U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

July 9, 2024

Heather Morton
Precision Impacts
721 Richard Street
Miamisburg, OH 45342

Reference No. 24-0014

Dear Ms. Morton:

This letter is in response to your March 5, 2024, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to cylinders manufactured to International Organization for Standardization (ISO) requirements incorporated by reference (IBR) into the HMR. Specifically, you are seeking clarification and guidance regarding the "refilling" and reporting requirements of non-refillable cylinders manufactured in accordance with ISO 11118, Gas cylinders—Non-refillable metallic gas cylinders—Specification and test methods. You note the discovery of leaking valves after filling and plan to replace the defective valves and refill the cylinders.

We have paraphrased and answered your questions as follows:

Q1. You ask whether the "refilling" of cylinders manufactured to ISO 11118 standards is permissible for cylinders that have not left the manufacturing process control system.

A1. It is the opinion of this Office that cylinders that have not left the manufacturing process control system (i.e., cylinders that have not been placed into transportation for shipment to consumers) may be refilled.

Q2. You ask whether there are any provisions or exceptions within ISO 11118 or the HMR that would permit the "refilling" of these cylinders under specific circumstances if it is known that the cylinder, after production, leaked from a defective internal valve component.

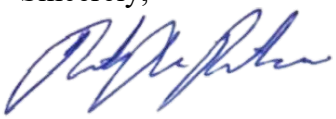
A2. Please see answer A1.

Q3. You ask whether there are any requirements to document, label, and or report an activity related to an ISO 11118 cylinder that is retested and refilled.

A3. Section 13 of ISO 11118, which is titled "Test Reports and Certificate of Compliance," mandates that each batch of non-refillable cylinders, including their sealing devices, must be certified. It also requires that the cylinders conform to all ISO 11118 requirements and the test reports need to summarize all testing that has been performed. Consequently, should a cylinder be found to be leaking, the manufacturer has the option to release its contents, remove and replace the valve, and then refill and retest the cylinder. Additionally, though not explicitly required, if a leakage is discovered during testing, PHMSA recommends that the manufacturer document the actions taken for the repair and retesting of the cylinder in the test report.

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

24-0014

From: INFOCNTR (PHMSA)
To: Dodd, Alice (PHMSA)
Cc: Hazmat Interps
Subject: FW: Letter of Interpretation for ISO11118
Date: Wednesday, March 6, 2024 3:26:09 PM

Hi Alice,

Please see the below interpretation request.

Let me know if you need anything.

Regards,

-Breanna

From: Heather Morton <heather.morton@precisionimpacts.com>
Sent: Tuesday, March 5, 2024 10:37 AM
To: INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>
Cc: Kaltenegger, Jorg (PHMSA) <jorg.kaltenegger@dot.gov>
Subject: Letter of Interpretation for ISO11118

I trust this message finds you well. I am reaching out to request a Letter of Interpretation from the Department of Transportation concerning the permissibility and protocols surrounding the treatment of cylinders by the manufacturer (specifically as it relates to re-fillability of those cylinders if they have not left the control of the manufacturing system). The cylinders in question were manufactured in accordance with ISO 11118 standards.
Our organization seeks clarity regarding the following aspects of ISO 11118:
Definition and Scope: Clarification on the scope of the standard's applicability concerning the refilling of such cylinders if they have not left control of the manufacturers system.
Regulatory Compliance: Guidance on whether there are any provisions within ISO 11118 or associated regulations that permit the refilling ISO 11118 cylinders under specific circumstances. For example, may the original cylinder manufacturer refill ISO 11118 cylinders after production, if it was determined that the cylinders were leaking from a defective, internal valve component? Note that the cylinder vessel is not defective. Following replacement of the defective valve component, the cylinder would repeat the requirements of proof pressure test, pressure test under water and visual as defined in section 11 of ISO 11118.
Documentation and Reporting: Requirements for documentation, labeling, and reporting procedures pertaining to this potential activity, including any obligations to notify regulatory authorities or obtain approvals prior to undertaking such activities.
Given the critical importance of regulatory compliance and safety within our operations, we are committed to seeking expert guidance and adhering to the relevant standards and best practices. Your assistance in providing a comprehensive interpretation of ISO 11118 in

relation to this type of component replacement and refilling activity would be very helpful to our compliance efforts.
We kindly request that the Letter of Interpretation address the aforementioned points in detail, offering clear guidance and recommendations to assist our organization in navigating the regulatory landscape effectively.
Thank you for your attention to this matter. We look forward to receiving your response and remain available to provide any additional information or clarification that may be required.

Heather Morton

Director of Engineering and Quality

Main: 937.530.8250 x1006
heather.morton@precisionimpacts.com
www.precisionimpacts.com
Precision Impacts