



U.S. Department
of Transportation

Pipeline and Hazardous
Materials Safety
Administration

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

OCT 22 2014

Mr. Mark Griffin
Western Sales and Testing of Amarillo, Inc.
114 E. 46th, P.O. Box 2446
Amarillo, TX 79105

Ref. No. 14-0094

Dear Mr. Griffin:

This responds to your May 13, 2014 letter requesting further clarification of the requalification requirements for a seamless steel UN pressure receptacle under § 180.207(d)(1) of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) with respect to guidance offered in letter of interpretation (LOI) Ref. No. 13-0137 issued December 13, 2013. Your questions are paraphrased and answered as follows:

Q1. Based on the PHMSA response in the above-referenced letter that “PHMSA adopted language that required requalification¹ in accordance with ISO 6406 or procedures approved by the Associate Administrator,” is our understanding correct that other test methods (e.g., acoustic emissions) may be used if approved by the Associate Administrator and that the approval should be obtained through the special permit process?

A1. Your understanding is not entirely correct. It is correct that other test methods may be used upon approval. The language you quote from the letter was adopted under a final rule published June 12, 2006 (HM-220E; 71 FR 33870) and was subsequently revised under a final rule published September 14, 2006 (HM-189Z; 54397). The latter rule removed the language allowing alternate procedures under an approval as it was repetitive. We already allowed for alternative test methods or requalification procedures if a prior approval has been obtained from the Associate Administrator (see § 180.207 paragraph (d) introductory text). Further, a UN/ISO pressure receptacle must be requalified in accordance with the relevant ISO standards that are listed in § 180.207. For example, UN/ISO 9809-1, -2, and -3 pressure receptacles (e.g., cylinders) must be requalified in accordance with ISO 6406.

It is incorrect that an approval is obtained through the special permit process. A special permit differs from an approval in that it is a document issued by the Associate Administrator letting you perform a function not otherwise permitted by the HMR; whereas an approval is written authorization to perform a function that requires prior authorization by the Associate Administrator (see § 171.8). The approval process is spelled out in 49 CFR Part 107, Subpart H, and specifically, the application for Part 107

¹ The requalification applies to a UN/ISO pressure receptacle.

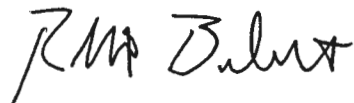
approval is set out in § 107.705. Note that, if you already have a special permit for requalification of DOT specification cylinders using ultrasonic examination (UE) and you are in need of applying ISO 6406 for requalification of UN/ISO 9809-1, -2, and -3 pressure receptacles, then you can submit an application for revision of your UE special permit to include the UN/ISO 9809-1, -2, and -3 cylinders to the office of Special Permits and Approvals.

Q2. With regard to use of the terms UN pressure receptacle, UN cylinder, and UN tube, is our understanding correct that the requirement for UE applies only to UN cylinders with a tensile strength ≥ 950 MPa and does not apply to UN tubes; and that actually all of § 180.207(d)(1) applies only to UN cylinders because ISO 6406 is limited in scope to UN cylinders with a water capacity not exceeding 150 L?

A2. Again, your understanding is not entirely correct. It is correct that the UN cylinders with a tensile strength ≥ 950 MPa must be requalified by UE described in ISO 6406. The UN cylinders with a tensile strength < 950 MPa may be requalified by hydrostatic testing or UE described in ISO 6406. However, it is not correct that the § 180.207(d)(1) general requirement for requalification using ISO 6406 applies only to UN cylinders. We refer you to LOI Ref. No. 13-0146 issued January 16, 2014, which states, “while ISO 6406 does not specifically address requalification of UN tubes, all of the elements associated with the periodic requalification of seamless steel UN tubes are addressed and would allow a proper requalification of a UN tube” and further states, “[w]e are aware that the current ISO 6406 has a limitation of 150 liters, which is substantially less than the maximum volume of a UN refillable seamless steel tube (3,000 liters)...[u]ntil we adopt a revised standard that specifically addresses the requalification of UN refillable seamless steel tubes, the currently adopted ISO 6406 may be used to requalify UN refillable seamless steel tubes (with a [water] capacity greater than 150 liters). A copy of the LOI Ref. No. 13-0146 is enclosed for your review.

I hope this information is helpful. If you have further questions, please contact this office.

Sincerely,



Robert Benedict
Chief, Standards Development Branch
Standards and Rulemaking Division

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§180.207(d)(1)
Cylinders
14-0094



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May 13, 2014

U.S. DOT
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U.S. Department of Transportation
Attn: PHH-10
1200 New Jersey Avenue, SE
Washington, D.C. 20590-0001

Ref No. 13-0137

Dear Mr. Benedict,

Regarding the PHMSA response of December 13, 2013, (Ref. No. 13-0137), to our request for clarification of section 180.207 (d) (1) of CFR49, we submit the following request for further amplification.

PHMSA response states, "PHMSA adopted language that required requalification in accordance with ISO 6406 or procedures approved by the Associate Administrator."

- Are we correct in inferring that this statement means that other test methods, (i.e., Acoustic Emission/UT combination), may be utilized if approved by the Associate Administrator, and that the approval should be sought through the Special Permit process?

Additionally, we seek clarification on the specific wording of §180.207 (d) (1). We are specifically interested in the following sentence.

- "However, UN cylinders with a tensile strength greater than or equal to 950 MPa must be requalified by ultrasonic examination in accordance with ISO 6406."

§171.8 of CFR49, provides definitions for UN cylinders, UN pressure receptacles, and UN tubes as follows.

- "UN cylinder means a transportable pressure receptacle with a water capacity not exceeding 150L that has been marked and certified as conforming to the applicable requirements in part 178 of this subchapter."

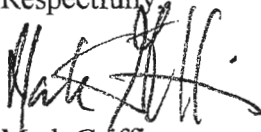
- “UN pressure receptacle means a UN cylinder or tube.”
- “UN tube means a seamless transportable pressure receptacle with water capacity exceeding 150L but not more than 3,000L that has been marked and certified as conforming to the requirements in part 178 of this subchapter.”

§180.207 (d) (1) states, “Seamless steel: Each seamless steel UN pressure receptacle, including MEGC's pressure receptacles, must be requalified in accordance with ISO 6406 (IBR, *see* §171.7 of this subchapter). However, UN cylinders with a tensile strength greater than or equal to 950 MPa must be requalified by ultrasonic examination in accordance with ISO 6406.”

Based upon the incorporated definitions, and the fact that ISO 6406-2005 is specifically limited in scope to cylinders of water capacity from 0.5L up to 150L are we,

- Correct in our conclusion that the requirement for ultrasonic examination applies only to UN **cylinders** with a tensile strength \geq 950 MPa and does not apply to UN **tubes** of water capacity greater than 150L but less than 3,000L?
- Further, since ISO 6406-2005 is limited in scope to cylinders of water capacity less than 150L, are we correct in concluding that ISO 6406-2005 is in fact not applicable to the requalification of pressure receptacles of water capacity greater than 150L, but less than 3,000L as far as §180.207 (d) regulatory requirements are concerned and/or interpreted?

Respectfully,



Mark Griffin
Executive Vice President
Western Sales and Testing of Amarillo, Inc.