

**NUCLEAR REGULATORY COMMISSION**

**10 CFR Part 34**

**[Docket No. PRM-34-6; NRC-2017-0022; NRC-2008-0173]**

**Industrial Radiographic Operations and Training**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Response to comments; discontinuation of rulemaking and denial of petition for rulemaking.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is responding to public comments on an interpretation of its requirements for industrial radiographic operations and Agreement State Compatibility Category change for these requirements published in the *Federal Register* on June 1, 2021. As a result of these actions, the NRC is discontinuing a planned rulemaking activity and is denying an associated petition for rulemaking, PRM-34-6.

**DATES:** The docket for the planned rulemaking activity is closed on **[INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

**ADDRESSES:** Please refer to Docket ID NRC-2017-0022 when contacting the NRC about the availability of information for this action. You may obtain publicly-available information related to this action by any of the following methods:

- **Federal Rulemaking Website:** Go to <https://www.regulations.gov> and search for Docket ID NRC-2017-0022. Address questions about NRC dockets to Dawn Forder; telephone: 301-415-3407; email: [Dawn.Forder@nrc.gov](mailto:Dawn.Forder@nrc.gov). For technical questions, contact the individual listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly-available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, at 301-415-4737, or by email to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov). The ADAMS accession number for each document referenced (if it is available in ADAMS) is provided the first time that it is mentioned in the SUPPLEMENTARY INFORMATION section.

- **NRC's PDR:** You may examine and purchase copies of public documents, by appointment, at the NRC's PDR, Room P1-B35, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. To make an appointment to visit the PDR, please send an email to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov) or call 1-800-397-4209 or 301-415-4737, between 8:00 a.m. and 4:00 p.m. (ET), Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Gregory R. Trussell, Office of Nuclear Material Safety and Safeguards, telephone: 301-415-6244, email: [Gregory.Trussell@nrc.gov](mailto:Gregory.Trussell@nrc.gov), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

## **SUPPLEMENTARY INFORMATION:**

### **I. Background**

On June 1, 2021, the NRC published a notification of interpretation and request for comment in the *Federal Register* (86 FR 29173). Under the new interpretation, the NRC's requirements at § 34.41 of title 10 of the *Code of Federal Regulations* (10 CFR), "Conducting industrial radiographic operations," are met if the additional qualified individual, who is to observe the operation and be capable of providing immediate assistance to prevent unauthorized entry, is in sufficiently close proximity to the operation and is sufficiently aware of the ongoing activities to provide assistance or take charge when necessary. The second individual may perform other tasks nearby, provided that the individual is cognizant of the site-specific circumstances when radiographic operations are in progress.

The NRC held a public meeting on August 26, 2021, during which the NRC provided background on the "two-person" requirement, its relationship with other industrial radiography surveillance requirements, and an overview of the new interpretation. The NRC answered questions from participants and clarified the NRC's reinterpretation of the requirements. Participants questioned the necessity and feasibility of the interpretation and requested more realistic examples of how a licensee could implement the new interpretation. The meeting summary is available under ADAMS Accession No. ML21218A156.

### **II. Public Comments**

The NRC received written comments on the notification of interpretation from: a private citizen, the Organization of Agreement States (OAS), the State of Oklahoma (Oklahoma), and the State of Arkansas (Arkansas) (ADAMS Accession

Nos. ML21155A124, ML21182A320, ML21172A130, and ML21182A362). The comments were binned into three categories.

The NRC met with the Agreement States on April 6, 2022, to discuss the NRC's responses to the comments submitted on the June 1, 2021<sup>12</sup>, notice of interpretation. This section provides a summary of the comments and the NRC's responses.

*Request for clarification and additional guidance.* Commenters requested additional guidance to clarify the interpretation and requested that the guidance include multiple examples of acceptable surveillance practices. Specifically, comments from the OAS, Oklahoma, and Arkansas asked for clarification on how the interpretation relates to other requirements, how close "sufficient proximity" is, and what tools can be used to maintain awareness.

Response: The NRC agrees with these comments. The NRC will be issuing revised guidance to provide greater detail and to clarify the issues raised by the comments, and is providing the following statements to clarify specific issues raised by the comments:

- The interpretation only affects radiographic operations~~radiographers~~ in limited circumstances; for example, in situations where the radiographer has clear view of the entire operation.
- The interpretation focuses on the performance requirements for the second individual to maintain sufficient awareness to provide immediate assistance and perform radiographic operations and to prevent unauthorized entry. Licensees may use any appropriate tools that allow the second individual to perform these functions. In the notification of interpretation, the NRC mentioned the option of video surveillance. The NRC recognizes that the use of video surveillance may be rare but could allow the second individual

to meet the requirement. Other tools that could work include an open radio channel or cell phone.

- Future technology may provide additional tools for meeting this performance-based requirement.

*Safety and security:* Comments from the OAS, Oklahoma, and Arkansas questioned the overall safety of the new interpretation, suggesting that the second individual would not have sufficient awareness and proximity to the radiographic operation to perform required functions and that direct observation is necessary. These comments also assert that the interpretation would reduce the use and number of alarming rate meters, dosimetry, and survey instruments. In addition, the comment from Oklahoma questioned the security impact of the interpretation.

