



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

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*J. Miller*  
AEO7-1119

PDR

MEMORANDUM FOR:

Mark Au  
Information Management Coordinator  
Office of Nuclear Regulatory Research

FROM:

Brenda J. Shelton, Chief  
Information and Records Management Branch  
Division of Information Support Services  
Office of Information Resources Management

SUBJECT:

10 CFR 34, LICENSES FOR RADIOGRAPHY AND  
RADIATION SAFETY REQUIREMENTS FOR  
RADIOGRAPHIC OPERATIONS, PROPOSED RULE

We have reviewed the subject rule and the draft supporting statement and have provided comments on the rule, as indicated below, and comments on the draft supporting statement, as annotated on the enclosed copy.

**Comments on the rulemaking:**

Section 34.7: In the current regulation, the "Information Collection Requirements: OMB Approval" is contained in §34.8, and is consistent with the preferred placement of the OMB approval information in other Parts of the 10 CFR. Please change the section number from §34.7 back to §34.8 in the revised 10 CFR Part. In addition, there are additional information collections in 10 CFR Part 34 that should be included in this section. Please revise the section per Enclosure 1.

Section 34.13(g): We suggest that the fragment, "A list of permanent radiographic installations..." be rephrased for consistency with other paragraphs contained in this section, and also to properly relate back to the requirement at the beginning of §34.13.

Section 34.23(b) requires that a survey be made of moved devices. If a record of the survey is required, the rule should indicate as well as specify the retention period for the record that is to be kept.

Section 34.31(c) requires that each exposure device using an "S" tube configuration be periodically tested. If a record of the test is required, the rule should indicate as well as specify the retention period for the record that is to be kept.

Section 34.43(a)(1) refers to subjects outlined in §34.43(h). There is no §34.43(h). We presume §34.43(f) was intended.

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At §34.47(e), if a record is made when a film badge or TLD is lost or damaged and the dose calculated, the rule should so indicate as well as specify the retention period for the record that is to be kept.

Section §34.53 refers to §20.1903 that was deleted in the final rule to establish 10 CFR Part 36.

Section 34.81(a) refers to "procedures" while §34.81(b) refers to "records" The wording should be consistent. We suggest the following rewording:

Section 34.81 Copies of operating and emergency procedures.

Each licensee shall maintain a copy of current operating and emergency procedures and retain the procedures until the Commission terminates the license. Superseded material shall be retained for 3 years after each change.

As written, many of the requirements in "Subpart E -- Records" are unnecessarily wordy and fragmented. We suggest that you adopt the following wording where possible:

**Example: §34.83**

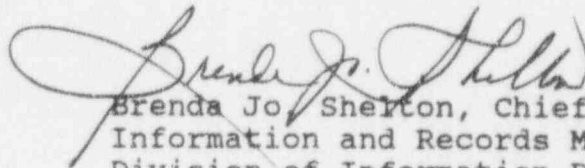
Section 34.83 Records of personnel monitoring.

Each licensee shall maintain the following exposure records:

- (a) records of pocket dosimeter checks for 3 years after the record is made, and
- (b) records of reports received from the film badge or TLD processor until the Commission terminates the license.

§34.83(f): Please identify the records that are to be retained until the Commission terminates the license.

If you have any questions regarding our comments on the rule or the OMB clearance package, please contact Beth St. Mary on extension 28540.



Brenda Jo Shelton, Chief  
Information and Records Management Branch  
Division of Information Resources Management  
Office of Information Resources Management

Enclosures:  
As stated

cc: M. Thomas, RES  
M. Lesar, ADM

**34.8 Information collection requirements: OMB approval**

(a) The Nuclear Regulatory Commission has submitted the information collection requirements contained in this part to the Office of Management and Budget (OMB) for approval as required by the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.). OMB has approved the information collection requirements contained in this part under control number 3150-0023. <sup>(b)(7)</sup>

(b) The approved information collection requirements contained in this part appear in §§ 34.11, 34.13, ~~34.15~~, 34.20, 34.25, 34.27, 34.29, 34.31, 34.33, 34.35, 34.41, 34.43, 34.45, 34.47, 34.49, 34.61, 34.63, 34.65, 34.67, 34.69, 34.71, 34.73, 34.75, 34.79, 34.81, 34.83, 34.85, 34.87, 34.89, 34.91, 34.101, and 34.111.

