



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

March 3, 2021

Mr. Arthur L. Fleener
Fleener Consulting LLC
3741 Mathews Rd.
Ames, IA 50014-9202

Reference No. 20-0033

Dear Mr. Fleener:

This letter is in response to your April 17, 2020, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to MC 331 cargo tanks.

We have paraphrased and answered your questions as follows:

- Q1. You cite a MC 331 cargo tank built in 1971, and ask whether a pad is required for a baffle to be attached to the shell of the cargo tank (the baffle is considered an appurtenance in this example). You also ask when the requirement that a pad is required for an appurtenance became effective.
- A1. Current requirements for the design, construction, and installation of attachments and appurtenances for MC 331 cargo tanks are specified in § 178.337-3(g). These requirements were originally promulgated under the final rule titled “Requirements for Cargo Tanks; Revisions, Response to Petitions for Reconsideration; Final Rule” under Docket Nos. HM-183 and HM-183A [55 FR 37058], and became effective on September 1, 1995 (See § 180.405(b)(1)). If a cargo tank was built before the requirement of a mounting pad became effective, a mounting pad is not required for the attachment of a baffle.
- Q2. You state that an internal visual inspection is conducted on a MC 331 cargo tank manufactured prior to September 1, 1995. The resulting inspection indicates that a baffle attached to the shell of the cargo tank without a mounting pad is cracked. You ask whether the repair requires a pad.
- A2. On June 30, 2004, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), issued a Letter of Interpretation (LOI) under Reference No. 04-0124 explaining that the retrofitting of cargo tanks manufactured prior to September 1, 1995 was not required. The interpretation also stated that “For MC 331 cargo tanks

manufactured prior to September 1, 1995, appurtenances and accessories must be attached to the tank in accordance with the specification in effect at the time of manufacture.” If there were no existing mounting pad requirements at the time the cargo tank was manufactured, the repair would not require a mounting pad.

- Q3. You state that if a mounting pad is required for a repair on a MC 331 cargo tank manufactured prior to September 1, 1995 as referenced in Q2., and there are cracks in three of the four attachments, you ask whether the fourth attachment must be retrofitted with a mounting pad.
- A3. If mounting pad requirements existed at the time a cargo tank was manufactured, and a baffle was attached without the use of a mounting pad, then the cargo tank must be removed from service until appropriate repairs and/or modifications are made, regardless of existing cracks.
- Q4. You ask whether a welded repair of a MC 331 cargo tank must be done in accordance with the specification in effect at the time of the repair or may the repair be performed in accordance with the specification at the time the tank was manufactured?
- A4. MC 331 cargo tanks must be repaired in accordance with the repair procedures described in the Compressed Gas Association’s Technical Bulletin, TB2 and the National Board Inspection Code (NBIC). Each cargo tank having cracks or other defects requiring welded repairs must meet all applicable inspection, test, and heat treatment requirements in § 178.337-16 in effect at the time of the repair (except that postweld heat treatment after minor weld repairs is not required). See § 180.413.

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

Sincerely,



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

From: [Kelley, Shane \(PHMSA\)](#)
To: [January, Ikeya CTR \(PHMSA\)](#); [Dodd, Alice \(PHMSA\)](#)
Cc: [Foster, Glenn \(PHMSA\)](#)
Subject: Fwd: Request for guidance
Date: Friday, April 17, 2020 11:52:41 AM
Attachments: [331_request_for_guidance.pdf](#)

Please process as a letter of clarification. The response with tracking number should be sent to Mr. Fleener by email please.

Thanks all

From: art fleener <fleenerconsulting@yahoo.com>
Sent: Friday, April 17, 2020 11:04:50 AM
To: Foster, Glenn (PHMSA) <Glenn.Foster@dot.gov>; Kelley, Shane (PHMSA) <shane.kelley@dot.gov>
Subject: Request for guidance

Please see the attached document requesting guidance on 4 questions.

Hope you guys are doing well.

If you have any questions please let me know.

Thanks

art

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I would like to request guidance on the following questions as it relates to MC 331 cargo tanks.

1. For a MC 331 specification cargo tank, what is the manufactured date that a pad is required for an appurtenance? Example: A MC 331 cargo tank built in 1971 is it required to have a pad for the baffle to be attached to the shell? The baffle is not a structural support member and is considered an appurtenance.
2. A MC 331 cargo tank manufactured prior to the date when a pad for an appurtenance was required has an internal visual inspection. The inspection shows that the baffle (appurtenance) attachment to the shell without the use of a pad has become cracked, does the repair require a pad to be used?
3. If a pad is required to be used for the repair in example #2 and there are cracks in three out of the four attachments for one particular baffle, must the fourth attachment that does not show any evidence of cracks be retrofitted with a pad for the baffle attachment as well?
4. For a welded repair of a MC 331 must it be done in accordance with the specification in effect at the time of repair? Or are you able to do the repair in accordance with the specification at the time the tank was manufactured?

If you have any questions regarding the above please let me know.

Thank you

Arthur L Fleener