



[7590-01-P]

**NUCLEAR REGULATORY COMMISSION**

**10 CFR Parts 34, 36, and 39**

**[NRC-2019-0031]**

**RIN 3150-AK29**

**Individual Monitoring Devices**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Direct final rule.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is amending its regulations to authorize the use of modern individual monitoring devices in industrial radiographic, irradiator, and well logging operations. These amendments will align personnel dosimetry requirements in these areas with the requirements for all other NRC licensees. This direct final rule addresses an issue raised in a petition for rulemaking and will affect NRC and Agreement State licensees. The NRC also is issuing supplemental guidance for use and comment with this direct final rule.

**DATES:** This direct final rule and supplemental guidance are effective **[INSERT DATE 90 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. If adverse comments on the direct final rule are received by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]** the direct final rule will be withdrawn. If the direct final rule is withdrawn, the supplemental guidance also is withdrawn; timely notice of the withdrawal will be published in the *Federal Register*. Comments received after this date will be considered if it is practical to do so, but the

NRC is able to ensure consideration only for comments received on or before this date. If the direct final rule is withdrawn, comments will be addressed in a subsequent final rule. Comments received on this direct final rule and supplemental guidance will also be considered as comments on the companion proposed rule published in the Proposed Rules section of this issue of the *Federal Register*.

**ADDRESSES:** You may submit comments by any of the following methods:

- **Federal Rulemaking Web Site:** Go to <https://www.regulations.gov> and search for Docket ID NRC-2019-0031. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; e-mail: [Carol.Gallagher@nrc.gov](mailto:Carol.Gallagher@nrc.gov). For technical questions contact the individuals listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **E-mail comments to:** [Rulemaking.Comments@nrc.gov](mailto:Rulemaking.Comments@nrc.gov). If you do not receive an automatic e-mail reply confirming receipt, then contact us at 301-415-1677.

- **Fax comments to:** Secretary, U.S. Nuclear Regulatory Commission at 301-415-1101.

- **Mail comments to:** Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, ATTN: Rulemakings and Adjudications Staff.

- **Hand deliver comments to:** 11555 Rockville Pike, Rockville, Maryland 20852, between 7:30 a.m. and 4:15 p.m. (Eastern Time) Federal workdays; telephone: 301-415-1677.

For additional direction on obtaining information and submitting comments, see “Obtaining Information and Submitting Comments” in the SUPPLEMENTARY INFORMATION section of this document.

**FOR FURTHER INFORMATION CONTACT:** Anthony McMurtray, telephone: 301-415-2746; e-mail: [Anthony.McMurtray@nrc.gov](mailto:Anthony.McMurtray@nrc.gov); or Edward Lohr, telephone: 301-415-0253; e-mail: [Edward.Lohr@nrc.gov](mailto:Edward.Lohr@nrc.gov). Both are staff of the Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

**SUPPLEMENTARY INFORMATION:**

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**I. Obtaining Information and Submitting Comments**

**A. Obtaining Information**

Please refer to Docket ID NRC-2019-0031 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 Web Site:** Go to <https://www.regulations.gov> and search for Docket ID NRC-2019-0031.

- **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, 301-415-4737, or by e-mail 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 this document.

- **NRC’s PDR:** You may examine and purchase copies of public documents at the NRC’s PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

## B. Submitting Comments

Please include Docket ID NRC-2019-0031 in your comment submission.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC will post all comment submissions at <https://www.regulations.gov> as well as enter the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

## II. Rulemaking Procedure

Because the NRC considers this action to be non-controversial, the NRC is using the direct final rule procedure for this rule. The amendment to the rule will become effective on **[INSERT DATE 90 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. However, if the NRC receives significant adverse comments on this direct final rule by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, then the NRC will publish a document that withdraws this direct final rule, as well as the associated supplemental guidance. In such a case, the NRC will treat comments on this direct final rule as comments on the companion proposed rule published in the Proposed Rules section of this issue of the *Federal Register*. Absent significant modifications to the proposed revisions requiring republication, the NRC will not initiate a second comment period on this action.

A significant adverse comment is a comment where the commenter explains why the rule would be inappropriate, including challenges to the rule's underlying premise or approach, or would be ineffective or unacceptable without a change. A comment is adverse and significant if:

1) The comment opposes the rule and provides a reason sufficient to require a substantive response in a notice-and-comment process. For example, a substantive response is required when:

a) The comment causes the NRC to reevaluate (or reconsider) its position or conduct additional analysis;

b) The comment raises an issue serious enough to warrant a substantive response to clarify or complete the record; or

c) The comment raises a relevant issue that was not previously addressed or considered by the NRC.