(c) This part contains information collection requirements in addition to those approved under the control number specified in paragraph (a) of this section. These information collection requirements and the control numbers under which they are approved are as follows:

(1) In §34.11, NRC Form 313 is approved under control number 3150-0120.

OMB SUPPORTING STATEMENT FOR 10 CFR PART 34  
LICENSES FOR RADIOGRAPHY AND RADIATION SAFETY REQUIREMENTS  
FOR RADIOGRAPHIC OPERATIONS

(3150-XXXX)  
0007

Description of the Information Collection

General requirements for radiation protection which are applicable to all NRC licensees are contained in 10 CFR Part 34, "Licenses for Radiography and Radiation Safety Requirements for Radiographic Operations."

This clearance package covers the requirements for all sections of 10 CFR Part 34.

The recordkeeping and reporting requirements for sections 34.1 through 34.121 are imbedded throughout these sections.

*This should be rewritten to indicate what this 10 CFR Part covers  
(~~see first paragraph of 34.1~~) Indicate this is a complete revision  
of Part 34 and why it is being done.*

*(First paragraph of existing Pt 34 extension could be used.)*

*Each new or modified requirement should be justified in the section describing the requirement*

A. JUSTIFICATION

The purpose of this revision is to clarify and update the NRC's requirements for radiography.

1. Need for the Collection of Information

The information collection requirements of the revised 10 CFR Part 34 are identified below.

§34.11 Application for a specific license, and §34.13 Specific license for radiography.

*(currently at §34.3 and 34.11)*

Taken together, these two sections require a license applicant to submit an application on NRC Form 313. The purpose of the application is to permit the NRC to determine whether the applicant's equipment, procedures, and personnel are adequate to protect public health and safety. As part of the application there is a new requirement in §34.13(g) to designate a Radiation Safety Officer.

*There appear also to be several modified or added reqs, i.e., 34.13 (b)(3) addition, 34.13 (d) modification, 34.13 (f) mod. Add need for changes*

§34.15 Request for written statements.

*34.11 (c)*

*reflect a new requirement for*

This section requires licensees to submit, upon request, any additional information that NRC may need to determine whether or not the license should be modified, suspended, or revoked. The purpose of this section is to allow the NRC to obtain additional information if there is a question about whether public health and safety are being adequately protected.

*You'd longer to clarify the request - use for minor word changes*

§34.20 Performance requirements for radiography equipment.

Paragraph (b)(1) of this section requires that each radiographic exposure device have an attached label bearing information identifying the radionuclide in the device, its activity, the manufacturer and model number, and the licensee's name, address, and telephone number. This information will serve as a safety notice to users and members of the public. The label requirement has been incorporated in the regulations, in part, in conformance with ANSI Standard N432. Paragraph (c)(4) requires that each sealed source or source assembly have an attached label bearing the words: "DANGER -- RADIOACTIVE" <sup>to alert the user to its dangers.</sup>

*There are no changes in requirements for these subsections.*

*§34.23 requires a survey. do a record made for survey? If so, include.*  
§34.25 Radiation survey instruments and §34.65 Records of radiation survey instruments.

*Not an info. collection*

~~Paragraph (a) of §34.25 requires the licensee maintain sufficient calibrated and operational radiation survey instruments to make physical radiation surveys as required by 10 CFR Parts 34 and 20. Paragraphs (b) <sup>and (c)</sup> of §34.25 requires that each~~

radiation survey instrument be calibrated at intervals not to exceed 6 months and after each instrument servicing, <sup>and</sup> that a record shall be maintained in accordance with §34.65. <sup>The making of radiation surveys is one of the most important aspects of radiation safety and the instruments must provide reasonable accuracy in the measurement of the levels of radiation to which individuals are exposed during conduct of radiographic operations. The records allow NRC inspectors to verify that required calibrations have been performed. The licensee will use the records to assure itself that the instruments available to radiographers and radiographer's assistants are properly calibrated.</sup>

*The calibration interval is being reduced from 3 mos to 6 mos. Add why.*



§34.27 Leak testing, repair, tagging, opening, modification, and replacement of sealed sources; and §34.67 Records of leak testing, repair, tagging, opening, modification, and replacement of sealed sources.

