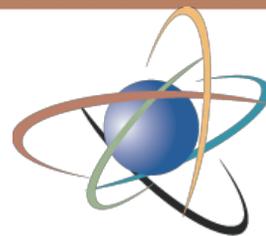


NRC Updates and Regulatory Activities Affecting Industrial Radiography

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U.S.NRC

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Protecting People and the Environment

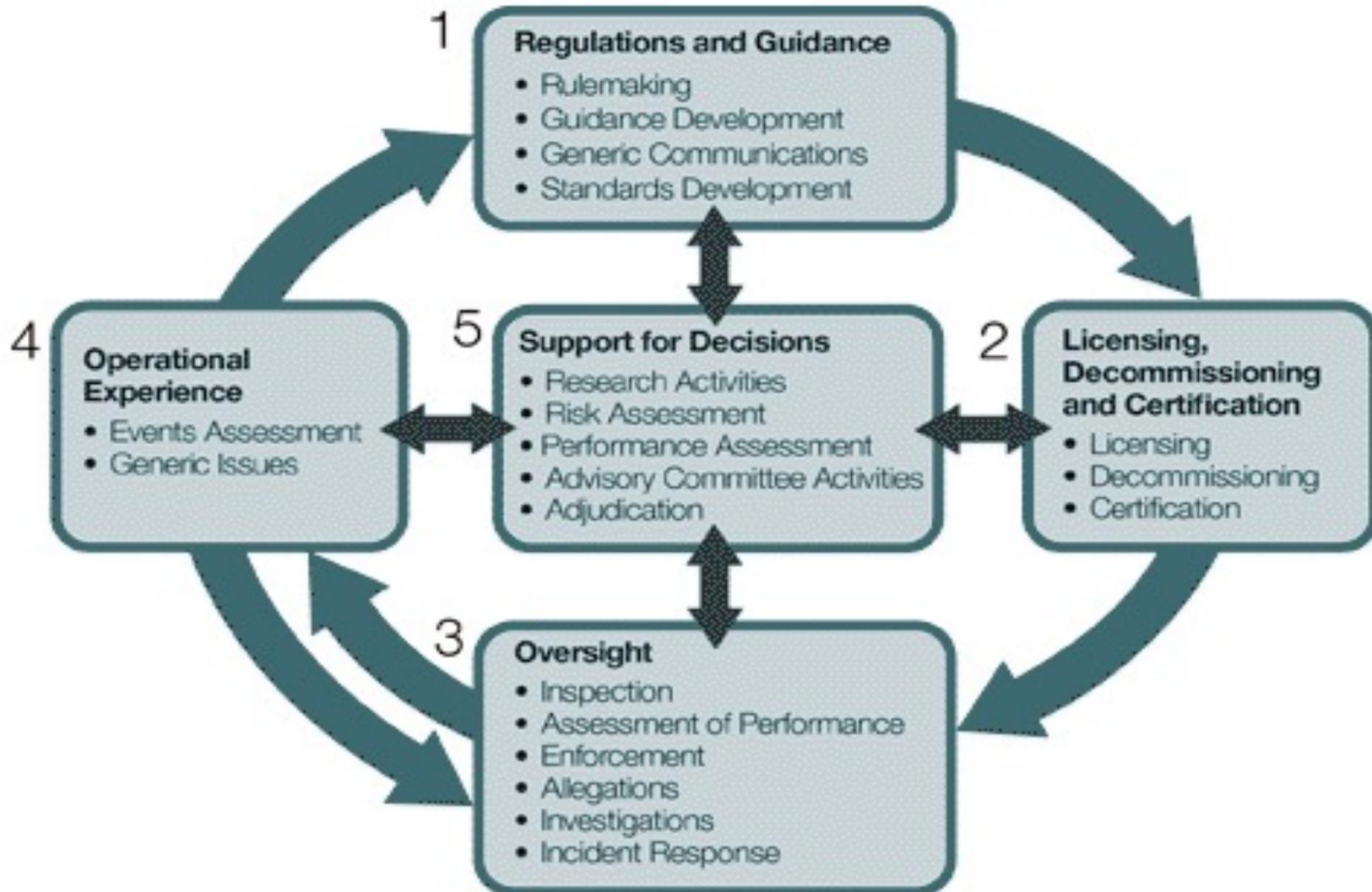
Our Mission



The NRC licenses and regulates the Nation's civilian use of radioactive materials to provide reasonable assurance of adequate protection of public health and safety and to promote the common defense and security and to protect the environment.