2) The comment proposes a change or an addition to the rule, and it is apparent that the rule would be ineffective or unacceptable without incorporation of the change or

addition.

3) The comment causes the NRC to make a change (other than editorial) to the rule.

For detailed instructions on filing comments, please see the ADDRESSES section of this document.

### **III. Background**

The regulations in part 34 of title 10 of the *Code of Federal Regulations* (10 CFR), “Licenses for Industrial Radiography and Radiation Safety Requirements for Industrial Radiographic Operations”; 10 CFR part 36, “Licenses and Radiation Safety Requirements for Irradiators”; and 10 CFR part 39, “Licenses and Radiation Safety Requirements for Well Logging,” require the use of personnel dosimetry that is processed and evaluated by an accredited National Voluntary Laboratory Accreditation Program (NVLAP) processor. These regulations restrict the types of personnel dosimeters that can be used and prohibit the use of dosimetry technologies that do not require processing by an accredited NVLAP facility.

On July 14, 2016, the NRC received a petition for rulemaking (PRM) from the American Society for Nondestructive Testing and the Nondestructive Testing Management Association (the petitioners) (ADAMS Accession No. ML16228A045). The petition was docketed by the NRC on August 12, 2016, and assigned Docket No. PRM-34-7. The NRC published a notice of docketing of PRM-34-7 in the *Federal Register* (81 FR 78732) on November 9, 2016. The petitioners requested that the NRC amend its regulations and associated guidance to authorize the use of improved individual monitoring devices for industrial radiographic personnel. Specifically, the petitioners requested that the NRC amend its regulations to authorize the use of digital output personnel dosimeters to satisfy the personnel dosimetry requirements in

§ 34.47(a).

Personnel dosimetry is a specific type of dosimetry that is used to track an individual worker's dose. The petitioners interchangeably used the terms "improved individual monitoring devices," "electronic personnel monitoring dosimeters," "electronic dosimeters," and "digital personnel dosimeters" to describe digital output personnel dosimetry. In this direct final rule, the NRC uses the term "digital output personnel dosimetry" in place of these terms. A digital output personnel dosimeter is a specific type of personnel dosimetry that currently cannot be used to meet the requirements in 10 CFR parts 34, 36, and 39 to demonstrate compliance with the occupational dose limits in § 20.1201.

On February 11, 2019, the NRC published a document in the *Federal Register* (84 FR 3116) informing the public that it would consider PRM-34-7 in the rulemaking process. In the *Federal Register* document, the NRC accepted the petitioners' request that the NRC amend its regulations to authorize the use of digital output personnel dosimeters for industrial radiographic personnel and expanded the scope of the rulemaking to include the use of digital output personnel dosimeters in irradiator and well logging operations.

#### **IV. Discussion**

The NRC's requirements related to the safe use of sealed sources of byproduct material in industrial radiography are codified in 10 CFR part 34. The regulation in § 34.47(a) states that during radiographic operations, radiographers and radiographer's assistants must wear "a direct reading dosimeter, an operating alarm ratemeter, and a personnel dosimeter that is processed and evaluated by an accredited National Voluntary Laboratory Accreditation Program (NVLAP) processor."

Although “processing” is not defined in the regulations, the NRC uses it with a specific meaning related to personnel dosimetry. The NRC interprets processing to mean a process, separate from and independent of the design of the dosimeter, that is required to extract dose information from the dosimeter after exposure to radiation. Processing is necessary with film, thermoluminescent dosimetry (TLD), and optically stimulated luminescence (OSL) dosimetry to obtain the dose information. With film, TLD, and OSL dosimetry, the quality of the processing is dependent on the competence of the processor and not on the dosimeter design, whereas quality is built into the design of dosimeters that do not require processing. An in-depth discussion on this topic can be found in the January 14, 2005, *Federal Register* document (70 FR 2577) denying a petition for rulemaking (PRM-20-25).

Film, TLD, and OSL dosimeters are examples of devices that require processing by qualified technicians using separate equipment to obtain data that is used to compute the dose measurement. Therefore, these types of dosimeters must be processed by an accredited NVLAP facility to ensure the quality of the processing. The NVLAP does not certify or accredit dosimetry devices themselves; it only certifies or accredits device processing. Accreditation by the NVLAP provides a level of assurance of quality of the measurement (i.e., accuracy, precision, and reliability) for processors.