Paragraph (b) of §34.27 requires the licensee to maintain records of leak test results in accordance with §34.67. A leak test is the only effective method of determining the integrity of the sealed source. Serious radiological hazards could result from a leaking source. The records allow NRC inspectors to verify that required tests to detect radioactive contamination have been done. Paragraph (d) of §34.27 requires that licensees report within 5 days of the leak testing any result which would indicate that a source is leaking. The report must describe the equipment involved, the test results, and the corrective action taken. The NRC staff uses the report in assessing whether the corrective actions initiated by the licensee are adequate to protect workers and the public from the hazards of a leaking source. The NRC staff also uses the report to identify generic problems with respect to source design, radiographic equipment design, or problems in source manufacturing and quality control.

*OK - Add labeling requirements at (e). Indicate there are no changes in these info requirements which are at 34.25 in the current regulation. Where are requirements at 34.67? Address collection of current 34.27 - Utilization logs requirement.*

§34.29 Quarterly inventory and §34.69 Records of quarterly inventories.

Paragraph ~~28~~<sup>29</sup> of §34.29 requires the licensee to conduct a quarterly physical inventory to account for all sealed sources received and possessed under the license, and to maintain records of the inventories in accordance with §34.69. The inventories are used by the licensee to verify the location of the sources and to control the type, quantity and use of byproduct material. The records allow NRC inspectors to verify that the required inventories have been conducted

and to ensure that the licensee is in compliance with authorized possession limits.

*There is no change in this requirement currently at 34.26. Add requirement of §34.69.*

§34.31 Inspection and maintenance of radiographic exposure devices, storage containers, and source changers and §34.73 Records of inspection and maintenance of radiographic exposure devices, storage containers, and source changers.

Paragraph (a) of §34.31 requires that the licensee have a program to inspect for obvious defects of radiographic exposure devices, source changers, <sup>associated</sup> auxiliary equipment and storage containers prior to use each day the equipment is used to ensure that the equipment is in good working condition and that required labeling is present, and to remove defective equipment from service until it is repaired, and to make a record of the defect in accordance with §34.73. The records assist the licensee in keeping track of when the equipment was last inspected and maintained and when inspection is next due. The records are used by NRC staff to determine the extent of compliance by the licensee, and to detect problems that may be generic to the equipment so that corrective action might be taken.

*The Add the revisions to the §, namely - add check for auxiliary equipment, ~~and~~ that labels are present and record of defects. Add reason for change.*

*NOT  
NEW*

*Does this require a record? If so, add. moved to 34.27  
Add requirements at 34.73. <sup>but that</sup>*

*Spell out the records.*

*The new requirements are to inspect the associated equipment & to ensure that the required labeling is present*

*The record-keeping reports of*

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34.73 is added

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*reports present ~~to~~ in the current rule @ 34. <sup>reflect the record-keeping</sup>*



§34.33 Permanent radiographic installations and §34.75 Records of permanent radiographic installations.

§34.33 requires that the alarms on permanent radiographic installations required by §34.33(b) be tested at intervals not to exceed 3 months and at the beginning of each day of equipment use. *Defective controls/devices or alarms shall be immediately labeled* Records of the alarm test shall be maintained in accordance with §34.75. These alarms are an important backup to the radiation survey instrument and are intended to prevent inadvertent entry into a radiographic installation (cell) while a source is in the unshielded position. The records are use by the licensee to keep track of when the tests were last performed and when they are next due. Paragraph (b) of §34.75 requires that the licensee retain these records for a period of 3 years after the record is made, so that they may be reviewed by NRC inspectors to determine compliance with required testing of important safety equipment. *Revised section requires additional tests. Should be indicated with reason.*

§34.35 Labels, storage, and transportation precautions.

This section requires that labels used to identify radioactive material containers use formats and wording which is consistent with 20.1904. This is to minimize the potential for worker confusion by using consistent warning labels.

