

AEO7-1 036

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

July 14, 1993

NOTE TO: Mary Thomas, RES
FROM: Beth St. Mary *B. St. Mary*
SUBJECT: 10 CFR PART 34 RULEMAKING AND ASSOCIATED OMB CLEARANCE PACKAGE

Enclosed is a markup of the Part 34 supporting statement and also some suggested changes to the rule. The supporting statement is much closer now, and for the most part needs only minor changes. You may wish to send a draft FRN for the OMB clearance package with the next submittal, so that we can indicate any changes needed there too. It is not necessary to include a formal response memo indicating how you are addressing each change requested in the OMB clearance package. Either make the change or annotate the markup as to why you are not making the change. Brenda is on leave so she has not had a chance to review my comments, so she may have a few additional comments.

I have marked some changes on the rulemaking version that you e-mailed to me. I'm sure you have already caught some of them as they are merely editorial. In our memorandum of March 5, 1993, we suggested that changes be made to Subpart E to make it more concise. RES's April 28, 1993 response indicated that the changes had been made. However, in reviewing the latest revision, the changes appeared to be done only for the example section that we provided. Therefore, I have included a markup with suggested changes for the remainder of Subpart E.

If you have any questions, call me on extension 28540.

OMB SUPPORTING STATEMENT FOR 10 CFR PART 34
LICENSES FOR RADIOGRAPHY AND RADIATION SAFETY REQUIREMENTS
FOR RADIOGRAPHIC OPERATIONS
(3150-0007)

*Attorney General
S. Thomas
July 14/93*

Description of the Information Collection

10 CFR Part 34 provides certain requirements exclusive to licensees using byproduct material for purposes of industrial radiography, a technique of non-destructive testing. The byproduct material is normally employed in the form of sealed sources which emit high levels of radiation. Those sources are remotely moved from their shielded position in the radiographic device to an unshielded position up to 15 feet away and again returned to their shielded position following each radiograph. These radiographic devices are also often moved from location to location at a jobsite, and transported from jobsite to jobsite. The many manipulations of the sources, movement, and transport of the devices result in unique and continuing potential and actual hazardous radiological conditions.

This rulemaking revises 10 CFR Part 34 in its entirety. This rulemaking would include additional safety requirements to enhance the level of protection of radiographers and the public and would clarify the regulations so that licensees may have a better understanding of what is expected in radiographic operations. This rulemaking includes a number of updated radiography regulations that have been adopted by many Agreement States. The format of the radiography regulations would be adjusted to place requirements into descriptive categories.

In order for a person to be licensed to possess, use, or distribute licensed material, the person must submit an application that will permit NRC to determine whether the applicant has training, experience, equipment, facilities, and procedures for the use of radioactive material that are adequate to protect the public health and safety. NRC Form 313, "Application for Material License." is used to provide the information required. If the information in the application fulfills the substantive requirements stated elsewhere in the regulations, NRC issues a license.

A. JUSTIFICATION

1. Need and Practical Utility 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.

Taken together, these two sections (currently at § 34.3 and § 34.11) require a license applicant to submit an application on NRC Form 313, to the NRC so that the NRC may determine whether the applicant's equipment, procedures, and personnel are adequate to protect public health and safety.

Paragraph 34.13(b), currently paragraph 34.11(b), requires applicants to have a training program for radiographers and radiographers' assistants, and to submit to the Commission a schedule or description of the program specifying (1) the initial training; (2) on-the-job training; (3) annual safety reviews; (4) means to be used to determine the radiographer's knowledge and understanding of and ability to comply with ^{applicant's} the operating and emergency procedures of the applicant; ^{and} (5) means to be used to determine the radiographer's assistant's knowledge and understanding of and ability to comply with the Commission's regulations and licensing requirements and ^{applicant's} the operating and emergency procedures of the applicant. This information is reviewed by the NRC staff to ensure that radiographers and their assistants will have sufficient training to enable them to work safely and in compliance with NRC regulations, license conditions, and licensee operating and emergency procedures.

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~~The burden and cost associated with ^{these} this requirement are incurred in connection with the submission of the application, NRC Form 313, and are therefore reported under the clearance for that form, OMB No. 3150-0120, which should be referred to for the information collection burden and supporting data.~~

Submittal of description of annual safety reviews is new and will effect burden need to include additional burden in burden table

(Add 59.13(c))

Paragraph 34.13(d), currently paragraph 34.11(c), requires that applicant establish and submit to the Commission satisfactory written operating and emergency procedures. The operating and emergency procedures are intended to provide radiography personnel with step-by-step instructions and procedures so that the performance of industrial radiography will not endanger health or pose a danger to life or property. The preparation of operating and emergency procedures is intended to assure that radiography personnel are aware of specifically what needs to be done and how it should be done, so that there is

no misunderstanding of what is required of each person involved in the overall radiography operation.

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~~The burden and cost associated with this requirement are incurred in connection with the submission of the application, NRC Form 313, and are therefore reported under the clearance for that form, OMB No. 3150-0120, which should be referred to for the information collection burden and supporting data.~~

Paragraph 34.13(e), currently paragraph 34.11(d), requires that the applicant establish and submit its program for semiannual inspections of the job performance of each radiographer and radiographer's assistant as described in § 34.43(d). The semiannual inspections are necessary to ensure that radiographers and radiographers' assistants are performing their jobs in accordance with the operating and emergency procedures set forth in their license.

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~~The burden and cost associated with this requirement are incurred in connection with the submission of the application, NRC Form 313, and are therefore reported under the clearance for that form, OMB No. 3150-0120, which should be referred to for the information collection burden and supporting data.~~

Paragraph 34.13(f), currently paragraph 34.11(e), requires that the applicant submit a description of its overall organizational structure as it applies to the radiation safety responsibilities in radiography, including specified delegations of authority and responsibility. The NRC staff will review this information in order to ensure that the licensee's organization will provide adequate management oversight, supervision and accountability for safe operation

of the radiography program and that the lines of authority and responsibility are clear and unambiguous.

Paragraph 34.13(g) is new. It requires the applicant to designate and identify a Radiation Safety Officer (RSO) responsible for implementing the licensee's radiation safety program. The RSO shall meet the qualifications and duties described in §34.41. This requirement, albeit, new to the document, is ^{a new requirement.} not. This has always been assumed by the NRC to be ^{"Individual Responsible for Radiation Safety Program,"} Item 7 on NRC Form 313. It was separated from paragraph 34.13(f) in order to make it clear to the licensee/applicant the need to complete Item 7 on NRC Form 313. This information is reviewed by the NRC staff to ensure that licensees/applicants have completed ~~Item 7 on NRC Form 313.~~ ^{a qualified} ~~responsible~~ individual is assigned for radiation safety.

