

August 1, 2018

MEMORANDUM TO: David C. Lew, Regional Administrator, Region I
Catherine Haney, Regional Administrator, Region II
K. Steven West, Regional Administrator, Region III
Kriss M. Kennedy, Regional Administrator, Region IV
Brian E. Holian, Acting Director, Office of Nuclear Reactor Regulation
Frederick D. Brown, Director, Officer of New Reactors
Marc L. Dapas, Director, Officer of Nuclear Material Safety
and Safeguards

FROM: Anne T. Boland, Director /RA/ by P. Peduzzi for/
Office of Enforcement

SUBJECT: ENFORCEMENT GUIDANCE MEMORANDUM 18-002, INTERIM
GUIDANCE FOR DISPOSITIONING VIOLATIONS FOR FAILURE TO
CONTROL AND MAINTAIN CONSTANT SURVEILLANCE FOR
PORTABLE GAUGES

PURPOSE:

The purpose of this enforcement guidance memorandum (EGM) is to provide enforcement guidance to regional and program offices to disposition violations involving a failure to control and maintain constant surveillance of portable gauges in a controlled or unrestricted area when not in storage. This EGM will modify the approach for assigning severity levels for violations involving the portable gauge security requirements in Title 10 of the *Code of Federal Regulations* (10 CFR) 20.1802 and 10 CFR 30.34(i), including instances where portable gauges are damaged during field operations.

BACKGROUND:

On June 21, 1991,¹ the revised U.S. Nuclear Regulatory Commission (NRC) requirement for control of licensed material not in storage, 10 CFR 20.1802, became effective. The rule serves to prevent: (1) damage to the licensed device; (2) inadvertent exposure of workers and members of the public to radioactive material; and (3) the loss or theft of licensed material. In NUREG-1736,² "Consolidated Guidance: 10 CFR Part 20 for Protection Against Radiation," an example contemplated a portable gauge user's failure to maintain constant surveillance and loss of control of the gauge because the user walked back to their vehicle or turned to talk to another person while the gauge was in use.

CONTACT: Sophie Holiday, OE/EB
(301) 415-7865

Juan Peralta, OE/EB
(301) 287-9510

¹ Rule published in the *Federal Register* on May 21, 1991 (56 FR 23360)

² Agencywide Documents Access and Management System (ADAMS) Accession No. ML013330106

On October 30, 2002, the NRC issued a generic communication, NRC Information Notice (IN) 2002-30,³ “Control And Surveillance Of Portable Gauges During Field Operations,” as a result of 12 reported incidents involving the damage of moisture density gauges (portable gauges) by construction-related equipment. Many of these incidents occurred, in part, by momentary lapses in control, and/or by inattention of licensees.

In July 11, 2005,⁴ the NRC promulgated 10 CFR 30.34(i), which requires a minimum of two independent physical controls that form tangible barriers to be used whenever portable gauges are not under the constant control and constant surveillance of the licensee. The primary intent of this rule⁵ was to increase licensees’ control of portable gauges to reduce the opportunity for unauthorized removal or theft. The rule applies to a licensee with a portable gauge regardless of the location, situation, and activities involving the portable gauge. The licensee is required to either maintain control and constant surveillance of the portable gauge or use a minimum of two independent physical controls to secure it to prevent unauthorized removal or theft at all times.

Since 2002, licensees have reported approximately 300 incidents involving the damage of portable gauges at temporary jobsites. While in many of these incidents the portable gauge or gauge housing sustained severe mechanical damage, most radioactive sources remained intact and no contamination leakage or exposure was identified due to the robust design characteristics of portable gauges and sources. However, there have been some incidents where the sources were breached and/or the source(s) could not be retracted, which increased the potential for external radiation exposure to members of the public and an increased dose to workers during source recovery.

In accordance with Section 6.3.c.3 of the Enforcement Policy, a violation of 10 CFR 30.34(i) requirements constitutes a severity level (SL) III violation for failing to have two levels of security whenever the portable gauges are not under the control and constant surveillance of the licensee. Further, in accordance with Section 6.7.c.10(a), failure to secure, or maintain surveillance over licensed material that exceeds 1,000 times the quantity specified in 10 CFR Part 20, Appendix C constitutes a SL III violation.

Traditionally, the NRC issues a SL III violation for incidents in which a portable gauge user fails to maintain control and constant surveillance (i.e., walks away from the portable gauge) at a jobsite, regardless of whether any damage occurred. Jobsites occasionally experience unexpected and uncontrollable events, such as when heavy construction equipment inadvertently makes contact with a gauge and causes damage. Due to the robust design characteristics of portable gauges, such situations do not necessarily result in appreciable potential safety (e.g., inadvertent exposure to an individual) or security concerns. In addition, portable gauges are often used at remote, temporary jobsites where few individuals are present. In these scenarios, there is a low probability that an unauthorized person could remove the portable gauge without the gauge user’s knowledge or for inadvertent exposure to workers or the public. Additionally, the requirement for two tangible barriers under 10 CFR 30.34(i) relates to the storage of portable gauges and not the operational use of portable gauges (e.g., when the portable gauge is taking measurements).

