



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

DEC 19 2019

Peter Gayon
Manufacturing Engineer
Johnson Controls
One Stanton Street
Marinette, WI 54143

Reference No. 19-0120

Dear Mr. Gayon:

This letter is in response to your October 10, 2019, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to leakage tests performed on DOT 3A cylinders. Specifically, you ask whether it is permissible to use cameras to detect and closely examine for indications of leakage as required by § 178.36(m)(1).

The answer is yes. Section 178.36(m) specifies that all spun cylinders and plugged cylinders must be tested for leakage by gas or air pressure. A video camera may be used to perform the required examination provided that all areas can be viewed in a manner equivalent to that which would be expected if viewed directly by a person.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Dirk Der Kinderen".

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

Casey
19-0/20

Dodd, Alice (PHMSA)

From: INFOCNTR (PHMSA)
Sent: Thursday, October 10, 2019 4:43 PM
To: Hazmat Interps
Subject: FW: 178.36.m.1 Leakage Test

Hello Alice and Ikeya,

Please see below for letter of interpretation request. The requester spoke with me in the HMIC. Breanna and I both looked through all available guidance we could find and were unable to find anything that would address this question so Peter decided to write in for a LOI.

Please contact our office with any questions.

Thank you,
Kathryn, HMIC

From: Peter Brian Gayon [mailto:peter.gayon@jci.com]
Sent: Thursday, October 10, 2019 11:35 AM
To: INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>
Subject: 178.36.m.1 Leakage Test

Good Morning,

178.36.m.1

(1) Pressure, approximately the same as but no less than service pressure, must be applied to one side of the finished bottom over an area of at least $\frac{1}{16}$ of the total area of the bottom but not less than $\frac{3}{4}$ inch in diameter, including the closure, for at least 1 minute, during which time the other side of the bottom exposed to pressure must be covered with water and closely examined for indications of leakage. Except as provided in paragraph (n) of this section, a cylinder that is leaking must be rejected.

Interpretation and compliance question,

Traditionally our process consists of a person physically observing for bubbles and has been concerning as far as safety of the employee. With technology on our side we can now use cameras to detect and closely examine for indications of bubbles and leakage. This is much more reliable than a person and removes human errors.

Question; although methodology of examination is not called out in the standard, will this method meet compliance?

Peter Gayon
Manufacturing Engineer
Building Technologies and Solutions
Johnson Controls

+1 715 735 7411 ext 84106
peter.gayon@jci.com

Johnson Controls
One Stanton Street
Marinette, WI 54143

USA

THIS MESSAGE MAY CONTAIN INFORMATION THAT IS PRIVILEGED AND CONFIDENTIAL. The information contained in, or attached to, this message is intended solely for the use of the specific person(s) named above. If you are not the intended recipient then you have received this communication in error and are prohibited from review, retransmission, taking any action in reliance upon, sharing the content of, disseminating or copying this message and any of the attachments in any way. If you have received this communication in error, please contact the sender immediately and promptly delete this message from all types of media and devices. Thank you