*Add 34.41 - a RSO qualifications to lic. application requirement.*  
§34.43 Training and §34.79 Record: of training.

*(currently at 34.31)*  
*(currently at 34.43)*  
Paragraph (e) of §34.43 requires that the licensee maintain records of training to include written, oral and field examinations, annual safety reviews, and annual evaluations of job performance. The licensee shall maintain records of

the aforementioned items in accordance with §34.79. The <sup>newly request</sup> records of the annual evaluations will be used by the licensee to keep track of deficiencies, if noted, so that they can be corrected. Paragraph (c) of §34.79 requires that the licensee retain these records for a period of 3 years after the record is made so that the NRC can inspect to ensure that these individuals are properly trained.

*What about records of annual safety reviews? Aren't these new? Add need for revision. (List of topics & dates of reviews)*

§34.45 Operating and emergency procedures and §34.81 Records of operating and emergency procedures.

*(currently at §34.32)*  
This section requires that licensees develop procedures for routine operations and emergencies for employees to follow in performing safety functions. These include the safe handling and use of sealed sources and radiographic exposure devices; conducting radiation surveys; controlling access to radiographic areas; locking and securing radiographic exposure devices, storage containers, and sealed sources; personnel monitoring; transporting sealed sources; minimizing exposure; accident procedures; source recovery procedures; inspection and maintenance of radiographic exposure devices and storage containers; steps to be taken if a pocket dosimeter is off-scale; and procedures for identifying and reporting defects and noncompliance. The licensee must maintain copies of current operating and emergency procedures in accordance with §34.81. Paragraph (b) of §34.81 requires that the licensee retain these until the Commission terminates the license. Paragraph (c) of §34.81 requires that the licensee retain copies of superseded material for 3 years after each change. The records allow the operators to have access to an up-to-date set of written operating procedures so that they can operate the radiography equipment properly.

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*Add. items to be included in procedures 34.45(a)(6), (b) need to be addressed with need. These will show burden for updating procs.*

§34.47 Personnel monitoring and §34.83 Records of personnel monitoring.

*New requirements  
for exemption requests to be added to read*

*Personnel monitoring requirements are currently at §34.33*

The NRC has reevaluated these requirements in view of questions raised by OMB in the previous clearance. §34.47(a) requires that radiographers wear several types of devices to monitor their exposure to radiation. One of these devices is a pocket dosimeter, which is important because it tells the radiographers how much radiation dose they have accumulated during their shift. Paragraph (b) of §34.47 requires radiographers to read and record the exposure on the their pocket dosimeters at the beginning and end of each shift, and that records shall be maintained in accordance with §34.83. Paragraph (c) of §34.47 requires that the pocket dosimeters be checked at periods not to exceed 12 months for correct response to radiation, and that records shall be maintained in accordance with §34.83. When the radiographer records the pocket dosimeter reading, the licensee then knows the amount of exposure a worker received during a given shift and the licensee can take needed actions (e.g., adjust the worker's assignments so as to maintain their accumulated dose within regulatory limits; provide training to improve their work habits and thus reduce their dose). Radiographers are also required to wear a film badge or TLD which is used as their permanent record of their occupational exposure.

*Add (f) and (g)(4) - new*

*incorporated in last part of this section*

The records serve as an important mechanism for controlling exposure on a day-to-day basis, provide indications of inadvertent exposure, and provide a backup record of estimated exposure in case a film badge or thermoluminescent dosimeter is lost. Pocket dosimeter readings are often the first indication a radiographer has of an overexposure or improperly stored source. Records of pocket dosimeter readings are needed in investigations of incidents and overexposures. ~~These~~

~~Requirements are currently at §34.33~~

The last of the devices used by radiographers is the alarm ratemeter, which is important because it tells the radiographer that they are in an radiation area where the dose is greater than or equal to 500 milliroentgen/hour (mR/hr). This device allows the radiographer to quickly leave the area to minimize their dose.