Response: The NRC disagrees with these comments. The NRC disagrees with the comment “that direct observation is necessary” by the second individual. Direct observation by the second individual is not necessary under the limited circumstances allowed by the interpretation to ensure safety because a second individual is available to provide immediate assistance. For example, it may be acceptable for the second individual to have less awareness of the operations or to be located further away when the radiographer has a clear view of the entire operation because the radiographer is able to observe all points of entry and alert the second qualified individual of a potential unauthorized entry. The new interpretation provides flexibility when the situation allows it and does not compromise radiation safety and security. Section 34.41(a) provides the minimum requirements for the number of personnel at every temporary jobsite; it does not address security, dosimetry requirements, or the use and number of survey instruments. Other regulations or circumstances may apply as described in NUREG-1556, Volume 2, Revision 1, ["Program-Specific Guidance About Industrial Radiography Licenses,"](#) that require a licensee to have more than two individuals

present at a temporary jobsite; for example, in situations where there are multiple access points to the restricted area that need to be controlled.

The performance-based aspects of the regulations require the second individual to be sufficiently aware of the operation to be able to provide immediate assistance. Therefore, if the second individual does not have sufficient awareness and proximity to the radiographic operation to perform these functions, then the requirement is not met. For example, if the second individual is in the darkroom and is not able to hear or see the radiographic operations, then the second individual is not meeting the requirements as the NRC has interpreted them.

*Reciprocity and consistency:* Comments from the OAS and Oklahoma expressed concern that the interpretation, combined with the compatibility category change from B to C, may cause reciprocity and consistency issues.

Response: The NRC disagrees with these comments. In the June 1, 2021, notification (86 FR 29173), the NRC, with the benefit of over 20 years of experience with Agreement States implementing the two-person rule differently, has determined that essentially identical implementation is not necessary to provide an orderly pattern of regulation. The essential objective of § 34.41(a) is to have a second qualified individual maintain awareness of the radiographic operations, maintain direct communications with the radiographer, and be capable of providing immediate assistance to the radiographer or taking charge when necessary, and to prevent unauthorized entry into a restricted area. Despite differences in implementation of the two-person rule, the NRC is not aware of any cross-jurisdictional boundary issues for the National Materials Program from these different interpretationsimplementations. Further, other requirements in 10 CFR part 34 that apply to radiography at temporary jobsites are designated as Compatibility Category C, such as the survey requirement in § 34.49(b), and have not

resulted in cross-jurisdictional boundary issues. Therefore, the NRC has no reason to believe this compatibility change will cause reciprocity or consistency issues.

### **III. Interpretation and Agreement State Compatibility**

This document completes the NRC's actions on the interpretation and the change in Agreement State Compatibility Category published in the *Federal Register* on June 1, 2021 (86 FR 29173). The issues raised by the comments are not new and were considered by the NRC before publishing the new interpretation. The NRC recognizes that currently there are limited circumstances where the interpretation would be applicable, and that more guidance is needed. The NRC finds that the new interpretation provides the flexibility that emerging technologies potentially may need to enhance the surveillance of radiographic operations. This approach allows Agreement States the flexibility to align their programs with the NRC's proposed interpretation, continue their current interpretation of requiring two individuals to observe the restricted area, or adopt another more restrictive approach.

The NRC intends to develop an addendum to the current version of NUREG-1556, Volume 2, Revision 1, "~~Program Specific Guidance About Industrial Radiography Licenses,~~" and to revise Inspection Procedure 87121, "Industrial Radiography Programs," to address the interpretation of the surveillance requirements.

### **IV. Discontinuation of the Rulemaking and Denial of the Associated Petition**

The new interpretation resolves the issues raised in PRM-34-6 related to the two-person rule. The interpretation makes § 34.41(a) consistent with the requirement in

§ 34.51 that at least one of the two individuals present at a temporary jobsite must “maintain direct observation of the operation.”

In addition, the NRC reviewed the petition issue regarding training requirements and concluded, based on associated operational experience since 1997, that the current [training](#) requirements in § 34.43(c) are sufficient to ensure safe radiographic operations. Specifically, the second qualified individual must receive training on radiographic devices, sources, associated equipment, radiation survey equipment, and the daily inspection requirements on the equipment. The training requirements in 10 CFR part 34 prepare individuals conducting radiographic operations with sufficient knowledge and understanding of the regulations and safety requirements and familiarity with the equipment that they will use in the performance of their work.

Based on the NRC’s review and lack of comments warranting a change to the new interpretation, the NRC has concluded that conducting rulemaking to amend its requirements for industrial radiographic operations and training is [not no longer](#) necessary and, therefore, is discontinuing the rulemaking activity. The NRC is denying PRM-34-6 pursuant to § 2.803(i)(2).

## **V. Conclusion**

This document provides the NRC’s responses to public comments on an interpretation and corresponding Agreement State Compatibility Category change. The NRC is not revising the interpretation or changing the Compatibility Category in response to comments. The NRC is discontinuing the planned rulemaking that would have amended its requirements for industrial radiographic operations and training and is denying PRM-34-6 for the reasons discussed in this document.

Dated:

For the Nuclear Regulatory Commission.



Brooke P. Clark,  
Secretary of the Commission.