The NRC regulates commercial nuclear power plants and other uses of nuclear materials, such as in nuclear medicine, through licensing, inspection and enforcement of its requirements.

How We Regulate



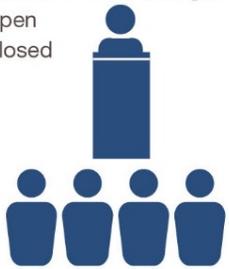
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 - Assessing the Future
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 - Fostering a Culture of Change
 - Innovating How We Work
 - Building Strong Partnerships

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Recruitment



Media Outreach

Press Conferences
Press Releases
Editorial Boards
Interviews



Public Comments

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Resident Inspectors in the Community



10 CFR 2.206 Petition

Electronic or Hard Copy



Web Site

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Adjudicatory Hearings



Advisory Committee Meetings



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Conferences

International
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Federal
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Social Media

Blog
Twitter
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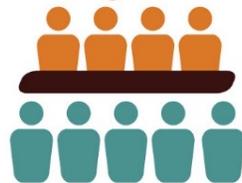
Visitors to the Agency



Open Houses



Congressional Hearings



Allegations



Petitions for Rulemaking



Federal Register Notices



Topics for Radiography

- 10 CFR Part 34 Rulemaking – Two Person Rule
- 10 CFR Part 34, 36, and 39 – Individual Monitoring Devices
- COVID-19 Exemptions
- Materials Inspection Program Changes
- Escalated Enforcement Actions

Revised Radiation Safety Requirements Rule

- PRM 34-6: Clarification to Training, Surveillance, and the Two Man Rule
- 2005 OAS Petition Proposed Changes to the following:
 - 34.41(a): two qualified individuals present, but second person no longer required to observe the operations
- The NRC issued a notification of interpretation on the two-person rule to respond to the petition (June 2021).

Reinterpretation of § 34.41(a)

- Now interpreted as, "[t]he additional qualified individual shall observe the operation and be capable of providing immediate assistance to prevent unauthorized entry" are met if the second qualified individual is in sufficiently close proximity to the operation and sufficiently aware of the ongoing activities to be able to provide assistance or take charge when necessary and to prevent unauthorized entry. The second individual may perform other tasks nearby so long as they are cognizant of the site-specific circumstances when radiographic operations are in progress. The second individual could, for example, use remote video surveillance to maintain awareness of ongoing radiographic operations from a nearby darkroom.

Compatibility of Agreement State Regulations

- NRC changed the compatibility category designation for § 34.41(a) from B to C
- Agreement States can now implement regulations that are more restrictive than the NRC requirements (e.g. direct observation)
- NRC is not aware of any cross-jurisdictional boundary issues for the National Materials Program

Request for Comments

- The following comments were received:
- Proposed reinterpretation does not improve clarity or help radiation safety
- The ability of the second individual to maintain awareness of operations and be able to take charge, provide assistance, or help prevent unauthorized entry necessary for radiation safety requires actual observation
- Video observation is rare.

Request for Comments (Cont.)

- Communication tools like a radio could be used to meet the intent of the rule
- Use of the words “sufficient” and “sufficiently” are ambiguous
- Compatibility change may cause inconsistency in interpretation for those states that choose to relax their standards and could cause issue with reciprocal agreements

Request for Comments (Cont.)

- Compatibility change will allow Radiation Control Programs to continue to establish their own interpretations of the "two-person rule" and to prevent potentially being found incompatible during IMPEP evaluations
- State will continue to interpret the "two-person rule" to mean at least two individuals maintaining direct observation of the radiographic operations

Path Forward

NRC intends the following:

- Denial of Petition for Rulemaking based on the reinterpreted rule.
- Additional communication with OAS to understand any concern implementing two-person rule interpretive rule
- Comments highlight the need for more guidance on the interpretation
- Update Guidance and Inspection Procedure providing some examples where this would be applicable in limited circumstances.

