



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

January 21, 2026

Heather Morton
Director – Planning and Logistics
Precision Impacts
721 Richard Street
Miamisburg, OH 45342

Reference No. 25-0100

Dear Ms. Morton:

This letter is in response to your July 16, 2025 email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to packaging testing, witnessing, and verification. Specifically, you ask whether recordings of testing satisfy witnessing requirements?

We have paraphrased and answered your questions as follows:

- Q1. Can the use of camera systems or structured data collection submitted to an Independent Inspection Agency (IIA) satisfy the witnessing obligations of §§ 178.35 and 178.70 under International Organization for Standardization (ISO) and Department of Transportation (DOT) specifications?
- A1. No. The testing must be witnessed by the IIA at the time of testing, physically present at the location of testing. Submitting recorded material would not satisfy the requirements of the HMR for IIA witnessing and test verification.
- Q2. If these systems are allowable, what protocols or controls would need to be in place to ensure such technology-supported submission maintains the standard of objectivity, traceability, and technical rigor required by the standards?

A2. See A1.

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

Sincerely,

A handwritten signature in blue ink that reads "Alexander Wolcott". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

Alexander Wolcott
Acting Chief, Regulatory Review and Reinvention Branch
Standards and Rulemaking Division

From: [INFOCNTR \(PHMSA\)](#)
To: [Baker, Yul \(PHMSA\)](#)
Cc: [Hazmat Interps](#)
Subject: FW: Request for Interpretation Regarding Remote Witnessing and Verification under ISO 11118 and 49 CFR 178.71
Date: Wednesday, July 16, 2025 12:16:55

Hi Yul,

Please see the below interpretation request.

Let us know if you need anything,

-Breanna

From: Heather Morton <heather.morton@precisionimpacts.com>
Sent: Wednesday, July 16, 2025 8:48 AM
To: INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>
Cc: Pascal, Irwin (PHMSA) <irwin.pascal@dot.gov>; Kaltenegger, Jorg (PHMSA) <jorg.kaltenegger@dot.gov>
Subject: Request for Interpretation Regarding Remote Witnessing and Verification under ISO 11118 and 49 CFR 178.71

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 Sir or Madam,

On behalf of Precision Impacts LLC, I respectfully request an interpretation from the Pipeline and Hazardous Materials Safety Administration (PHMSA) regarding the use of modern technology to fulfill and support third-party witnessing and verification responsibilities under ISO and DOT specifications, which are incorporated by reference in Title 49 of the Code of Federal Regulations.

Specifically, we seek clarification on whether data collection systems or camera-based technologies may be used to capture the required inspection, witnessing and verification information, which would then be submitted to the certified Independent Inspection Agency (IIA) for review and issuance of the third-party verification report.

Our intention is not to replace the role of the IIA, but rather to facilitate their evaluation through secure, transparent, and accurate technological means, while still ensuring full compliance with ISO and DOT provisions. The goal is to maintain the integrity, impartiality, and safety assurance functions expected of the IIA process while leveraging advancements in data recording and digital transmission to streamline the workflow.

Regulatory Distinction: Witnessing vs. Verification We understand that DOT regulations make an intentional distinction between “verification” and “witnessing,” as demonstrated in 49 CFR § 178.71(c)(3):

“The production IIA must witness the required inspections and verifications on the pressure receptacles during the production run.”

This requirement implies an on-site, real-time presence. By contrast, the terms “verification” and “conformity assessment” found in ISO 11118 and DOT-39 (49 CFR § 178.65) focus on the validation of data and inspection results but do not explicitly require the IIA to be physically present. These specifications emphasize outcome-based safety performance, leaving room for modern, technology-based data review methods.

Specific Examples and Proposed Alternatives

We respectfully propose two use cases where technology could meet or exceed the intent of current witnessing requirements, enhancing traceability and quality assurance:

1. Pressure Test Witnessing

CFR Reference: 49 CFR § 178.71(p)(2)(i)

“The IIA must witness the complete pressure test on each cylinder.”

Proposed Method: High-resolution video and digitally instrumented pressure testing equipment can capture each cylinder test, with time stamps and data logged. These recordings would be submitted to the IIA for review and certification. The system allows precise traceability, removes observational ambiguity, and creates a permanent digital audit trail.

2. Mechanical Properties Test Witnessing

CFR Reference: 49 CFR § 178.71(o)(2)

“The IIA must witness all mechanical tests, including tensile, yield, elongation, and impact tests.”

Proposed Method: Tensile and impact test machines can be paired with high-speed video and data capture systems to record test forces, elongation, failure points, and conditions in real time. This footage, tagged to test samples, can be securely submitted to the IIA for compliance review, mirroring the level of assurance provided by in-person observation.

Comparative Regulatory Framework

Regulation	Mention "Witness"	Physical Presence Required	Technological Flexibility
49 CFR § 178.71	Yes	Implied	No explicit allowance
49 CFR § 178.65 (DOT-39)	No	Not Stated	More flexible
ISO 11118:2015/2025	No	Not Stated	Yes

This table illustrates that, unlike 49 CFR § 178.71, neither ISO 11118 nor DOT-39 explicitly require physical witnessing, suggesting that digital submissions could be a reasonable alternative when properly secured and audited.

Request for Interpretation

We respectfully seek PHMSA’s interpretation on the following:

1. Whether the use of camera systems or structured data collection submitted to an IIA on-site, would satisfy the witnessing obligations of the third-party verification

requirements under ISO and DOT specifications.

2. If allowable, what protocols or controls would need to be in place to ensure such technology-supported submission maintains the standard of objectivity, traceability, and technical rigor required by the standard.

We appreciate your consideration of this request and look forward to your guidance on how such a use of technology may be integrated within the existing regulatory framework while upholding public safety and regulatory compliance.

Thank you for your time and consideration.

Heather Morton

Director – Planning and Logistics

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