Paragraph 34.13(h), currently paragraph 34.11(f), requires an applicant that desires to conduct its own leak tests to determine possible leakage or contamination from sources used in industrial radiography to provide its specific procedures for performing the tests. The procedures for performing the tests must specify the method of performing the leak test, the instrumentation to be used for measurement of the leak test sample, and the experience of the person who will perform the tests. The NRC staff reviews the procedures to ensure that the method of obtaining the leak test sample will be adequate to determine if there is any leakage or contamination, and that the person who will perform the leak tests has training and experience in performing such tests.

The burden and cost associated with this requirement are incurred in connection with the submission of the application, NRC Form 313, and are

What about requirement to identify manufacturers of leak test kits to be used. Appraisals to be done. Should reflect NRC 313. Field stations & roadblocks. Installation. Could be requirement. I think...

~~therefore reported under the clearance for that form, OMB No. 3150-0120, which should be referred to for the information collection burden and supporting data.~~

Paragraph 34.13(i) is new. It requires the applicant to identify the locations and describe all field stations and permanent radiographic installations. This requirement, albeit, new to the document, is not ^{a new requirement}. This has always been assumed by the NRC to be ^{"Facilities and Equipment"} Item 9, on NRC Form 313. It is addressed separately in order to make it clear to the licensee/applicant that they need to complete Item 9 on NRC Form 313. This information is necessary because field stations and permanent installations may be far removed from the home office. (to facilitate inspections for safety?)

A The information required by sections 34.11 and 34.13 are submitted on the NRC Form 313, ^{OMB clearance number 3150-0120,} as part of the application process. All information required by the revised sections is required by the current regulation except for ^{annual safety review} ~~annual safety~~ required by 34.13(b) and ^{manufacturing} ~~manufacturing~~ required by 34.13(c). ^{and the ref. requirements of sections 34.13(g) and 34.13(h) which} The increase in burden ^{for NRC Form 313} due to these added requirements is included in the licensee burden table.

(include increase in burden table)

§ 34.20 Performance requirements for radiography equipment.

Paragraph 34.20(b)(1) requires that each radiographic exposure device have an attached label bearing information identifying the radionuclide in the device, its activity, ^{and date last measured} the manufacturer, ^{and serial} 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 34.20(b)(2) requires that radiographic exposure devices intended for use as Type B transport containers meet the applicable requirements of 10 CFR Part 71, including documentation of the QA program requirements outlined in § 71.105. The addition of the requirement to document the QA program was included to reduce the existing confusion concerning the meaning of requiring licensees to meet the requirements of Part 71. While NRC licensees have always been expected to meet this requirement a number have not done so. The requirement is necessary for licensees to demonstrate that the transport package meets its intended purpose.

Most current revision does not have this wording. Therefore, there are no requirements at 34.20(b)(2). Delete

Paragraph 34.20(c)(4) requires that each sealed source or source assembly have an attached label, or engraving, bearing the words "DANGER -- RADIOACTIVE." This label must be durable, legible, and visible; and must not interfere with the operation of the exposure device or associated equipment. The label is necessary to protect public health and safety.

it is not necessary to include this section

Paragraph 34.20(d) requires that all newly manufactured radiographic exposure devices and associated equipment acquired by the licensees after January 10, 1992, comply with the requirements of section 34.20. This is necessary for the licensees to demonstrate compliance with the regulations.

*Not necessary
to info
requirements*

Paragraph 34.20(e) requires that all radiographic exposure devices, source assemblies, and associated equipment in use after January 10, 1996, comply with the requirements of section 34.20. This is necessary for the licensees to demonstrate compliance with the regulations.

Paragraph 34.20(f) is new. It requires that all associated equipment acquired after January 10, 1996, be labelled to identify that the components have met the requirements of section 34.20. This was added to reduce the burden of proof on the licensee and to speed up the inspection process by reducing record searches for a component to ensure that it meets the requirements of Part 34,

§ 34.25 Radiation survey instruments and § 34.65 Records of radiation survey instruments.

Paragraphs (b) and (c) of § 34.25 require that each radiation survey instrument be calibrated at intervals not to exceed 6 months and after each instrument servicing, and that a record be maintained in accordance with § 34.65. The existing rule requires that radiation survey instruments be calibrated at 3 month intervals and a record maintained of the calibrations. The calibration interval is being extended from 3 months to 6 months because survey instruments are now

sturdier and more reliable. 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. This is a burden reduction, since licensees will be required to maintain fewer records under the proposed rule.

§ 34.27 Leak testing and replacement of sealed sources; and § 34.67 Records of leak testing and replacement of sealed sources.

Paragraph 34.27(b)(2) requires the licensee to maintain records of leak test results in accordance with § 34.67 and is the same as the existing requirements in § 34.25(c).

Paragraph 34.27(b)(3) requires that the licensee not use a sealed source in the absence of a certificate from the transferor that the source has been leak tested within the 6 months before the transfer. The certificate from the transferor is necessary to ensure that the licensee does not use a source that has not been leak tested as required by Section 34.27(b)(1).

Paragraph 34.27(c) requires that the licensee perform the leak test required by paragraph 34.27(b)(1) using a leak test kit or a method approved by

the Commission or an Agreement State, and that the person performing the leak test be approved by the Commission or an Agreement State. This is necessary to ensure that the licensee performs the test properly.

Paragraph 34.27(d) 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.

Paragraph 34.27(e) requires that a sealed source not fastened to or contained in a radiographic exposure device have permanently attached to it a durable tag at least one (1) inch square bearing the prescribed radiation caution symbol in conventional colors, magenta, purple or black on a yellow background, and at least the instructions: "Danger -- Radioactive Material -- Do Not Handle -- Notify Civil Authorities if Found." This is necessary to protect public health and safety.

Not necessary to include this section

The only new requirement in this subsection is the addition of leak testing of "S" tubes. Paragraph 34.27(f) requires licensees to conduct leak tests of "S" tubes manufactured using depleted uranium for shielding, *at least annually* and to maintain records of these tests in accordance with § 34.67. A leak test is the only effective

method of determining the integrity of the sealed source. Serious health hazards could result from a leaking source. The records allow NRC inspectors to verify that required tests to detect radioactive contamination have been done.

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

Paragraph 34.29(a) requires the licensee to conduct a quarterly physical inventory to account for all sealed sources received and possessed under the license, and paragraph 34.29(b) requires the licensee to maintain records under § 34.69 of the material inventoried, ^{for 3 years} and is similar to the existing requirements in 34.26. The proposed rule specifies that the record must include ^{the quantities and radioisotope} the sealed source model number, serial number and manufacturer, ^{the location of sealed sources,} as well as the name of the individual conducting the inventory. These additional records are specified to ensure that licensees maintain complete records to ensure traceability of sealed sources. 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.

