a longitudinal seam appears to be mandatory. That was not our intention as indicated by the

requirement in § 178.50(f)(1)(i), and we thank you for bringing this matter to our attention. PHMSA will revise this language in a future rulemaking.

I hope this information is helpful. If you have any more questions, please do not hesitate to contact this office.

Sincerely,

A handwritten signature in black ink, appearing to read "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

Goodall, Shante CTR (PHMSA)

Nickels
178.50
Cylinders
15-00602

From: Ciccarone, Michael CTR (PHMSA)
Sent: Thursday, March 26, 2015 9:27 AM
To: Hazmat Interps
Subject: FW: Interpretation request 49CFR section 178.50
Attachments: DOT Interpretation request 4B longitudinal weld.pdf

Shante/Alice,

Please submit this for a formal letter of interpretation.

Thanks,

Mike

From: David R. Bacca [<mailto:d.bacca@authorizedtesting.com>]
Sent: Wednesday, March 25, 2015 8:02 PM
To: INFOCNTR (PHMSA)
Subject: Interpretation request 49CFR section 178.50

Ahoy Sirs/Madame,

I have attached a letter explaining the interpretation request. We have new cylinder manufacturing clients that are working with the 4B specification and require a clarification to the cylinder specification.

Calm Seas and Fair Winds,

David R. Bacca
Program Manager / Executive Technical Assistant

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

Date March 23, 2015

To: United States Department of Transportation
Pipeline and Hazardous Materials Safety Administration
Attn: PHH-10
East Building, 1200 New Jersey Avenue, SE
Washington, DC 20590-0001

From: Authorized Testing, Inc.
2522 Kansas Ave.
Riverside, CA 92507-2637
Tel: 951-682-4110
Email: d.bacca@authorizedtesting.com

Reference: 49 CFR Section 178.50(a).

As an approved IIA (IA02) company for the manufacture of DOT pressure vessels, I am writing this letter to receive an interpretation on the manufacture and continued use of DOT specification 4B cylinders manufactured without a longitudinal weld as specified in the current 49CFR section 178.50(a). There are new 4B specification cylinders currently being manufactured that do not have a longitudinal weld.

Background;

Somewhere around the time that the 49CFR was streamlined (early 2000 years) to reduce the number of pages, the wording in 178.50 was changed. Previously (approx. 2000) this section 178.50-2(a) read "Type and size. Must be welded or brazed type; Longitudinal seams must be forged lap-welded or brazed;.....". Currently the new requirement of section 178.50(a) reads "Type, size, and service pressure. A DOT 4B is a welded or brazed steel cylinder with longitudinal seams that are".

Conclusion;

We believe the current wording was ill conceived and did not recognize the previously worded requirement did not require a longitudinal weld but rather implied that if you elected to have a longitudinal weld it would be required to meet the referenced weld/brazing criteria. The current written requirement now requires the cylinder to have longitudinal seams that are welded or brazed.

With the current economic move of cylinder manufacturing relocating to foreign facilities outside the U. S. and the auditing of the manufacture and IIA by DOT field investigators prior to the issuing of an approval to manufacture, we had been informed by one of the agents that the current 4B specification requires a longitudinal weld or it would need to be a special permit cylinder if it does not have the longitudinal weld.

Interpretation and Request;

1. To verify if a longitudinal weld is required in the cylinder of the current version of 49CFR 178.50, and,
2. If the longitudinal weld is required, are cylinders that were manufactured under the current 4B specification that did not have the longitudinal weld are acceptable for further use or to be removed from service as not meeting the specification requirements.*

* Request actual date when change to 49CFR section 178.xx took place.

Thank you for your time and consideration.

Sincerely,

David R. Bacca 

David R. Bacca
Authorized Testing, Inc.
Program Mgr. / Exec. Tech. Assist.