

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS
WASHINGTON, DC 20555-0001

March 17, 2023

NRC INFORMATION NOTICE 2023-02: REPORTING WHEN A FIXED GAUGE SHUTTER IS
STUCK IN THE CLOSED POSITION

ADDRESSEES

All holders of and applicants for U.S. Nuclear Regulatory Commission (NRC) specific materials licenses¹ that authorize the possession, use, or storage of radioactive material for fixed gauges, NRC master materials licensees, Agreement State radiation control program directors, and State liaison officers.

PURPOSE

The NRC is issuing this information notice (IN) to remind specific materials licensees that use fixed gauges containing byproduct material of the reporting requirements when a shutter is stuck in the closed position. The NRC expects that recipients will review the information for applicability to their facilities and consider actions, as appropriate, to avoid similar reporting questions. INs may not impose new requirements, and nothing in this IN should be interpreted to require specific action.

DESCRIPTION OF CIRCUMSTANCES

The NRC received a question as to whether a 24-hour report to the NRC is required in accordance with Title 10 of the Code of Federal Regulations (10 CFR) 30.50(b)(2) when a fixed gauge shutter is stuck in the closed position. Under 10 CFR 30.50(b)(2), the NRC requires reporting if equipment is disabled or fails to function as designed when the following are true:

- (i) The equipment is required by regulation or license condition to prevent releases exceeding regulatory limits, to prevent exposures to radiation and radioactive materials exceeding regulatory limits, or to mitigate the consequences of an accident;
- (ii) The equipment is required to be available and operable when it is disabled or fails to function; and
- (iii) No redundant equipment is available and operable to perform the required safety function.

¹ This information notice is not applicable to general materials licensees. General materials licensees are required to follow the reporting requirements in 10 CFR 31.5.

BACKGROUND

Related NRC Generic Communications

NRC IN 2009-18, "Performance of Required Shutter Checks and Reporting of Gauge Shutter Failures," dated September 18, 2009 (Agencywide Documents Access and Management System Accession No. ML091890514), reminds licensees that possess fixed gauges with a shutter that cannot be closed of applicable reporting requirements.

DISCUSSION

A fixed gauge shutter, stuck in the closed position, is meeting the required safety function in keeping doses low. The Statements of Consideration (SOC) for the 10 CFR Parts 20, 30, 31, 34, 39, 40 and 70 Notifications of Incidents Rule (56 FR 40757; August 16, 1991) provides further clarification:

25. Comment: Strict interpretation of the rule indicates that every stuck shutter requires a 24-hour report. We fail to see the need to report if the exposure limits are not exceeded.

NRC Response to Comment 25: If there are problems with the design or use of a device containing a source that could cause an overexposure **and** the problems prevent re-shielding of exposed radiation sources, the NRC may need to take prompt action to warn other device users and ensure that the manufacturer is taking appropriate corrective action. The NRC must be aware of safety equipment failures in order to ensure that preventative measures are taken before more serious incidents occur.

The SOC requires two conditions to be met for the event to be reported: (1) problems exist with the design or use of the device and (2) the problems prevent re-shielding of the source. A fixed gauge shutter stuck in the closed position only meets one of the two conditions. Consequently, 10 CFR 30.50(b)(2) does not apply to fixed gauges with a shutter stuck in the closed (safe) position, and the incident is not reportable.

For NRC licensees, 10 CFR Part 21, "Reporting of Defects and Noncompliance," does not apply because a defect is defined as a condition that could cause a substantial safety hazard. A shutter stuck in the closed position is not a substantial safety hazard.

CONCLUSION

In summary, a fixed gauge with a shutter stuck in the closed (safe) position is not a reportable event.

CONTACTS

Please direct any questions about this matter to the technical contacts listed below.

/RA/

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Note: NRC generic communications may be found on the NRC public website,
<http://www.nrc.gov>, under NRC Library/Document Collections.

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