



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

1200 New Jersey Avenue, SE  
Washington, DC 20590

June 10, 2021

Brian Kidd  
Associate Engineer  
Mid State Tank Co., Inc.  
1357 Jonathan Creek Road  
Sullivan, IL 61951

Reference No. 21-0031

Dear Mr. Kidd:

This letter is in response to your March 9, 2021, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to cargo tanks. Specifically, you ask about the use of Institute of Makers of Explosives Safety Library Publication No. 23 (IME Standard 23) for a non-DOT specification cargo tank transporting “UN3375, Ammonium nitrate gel, 5.1, II.”

We have paraphrased and answered your questions as follows:

- Q1. You ask whether a hazardous material that is classified as an oxidizer qualifies for use under IME Standard 23.
- A1. The answer is yes. Ammonium nitrate emulsions, ammonium nitrate suspensions, or ammonium nitrate gels—classified as a Division 5.1 (Oxidizer) and that are precursor explosives—may be transported under the provisions of IME Standard 23.
- Q2. You ask whether there are any tank design issues that would prevent the non-DOT specification cargo tank described in your email from qualification in accordance with IME Standard 23.
- A2. This Office is unable to establish—within the scope of this request for an interpretation—whether there are any design elements that would preclude the packaging you described from the use of IME Standard 23. This determination should be made by the person certifying the packaging (e.g., design certifying engineer (DCE)) that it is compliant with IME Standard 23.
- Q3. You ask whether the markings required on the nameplate in accordance with the IME Standard 23 may list the maximum allowable working pressure (MAWP) and the maximum design pressure as zero.

- A3. Non-specification bulk packagings are required to be marked with the MAWP as certified by the DCE in accordance with IME Standard 23 section (F)(3)(d). Indicating that the determined MAWP and the maximum design pressure is zero is not specifically prohibited by IME Standard 23 and there may be instances in which marking either as zero is appropriate.
- Q4. You ask which pressure testing procedure is required for the non-DOT specification cargo tank described in your email under IME Standard 23.
- A4. Unless the non-DOT specification cargo tank in question is a sift-proof closed vehicle or a closed bulk bin, hydrostatic or pneumatic testing is required as specified in Appendix B, of IME Standard 23.
- Q5. You ask what additional steps would be required to ensure this non-DOT specification cargo tank conforms to IME Standard 23.
- A5. Non-DOT specification cargo tanks authorized for transport of certain explosives and oxidizers under § 173.66 of the HMR must be qualified, maintained, and repaired in accordance with the provisions set forth in IME Standard 23, specifically, Appendix B. You should consult a DCE—per Section I, Paragraph D of IME Standard 23—for additional conformance requirements.

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

Sincerely,



Dirk Der Kinderen  
Chief, Standards Development Branch  
Standards and Rulemaking Division

**From:** [INFOCNTR \(PHMSA\)](#)  
**To:** [Hazmat Interps](#)  
**Subject:** FW: IME SLP-23 interpretation research  
**Date:** Wednesday, March 24, 2021 2:39:24 PM  
**Attachments:** [SLP-23 Email Drawing.pdf](#)

Casey

21-0031

Hello,

Below and attached is a request for Letter of Interpretation.

Mailing Address:

Mid-State Tank Co., Inc.  
1357 Jonathan Creek Road  
Sullivan, IL 61951  
217-728-8383

Thanks,

Jonathon, HMIC

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**From:** Brian Kidd [mailto:briank@midstatetank.com]  
**Sent:** Tuesday, March 9, 2021 9:23 AM  
**To:** INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>  
**Subject:** IME SLP-23 interpretation research

**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.

Good morning.

We have a customer that ordered and placed into service a non-DOT cargo vessel last year. Unknown to our organization, the customer utilized the vessel for transporting Ammonium nitrate gel (UN3375). The vessel was inspected by Joe Vega (PHMSA investigator, western division) and removed from service due to the lack of proper requirements for the product being transported.

According to our customer, they were informed by Mr. Vega that the unit could possibly qualify for IME SLP-23 provisions. IME SLP-23 is not an area we are familiar with at this time and was encouraged by Mr. Vega to contact the Hazardous Materials Info Center for additional questions and interpretations.

Attached is a copy of the production drawing for the vessel construction.

The original specification use for this non-DOT vessel:  
industrial elliptical single compartment / design pressure 0 psi internal / 0 psi external / test pressure 4 psi max.

Original test procedure conducted:  
- fill vessel 80% +/- capacity with water

- pressurize with air to 3 psi
- check for leaks

From our understanding, this vessel would need to follow retesting procedures by a qualified registered inspector for proper documentation under SLP-23.

Following are the questions we have:

1. Does the product classification of an oxidizer qualify for SLP-23?
2. Are there any tank design issues that would prevent this vessel from SLP-23?
3. Can the data tags required for SLP-23 list the max allowable working pressure and the max design pressure as zero?
4. Which pressure testing procedure would be correct for a non-DOT non-pressure vessel under SLP-23?
5. What additional steps would be required to conform this vessel to meet SLP-23?

If you have any questions, please let me know.

Thank you for your time.

**Brian Kidd**

Associate Engineer

Mid State Tank Co., Inc.

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