Some recently designed personnel dosimeters do not require the type of processing envisioned in the text of § 34.47(a)—that is, data extraction through a process independent of the dosimeter. For example, some personnel dosimeters can provide instantaneous dose readings using internet-enabled computers, smartphones, and tablets. Data is extracted from the detector and then digitally transferred from the dosimeter for computation. The design of the personnel dosimeter, rather than the training and qualifications of the processing technician, ensures accurate dose information from the dosimeter after exposure to radiation.

Current regulations in § 34.47(a) and similar provisions in 10 CFR parts 36 and 39 require use of personnel dosimeters that require processing. This direct final rule eliminates these requirements for personnel dosimeters that require processing. The requirements in 10 CFR part 20 will continue to provide standards for the use of all personnel dosimeters.

The NRC considered recent peer-reviewed literature and NRC documents on the performance of digital output personnel dosimeters that were authorized by Agreement State and NRC licensees. The NRC determined that digital output personnel dosimetry has been used successfully by NRC licensees in other operational settings, by some Agreement State licensees in all areas—including industrial radiography, and internationally in multiple applications. The NRC did not find any evidence of generic performance problems with digital output personnel dosimetry in other operating settings, nor did the NRC identify any adverse trends that would preclude the use of this dosimetry by all NRC licensees.

In addition, the NRC evaluated the technical specifications of currently available digital output personnel dosimetry and determined that they met or exceeded performance standards, operability criteria (e.g., temperature, humidity), dose ranges, and quality control expectations for use in industrial radiographic, irradiator, and well logging operations. The NRC did not identify issues that would preclude the use of digital output personnel dosimetry in industrial radiographic, irradiator, or well logging operations.

Therefore, the NRC determined that there is no technical basis for continuing to limit the types of personnel dosimeters used in industrial radiography, irradiator, and well logging operations to only those that are processed and evaluated by an accredited NVLAP processor. The levels and types of radiation fields encountered in these operations are also encountered in other industries where digital output personnel

dosimeters already are allowed. The NRC determined that mandating the use of a particular type of personnel dosimetry will not prevent or reduce the dose received or result in more accurate, precise, or reliable measurements.

In addition, having access to digital output personnel dosimeters is especially beneficial to industrial radiography licensees. Under § 34.47(d), certain circumstances require workers to cease work immediately until their radiation dose has been determined. This can involve three or more days of wait time while the personnel dosimeter is sent off-site for processing and evaluation, which could cost the licensee revenue and lost time. Workers using digital output personnel dosimeters do not need to send their dosimeters to a processor and can have their radiation dose determined locally so that the issue can be resolved quickly.

Consistent with the agency's focus on implementing risk-informed, performance-based regulations and transforming its regulatory approaches, the NRC is amending the requirements for licensees under 10 CFR parts 34, 36, and 39 to enable the use of any personnel dosimeters. Removing the requirement to use personnel dosimeters that are processed and evaluated by an accredited NVLAP facility will allow the use of digital output personnel dosimeters (which do not require processing) and ensure all NRC licensees are held to the same standards for personnel dosimetry. Also, because the current regulations are based on the use of film, TLD, and OSL dosimeters (all of which require processing by an accredited NVLAP processor), conforming and clarifying changes related to exchange intervals, monitoring, and recordkeeping are being made to 10 CFR parts 34, 36, and 39 to address personnel dosimeters that do not require processing. These amendments will allow greater consistency with the Agreement States' programs.

On May 11, 2018, the NRC issued an Enforcement Guidance Memorandum (EGM-18-001) that provides guidance for dispositioning potential violations of NRC

requirements for personnel dosimetry during NRC-licensed activities under 10 CFR parts 34, 36, and 39 (ADAMS Accession No. ML18068A623). In the EGM, the NRC stated that industrial radiographic, irradiator, and well logging licensees who use digital output personnel dosimetry for personnel monitoring (i.e., dosimetry used for the dose of record) would not be subject to enforcement action for some potential violations of NRC requirements associated with the use of these dosimeters provided that specified conditions are met. The NRC considered the specific conditions specified in EGM-18-001 during the development of this direct final rule. The EGM will expire when this direct final rule becomes effective.