§ 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 34.31(a) requires that the licensee visually check for obvious defects in radiographic exposure devices, storage containers, associated equipment, and source changers 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. If defects are found, the equipment must be removed from service until repaired, and a record must be made in accordance with § 34.73.

Paragraph 34.31(b) requires that the licensee have a program to inspect for obvious defects of radiographic exposure devices, source changers, associated 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, to remove defective equipment from service until it is repaired, and to make a record under § 34.73 of each quarterly inspection and any defects found during the inspection and to keep these records for 3 years. The proposed recordkeeping requirements in paragraph 34.73(b) are an expansion of what is presently in § 34.28(b) which requires that records be kept of inspections for 3 years but does not specify what information to keep. The records specified at § 34.73 must include the date of check, equipment inspected, name of inspector, and any defects found and repairs made. 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 new requirements of these sections are to ensure that the associated equipment is in good working condition and that the required warning labels are present.

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

Paragraph 34.33(c) requires that the alarms on permanent radiographic installations required by § 34.33(b) be tested at intervals not to exceed 3 months. There is a new requirement that the alarm be tested at the beginning of each day of equipment use in order to ensure that they are functioning properly to prevent inadvertent entry into a radiographic installation (cell) while a source is in the unshielded position. Defective control devices on alarms are to be immediately labeled as such. This is necessary to warn personnel of potential radiation hazards. Records of the alarm test are to be maintained under § 34.75 for 3 years, which is the same as the current requirement in § 34.29(c), with the additional requirement of recording the alarm system tests performed before each day of use. 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 used 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

(a) = (b) = revision. Are these (b) = and in error? In the latest there is no (b) = and in error?

made, so that they may be reviewed by NRC inspectors to determine compliance with required testing of important safety equipment.

§ 34.35 Labels, storage, and transportation precautions.

Paragraph 34.35(a)(1) is a new section that requires 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 for radioactive material. Part 34 licensees have always been required to comply with this requirement under Part 20. The new section is added to eliminate confusion in implementing some of the requirements in Part 20.

do not need any to include this section.

Paragraph 34.35(a)(2) is a new section that requires that the licensee not transport licensed material unless the material is packaged, labeled, marked, and accompanied with appropriate shipping papers in accordance with regulations set out in 10 CFR Part 71, including documentation of the QA program requirements outlined in § 71.105. This is necessary to ensure that the licensee is in compliance with regulations stated in this part and in Part 71.

§ 34.42 Radiation Safety Officer

This is a new section which requires that the Radiation Safety Officer (RSO) meet certain training and documented experience qualifications prior to being designated as the RSO. The RSO is responsible for establishing and

overseeing the development of procedures required by § 34.45, ALARA procedures as required by 10 CFR Part 20, overseeing the training program required by § 34.43, and overseeing the performance of radiation surveys and leak tests required by § 34.49 and § 34.27 respectively and that records of personnel monitoring results *and that timely notifications are made* are maintained, as required by § 20.2203. The RSO is to be listed on the license application as required in § 34.13(g).

§ 34.43 Training and § 34.79 Records of training.

Paragraph 34.43(a)(2), currently 34.31(a)(2), contains a new requirement for the licensee to provide radiographers with copies of pertinent sections of Parts 19, 20, 30, 34, and 71, and instructions in applicable Department of Transportation regulations as referenced in 10 CFR Part 71, in addition to the existing requirement to provide copies of the NRC license and operating and emergency procedures. This is needed to ensure that radiographers are sufficiently knowledgeable of NRC regulations prior to using licensed material.

Paragraph 34.43(b)(1), currently 34.31(b)(1), contains a new requirement for the licensee to provide radiographer's assistants with copies of pertinent sections of Parts 19, 20, 30, 34, and 71, and instructions in applicable Department of Transportation regulations as referenced in 10 CFR Part 71, and the NRC license under which the assistant will perform radiography, in addition to the existing requirement to provide copies of operating and emergency procedures. This is needed to ensure that radiographer's assistants are sufficiently knowledgeable of NRC regulations prior to using licensed material.

Paragraph 34.43(d) inspection ^{and recording} of job performance, currently 34.20(d)(1)

is on a quarterly basis, ~~it has now~~ been reduced to semiannual to reduce the administrative burden on the licensee. ~~The reason for the reduction is to reduce the frequency of the inspections of job performance to semiannual inspections for individuals regularly conducting radiographic operations.~~ For individuals who have not performed radiographic operations for more than six months, an inspection of job performance would be required as in the existing rule at the time they next participate in a radiographic operation. This reduction was done primarily in response to comments made at the Radiography Workshop conducted in November, 1992.

Paragraph 34.43(e) requires that the licensee maintain records of training to include written and field examinations, annual safety reviews, semiannual inspections of job performance. The licensee shall maintain records of the aforementioned items in § 34.79, which is currently required in §34:31(c) with the addition of the new requirement for documenting the information covered in periodic training which follows the initial training. The existing regulation does not have a specific recordkeeping requirement unless a test were administered. Without this record it would be difficult for licensees to keep track of when and what training was provided, thus making it difficult for the licensees to demonstrate compliance with NRC requirements. The records of the semiannual inspections of job performance 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

34.79(b) lists the info. required as a record & should be included. This was not appear to be currently required as a record because of the new requirements, it would be better to list 34.79 separately.

years after the record is made so that the NRC can inspect to ensure that these individuals are properly trained.

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

Paragraph 34.45(a), currently 34.32, 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; inspection and maintenance of radiographic exposure devices and storage containers; steps to be taken if a pocket dosimeter is off-scale; procedures for identifying and reporting defects and noncompliance; accident procedures; minimizing exposure; a source recovery procedure if the licensee will perform this function rather than using a consultant (which is a new requirement); and maintenance of records. Paragraph 34.45(a)(6), currently 34.32(f), is not new, the word "posting" has been changed to "placarding" to fit better when discussing transportation issues, and the reference to the Department of Transportation, 49 CFR Parts 171, 172, and 173 has been added to provide further information regarding transportation of radioactive materials. The requirement for a source recovery procedure in paragraph 34.45(a)(12) is new. It is necessary for the licensee to have this procedure if the licensee is going to recover sources on their own.

Paragraph 34.45(b) requires that the licensee maintain copies of current operating and emergency procedures in § 34.81 which is unchanged from the requirements currently in § 34.32. Section 34.81 requires that the licensee retain these records until the Commission terminates the license and 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. The NRC inspectors review these procedures to ensure that current instructions are being provided.

