



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, D.C. 20590

JUL 31 2014

Mr. Michael Burdett, P.E.
Burdette & Associates, Inc.
P.O. Box 264
Milton, LA 70558
Ref. No.: 14-0030

Dear Mr. Burdette:

This is in response to your letter dated February 17, 2014, requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) relating to the use of a DOT Specification 57 portable tank with a modified fill opening that exceeds 20 square inches. I apologize for the delay in response and hope that it has not caused any inconvenience.

You describe a scenario where the fill opening of a DOT 57 portable tank is modified with an 8-inch diameter Camlock coupling and cap. The 8-inch Camlock coupling has an opening of approximately 50 square inches. You ask if this modification conforms to the requirements of the HMR.

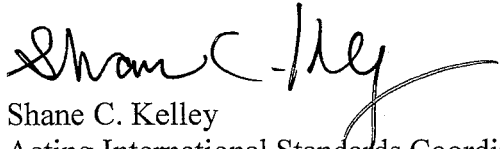
As you pointed out in your letter, the specification for a DOT 57 portable tank included § 187.253-2(a)(1), which stated, "Any closure for a fill opening in excess of 20 square inches must be equipped with a device to prevent the closure from fully opening without first relieving internal pressure." In a final rule published under docket HM-181E (59 FR 38040; July 26, 1994), the manufacture of a DOT 57 portable tank was no longer authorized as of October 1, 1996. Therefore, § 178.253 was removed from the HMR. However, § 173.32(c)(1) provides for the continued use of an existing portable tank conforming to DOT Specification 57 if it was constructed before October 1, 1996.

The described modifications to the portable tank (the fill opening enlarged to greater than 20 square inches and the installation of a Camlock coupling and cap) does not conform to DOT Specification 57 and the portable tank, so equipped is not authorized for continued use under § 173.32(c)(1). A Camlock coupling and cap acts solely as a quick-disconnect device and does not prevent the closure from fully opening without first relieving the pressure within the tank. In order for the portable tank with a fill opening in excess of 20 square inches to be in compliance with DOT Specification 57, the Camlock coupling and cap or the tank itself must be equipped with a device that prevents the closure from fully opening without first relieving internal pressure. A pressure release device such as a petcock installed on the tank, or on the Camlock coupling or cap, would also not conform with DOT Specification 57 unless the installation also prevented the closure from fully opening prior to relieving the pressure within the tank. While the use of a petcock may effectively relieve the internal pressure from the tank it would not prevent the closure from fully opening while the tank is still pressurized.

A safety hazard exists if a person fails to first relieve the pressure in the tank by opening the petcock and opens the Camlock cap while the tank is still pressurized.

I trust this information is helpful. If you have further questions, please do not hesitate to contact this office.

Sincerely,

A handwritten signature in black ink, appearing to read "Shane C. Kelley". The signature is fluid and cursive, with a long horizontal stroke extending to the right from the end of the name.

Shane C. Kelley
Acting International Standards Coordinator
Standards and Rulemaking Division

Burdette & Associates, Inc. P.O. Box 264 Milton, LA 70558
Michael Burdette, P.E. Phone (337) 893-8652 Cell (337) 781-3144

Mr. Charles Betts
Director of Standards & Rulemaking
US DOT
Washington, D.C.

Stevens
§176.340
Portable Tanks
14-0030

Mr. Betts:

I spoke with Mr. Tom Lynch, an investigations agent in the Southwest Regional Hazmat Safety Office in Houston, TX office with my concern regarding a non-compliance issue and he suggested that I get an interpretation from your office before he would be able to initiate an investigation. This issue involves the tanks authorized under 49 CFR 176.340 and are specifically 25 barrel (1050 gallon) containers that are used as drill cuttings boxes to transport drill cuttings from offshore drilling rigs to disposal facilities onshore.

As required by 176.340 these containers are built in accordance with the standards that were set forth for the DOT 57 containers (49 CFR 178.251 /253) which are no longer authorized for construction. The specifications for openings in these containers are detailed in 178.253-2(a)(1) and state, "Any closure for a fill opening in excess of 20 square inches must be equipped with a device that prevents the closure from fully opening without first relieving internal pressure." As an engineer and DOT Authorized Agency for Portable Tanks (IA-9702), I have been asked by numerous equipment manufacturers and owners if they can put an opening greater than 20 square inches on these containers for vacuum assisted transfer of oil well drill cuttings. The closure of choice suggested by these individuals is a "Camlock" Cap which can be viewed at <http://www.camlock-fittings.com/camlock-catalog-1.pdf> These closures are held in place by two locking arms that clamp on a protrusion mounted on the body of the tank. To remove this closure the two arms are lowered and the closure comes off. There is no means of relieving pressure and I have personally seen individuals remove these closures, by mistake, while a vessel is under pressure and the results can be dangerous. Mr. Lynch suggested that an interpretation would have to come from your office, stating that these closures are not in compliance with the stated requirement noted above before he would be able to investigate this issue. Anyone that has worked around these closures knows

they can be unfastened while under pressure but if they are not familiar with them they wouldn't know.

What people are doing is mounting an 8" in diameter, male camlock fitting on the tank and capping it off with a cap. This opening is approximately 50 square inches, over double the 20 square inches referenced in the regulations. The tanks marked as "49 CFR 176.340" are required to have a pressure relief device set at no less than 5 psig. If one of these closures were to be opened on a container with an internal pressure of 4.9 psig the force being released would be on the order of 245 lbf, possibly enough to cause injury.

Could you please review this information and give an interpretation as to whether or not this closure meets the requirement set forth in the CFR?

I can be contacted by email at msbpe@bellsouth.net, by cell phone at 337 781 3144 or you could call me at my office at 337 289 5127.

Thank you for your consideration in this matter and I hope to hear from you soon.

Sincerely,

Michael Burdette, P.E.
Mechanical Engineer

Cc: Tom Lynch – Investigator
Southwest Regional Hazmat Safety Office, Houston, TX

Drakeford, Carolyn (PHMSA)

From: Betts, Charles (PHMSA)
Sent: Monday, February 17, 2014 2:19 PM
To: Drakeford, Carolyn (PHMSA)
Subject: Fw: Letter for interpretation
Attachments: Bettsltr.doc

Carolyn-

Please log and assign to a specialist for response.

Thanks,
Charles

From: Michael Burdette [<mailto:msbpe@bellsouth.net>]
Sent: Monday, February 17, 2014 09:02 AM Eastern Standard Time
To: Betts, Charles (PHMSA)
Cc: Lynch, Tom (PHMSA)
Subject: Fw: Letter for interpretation

How about with an attachment?

Sorry,
Mike

----- Forwarded Message -----

From: Michael Burdette <msbpe@bellsouth.net>
To: "charles.betts@dot.gov" <charles.betts@dot.gov>
Cc: "Tom.Lynch@dot.gov" <Tom.Lynch@dot.gov>
Sent: Monday, February 17, 2014 7:58 AM
Subject: Letter for interpretation

Dear Mr. Betts,

I spoke with Tom Lynch last week with some questions and he suggested I send you a letter requesting an interpretation. Please see the attached letter and see if you can give a read on this. All my contact information is on the letter if you need to contact me.

It looks like I will be making a trip to Washington for a March 17th meeting and if you are there we may be able to meet.

Thank you and have a good day.

Michael Burdette, P.E.

Bureau of Safety and Environmental Enforcement (BSEE)

Workover / Completion Engineer

Burdette & Associates, Inc.

Mechanical Engineer