U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

FEB -3 2006

Mr. John Anderson
Director of DOT Operations
Airgas, Inc.
PO Box 20067
Cheyenne, WY 82003

Ref. No.: 05-0287

Dear Mr. Anderson:

This is in response to your letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) regarding verification of cylinder testing equipment to within ±1.0% of the calibrated cylinder's pressure and corresponding expansion values. Specifically, you ask if § 180.205(g)(4) requires a retester to demonstrate calibration for more than one test jacket if multiple test jackets are used to test cylinders that day.

In accordance with § 180.205(g)(4), the test equipment must be verified to be accurate within ±1.0% of the calibrated cylinder's pressure and corresponding expansion values. The retester achieves verification by demonstrating calibration of the test equipment used to retest cylinders that day. An authorized inspector may request a demonstration of any or all test equipment used to test cylinders. Any configuration of test jacket and test heads used to retest cylinders that day is subject to demonstration at the inspector's request. Therefore, even if you demonstrate calibration with one test jacket, at the discretion of the authorized inspector, you may be required to demonstrate that additional testing equipment used to test cylinders that day is properly calibrated.

I hope this information is helpful. Please contact us if you require additional assistance.

Sincerely,

John A. Gale
Chief, Standards Development
Office of Hazardous Materials Standards

050287

180.205(g)(5)

Airgas

Supko
§180.205(g)(5)
Testing Cylinders
05-0287

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November 14, 2005

John Heneghan
US DOT / PHMSA
233 Peachtree Street NE, Suite 602
Atlanta, GA 30303

Dear Mr. Heneghan:

Per our conversation today, Airgas Inc. request an interpretation on 49 CFR 180.205(g)(4) which states "The test equipment must be verified to be accurate within +/- 1.0% of the calibrated cylinder's pressure and corresponding expansion values". Our question is based upon our pending Ticket for Noncompliance 05T-0414-CR-SO.

The facility that was cited operates a double jacket computerized hydrotesting system. They accurately calibrated to 3,000 and 4,000 psi in both jackets (jacket 1 and jacket 2) at the beginning of the shift (approximately 6 AM) before testing began. When asked to demonstrate calibration at approximately 10:30 AM for the PHMSA inspector, we were able to demonstrate calibration in jacket 1 to 3000 and 4000 within the 1.0% tolerance. In jacket 2 we demonstrated calibration within 1.0% tolerance at 3,000 but at 4,000 our tolerance was slightly over 1.0% (1.013%) which resulted in the above Ticket for Noncompliance.

Please note that the system will not calculate the expansion value to 1.013%, instead the system rounds the value up. Example, at 4000 psi this calibration cylinder expansion value is 85.4 grams. + 1% of this value is 86.254, which is impossible to read on this system when in the "test mode". If the reading is 86.254, it will round to 86.5 (the value that resulted in the Ticket for Noncompliance) which is 1.013% of 85.4. In all calibration attempts the calibrated cylinder returned to zero.

Our question is that since 49 CFR 180.205(g)(4) does not state you must show calibration in both jackets, why would we be cited or be required to demonstrate calibration in both jackets? Also since a jacket consists of the jacket and test head, are we required to demonstrate calibration with both jackets and both test heads?

Airgas operates over 20 hydrotesting locations in the United States. Our goal is to operate all locations in full compliance, but we request clarification on this issue. We have successfully passed RSPA and PHMSA hydrotesting audits and this is the first time we have been required to demonstrate calibration in both test jackets.

Airgas also requests that the Ticket for Noncompliance be reconsidered. Since our calibration value was 1.013% of the target value, if this location was using a burette system instead of a computerized weigh bowl this small variance could not be measured or detected.

Thank you for your assistance in obtaining a letter of interpretation on this subject. Thank you also for considering our request.

John Anderson

Director of DOT Operations
Airgas, Inc.

Drakeford, Carolyn <PHMSA>

From: Heneghan, John <PHMSA>
Sent: Tuesday, November 15, 2005 1:27 PM
To: Gorsky, Susan <PHMSA>; Drakeford, Carolyn <PHMSA>
Subject: RE: Airgas - Letter of Interpretation Requested.

Supko
§180.205(g)(5)
Testing Cylinders
05-0287

Thanks Susan & Carolyn.

Please forward the information below since it may clarify the facts for the person making the decision.

Take Care,

John

Since I was the lead investigator on this ticket, I can give a little more insight into why this stands as a violation. The company has two separate water jackets to hydro test cylinders. The day of the inspection, the company had already tested about 20 cylinders between the two jackets. During the course of the inspection, the company decided to show me calibration on Jacket# 2, which they could not achieve for 4,000 psi. Two cylinders had been tested at 3,700 psi that day on Jacket #2, which puts them in violation of not being able to calibrate in the presence of a DOT inspector. Thereafter the company tried numerous times, and could not achieve calibration on Jacket #2. At the conclusion of the inspection, they were able to show me that they could calibrate on Jacket #1, which is of no consequence considering the cylinders in question were tested on Jacket #2.

Although 49 CFR 180.205(g)(4) does not state that calibration must be performed on multiple jackets, I believe logically the regulation does incorporate that any cylinder tested in any jacket must be able to show calibration on that system or jacket within +/- 1%. The main issue at hand here is that the calibrated cylinder was not calibrated within +/- 1% during a compliance inspection in a jacket where cylinders had been tested prior to the inspection. As John has already indicated we would please like your attention on this matter as soon as possible considering this is an open enforcement item. Thanks.

Jason

From: Gorsky, Susan <PHMSA>
Sent: Tuesday, November 15, 2005 1:19 PM
To: Drakeford, Carolyn <PHMSA>
Cc: Mitchell, Hattie <PHMSA>; Mazzullo, Ed <PHMSA>; Smith, Doug S. <PHMSA>; LaMagdelaine, Ray <PHMSA>; Heneghan, John <PHMSA>
Subject: FW: Airgas - Letter of Interpretation Requested.

Carolyn,

Please enter the attached letter from Airgas into the interp data base and let the specialist handling it know that it is part of a pending enforcement action, and we would like to send a response as soon as possible. Thanks.

Susan

From: Heneghan, John <PHMSA>
Sent: Tue 11/15/2005 9:50 AM
To: Mazzullo, Ed <PHMSA>; Gorsky, Susan <PHMSA>; Gale, John <PHMSA>; Mitchell, Hattie <PHMSA>
Cc: Smith, Doug S. <PHMSA>; LaMagdelaine, Ray <PHMSA>; Williams, Jason <PHMSA>

Subject: Airgas - Letter of Interpretation Requested.

Ed / Susan,

Since there is an open enforcement issue regarding this matter, it would be appreciated that this be handled in a timely manner.

Thanks.

John

From: John Anderson (SAFECOR) [mailto:John.Anderson@Airgas.com]
Sent: Monday, November 14, 2005 10:59 PM
To: Heneghan, John <PHMSA>
Subject: Airgas South Ticket for Noncompliance

Good evening,

Thank you for helping with the interpretation on this issue. Please confirm that you received this email and the attachment.

Thank you for placing this citation on hold until we hear a response. If I can answer any questions, please let me know. I travel a lot, but normally have access to email every evening.

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