



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

1200 New Jersey Avenue, SE  
Washington, DC 20590

January 19, 2022

Carlos Graca  
Hydro-Test Products, Inc.  
85 Hudson Road  
Stow, MA 01775

Reference No. 21-0100

Dear Mr. Graca:

This letter is in response to your October 27, 2021, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to recordkeeping requirements for specification cylinders. You state that the current regulations in § 180.215 and the changes made by the HM-234 final rule [85 FR 85380; 12/28/2020] outline informational requirements for the pressure test and test system verification, yet the information required to be recorded appears to be geared towards volumetric expansion testing. As an example, you note that for a proof pressure test, there are no expansion values available to be recorded. Therefore, you seek clarification regarding the necessary information that is required on a record for a proof pressure test.

We have paraphrased and answered your questions as follows:

- Q1. You ask what information is required to be recorded for both the test system verification and the performance of a proof pressure test.
- A1. Because a proof pressure test does not provide expansion values when verifying system accuracy or testing a cylinder, a person does not need to provide the information for “elastic and permanent expansions” or the “percent permanent expansion.” Absent the expansion related data points, a person is still required to provide the remaining information outlined in § 180.215(b) as part of the daily test verification and actual test record. Moreover, CGA C-1 provides instruction associated with the proof pressure test for accuracy verification of a test system for both liquid and gas-based systems and notes a record of the verification must be made (see section 7.3 of CGA C-1). This relates back to the requalification record maintenance of § 180.215(b).
- Q2. With respect to recordkeeping, you ask whether it is appropriate for PHMSA to reference a publication (e.g., CGA C-1) that does not offer any guidance on recordkeeping procedures for a proof pressure test or the accuracy verification of the test system.
- A2. PHMSA disagrees with the characterization of the requalification requirements as inappropriate. The cylinder reporting and record retention requirements are found in

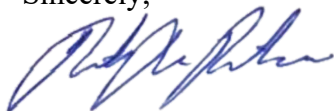
§ 180.215 and outline the data points to be included in the record. CGA C-1 supplements the reporting requirements for requalification of cylinders by providing instruction on how to properly verify test system accuracy and performing a test for requalification such that accurate information can be recorded. As provided in answer “A1,” a person performing a proof pressure test is required to record all relevant information with the exception of expansion method data points.

- Q3. You ask whether the new requirement to provide the manufacturing date and the gas service information is applicable for the proof pressure test.
- A3. The answer is yes. As explained in the preamble of the HM-234 final rule, this information is useful for determining the eligibility of a cylinder for different requalification methods—for example—the proof pressure test in § 180.209(e) is only an option for cylinders filled with non-corrosive gas that is commercially free from corroding components. Thus, providing this information is relevant whether performing a requalification test by expansion method or by proof pressure method.
- Q4. You ask whether a facility that has been approved and issued a requalifier identification number would be in violation of the HMR if the facility used the sample forms as provided in the CGA C-1 as is.
- A4. The forms provided in the Appendices of the CGA C-1 pamphlet are sample forms provided to show how relevant information for cylinder requalification can be presented. Should a person choose to record data using the format of the sample forms, any missing information required by § 180.215(b) would need to be supplemented on the form or omitted as applicable.

Finally, please note that although the CGA C-1 provides sample forms for a person to utilize, these forms are not specifically required forms that must be used. A person may create a record using a format that best suits their individual needs provided all relevant data points are documented.

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

Baker

21-0100

**From:** [Patrick, Eamonn \(PHMSA\)](#)  
**To:** [Dodd, Alice \(PHMSA\)](#)  
**Subject:** FW: Recording Requirements  
**Date:** Tuesday, November 9, 2021 11:28:01 AM  
**Attachments:** [Interpretation letter.pdf](#)

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**From:** Carlos Graca <Carlos@hydro-test.com>  
**Sent:** Wednesday, October 27, 2021 2:34 PM  
**To:** Patrick, Eamonn (PHMSA) <eamonn.patrick@dot.gov>; Hazmat Interps <hazmatinterps@dot.gov>  
**Subject:** Recording Requirements

**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.

Dear Patrick,

Attached is a request for clarification and interpretation concerning the recording requirements under CFR49, section 180.215. I would very much appreciate an expedited reply. Please contact the undersigned with any questions. Thank you and I look forward to hearing back from PHMSA.

Best regards,

*Carlos Graca*  
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Standards and Rulemaking Division  
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**Re: Test record forms**

Hydro-Test Products is a leading manufacturer of cylinder re-qualification equipment and offers required training on same.

I am requesting answers or interpretations on CFR49 section 180.215, record keeping requirements. The current regulations as well as the "new" regulations going into effect this December details what information is required on the pressure test record and test system verification forms. However, the details are strictly for volumetric testing. There is no mention of what is required when performing a proof test. Where a proof pressure test is allowed under sections 180.209(j) and 180.209(e) much of the information required under 180.215 is not applicable or available. For example, a proof test does not utilize a water jacket and therefore no expansion values are available. When verifying system accuracy, it is impossible to utilize a calibrated cylinder and measure expansion values, yet 180.215 requires these values to be recorded. **Questions are as follows:**

- 1) What information is required to be recorded for both verification and actual testing of a cylinder under a proof test?
- 2) The sections 180.209(j) and (e) both state that the proof pressure test be performed in accordance with the CGA C-1 pamphlet. However, the CGA C-1 pamphlet does not detail what is required to be recorded when performing a proof test or the verification of a proof test system. Is it appropriate for PHMSA to reference a publication that does not offer any guidance on recording procedure of a proof test, yet reference that pamphlet for the same?
- 3) The new regulations require that the manufacturing date and gas service be recorded. Is this new requirement applicable on a proof test? Again, this is unclear because there is no guidance in the C-1.
- 4) The sample volumetric test record form and verification form in the CGA C-1 do not have all of the information as required under CFR49 section 180.215. Would a licensed re-qualification facility be in violation if the facility uses the form as depicted in the referenced and required CGA C-1 pamphlet?

Hydro-Test has expended many hours and funds in trying to meet these new regulations for its equipment and training modules. Since these regulations are going into effect soon, I would ask that PHMSA please prioritize this request and offer detailed answers to the above questions.

Sincerely,

**Carlos Graca**

**Cylinder Re-Qualification Training Manager**

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