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

Paragraph 34.47(a) requires that radiographers wear several types of devices to monitor their exposure to radiation. These are: The pocket dosimeter, the alarm ratemeter, and a film badge or thermoluminescent dosimeter (TLD). The pocket dosimeter is important because it tells the radiographers how much radiation dose they have accumulated during their shift. A new requirement is that the pocket dosimeter range must be from 0 to 2 millisieverts. Under the current regulation radiographers could use a pocket dosimeter with a wider range and a higher endpoint which does not provide sufficient sensitivity to record routine exposures. This leads to a potential for overexposures to occur without sufficient warning. Should the radiographer expect that the exposure will exceed 2 millisieverts they will need to file an exemption to use a pocket dosimeter with a higher endpoint. The alarm ratemeter is important because it tells the radiographer that he/she is in an radiation area where the dose is greater than

*I do not see this in the...
Should be...
required to...
(11-15)*

or equal to 500 milliroentgen/hour (mR/hr). This device allows the radiographer to quickly leave the area to minimize his/her dose. The film badge and TLD are important because they provide a permanent ^{record} of the individual's exposure.

Paragraph 34.47(b), a new requirement, 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 for 3 years as specified in paragraph 34.83(a).

Paragraph 34.47(c) requires that the pocket dosimeters be checked at periods not to exceed 12 months (rather than 1 year as in the current rule) for correct response to radiation, and that records shall be maintained for 3 years as specified in § 34.83(a). Again, 3 years is the same time period as specified in the current rule. 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).

Paragraph 34.47(d) requires that a determination of exposure be made if a individual's pocket dosimeter goes off-scale and that the result of the determination be maintained in accordance with § 34.83(d).

Paragraph 34.47(e) requires that if a film badge or TLD is lost or damaged that the exposure be calculated for the time period from issuance to loss or damage, and that a record be maintained of the calculation in accordance with § 34.83(d). ~~This is clear~~

Paragraph 34.47(f) requires that the licensee maintain reports received from film badge and TLD processors until the license is terminated as specified in the current rule under § 34.33(e) and in § 34.83(c) of the proposed rule.

Paragraph (g) of § 34.47 requires that alarm ratemeters be calibrated at periods not to exceed one year for correct response to radiation. A new requirement is added that the licensee must maintain records of the calibrations for 3 years after the record is made as specified in § 34.83(b). This was added to provide a means for the licensees to demonstrate to NRC that their alarm ratemeters are properly calibrated.

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Section 34.83 is proposed as currently written in § 34.33(b) and requires licensees to maintain records of alarm ratemeter calibrations, pocket dosimeter readings and operability checks for 3 years from the date the record was made, and to maintain records of film badge or TLD reports until the Commission terminates the license.

Each licensee shall maintain the following exposure records:

(a) Daily pocket dosimeter readings and yearly operability checks for 3 years after the record is made.

(b) Records of alarm ratemeter calibrations for 3 years after the record is made.

(c) Reports received from the film badge or TLD processor until the Commission terminates the license.

(d) Records of estimates of exposures as a result of off-scale pocket dosimeters or lost or damaged film badges or TLDs until the Commission terminates the license.

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 an improperly stored source. Records of pocket dosimeter readings are needed in investigations of incidents and overexposures, since they are the only available record for the exposure received that day.

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

Paragraph (f) of § 34.49 requires that radiography licensees maintain records of storage ~~surveys~~ in accordance with § 34.85^{for 3 years}. The storage surveys are required by paragraph (d) of § 34.49 when that survey is the last one that is performed on that day and is unchanged from the current rule. It 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 is a current requirement at § 34.43(c) and is not being revised.

Paragraph (e) of § 34.49 requires that surveys be conducted initially with the maximum amount of radioactive material present in the storage location and thereafter at the time of the quarterly inventory and whenever storage conditions

change. These surveys are necessary to ensure that radiation levels do not exceed the limits specified in 10 CFR 20.1301. *Records are retained 3 yrs in accordance with* Paragraph (c) 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.

§ 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 and merely reiterates the requirements at § 20.1902(a) and (b). This is a current requirement at § 34.42.

Not necessary to include this section

The following sections are not entirely new. Most of the requirements contained in these sections are imbedded throughout the current rule. This subpart has been added to place recordkeeping requirements in one location in the rule.

§ 34.61 Records of specific licenses for radiography.

license conditions, documents incorporated by reference, and amendments
This new section requires the licensee to have a copy of the license 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.

This new section requires that the licensee maintain records showing receipts and transfers of sealed sources for 3 years after the record is made. The following information must be included in the record: the date, the individual making the record, the radionuclide, number of curies, and make, model, and serial number of each sealed source and device, as appropriate. The records allow NRC inspectors to verify the sources the licensee is presently using.

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summary
Table I.*

§ 34.65 Records of radiation survey instruments.

This new section requires that the licensee maintain records of the calibrations of their radiation survey instruments, and that the records be retained for 3 years. These requirements are the same as those in the current § 34.24. These records are necessary to verify that the licensee is in compliance with NRC requirements as described in § 34.25, *and to ensure the safety of the users of these instruments.*

§ 34.67 Records of leak-testing and replacement of sealed sources.

This new section requires that the licensee maintain records of leak test results and that the records be retained for 3 years. These requirements are the same as those in the current § 34.35(c). These records are necessary to verify that the licensee is in compliance with NRC requirements as described in § 34.27 *and to ensure the safety of the users of sealed sources.*

§ 34.69 Records of quarterly inventory.

This new section requires that the licensee maintain records of quarterly inventories. Paragraph (a) requires that the record include the quantities and kinds of byproduct material (including the model number, the serial number and manufacturer), location of sealed sources, the name of the individual conducting the inventory and the date of the inventory. Paragraph (b) requires that the records be retained for 3 years. Most of these requirements are the same as those in the current § 34.26. The new requirements are the model and serial numbers, and the manufacturer of the sealed source, and the name of the individual conducting the inventory. These new requirements were added to ensure that licensees maintain complete records to ensure traceability of sealed sources.

§ 34.71 Utilization logs.

Paragraph (a) of this section requires that the licensee maintain current utilization logs. 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 from and returned to storage. The new requirements in this section are the model and serial numbers and the manufacturer of the radiographic exposure device, the signature of the radiographer to whom assigned, and the dates the device is removed from and returned to storage. These requirements were added to demonstrate adequate control of licensed material. The current

regulation only requires a description of the device or storage container, the identity of the radiographer to whom assigned and the plant or site where used and the dates of use. The records required by this section are used by the licensee to maintain control licensed material, and allow NRC inspectors to determine whether the licensed material has been properly controlled and used. Paragraph (b) of this section requires that the licensee retain these records for a period of 3 years after the record is made.

*Insert
34.87
from p. 20.*

§ 34.87 Forms of records.