Paragraph (g) of §34.47 requires that these devices be calibrated at periods not to exceed one year for correct response to radiation. The licensee must maintain records of the calibrations in accordance with §34.83. Paragraph (b) of §34.83 requires that the licensee retain these records for 3 years after the record is made. Paragraph (c) of §34.83 requires that the licensee maintain records of reports received from the film badge or TLD processor. Paragraph (d) of §34.83 requires that the licensee retain these records until the Commission terminates the license. The records allow NRC inspectors to verify that the licensee is complying with the NRC's radiation dose limits and to determine the effectiveness of the licensee's exposure control program.

§34.49 Radiation surveys and §34.85 Records of radiation surveys.

The NRC has reevaluated the requirements of this section in view of questions raised by OMB in the previous clearance. Paragraph (d) of §34.49 requires that radiography licensees maintain records of storage surveys in accordance with §34.85. These storage surveys are required by paragraph (c) of §34.49 when that survey is the last one that is performed on that day. Paragraph (b) of §34.85 requires that the licensee retain these records for 3 years after the record is made. The records allow NRC inspectors to verify that the required radiation surveys have been done and that the radiation dose limits are being complied

with.

The requirement in paragraph (d) of §34.49 is intended to assure that the radioactive source is in the fully shielded position at the end of the work day after the device has been placed in its storage location. A device may remain stored for an extended period and, if the source is not fully shielded, it could cause excessive and unnecessary radiation exposure to unsuspecting individuals.

*This requirement currently exists at §34.43 and is not being revised.*

§34.53 Posting.

This section requires the licensee to conspicuously post areas in which radiography is being performed to serve as a warning to anyone that might enter the area. *This is a current requirement at §34.53.*

§34.61 Records of specific licenses for radiography.

This <sup>new</sup> section requires the licensee to have a copy of the license and amendments until superseded or until the NRC terminates the license. The purpose is so that the licensee will review the document regularly to verify that they are in compliance with the conditions of the license and the commitments that it has made.

§34.63 Records of receipt and transfer.

Paragraph (a) of this section requires that the licensee maintain records showing receipts and transfers of sealed sources. Paragraph (c) requires that the

*(B) indicate the information to be kept as a record.*

licensee retain these records for a period of 3 years after the record is made. The records allow NRC inspectors to verify ~~that~~ the sources the licensee is presently using. *not a sentence*

§34.71 Utilization logs.

Paragraph (a) of this section requires that the licensee maintain current utilization logs. Paragraph (b) of this section requires that the licensee retain these records for a period of 3 years after the record is made. These logs must show for each sealed source the following information: (a) a description, including the make, model number and serial number of the radiographic exposure device or storage container in which the sealed source is located; (b) the identity and signature of the radiographer to whom assigned; (c) the plant or site where used and dates of use, including the dates removed and returned from storage. The records allow NRC inspectors to determine whether the licensed material has been properly controlled and used. The records are also used by the licensee to maintain control of licensed material.

*There are added requirements at 34.71 (c)(1) - serial #, (c)(2) signature, and (c)(3) dates removed & returned to storage. Added requirements and their need need to be addressed.*



§34.89 Documents and records required at field stations.

§34.89 adds the requirement to maintain copies of the following records

The following documents and records are needed at field stations, to safely

perform radiographic operations: Needs a better justification

to demonstrate compliance w/ NRC req. use in conducting rad ops.

- (a) A copy of Parts 19, 20, and 34 of NRC Regulations;
- (b) The license authorizing the use of licensed material;
- (c) Operating and emergency procedures required by §34.45;
- (d) The record of radiation survey instrument calibrations required by §34.65;
- (e) The record of leak test results required by §34.67;
- (f) Physical inventory records required by §34.69;
- (g) Utilization records required by §34.71;
- (h) Records of inspection and maintenance required by §34.73;
- (i) Training records required by §34.79; and
- (j) Survey records required by §34.85.

No need to double space

§34.91 Documents and records required at temporary jobsites.

*§34.91 adds the requirement that*

Each licensee conducting operations at a temporary jobsite ~~shall~~ maintain copies of the following documents and records at the temporary jobsite in order to safely perform the radiographic operation until the radiographic operation is completed:

- No need to double space*
- (a) Operating and emergency procedures required by §34.45.
  - (b) Evidence of latest calibration of the radiation survey instruments in use at the site required by §34.65.
  - (c) Latest survey records required by §34.85.
  - (d) The shipping papers for the transportation of radioactive materials required by §34.77 and §71.5 of this chapter; and
  - (e) When operating under reciprocity pursuant to §150.20 of this chapter, a copy of the Agreement State license authorizing use of licensed materials.