## **V. Guidance Documents**

The NRC is issuing supplemental guidance in conjunction with this direct final rule. Guidance on 10 CFR parts 34, 36, and 39 is provided in NUREG-1556, "Consolidated Guidance About Materials Licenses," in the volumes for industrial radiography (Volume 2), irradiators (Volume 6), and well logging (Volume 14). This supplemental guidance is intended for use by applicants, licensees, Agreement States, and the NRC staff when personnel dosimeters that do not require processing are being used. It includes guidance to applicants for the completion and submission of materials license applications to the NRC and model procedures that an applicant or licensee may consider when developing or changing its radiation safety program.

The supplemental guidance documents (ADAMS package Accession No. ML19360A184) are in a markup format to NRC's existing guidance and reflect the provisions in the direct final rule. On the effective date of the direct final rule, licensees that elect to use personnel dosimeters that do not require processing may use the supplemental guidance to comply with the provisions in the direct final rule.

Comments on the supplemental guidance may be submitted as directed in Section I, “Obtaining Information and Submitting Comments,” of this document. The NRC will incorporate this supplemental guidance into the next comprehensive revision of NUREG-1556.

## **VI. Section-by-Section Analysis**

The following paragraphs describe the specific changes made in this direct final rule.

### *Section 34.47 Personnel monitoring.*

In § 34.47, this direct final rule revises paragraph (a) by removing the requirement to use a personnel dosimeter that is processed and evaluated by an accredited NVLAP processor, revises paragraph (a)(3) to make conforming changes, and removes paragraph (a)(4).

Paragraph (d) is revised to include the requirement to begin evaluating an individual’s personnel dosimeter within 24 hours for personnel dosimeters that do not require processing, if the conditions in the paragraph are met.

Paragraph (f) is revised to state that all dosimetry results received by a licensee are to be retained in accordance with § 34.83.

### *Section 34.83 Records of personnel monitoring procedures.*

In § 34.83, this direct final rule revises paragraph (c) by removing the phrase “received from the accredited NVLAP processor.”

### *Section 36.55 Personnel monitoring.*

In § 36.55, this direct final rule revises paragraph (a) by removing the requirement to use a personnel dosimeter that is processed and evaluated by an

accredited NVLAP processor and clarifying that all personnel dosimeters must be capable of detecting high energy photons in the normal and accident dose ranges. The reference to § 20.1501(c) is removed because it does not apply to all personnel dosimetry. Conforming changes are made to clarify that personnel dosimeters that require processing must be replaced at appropriate intervals, that all personnel dosimeters must be evaluated promptly after replacement and at least quarterly, and an individual's radiation dose must be determined at periods not to exceed three months.

*Section 39.65 Personnel monitoring.*

In § 39.65, this direct final rule revises paragraph (a) by removing the requirement to use a personnel dosimeter that is processed and evaluated by an accredited NVLAP processor. Conforming changes are made to clarify that personnel dosimeters that require processing must be replaced at appropriate intervals, that all personnel dosimeters must be evaluated promptly after replacement and at least quarterly, and an individual's radiation dose must be determined at periods not to exceed three months.

## **VII. Regulatory Analysis**

The NRC has prepared a regulatory analysis (ADAMS Accession No. ML19283B555) to support this direct final rule. The analysis examines the costs and benefits of the alternatives considered by the NRC.

## **VIII. Regulatory Flexibility Certification**

Under the Regulatory Flexibility Act (5 U.S.C. 605(b)), the NRC certifies that this direct final rule will not, if issued, have a significant economic impact on a substantial

number of small entities. This direct final rule affects a number of “small entities” as defined by the Regulatory Flexibility Act or the size standards established by the NRC (§ 2.810). However, as indicated in the regulatory analysis, these amendments do not have a significant economic impact on the affected small entities.

#### **IX. Backfitting and Issue Finality**

The revisions to 10 CFR parts 34, 36, and 39 would not constitute backfitting as these parts do not have a backfitting provision. In addition, the revisions would not impose any additional requirements. Personnel dosimeters that are not processed would be authorized for voluntary use by licensees, but not required.

#### **X. Plain Writing**

The Plain Writing Act of 2010 (Pub. L. 111-274) requires Federal agencies to write documents in a clear, concise, and well-organized manner. The NRC has written this document to be consistent with the Plain Writing Act as well as the Presidential Memorandum, “Plain Language in Government Writing,” published June 10, 1998 (63 FR 31885).

#### **XI. National Environmental Policy Act**

The NRC has determined that this direct final rule is the type of action described in § 51.22(c)(2). Therefore, neither an environmental impact statement nor environmental assessment has been prepared for this direct final rule.