This section describes allowable forms for official records.
This section (currently at § 34.4) is not new. The word "maintenance" was changed to "form" in keeping with the latest language used in NRC regulations. It requires that the records required by Part 34 be legible throughout the specified retention period. The record may be the original or a reproduced copy or a microform provided that the copy or microform is authenticated by authorized personnel and that the microform is capable of reproducing a clear copy throughout the required retention period. The record may also be stored in electronic media with the capability for producing legible, accurate, and complete records during the required retention period. Records, such as letters, drawings, and specifications, must include all pertinent information, such as stamps, initials, and signatures. The licensee shall maintain adequate safeguards against tampering with and loss of records.

§ 34.89 Documents and records required at field stations and permanent installations.

This new section adds the requirement to maintain copies of the following records at field stations to demonstrate compliance with NRC regulations in conducting radiographic operations:

- (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.

Add reason why needed at field station - appears to be "to ensure all info is available to..."

§ 34.91 Documents and records required at temporary jobsites.

This new section 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 radiographic operations:

- (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.

(Evidence of latest calibration of a dose rate meter & periodicity check of instrument documented required by § 34.65)

- (c) Latest survey records required by § 34.85.

(d) The shipping papers for the transportation of radioactive materials required by § 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.

Add 34.101(a)+(b)

This section, currently at § 34.30, contains notification requirements. (A new subparagraph, 34.101(c), has been added that requires the licensee to notify the appropriate NRC regional office in writing prior to conducting radiographic operations or storing radioactive material at any location not listed on the license in excess of 180 days. This requirement is necessary in order to provide the NRC with information in a timely manner to permit inspection of radioactive material at these locations *to ensure that they are in compliance with NRC safety requirements.*

§ 34.111 Applications for exemptions.

This section, currently at § 34.51, permits licensees to request exemptions from requirements by demonstrating to the Commission that alternate means of ensuring that adequate health and safety measures are achieved in lieu of the regulations. This section contains the following new language: "...endanger life or property or the common defense and security and are otherwise in the public interest." as compared to the current language: "...result in undue hazard to life or property." The new language was added to broaden the scope of this section, and to conform with other NRC regulations.

2. 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 information in electronic format. *Records may be retained* However, because of the ~~types of information and the infrequency of submission, the application form not lend itself readily to the use of automated information technology for submission.~~ *because of the types of information and the infrequency of submission, the application form not lend itself readily to the use of automated information technology for submission.*

3. Effort to Identify Duplication

The Information Requirements Control Automated System ^(IRCCAS) was searched and no duplication was found.

4. Effort to Use Similar Information

There is no similar information available to the NRC.

5. 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.

6. 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 provide the assurance of protection for the health and safety of workers and the public.

7. Circumstances Which Justify Variation from OMB Guidelines

Section 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.

Section 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.

8. 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.

9. Confidentiality of Information

None, except for proprietary information.

10. Justification for Sensitive Questions

There are no questions regarding sensitive issues.

11. Estimated Annualized Cost to the Federal Government

The estimated annual cost professional staff effort for activities other than application review, is \$4,591,300 (37,420 hours @ \$123/hr). *which is included in OMB clearance 3150-0120, NRC Form 313*

12. Estimate of Burden

See Tables 1 and 2. *10 CFR Part 34* Total burden is estimated ~~to~~ for recordkeeping and reporting is estimated to be *123X*

13. Reasons for Change in Burden

The change in burden is due to the revision of 10 CFR Part 34 in its entirety and additional information to be submitted on NRC Form 313, cleared under OMB No. 3150-0120.

14. Publication for Statistical Use

None.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

Statistical methods are not employed in the collection of information.

Handwritten notes at the bottom of the page, including "In addition, there is an increase in burden for the form 313..."

TABLE 1

INFORMATION COLLECTION BURDENS ASSOCIATED WITH
RECORDKEEPING REQUIREMENTS OF THE REVISED 10 CFR PART 34

SECTION	LICENSEES AFFECTED	HOURS/LICENSEE	TOTAL BURDEN	COST AT \$123/HR	RECORD RETENTION	NOTES
34.20(b)(1)	200	1	200	24,600	3 Years	Labels
34.20(b)(2)	200	4	800	98,400	3 Years	
34.20(f)	200	1	200	24,600	3 Years	New, labels
34.25(c)	200		0	0	3 Years	see § 34.65
34.27(b)(2)	100		0	0	3 Years	see § 34.67
34.27(c)	100	3	300	36,900	RULT ¹ 3 yrs	
34.27(e)	100		0	0	3 Years	Labels <i>if you take this out</i>
34.27(f)	100		0	0	RULT ¹ ? 3 years	Labels <i>See 34.67</i> New, "S" tube leak-testing <i>take out here</i>
34.29(b)	200		0	0		see § 34.69
34.31(a)	200		0	0		see § 34.73
34.31(b)	200		0	0		see § 34.73
34.33(c) (b) <i>See 34.67</i>	50		0	0		see § 34.75
34.35(a)	200	1	200	24,600	3 Years	New, labels
34.42	200		0	0		see § 34.13(g)
34.43(e)	200		0	0	3 Years	see § 34.79
34.45(a)	200		0	0	RULT ¹	see § 34.81
34.45(b)	200		0	0	RULT ²	see § 34.81
34.47(b)	200		0	0	3 Years	see § 34.83(a)
34.47(c)	200		0	0	3 Years	see § 34.83(a)
34.47(d)	10		0	0	RULT ¹	New, see § 34.83(d)
34.47(e)	10		0	0	RULT ¹ 3 Years	see § 34.83(d)
34.47(f)	200		0	0	3 Years- RULT ²	see § 34.83(c)

¹ Retain until license is terminated.

² Retain until license is terminated. Superseded material must be retained for 3 years after each change.

TABLE 1 (cont'd)

INFORMATION COLLECTION BURDENS ASSOCIATED WITH
RECORDKEEPING REQUIREMENTS OF THE REVISED 10 CFR PART 34

SECTION	LICENSEES AFFECTED	HOURS/LICENSEE	TOTAL BURDEN	COST AT \$123/HR	RECORD RETENTION	NOTES
34.47(g)(4)	200		0	0	3 Years	New, see § 34.83(b)
34.49(d)	200		0	0	3 Years	see § 34.85
34.49(e)	200		0	0	3 Years	see § 34.85
34.53	200		0	0	RULT ¹	see OMB Clearance No. for Part 20
34.61	200	3	600	73,800	RULT ¹	
34.63	200		0	0	3 Years	No new requirement. This is a reminder of § 30.41 and § 30.51, or equivalent Agreement State regulations. burden covered under those sections.
34.65	200	3	600	73,800	3 Years	
34.67	100	1	100	12,300	3 Years	
34.69	200	12	2,400	295,200	3 Years	
34.71(a), (b)	200	100	20,000	2,460,000	3 Years	
34.73(a), (b) & (c)	200	14	2,800	344,400	3 Years	
34.75(a) & (b)	50	2	100	12,300	3 Years	
34.79(a), (b) & (c)	200	5	1,000	123,000	3 Years	
34.81	200	3	600	73,800	RULT ¹	
34.83(a)	200	1	200	24,600	3 Years	
34.83(b)	200	1	200	24,600	RULT ¹	

do not see in either 30.41 or 30.51 the specific data to be retained as is indicated in 34.63. Is this the data required by Part 30? If this is merely a reminder you need to change the prologue to the rule which lists 34.63 as an added requirement. Also, add this writeup to p 23.

if you delete "have replaced" remove p 30 requirements

¹ Retain until license is terminated.

TABLE 1 (cont'd)

INFORMATION COLLECTION BURDENS ASSOCIATED WITH
RECORDKEEPING REQUIREMENTS OF THE REVISED 10 CFR PART 34

SECTION	LICENSEES AFFECTED	HOURS/ LICENSEE	TOTAL BURDEN	COST AT \$123/HR	RECORD RETENTION	NOTES
34.83(c)	200	6	1,200	138,000	3 Years	RULT ¹
34.83(d)	10	2	20	2,300	RULT ¹	
34.85(a), (b) and (c)	200	1	200	23,000	3 Years	
34.87	200		0	0		Format only
34.89	150	3	450	55,350	3 Years	New
34.91	50	3	150	18,450	3 Years	New
TOTALS	N/A	170	32,320	3,964,000	N/A	N/A

¹ Retain until license is terminated.

TABLE 2

INFORMATION COLLECTION BURDENS ASSOCIATED WITH REPORTING REQUIREMENTS OF THE REVISED 10 CFR PART 34

SECTION	LICENSEES AFFECTED	HOURS/LICENSEE	TOTAL BURDEN	COST AT \$123/HR	REPORT RETENTION	NOTES
34.11	200				RULT ¹	See OMB Clearance No. 3150-0120
34.13(b)	200				RULT ¹	See OMB Clearance No. 3150-0120
34.13(d)	200				RULT ¹	See OMB Clearance No. 3150-0120 <i>added requirement addressed below under NRC Form 313</i>
34.13(e)	200				RULT ¹	See OMB Clearance No. 3150-0120
34.13(f)	200				RULT ¹	See OMB Clearance No. 3150-0120
34.13(g)	200	10	2,000	246,000	RULT ¹	New <i>Addressed below under NRC Form 313</i>
34.13(h)	200				RULT ¹	See OMB Clearance No. 3150-0120 <i>313</i>
34.13(i)	200	10	2,000	246,000	RULT ¹	New
34.27(d)	100	5	500	61,500		
34.101(a)	10	5	50	6,150		

¹ Retain until license is terminated.

34.27(d)
Why are (a) & (b) separate? They should be together based on rule.

TABLE 2 (cont'd)

INFORMATION COLLECTION BURDENS ASSOCIATED WITH
REPORTING REQUIREMENTS OF THE REVISED 10 CFR PART 34

SECTION	LICENSEES AFFECTED	HOURS/ LICENSEE	TOTAL BURDEN	COST AT \$123/HR	REPORT RETENTION	NOTES
34.101 (b)	10	5	50	6,150		
34.101 (c)	200	2	400	49,200		New
34.111	10	10	100	12,300		
TOTALS	N/A	47	5,100	627,300	N/A	N/A

*Add increase in burden for added info submitted on
 NRC Form 313*

*(34.13(b) annual safety reviews, 34.13(g), 34.13(h) - identify
 manufacturers & model nos of leak tests, 34.13(i))*

Section 34.43, Training, contains several new requirements which are discussed below. Section 34.43(a) has been revised to include training in §§ 30.7, 30.9, and 30.10, applicable sections of 10 CFR Part 71, and some instructions in ^{the requirements} applicable Department of Transportation (DOT) regulations as referenced in 10 CFR Part 71, in addition to other parts of NRC regulations. Section 34.43(b), which lists training requirements for radiographers' assistants, has been revised to require training in §§ 30.7, 30.9, 30.10, and Parts 19, 20, 34, 71, and some instructions in ^{the requirements} applicable DOT regulations as referenced in 10 CFR Part 71, in addition to the licensee's operating and emergency procedures. These changes are to ensure that radiographers and radiographers' assistants are knowledgeable of the safety requirements applicable to handling radioactive material in the conduct of radiography. In § 34.43(b)(3) the option of providing an oral test has been omitted. The proposed rule would only allow a written test to be given. Section 34.43(c) describes a proposed requirement to conduct annual safety review of radiographers and radiographers' assistants. In the current rule, annual safety review is required, although there are no requirements on topics to be addressed. A number of violations involving personnel overexposures have resulted from licensees' failures to provide adequate training. The proposed requirement includes training on revised operating and emergency procedures, new equipment, and safety issues. This review can be combined with the semiannual inspection of job performance required by § 34.43(d).

Section 34.43(d) has been relocated from § 34.11(d), and describes the requirements for routine inspections of job performance for radiographers and radiographers' assistants. The proposed rule reduces the frequency of these inspections from quarterly to semiannually. The NRC is proposing to reduce

Implementation

The effective date of the proposed requirements would be 90 days after publication of the final rule in the Federal Register. For the proposed requirements in §34.41 to use, as a minimum, a two-person crew for radiographic operations not conducted in a permanent facility, licensees would have one-year from the effective date of the rule to comply. For the additional training requirements specified in § 34.43(b), licensees would have one year from the effective date of the rule to comply. Licensees could consider combining this training with the annual safety review. For use/storage locations at previously identified (e.g., field stations, permanent radiographic installations, and temporary jobsites exceeding 180 days) licensees must request amendments or notify the NRC, as appropriate, by the effective date of the rule. Few amendment requests are anticipated. For the additional RSO training requirements specified in §34.42(a), all current RSOs would be granted a two-year extension to meet the proposed requirements.

The Commission requests that persons commenting on the proposed amendments particularly address how and why any hardships may result from the proposed rule, and also address how and why any hardships may result from the proposed implementation schedule. NRC is particularly interested in comments concerning the need for, and suggestions for, alternative implementation schedules.

Finding of No Significant Environmental Impact: Availability

The Commission has determined under the National Environmental Policy Act of 1969, as amended, and the Commission's regulations in Subpart A of 10 CFR Part 51, that the rule, if adopted, would not be a major Federal action; therefore, an impact statement is not required. The revision of 10 CFR Part 34 should have no environmentally significant impact since radiography only involves the use of sealed sources, and no environmental impact will be involved. The environmental assessment and finding of no significant impact on which this determination is based are available for inspections at the NRC Public Document Room at 2120 L Street, NW. (Lower Level), Washington DC.

Paperwork Reduction Act Statement

This proposed rule amends information collection requirements that are subject to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.). This rule has been submitted to the Office of Management and Budget for review and approval of ~~these~~ ^{the information collection} requirements.

~~The~~ Public reporting burden for this collection of information is estimated to average 187 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Information and Records Management Branch (MNBB-7714), U.S. Nuclear Regulatory Commission, Washington, DC 20555; and to the Desk Officer, Office of

be returned to the manufacturer for such testing. The analysis must be capable of detecting the presence of 185 Bq (0.005 microcuries) of radioactive material on the test sample and must be performed by a person approved by the Commission or an Agreement State to perform the analysis. This test must be undertaken at intervals not to exceed 12 months and should such testing reveal the presence of DU contamination, the exposure device must be removed from use and arrangements for proper disposal in a facility licensed under 10 CFR

§ 34.29 Quarterly inventory.

(a) Each licensee shall conduct a quarterly physical inventory to account for all sealed sources received and possessed under this license.

(b) The licensee shall maintain records of the quarterly inventory in accordance with § 34.69.

24. Section 34.30 is removed.

§ 34.30 [Removed]

25. Section 34.31 is revised to read as follows:

§ 34.31 Inspection and maintenance of radiographic exposure devices, storage containers, associated equipment, and source changers.

(a) The licensee shall visually check for obvious defects in radiographic exposure devices, storage containers, associated equipment, and source changers before use each day the equipment is used to ensure that the equipment is in good working condition and that required labeling is present. If defects are found, the equipment must be removed from service until repaired, and a record must be made in accordance with § 34.73.

(b) Each licensee shall have a program for inspection and routine maintenance of radiographic exposure devices, source changers, associated equipment and storage containers at intervals not to exceed 3 months or before the first use thereafter to ensure the proper functioning of components important to safety. Records of these inspections and maintenance performed must be made in accordance with § 34.73. If defects are found, the equipment must be removed from service until repaired, and a record must be made in accordance with § 34.73.

(c) The opening, repair, or modification of any sealed source must be performed by persons specifically authorized to do so by the Commission or an Agreement State.

26. Section 34.32 is removed.

§ 34.32 [Removed]

27. Section 34.33 is revised to read as follows:

§ 34.33 Permanent radiographic installations.

(a) Each entrance that is used for personnel access to the high radiation area in a permanent radiographic installation must have either

(1) entrance controls of the type described in § 20.1601(a)(1) of this chapter or

(2) both visible and audible warning signals to warn of the presence of radiation. The visible signal must be actuated by radiation whenever the source is exposed. The audible signal must be actuated when an attempt is made to enter the installation while the source is exposed.

(c) The alarm system must be tested for proper operation at the beginning of each day the installation is used for radiographic operations.

The licensee shall store licensed material in a manner which will minimize danger from explosion or fire.

(2) The licensee shall lock and physically secure the transport package containing licensed material in the transporting vehicle to prevent accidental loss, tampering, or unauthorized removal of the licensed material from the vehicle.

29. A new heading for Subpart D [§§ 34.41-34.57] is added to read as follows:

Subpart D - Radiation Safety Requirements

30. Section 34.41 is added to read as follows:

§34.41 Conducting radiographic operations

(a) Whenever radiography is performed outside a permanent radiographic installation, the radiographer must be accompanied by at least one other qualified radiographer or an individual who has at a minimum met the

requirements of 34.43(b). the addition qualified individual(s) observing the operations and must be capable of providing immediate assistance to prevent unauthorized entry. Radiography may not be performed if only one qualified individual is present.

(b) All radiographic operations conducted at locations listed on the license must be conducted in a permanent radiographic installation.

31. Section 34.42 is revised to read as follows:

§ 34.42 Radiation Safety Officer.

The Radiation Safety Officer (RSO) shall ensure that radiation safety activities are being performed in accordance with approved procedures and regulatory requirements in the daily operation of the licensee's program.

(a) The RSO's qualifications must include:

- (1) Completion of the training and testing requirements of § 34.43(a); and
- (2) 2000 hours of documented experience in industrial radiographic operations, with at least 40 hours of formal classroom training with respect to the establishment and maintenance of a radiation protection program.

(b) The specific duties of the RSO include, but are not limited to, the following:

(1) To establish and oversee operating, emergency, and ALARA procedures as required by Part 20, and to review them regularly to ensure that the procedures are current and conform with these rules; *? guideline ?*

(2) To oversee and approve all phases of the training program for radiographic personnel so that appropriate and effective radiation protection practices are taught;

(3) To ensure that required radiation surveys and leak tests are performed and documented in accordance with these rules, including any corrective measures when levels of radiation exceed established limits;

(4) To ensure that personnel monitoring devices are calibrated and used properly by occupationally-exposed personnel, that records are kept of the monitoring results, and that timely notifications are made as required by § 20.2203; and

(5) To ensure that operations are conducted safely and to assume control and have the authority to institute corrective actions including stopping of operations when necessary in emergency situations or unsafe conditions.

(2) Each film badge and TLD must be assigned to and worn by only one individual.

(3) Film badges and TLDs must be replaced at least monthly.

(4) After replacement, each film badge or TLD must be promptly processed.

(b) Pocket dosimeters must be read and the exposures recorded at the beginning and end of each shift, and records must be maintained in accordance with § 34.83.

(c) Pocket dosimeters must be checked at periods not to exceed 12 months for correct response to radiation, and records must be maintained in accordance with § 34.83. Acceptable dosimeters must read within plus or minus 30 percent of the true radiation exposure.

(d) If an individual's pocket dosimeter is found to be off-scale and the possibility of radiation exposure cannot be ruled out as the cause, the individual's film badge or TLD must be sent immediately for processing. In addition, the individual may not work with licensed material until a determination of the individual's radiation exposure 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.

(e) If a film badge or TLD is lost or damaged, the worker shall cease work immediately until a replacement film badge or TLD is provided and the exposure is calculated for the time period from issuance to loss or damage of the film badge or TLD. The results of the calculated exposure and the time

period for which the film badge or TLD was lost or damaged must be included in the records maintained in accordance with § 34.83.

(f) Reports received from the film badge or TLD processor must be retained in accordance with § 34.83.

(g) Each alarm ratemeter must --

(1) Be checked to ensure that the alarm functions properly (sounds) before using at the start of each shift;

(2) Be set to give an alarm signal at a preset dose rate of 5 mSv/hr (500 mrem/hr); with an accuracy of plus or minus 20 percent of the true radiation dose rate.

(3) Require special means to change the preset alarm function; and

(4) Be calibrated at periods not to exceed 12 months for correct response to radiation. The licensee shall maintain records of alarm ratemeter calibrations in accordance with § 34.83.

38. Section 34.49 is added to read as follows:

§ 34.49 Radiation surveys.

The licensee shall:

(a) Conduct surveys with a calibrated and operable radiation survey instrument that meets the requirements of § 34.25.

(b) Conduct an adequate survey of the radiographic exposure device with a radiation survey instrument after each exposure to determine that the sealed source has been returned to its shielded position.

(c) Conduct a survey ~~when approaching the guide tube~~ before exchanging films, repositioning the collimator, or dismantling equipment.

61. *Does this make sense?*

Subpart E - Recordkeeping Requirements

42. Sect. 34.61 is revised to read as follows:

§ 34.61 Records of specific license for radiography.

Each licensee shall maintain a copy of its license, license conditions, documents incorporated by reference, and amendments thereto until superseded by new documents or until the Commission terminates the license.

43. Section 34.63 is revised to read as follows:

§ 34.63 Records of receipt and transfer of sealed sources.

(a) Each licensee shall maintain records showing the receipts and transfers of sealed sources *and retain each record*

(b) These records must include the date, the individual making the record, the radionuclide, number of curies, and make, model, and serial number of each sealed source and device, as appropriate.

~~(c) The licensee shall retain the records required by paragraph (a) of this section for 3 years after the record is made.~~

44. Sections 34.65 - 34.91 are added to Subpart E to read as follows:

§ 34.65 Records of radiation survey instruments.

~~(a)~~ Each licensee shall maintain records of the calibrations of its radiation survey instruments. *and retain each record*

~~(b) The licensee shall retain the records required by paragraph (a) of this section for 3 years after the record is made.~~

§ 34.67 Records of leak testing of sealed sources.

~~(a)~~ Each licensee shall maintain records of leak test results in units of Becquerels (curies). *same as above*

(b) The licensee shall retain the records required by paragraph (a) of this section for 3 years after the record is made.

§ 34.69 Records of quarterly inventory.

(a) Each licensee shall maintain records of the quarterly inventory *and retain each record*

(b) The record must include the quantities and kinds of byproduct material (including the model number, the serial number and manufacturer), location of sealed sources, the name of the individual conducting the inventory, and the date of the inventory.

~~(c) The licensee shall retain the records required by paragraph (a) of this section for 3 years after the ^{it} record is made.~~

§ 34.71 Utilization logs.

(a) Each licensee shall maintain current utilization logs at the address specified in the license, showing for each sealed source the following information:

- (1) 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;
- (2) The identity and signature of the radiographer to whom assigned; and
- (3) The plant or site where used and dates of use, including the dates removed and returned to storage.

(b) The licensee shall retain the logs required by paragraph (a) of this section for 3 years after the log is made.

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

(a) Each licensee shall maintain records of defects found in daily checks and quarterly inspections and maintenance of radiographic exposure devices, storage containers, associated equipment, and source changers.

(b) The record must include the date of check, name of inspector, equipment involved, any defects found, and repairs made.

(c) ~~The licensee shall retain the records required by paragraph (a) of this section for 3 years after the record is made.~~

and retain each record

§ 34.75 Records of alarm system and entrance control checks at permanent radiographic installations.

(a) Each licensee shall maintain records of alarm system and entrance control device tests.

(b) ~~The licensee shall retain the records required by paragraph (a) of this section for 3 years after the record is made.~~

and retain each record

§ 34.79 Records of training.

Each licensee shall maintain records (of training):

the following for 3 yrs after the record is made.

(a) Records of training of each radiographer and each radiographer's assistant. The record shall include copies of written tests, dates of field examinations, and names of individuals conducting the field examinations, and

(b) Records of annual safety reviews and semiannual inspections for each radiographer and each radiographer's assistant. The records must list the topics discussed, the dates of the reviews, and names of the instructors and

attendees. For semiannual inspections the records must also include a list of the questions asked and any non-compliances observed.

~~(c) Records must be retained for 3 years after the record is made.~~

§ 34.81 Copies of operating and emergency procedures.

~~(a) Each licensee shall maintain a copy of current operating and emergency procedures.~~

~~(b) The licensee shall retain the procedures required by paragraph (a) of this section) until the Commission terminates the license. Superseded material must be retained for 3 years after the change is made.~~

§ 34.83 Records of personnel monitoring.

Each licensee shall maintain the following exposure records:

(a) Daily pocket dosimeter readings and yearly operability checks for 3 years after the record is made.

(b) Records of alarm ratemeter calibrations for 3 years after the record is made.

(c) Reports received from the film badge or TLD processor until the Commission terminates the license.

(d) Records of estimates of exposures as a result of off-scale pocket dosimeters or lost or damaged film badges or TLDs until the Commission terminates the license.

§ 34.85 Records of radiation surveys.

~~(a) Each licensee shall maintain a record of each exposure device survey conducted before placing the device in storage, if that survey is the last one performed in the work day.~~

~~(b) Each licensee shall maintain a record of the survey conducted in accordance with § 34.49(e).~~

~~(c) The licensee shall retain the records required by this section for 3 years after the record is made,~~

§ 34.87 Form of records

Each record required by this part must be legible throughout the specified retention period. The record may be the original or a reproduced copy or a microform provided that the copy or microform is authenticated by authorized personnel and that the microform is capable of reproducing a clear copy throughout the required retention period. The record may also be stored in electronic media with the capability for producing legible, accurate, and complete records during the required retention period. Records, such as letters, drawings, and specifications, must include all pertinent information, such as stamps, initials, and signatures. The licensee shall maintain adequate safeguards against tampering with and loss of records.

§ 34.89 Documents and records required at field stations and permanent installations.

Each licensee shall maintain copies of the following documents and records sufficient to demonstrate compliance at the field station and permanent installation:

overexposure submitted under 10 CFR 20.2203 which involves failure of safety components of radiography equipment:

- (1) A description of the equipment problem;
- (2) Cause of each incident, if known;
- (3) Name of the manufacturer and model number of equipment involved in

the incident:

- (4) Place, date and time of the incident;
- (5) Actions taken to establish normal operations;
- (6) Corrective actions taken or planned to prevent recurrence; and
- (7) Qualifications of personnel involved in the incident.

The licensee shall
(c) Notify the appropriate NRC regional office in writing before

conducting radiographic operations or storing radioactive material at any location not listed on the license in excess of 180 days.

47. A new subpart G is added to read as follows:

Subpart G - EXEMPTIONS

48. Section 34.111 is added to read as follows:

§ 34.111 Applications for exemptions.

The Commission may, upon application of any interested person or upon its own initiative, grant such exemptions from the requirements of the regulations in this part as it determines are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest.

49. A new Subpart H is added read as follows: