



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

May 9, 2024

Mr. Carl Suhr
Kwik Trip
1626 Oak Street
P.O. Box 2107
La Crosse, WI 54602

Reference No. 24-0012

Dear Mr. Suhr:

This letter is in response to your February 22, 2024, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to cargo tanks. In your email, you reference § 180.411(c)—which lists examples of welds and structural defections requiring cargo tanks be taken out of hazardous materials service until repaired. You note that when discussing this issue with a cargo tank manufacturer, they assert that since “pinhole” is not defined in the HMR they—the cargo tank manufacturer—default to the American Society for Mechanical Engineers (ASME) Code which states that if pinholes are present but do not leak during hydrostatic testing they are acceptable.

We have paraphrased and answered your questions as follows:

- Q1. You ask whether there is a standard for “pinholes” in welds that are part of a cargo tank.
- A1. For a cargo tank, § 180.411(c) states that “any cargo tank with a weld defect such as a crack, *pinhole*, or incomplete fusion, or a structural defect must be taken out of hazardous materials service until repaired.” Although “pinhole” is not defined in the HMR, a manufacturer or cargo tank owner may not choose to revert to the American Society of Mechanical Engineering (ASME) Code for a definition of a pinhole or for guidance. PHMSA asserts that the word “pinhole” as referenced in the HMR is being used to elaborate what a weld defect could be on a cargo tank. The determination of whether a weld defect exists and/or warrants taking a cargo tank out of service under § 180.411(c) would be determined during the inspection processes required under the HMR.
- Q2. You ask whether there is a standard for “pinholes” in welds that attach appurtenances to the barrel of a cargo tank (i.e., pads).

A2. In § 171.8, a cargo tank is defined as “a tank intended primarily for the carriage of liquids or gases and includes *appurtenances*, reinforcements, fittings, and closures.” Therefore, appurtenances are considered as part of the cargo tank and their respective welds are subject to the same requirements for pinholes in § 180.411(c).

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

Sincerely,

A handwritten signature in blue ink, appearing to read 'S. Andrews'.

Steven Andrews
Acting Chief, Regulatory Review and Reinvention Branch
Standards and Rulemaking Division

From: [INFOCNTR \(PHMSA\)](#)
To: [Dodd, Alice \(PHMSA\)](#)
Cc: [Hazmat Interps](#)
Subject: FW: Interpretation Request
Date: Monday, March 4, 2024 4:41:46 PM

24-0012

Hi Alice,

Please see the below interpretation request.

Let me know if you need anything.

Regards,

-Breanna

From: Carl Suhr <CSuhr@kwiktrip.com>
Sent: Thursday, February 22, 2024 11:08 AM
To: INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>
Subject: Interpretation Request

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.

Date: February 22, 2024

RE: Request for Interpretation, 49 CFR 180.411 (c)

I am writing to request an interpretation clarifying the definition of a "pinhole" in the above referenced regulation.

Per the guidance of the regulation all references to welds are confined to welds on the shell and heads of specification cargo tanks, specifically DOT 406.

This has been an ongoing discussion without resolution between our organization and the cargo tank manufacturer.

- Our position is that any pinhole in a weld on the bulk package requires removal from service until a proper repair is made by a certified repair shop.
- The manufacturers position is that because a pinhole is not defined in the regulations, guidance would revert to AWS and ASME code.

To support this position, we were copied on correspondence from a code specialist with HSB (Hartford Steam Boiler). Their stated position was, "If it is not on the pressure boundary, then ASME doesn't care. If it was part of the pressure vessel, then UW-35(b) pertains but that does not speak of pinholes. In general, if a pin hole there and it does not leak during hydro, then it is 'technically' good..."

This statement addresses two weld types that we would appreciate clarification on.

1. What is the proper standard for pinholes in welds that are part of the pressure vessel?

2. What is the proper standard for pinholes in welds that attach appurtenances to the barrel of the cargo tank, i.e. pads?

Thank you,
Carl

Direct: 608-793-6055
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Carl Suhr | Convenience Transportation, LLC | Kwik Trip, Inc. | csuhr@kwiktrip.com

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