## **XII. Paperwork Reduction Act**

This direct final rule does not contain any new or amended collections of information subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing collections of information were approved by the Office of Management and Budget, approval numbers 3150-0007, 3150-0130, and 3150-0158.

### **Public Protection Notification**

The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the document requesting or requiring the collection displays a currently valid OMB control number.

## **XIII. Congressional Review Act**

This direct final rule is a rule as defined in the Congressional Review Act (5 U.S.C. 801-808). However, the Office of Management and Budget has not found it to be a major rule as defined in the Congressional Review Act.

## **XIV. Compatibility of Agreement State Regulations**

Under the “Agreement State Program Policy Statement” approved by the Commission on October 2, 2017 and published in the *Federal Register* on October 18, 2017 (82 FR 48535), the NRC program elements (including regulations) are placed into Compatibility Categories A, B, C, D, NRC, or Adequacy Category Health and Safety (H&S). Compatibility Category A are those program elements that are basic radiation protection standards and scientific terms and definitions that are necessary to

understand radiation protection concepts. An Agreement State should adopt Category A program elements in an essentially identical manner in order to provide uniformity in the regulation of agreement material on a nationwide basis. Compatibility Category B are those program elements that apply to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. Compatibility Category C are those program elements that do not meet the criteria of Category A or B, but the essential objectives of which an Agreement State should adopt to avoid conflict, duplication, gaps, or other conditions that would jeopardize an orderly pattern in the regulation of agreement material on a national basis. An Agreement State should adopt the essential objectives of the Category C program elements. Compatibility Category D are those program elements that do not meet any of the criteria of Category A, B, or C, and thus, do not need to be adopted by Agreement States for purposes of compatibility. Compatibility Category NRC are those program elements that address areas of regulation that cannot be relinquished to the Agreement States under the Atomic Energy Act of 1954, as amended, or provisions of title 10 of the *Code of Federal Regulations*. These program elements should not be adopted by the Agreement States. Compatibility Category H&S are program elements that are required because of a particular health and safety role in the regulation of agreement material within the State and should be adopted in a manner that embodies the essential objectives of the NRC program.

This direct final rule is a matter of compatibility between the NRC and the Agreement States, thereby providing consistency among Agreement State and the NRC requirements. The compatibility categories are designated in the following table:

### Compatibility Table

Section	Change	Subject	Compatibility	
			Existing	New
Part 34				
34.47(a)	Amend	Personnel monitoring	C	C
34.47(a)(3)	Amend	Personnel monitoring	C	C
34.47(d)	Amend	Personnel monitoring	C	C
34.47(f)	Amend	Personnel monitoring	C	C
34.83(c)	Amend	Records of personnel monitoring	C	C
Part 36				
36.55(a)	Amend	Personnel monitoring	H&S	H&S
Part 39				
39.65(a)	Amend	Personnel monitoring devices	C	C

### XV. Voluntary Consensus Statement

The National Technology Transfer and Advancement Act of 1995, Pub. L. 104-113, requires that Federal agencies use technical standards that are developed or adopted by voluntary consensus standards bodies unless the use of such a standard is inconsistent with applicable law or otherwise impractical. In this direct final rule, the NRC will revise parts 34, 36, and 39 by removing the requirement to use a personnel dosimeter that is processed and evaluated by an accredited NVLAP processor. This action does not constitute the establishment of a standard that contains generally applicable requirements.

#### List of Subjects

##### **10 CFR Part 34**

Criminal penalties, Manpower training programs, Occupational safety and health, Packaging and containers, Penalties, Radiation protection, Radiography, Reporting and recordkeeping requirements, Scientific equipment, Security measures, X-rays.

##### **10 CFR Part 36**

Byproduct material, Criminal penalties, Nuclear energy, Nuclear materials, Radiation protection, Reporting and recordkeeping requirements, Scientific equipment, Security measures.

### **10 CFR Part 39**

Byproduct material, Criminal penalties, Labeling, Nuclear energy, Nuclear material, Occupational safety and health, Oil and gas exploration - well logging, Penalties, Radiation protection, Reporting and recordkeeping requirements, Scientific equipment, Security measures, Source material, Special nuclear material.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; the Nuclear Waste Policy Act of 1982, as amended; and 5 U.S.C. 552 and 553, the NRC is adopting the following amendments to 10 CFR parts 34, 36, and 39:

### **PART 34 -- LICENSES FOR INDUSTRIAL RADIOGRAPHY AND RADIATION SAFETY REQUIREMENTS FOR INDUSTRIAL RADIOGRAPHIC OPERATIONS**

1. The authority citation for part 34 continues to read as follows:

**Authority:** Atomic Energy Act of 1954, secs. 81, 161, 181, 182, 183, 223, 234, 274 (42 U.S.C. 2111, 2201, 2231, 2232, 2233, 2273, 2282, 2021); Energy Reorganization Act of 1974, secs. 201, 206 (42 U.S.C. 5841, 5846); 44 U.S.C. 3504 note.