10 CFR Part 34, 36, and 39 – Individual Monitoring Devices

- Direct Final Rule effective on June 16, 2020.
 - Amended 10 CFR 34.47
 - Authorized the use of modern individual monitoring devices in industrial radiographic, irradiator, and well logging operations.
 - This amendment align personnel dosimetry requirements in these areas with the requirements for all other NRC licensees.
- FRN:
<https://www.federalregister.gov/documents/2020/06/16/2020-11590/individual-monitoring-devices>

2020 COVID-19 Exemption

- § 34.43 requires training for third party certification of radiographers
- Due to travel restrictions and closure of test centers, the American Society for Nondestructive Testing (ASNT) requested an exemption from testing requirements
- To prevent interruption of radiographic activities, NRC granted extension of radiographer certification in increments of 90 days not to exceed 6 months beyond their current expiration date

Revisions to Industrial Radiography Guidance

NUREG-2155, Guidance for Part 37 Security Rule

- 10 CFR 37.53(b) requirement to disable a vehicle with a device subject to Part 37 when not under direct control and surveillance by the licensee.
 - A licensee may use a key or fob implanted with an electronic chip that is recognizable only to the computer programmed in the vehicle to disable the vehicle.
 - Only this key or fob, and not a duplicated one, would allow someone to enter and start the vehicle.
 - The licensee must have a procedure to control access to keys and prevent unauthorized duplication of keys.
 - Licensees have been required to request an exemption to use this technology; Revision 2 of NUREG will allow them to use it without an exemption.

Changes to the Inspection Program for Industrial Radiography

- Inspection Procedure (IP) 87121 (Industrial Radiography Programs) is currently being revised and is expected to be published in early 2023
- The revised IP will change the seven focus elements to six risk modules.
- Areas of particular attention during Industrial Radiography inspections will include observations of activities at temporary jobsites, work at permanent facilities (including source exchanges, if authorized), and security of licensed materials (especially if 10 CFR Part 37 requirements are needed)

Next Steps: Changes to the NUREG 1556 Volume 2 and IP for Industrial Radiography

- NUREG 1556 Volume 2 Licensing Guidance revision or addendum to include the two-person rule reinterpretation and examples. WG will also consider flexibility for emerging technology
- Inspection Procedure (IP) 87121 (Industrial Radiography Programs) to include the two-person rule reinterpretation and examples

Escalated Enforcement (2021)

Escalated Enforcement

- Radiographer attempted to retrieve a stuck source contrary to the licensee's Operating and Emergency Manual that was part of the licensee's application, and the failure to report an equipment failure in accordance with 10 CFR 30.50(b)(2).
- The licensee failed to perform Part 37 secondary background checks for 8 individuals. When eventually performed, individuals maintained access to materials.

Escalated Enforcement

- Vehicles were left unattended and were not disabled.
- Licensee deliberately conducted licensed activities in NRC jurisdiction without a license and without filing for reciprocity.
- Licensee willfully falsified a licensee Daily Radiation Report record.
- Licensee performed radiography in NRC jurisdiction with an unqualified radiographer assistant

Escalated Enforcement

- Licensee failed to: 1) secure a radiography exposure device from unauthorized removal or access with two independent physical controls when not under the control of the licensee contrary to 10 CFR 20.1801 and 37.53(a). The licensee also failed to disable the vehicle containing category 2 quantity of material when not under the control and constant surveillance by the licensee contrary to 10 CFR 37.53(b); 2) monitor the Security zone as per 10 CFR 37.49.
- Licensee failed to limit access to its list of individuals authorized for unescorted access to the security zone where Category 2 quantities of radioactive materials was stored and used contrary to 10 CFR 37.43(d)(1) and failed to implement a maintenance program to ensure its intrusion alarms, associated communication systems, and other physical components were maintained in operable condition and capable of performing their intended functions when needed contrary to 37.51(a).

Escalated Enforcement

- Agreement State Licensee willfully conducted licensed activities in NRC jurisdiction without filing for reciprocity.
- Licensee failed to conduct radiographic operations with 2 qualified individuals present contrary to 10 CFR 34.41(a); failed to supervise radiographer's assistant while using radiographic exposure device contrary to 10 CFR 34.46(c); and failure to maintain continuous direct visual surveillance of the radiographic operation to protect against unauthorized entry into the high radiation area contrary to 10 CFR 34.51

THANK YOU NDTMA!!