³ ADAMS Accession No. ML023030163

⁴ Rule published in the *Federal Register* on January 12, 2005 (70 FR 2001)

⁵ EGM-11-004 “Interim Guidance for Dispositioning Violations of Security Requirements for Portable Gauges” (ADAMS Accession No. ML111170601)

In light of the above, the NRC has determined that a graded approach should be used to evaluate the likelihood for opportunity for loss or theft of the portable gauge, or exposure to workers or the public. This graded approach would allow for 10 CFR 20.1802 violations that are less serious, but are of more than minor concern, that resulted in no or relatively inappreciable potential safety or security consequences to be cited as SL IV violations as indicated below.

NOTE: The requirement for two tangible barriers under 10 CFR 30.34(i) is generally not applicable during operational conditions⁶, but rather in circumstances where the licensee is reasonably expected to secure the portable gauge (e.g., while in its permanent storage location, while stored in the truck or if purposely left unattended for a period of time, etc.

ACTION:

If an inspector identifies a potential noncompliance with 10 CFR 20.1802 requirements, the inspector shall notify the applicable branch chief before the exit meeting with the licensee. All of the potential noncompliances should be dispositioned by the cognizant region.

The regional office shall evaluate each potential noncompliance and make one of two determinations as discussed below.

1. In cases where a licensee fails to secure or maintain constant surveillance over a portable gauge involving licensed material in any aggregate quantity greater than 1,000 times the quantity specified in Appendix C, Quantities of Licensed Material Required Labeling,” to 10 CFR Part, “Standards for Protection Against Radiation”, a region may use discretion and disposition the issue as a SL IV violation if all the following conditions are met:
 - A. The failure to maintain control and constant surveillance of the portable gauge occurred during operational conditions;
 - B. The failure to maintain control and constant surveillance of the portable gauge was an isolated, non-willful occurrence and the non-compliance was of short duration and circumstance (e.g., gauge use in a remote location, or, if in high traffic location with construction barrier or fencing impeding the access of the general public) and did not cause a security access concern; and
 - C. No unauthorized individual contact with the portable gauge occurred and no unintended exposure to an individual occurred (e.g., physical damage to the portable gauge may have occurred but there was no contamination or source(s) leakage and the licensee is able to retract the source(s) into a shielded position).

If the regional office determines that the noncompliance meets the criteria for SL IV, the regional office may disposition the violation without an enforcement panel. However, these cases will be assigned an enforcement action (EA) number to document the exercise of enforcement discretion.

⁶ Operational conditions, for the purposes of this EGM, refers to when the portable gauge is taking measurements.

In preparing Notices of Violation, in those cases where the violation is to be categorized as SL IV, the subject line in the letter to the licensee should either read or include, "EXERCISE OF ENFORCEMENT DISCRETION," as described in Section 3 of the Enforcement Policy.

The following, or similar, language should be included in the text of the inspection record or report discussing the inspection finding when exercising enforcement discretion in accordance with this EGM:

"A violation of 10 CFR 20.1802 was identified during this inspection and is described in the attached Notice of Violation. In accordance with the Enforcement Policy, this violation would normally be categorized at Severity Level III and considered for escalated enforcement action. However, in accordance with NRC Enforcement Guidance Memorandum (EGM) 18-002, issued August 1, 2018, the NRC is exercising enforcement discretion to categorize this violation as a Severity Level IV violation."

2. If the conditions described above do not apply, the regular enforcement process will be used in accordance with the current Enforcement Policy, to evaluate and disposition the noncompliance, with input from the region and headquarters, with the likely outcome being a SL III violation.

EXPIRATION OF THIS EGM:

This EGM will remain in effect until the next revision of the Enforcement Policy. At that time, the staff will propose a change to the Enforcement Policy, to create a SL IV example to reflect this graded approach.

SUBJECT: ENFORCEMENT GUIDANCE MEMORANDUM 18-002 – INTERIM GUIDANCE
FOR DISPOSITIONING APPARENT VIOLATIONS FOR FAILURE TO CONTROL
AND MAINTAIN CONSTANT SURVEILLANCE FOR PORTABLE GAUGES.
DATE: 08/01/2018

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M. Dapas, NMSS

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F. Peduzzi, OE

J. Peralta, OE

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OFFICE	RIII	RIV	OGC	OE
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