



U.S. Department  
of Transportation  
**Pipeline and Hazardous  
Materials Safety  
Administration**

1200 New Jersey Avenue, SE  
Washington, DC 20590

September 14, 2021

Mr. Robert L. Beck  
10898 Osceola Mills Street  
Las Vegas, NV 89141

Reference No. 21-0066

Dear Mr. Beck:

This letter is in response to your June 17, 2021, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to test system component calibration requirements in Compressed Gas Association (CGA) Pamphlet C-1, "Methods for Pressure Testing Compressed Gas Cylinders."

We have paraphrased and answered your questions as follows:

- Q1. You ask whether the master gauge in the computer system must be of the same or greater accuracy as the pressure indicating device (PID).
- A1. The answer is yes. CGA C-1 states that a master gauge is a PID that is used as a calibration standard and has an accuracy grade equal to or better than the requirement for the PID to be checked.
- Q2. You ask whether the scale used as an expansion indicating device (EID) requires daily verification.
- A2. The answer is yes. CGA C-1 states that the verification of the accuracy of these devices shall be accomplished daily in conjunction with the total test system verification.
- Q3. You ask whether the weights for the EID require annual recalibration.
- A3. The answer is no. CGA C-1 does not specify whether the weights for the EID system recalibration require annual recalibration; however, it states that recertification may be performed by the cylinder manufacturer or the requalification facility following the device manufacturer's guidelines for recalibration.

Q4. You ask whether the verification of the EID must be documented.

A4. CGA-1 does not contain specific recordkeeping requirements for EID recalibration. However, please note that the daily accuracy verification of the requalification system must be documented each day requalifications are performed in accordance with § 180.215(b)(1). Separately, each requalifier must retain the most recent certificate of calibration for the EID, in accordance with § 180.215(b)(4).

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

Sincerely,

A handwritten signature in blue ink, reading "T. Glenn Foster". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

T. Glenn Foster  
Chief, Regulatory Review and Reinvention Branch  
Standards and Rulemaking Division

**From:** [Foster, Glenn \(PHMSA\)](#)  
**To:** [Dodd, Alice \(PHMSA\)](#); [Hillman, Kenetha CTR \(PHMSA\)](#)  
**Subject:** FW: Interpretation  
**Date:** Thursday, June 17, 2021 7:57:20 AM

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Alice and Kenetha,

Please have the below checked in as a LOI and assigned to the next Specialist in the rotation.

Thanks,  
Glenn

-----Original Message-----

From: ROBERT BECK <beck415@msn.com>  
Sent: Thursday, June 17, 2021 7:44 AM  
To: Foster, Glenn (PHMSA) <Glenn.Foster@dot.gov>  
Subject: Interpretation

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.

Hi Glenn,

I would like a written response to the following:

In CGA C-1 referring to the master gage, it is stated that the master gage shall be of equal or better percent accuracy than the pid. For an analog gage it's quite simple. However, the pressure transducers in the computer hydro test stations are typically  $\pm 0.1\%$ . So my question is does the master gage in the computer system need to be the same or greater accuracy?

In the section for the eid (expansion indicating device) does the scale require verification daily, do the weights need to be calibrated annually and does the verification need to be documented?

Answers to these above will remove any ambiguity. Thanking you in advance.

Best regards,

Bob Beck  
(702) 757-5143

Sent from my iPhone