2. In § 34.47:

a. In paragraph (a) introductory text, remove the phrase “that is processed and evaluated by an accredited National Voluntary Laboratory Accreditation Program (NVLAP) processor”;

b. Revise paragraph (a)(3);

c. Remove paragraph (a)(4); and

d. Revise paragraphs (d) and (f).

The revisions read as follows:

**§ 34.47 Personnel monitoring.**

(a) \* \* \*

(3) Film badges must be replaced at least monthly and all other personnel dosimeters that require replacement must be replaced at least quarterly. All personnel dosimeters must be evaluated at least quarterly or promptly after replacement, whichever is more frequent.

\* \* \* \* \*

(d) If an individual's pocket chamber is found to be off-scale, or if his or her electronic personal dosimeter reads greater than 2 millisieverts (200 millirems), and the possibility of radiation exposure cannot be ruled out as the cause, the individual's personnel dosimeter that requires processing must be sent for processing and evaluation within 24 hours. For personnel dosimeters that do not require processing, evaluation of the dosimeter must be started within 24 hours. In addition, the individual may not resume work associated with licensed material use until a determination of the individual's radiation dose has been made. This determination must be made by the RSO or the RSO's designee. The results of this determination must be included in the records maintained in accordance with § 34.83.

\* \* \* \* \*

(f) Dosimetry results must be retained in accordance with § 34.83.

\* \* \* \* \*

**§ 34.83 [Amended]**

3. In § 34.83(c), remove the phrase “received from the accredited NVLAP processor”.

### **PART 36 -- LICENSES AND RADIATION SAFETY REQUIREMENTS FOR IRRADIATORS**

4. The authority citation for part 36 continues to read as follows:

**Authority:** Atomic Energy Act of 1954, secs. 81, 161, 181, 182, 183, 223, 234, 274 (42 U.S.C. 2111, 2112, 2201, 2231, 2233, 2273, 2282, 2021); Energy Reorganization Act of 1974, secs. 201, 206 (42 U.S.C. 5841, 5846); 44 U.S.C. 3504 note.

5. In § 36.55, revise paragraph (a) to read as follows:

#### **§ 36.55 Personnel monitoring.**

(a) Irradiator operators shall wear a personnel dosimeter while operating a panoramic irradiator or while in the area around the pool of an underwater irradiator. The personnel dosimeter must be capable of detecting high energy photons in the normal and accident dose ranges. Each personnel dosimeter must be assigned to and worn by only one individual. Film badges must be replaced at least monthly and all other personnel dosimeters that require replacement must be replaced at least quarterly. All personnel dosimeters must be evaluated at least quarterly or promptly after replacement, whichever is more frequent.

\* \* \* \* \*

### **PART 39 -- LICENSES AND RADIATION SAFETY REQUIREMENTS FOR WELL LOGGING**

6. The authority citation for part 39 continues to read as follows:

**Authority:** Atomic Energy Act of 1954, secs. 53, 57, 62, 63, 65, 69, 81, 161, 181, 182, 183, 223, 234 (42 U.S.C. 2073, 2077, 2092, 2093, 2095, 2099, 2111, 2112, 2201, 2232, 2233, 2273, 2282); Energy Reorganization Act of 1974, secs. 201, 206 (42 U.S.C. 5841, 5846); 44 U.S.C. 3504 note.

7. In § 39.65, revise paragraph (a) to read as follows:

**§ 39.65 Personnel monitoring.**

(a) The licensee may not permit an individual to act as a logging supervisor or logging assistant unless that person wears a personnel dosimeter at all times during the handling of licensed radioactive materials. Each personnel dosimeter must be assigned to and worn by only one individual. Film badges must be replaced at least monthly and all other personnel dosimeters that require replacement must be replaced at least quarterly. All personnel dosimeters must be evaluated at least quarterly or promptly after replacement, whichever is more frequent.

\* \* \* \* \*

Dated at Rockville, Maryland, this 3rd day of March, 2020.

For the Nuclear Regulatory Commission.

Margaret M. Doane,  
Executive Director for Operations.

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