34.101 Notifications of incidents.

*adds the requirement*  
This section ~~establishes~~ that each licensee shall submit a written report within 30 days after learning of any of the following occurrences:

- (1) unintentional disconnection of the source assembly from the control cable.
- (2) inability to retract the source assembly to its fully shielded position and secure it in this position.
- (3) failure of any component (critical to safe operation of the device) to properly perform its intended function.

This report is required so that NRC can ensure that there are appropriate follow-up actions to avoid a recurrence. Paragraph (b) of this section contains requirements for the content of these reports. *List the 7 content requirements and why they are all needed.*

§34.111 Applications for exemptions.

*now*  
This section allows licensees to request exemption from the NRC's requirements. The requests are part of the application process under §34.11 and thus, the burden is covered under that section.

2. Agency Use of Information

The information collected is used to evaluate the effectiveness of NRC regulations and to discern any trends, problems, or special situations requiring

*This # should be rewritten to orient around preventing safety issues & quick reaction to safety issues. OMB will not buy "need to compare applicants" if you include analysis of trends, you need to indicate why this is needed.*

additional controls. The NRC uses information on worker exposures to analyze trends and compare applicant performance. This information is also published in annual reports for use by industry and other interested organizations.

3. Reduction of Burden through Information Technology

There are no legal obstacles to reducing the burden associated with this information collection. *The revision to 10 CFR Part 34 encourages licensees, who so desire, to submit info in electronic format* However, because of the types of information and the infrequency of submission, the application form and reports do not lend themselves readily to the use of automated information technology.

4. Effort to Identify Duplication

The Information Requirements Control Automated System was searched and no duplication was found.

5. Effort to Use Similar Information

There is no similar information available to the NRC.

6. Effort to Reduce Small Business Burden

Many NRC radiography licensees are small businesses. Efforts have been made to keep the requirements for information to a minimum. However, since the consequences of mishandling of a radiography source are likely to be the same for large and small entities, it is not possible to further reduce the burden on small businesses by less frequent or less complete recordkeeping or reporting.

7. Consequences of Less Frequent Collection

Applications are only required to be submitted for the initial license, for amendments, and for renewal every 5 years. The application process requires that applicants and licensees perform a comprehensive review of their entire radiation safety program to assure that all activities will be or are being conducted safely and in accordance with NRC regulations. The review and submission of the information required for the application is essential to NRC's determination of whether the applicant has training, experience, equipment, facilities and procedures for the use of byproduct material that are adequate to protect the public health and safety. Other reporting and recordkeeping requirements are occasioned by specified events such as leak tests, instrument calibrations, and inventories of licensed material. Conduct of these tests and other events and collection of information concerning them at the required frequency is essential to the assurance of protection for the health and safety of workers and the public.

8. Circumstances Which Justify Variation from OMB Guidelines

§34.27(d) varies from OMB guidelines in requiring that licensees report within 5 days of the leak testing any result which would indicate that a source is leaking. This requirement for a report in less than 30 days is necessary because a leaking source could present a radiological hazard to workers and the public, and NRC must be notified promptly in order to be able to assess whether corrective actions initiated by the licensee are adequate.

§34.45 varies from OMB guidelines in requiring that licensees retain a copy of current operating and emergency procedures as a record until the Commission terminates the license. It is necessary that these procedures be retained longer than 3 years because the information is used by the licensee and its employees throughout the period of licensed activity to guide the handling and use of radioactive material in normal and emergency situations.

*Add 34.83(d), 34.61*

9. Consultations Outside the NRC

There have been no consultations outside the agency since the previous clearance of this information collection requirement. *The proposed rule will be published for public comment.*

10. Confidentiality of Information

None, except for proprietary information.

11. Justification for Sensitive Questions

There are no questions regarding sensitive issues.



12. Estimated Annualized Cost to the Federal Government

13. Estimate of Burden

14. Reasons for Change in Burden

15. Publication for Statistical Use

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS