

FINAL OMB SUPPORTING STATEMENT FOR  
10 CFR PART 39  
LICENSES AND RADIATION SAFETY REQUIREMENTS FOR WELL LOGGING  
(3150-0130)  
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EXTENSION

Description of the Information Collection

U.S. Nuclear Regulatory Commission (NRC) regulations in Title 10 of the *Code of Federal Regulations* (10 CFR) Part 39 establish rules that specify radiation safety requirements for the issuance of licenses for the use of sealed sources containing byproduct material and radiation safety requirements for persons using these sealed sources in well logging operations.

The requirements in Part 39 specify what information must be submitted in an application for a license to conduct well logging operations, including, for example, the applicant's program for training logging supervisors and logging assistants, written operating and emergency procedures, and a description of the applicant's organizational structure as it applies to the radiation safety responsibilities in well logging.

Persons affected by the information collection requirements of Part 39 include applicants for, and holders of, NRC and Agreement State licenses to conduct well logging operations.

A. JUSTIFICATION

1. Need For the Collection of Information

The information required by Part 39 is collected because it is necessary to ensure that an applicant for a license to conduct well logging operations is properly qualified to perform this activity, and to ensure the safety of employees and members of the public. The regulations provide for comprehensive and consistent radiation safety requirements in NRC and Agreement State regulations, and safety requirements designed to reduce the likelihood of accidents involving radioactive sources in well logging operations.

2. Agency Use of the Information

The records that Part 39 requires licensees to maintain are reviewed by the NRC staff during inspections, license renewals, and license amendment reviews to evaluate compliance with NRC radiation safety requirements for possession and use of licensed radioactive material in well logging.

For example, internal inspection records are reviewed by NRC inspectors to verify that the licensee is maintaining and implementing an effective inspection program and that safety related issues are being identified and corrected. A written agreement between the licensee performing well logging and with a well owner or operator is necessary to ensure that recovery or abandonment procedures will be implemented in the event of a stuck or irretrievable well logging source. The identification plaque is necessary to provide a warning to anyone attempting to re-enter the well of the presence of the abandoned source and to provide information on the source and its location within the well. Labels required on the source, the source holder, or the logging tool containing radioactive

materials, and the storage or transport container, are needed to warn people that these devices or containers contain radioactive materials and that persons should notify civil authorities or the company if a labeled device or container is found.

Calibration records are needed to permit NRC inspectors to verify that the licensee is keeping calibrated and operable radiation survey instrument(s) at each field station and temporary job site to make required radiation surveys. Similarly, records of the results of leak testing of sealed sources are reviewed by NRC inspectors to verify that licensees have the source tested for leakage at least every 6 months, to ensure the sealed sources maintain their integrity.

The required reports regarding ruptured or irretrievable sources permit the NRC staff to make a determination whether an inspector should be dispatched to a site and to assure that corrective actions have been taken. When the licensee, in consultation with the well owner or operator, determines that a sealed source lost in a well becomes irretrievable, the licensee is required to notify NRC regional offices immediately by telephone to request approval to implement abandonment procedures. The NRC regional office, based on the information provided by the licensee, approves the abandonment if all reasonable efforts at recovery have been expended.

3. Reduction of Burden Through Information Technology

The NRC has issued Guidance for Electronic Submissions to the NRC which provides direction for the electronic transmission and submittal of documents to the NRC. Electronic transmission and submittal of documents can be accomplished via the following avenues: the Electronic Information Exchange (EIE) process, which is available from the NRC's "Electronic Submittals" Web page, by Optical Storage Media (OSM) (e.g. CD-ROM, DVD), by facsimile or by e-mail. It is estimated that approximately 90% of the potential responses are filed electronically.

4. Effort to Identify Duplication and Use Similar Information

No sources of similar information are available. There is no duplication of requirements.

5. Effort to Reduce Small Business Burden

Approximately 32 percent of NRC's well logging licensees are small businesses. Efforts have been made to keep the requirements for information to a minimum. However, since the health and safety consequences of improper handling or use of radioactive byproduct material are the same for large and small entities, it is not possible to reduce the burden on small businesses by less frequent or less complete reporting, recordkeeping, or accounting and control procedures.

6. Consequences to Federal Programs or Policy Activities if the Collection is not Conducted or is Conducted Less Frequently

If the information were not collected, or were collected less frequently, NRC would not have the information needed to assure that licensees are maintaining records and those licensees will continue to operate programs in a manner that will assure adequate protection of the public health and safety. Required reports are collected and evaluated

on a continuing basis as events occur. Applications for new licenses and amendments are submitted only once. Applications for renewal of licenses are submitted every 15 years. Information submitted in previous applications may be referenced without being resubmitted.

7. Circumstances Which Justify Variation from OMB Guidelines

Contrary to the OMB Guidelines in 5 CFR 1320.5(d), 10 CFR 39.31(a) requires that a licensee label (1) the source, the source holder or the logging tool containing radioactive materials; and (2) the storage or transport container. The labels are required for the life of the device and are needed to warn people that these devices or containers contain radioactive materials and that persons should notify civil authorities or the company if they find a labeled device or container.

Section 39.35(d)(2) requires that licensees submit a report to NRC within 5 days of a failed sealed source leak test. However, reporting would be required only if the test reveals the presence of 0.005 microcurie or more of removable radioactive material. The report must be filed within 5 days to permit NRC to ensure that the licensee has taken action to remove the leaking sealed source from service and to check for radioactive contamination. It also permits NRC to determine whether inspection or other response may be required to deal with potential problems impacting the public health and safety.

Section 39.65(c) requires licensees to retain records of personnel dosimeters and bioassay results until the Commission authorizes disposition. The information documents the radiation doses received by the licensee's employees. This information may be needed to reconstruct a worker's dose history in the event the worker loses his/her records.

Section 39.73 requires licensees to maintain certain documents and records at specified locations. The retention periods for the various documents vary and may be required for as long as the license is in effect. This information is needed at the various sites so that the licensee's operating personnel can have easy access to the documents they need to safely perform well logging activities.

Section 39.75 requires licensees conducting operations at temporary job sites to maintain certain documents and records at each temporary job site. The retention periods for the various documents vary and may be required for as long as the license is in effect. This information is needed so that the licensee's operating personnel can have easy access to the documents they need safely perform well logging activities.

Section 39.77(a) requires immediate telephone notification, with a written report within 30 days, because the loss of licensed material and rupture of a sealed source could cause extensive radioactive contamination. Immediate notification would permit NRC to judge the severity of the situation and consider whether NRC should take immediate action. The confirmatory letter within 30 days is needed to permit NRC to judge whether the licensee has taken corrective actions and whether NRC should consider follow-up actions.

Section 39.77(c) requires licensees to notify NRC by telephone if a source becomes irretrievable and obtain NRC approval for abandoning a sealed source in a well. The

requirement for prompt notification is needed to permit NRC to judge whether all reasonable effort at recovery has been expended.

Section 39.77(d) requires that the licensee must make a written report to NRC within 30 days after the source has been classified as irretrievable. The written report within 30 days is needed to assure that the abandonment procedures are carried out promptly and satisfactorily. Furthermore, the report constitutes a record to alert State regulatory agencies about a sealed source lodged in the well and permission is requested to reenter the well.

8. Consultations Outside the NRC

Opportunity for public comment on the information collection requirements for this clearance package was published In the Federal Register on July 28, 2023 (88 FR 48922). As part of the consultation process, the NRC staff directly contacted, via email, four potential respondents. The stakeholders were representatives of well logging licensees from various organizations. No comments were received in responses to these consultations.

9. Payment or Gift to Respondents

Not applicable.

10. Confidentiality of Information

Confidential and proprietary information is protected in accordance with NRC regulations at 10 CFR 9.17(a) and 10 CFR 2.390(b). However, no information normally considered confidential or proprietary is requested.

11. Sensitive Questions

None.

12. Estimated Burden and Burden Hour Cost

Annual Burden

	NRC Licensees (hrs/yr)	Agreement State Licensees(hrs/yr)	Total Burden
Reporting	29 (4.1 hrs/response)	65 (3.4 hrs/response)	94
Recordkeeping	4,659	34,007	38,666
Third-Party Disclosure	275	2,012	2,287
TOTALS	4,963	36,084	41,047

The total burden for Part 39 is 41,047 hours. The total cost is \$12,314,100 (41,047 x \$300/hr). The burden estimates are based on staff's best estimate of the time required to perform information collection activities.

Annual Responses

	NRC	Agreement States	Total
Reporting	7	19	26
Record Keeping	22	161	183
Third-Party Disclosure	440	3,220	3,660
Total Number of Responses	469	3,400	3,869

Total number of responses 3,869

The \$300 hourly rate used in the burden estimates is based on the Nuclear Regulatory Commission's fee for hourly rates as noted in 10 CFR 170.20 "Average cost per professional staff-hour." For more information on the basis of this rate, see the Revision of Fee Schedules, Fee Recovery for Fiscal Year 2023 (88 FR 39120, June 15, 2023).

13. Estimate of Other Costs

The NRC has determined that the quantity of records to be maintained is roughly proportional to the recordkeeping burden and, therefore, can be used to calculate approximate records storage costs. Based on the number of pages maintained for a typical clearance, the records storage cost has been determined to be equal to 0.0004 times the recordkeeping burden cost. Because the recordkeeping burden is estimated to be 38,666 hours, the storage cost for this clearance is \$4,639.92 (38,666 hours x 0.0004 x \$300/hour).

#### 14. Estimated Annualized Cost to the Federal Government

It is estimated that the NRC annual cost of professional staff effort for activities other than the review of a license application is \$19,800 (66 hrs x \$300/hr). The review of license applications is covered under 3150-0120.

The staff has developed estimates of annualized costs to the Federal Government related to the conduct of this collection of information. These estimates are based on staff experience and subject matter expertise and include the burden needed to review, analyze, and process the collected information and any relevant operational expenses.

#### 15. Reason for Change in Burden or Cost

The overall burden has increased by 580 hours from 40,454 hours to 41,034 hours (NRC Licensees = 4,950 hrs + AS Licensees = 36,084 hrs) because of an increase in the number of licensees. There was also an increase in the burden based on an increase of the number of reported well logging sources that were abandoned because they were unable to be retrieved

The number of licensees has remained the same, but the number of responses has decreased. The change in the NRC licensee burden is due to a decrease in annual reports from 8 to 5 resulting in a burden decrease of 4 hours from 4,967 hours to 4,950 hours (16 reporting hrs + 4,659 recordkeeping hrs + 275 third-party disclosure hrs).

The number of Agreement State (AS) licensees has increased by 3 from 158 to 161, resulting in a burden increase of 692 hours from 35,487 to 36,179 hours (75 reporting hrs + 34,092 recordkeeping hrs + 2,012 third-party disclosure hrs).

The number of well logging licensees licensed by the Agreement States is assumed to follow the same ratio as the total number of NRC licensees to Agreement States licensees. The NRC estimates that there is approximately 7.3 times the number of Agreement State licensees as there are NRC licensees. The estimated number of Agreement State licensees (16,000) is based on information contained in NRC's 2021-2022 Information Digest (NUREG-1350, Volume 33). The change from the previous estimate of 7.2 to 7.3 (Agreement States burdens is 16,000/2,200, approximately 7.3) is based on (1) the most recent estimate of 2,200 similar NRC licensees and (2) the estimated 16,000 Agreement State licenses.

The number of NRC licensees is expected to remain at or near the current number (22) over the coming three years. The number of Agreement State licensees is likewise expected to remain at or near the current number (161) over the coming three years.

In addition, there was an increase in professional cost from \$290/hr to \$300/hr.

#### 16. Publication for Statistical Use

None.

#### 17. Reason for Not Displaying the Expiration Date

The requirement is contained in a regulation. Amending the Code of Federal Regulations to display information that, in an annual publication, could become obsolete would be unduly burdensome and too difficult to keep current.

18. Exceptions to the Certification Statement

None.

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

Statistical methods are not used in this collection of information.

TABLE 1  
ANNUAL INFORMATION COLLECTION BURDENS ASSOCIATED WITH  
**REPORTING** REQUIREMENTS OF 10 CFR PART 39 FOR NRC LICENSEES

Section	Description	Number of Respondents	Responses Per Respondent	Total Responses/yr	Burden Hrs/response	Total Burden hrs/yr
39.11 -See OMB clearance No. 3150-0120	Application for specific License	0	0	0	0	0
39.13(b),(c),(e),(f) - See OMB clearance No.3150-0120	Requirements for a specific license	0	0	0	0	0
39.15(c)	Requirements for abandoning a well logging source	0	0	0	5	0
39.17 - See OMB clearance No. 3150-0120	Requirements for a specific license	0	0	0	0	0
39.35(d)(2)	Leak testing of sealed sources	1	1	1	1	1
39.43(c)&(d) - See OMB clearance No. 3150-0120	Sealed source inspection and maintenance	0	0	0	0	0
39.45(b)- See OMB clearance No. 3150-0120	Subsurface tracer studies	0	0	0	0	0
39.51 - See OMB clearance No. 3150-0120	Use of a sealed source	0	0	0	0	0
39.53- See OMB clearance No. 3150-0120	Energy Compensation Source	0	0	0	0	0
39.63 - See OMB clearance No. 3150-0120	Operating and Emergency procedures	0	0	0	0	0
39.69(a) - See OMB clearance No.	Radioactive Contamination	0	0	0	0	0



Section	Description	Number of Respondents	Responses Per Respondent	Total Responses/yr	Burden Hrs/response	Total Burden hrs/yr
3150-0120	Control					
39.77(a)	Ruptured sealed source	0	0	0	12	0
39.77(b) - See OMB clearance Nos. 3150-0014 & 0017	Incident reporting requirements	0	0	0	0	0
39.77(c)	Requirements for abandoning a well logging source	2	1	2	0.5	1
39.77(d)	Incident reporting requirements	2	1	2	7	14
39.91- See OMB clearance No. 3150-0017	Applications for Exemptions	0	0	0	0	0
<b>Total</b>				<b>5</b>		<b>16</b>

TABLE 2  
ANNUAL INFORMATION COLLECTION BURDENS ASSOCIATED WITH **RECORDKEEPING** REQUIREMENTS OF 10 CFR PART  
39 FOR NRC LICENSEES

Section	Description	Number of Recordkeepers	Burden Hrs Per Record-keeper	Total Burden Hours	Record Retention Period
39.13(d)	Requirements for a specific license	22	1.25	28	3 years
39.31(a)	Radioactive material labeling requirements	22	0.5	11	life of device
39.33(d)	Radiation detection instruments	22	1.6	35	3 years
39.35(a)	Leak testing of sealed sources	22	0.8	18	3 years
39.37	Physical Inventory	22	0.8	18	3 years
39.39 (a) and (b)	Records requirements	22	22.5	495	3 years
39.43(a)&(b)	Sealed source inspection and maintenance	22	7.7	169	3 years
39.61(d)	Training requirements	22	7.5	165	3 years
39.65(a)-(c)	Personnel monitoring	22	8.6	189	Until Commission authorizes disposition
39.67(f)	Radiation surveys	22	120	2,640	3 years
39.73	Documents at field stations	22	3	66	varies
39.75	Documents at temporary jobsite	22	37.5	825	varies

Section	Description	Number of Recordkeepers	Burden Hrs Per Record-keeper	Total Burden Hours	Record Retention Period
39.77(c)(2) - Included in 39.15(a)&(b)	Requirements for abandoning a well logging source	0	0	0	
<b>Total</b>				<b>4,659</b>	

TABLE 3  
ANNUAL THIRD PARTY DISCLOSURE REQUIREMENTS OF 10 CFR PART 39  
FOR NRC LICENSEES

Section	Description	Number of Respondents	Responses Per Respondents	Total Responses/yr	Burden Hrs/response	Total Burden hr/yr
39.15(a)&(b)	Requirements for a Specific License	22	10	220	1	220
39.49 - Included in 39.31(a)	Radioactive material labeling requirements	0	0	0	0	0
39.61(a)-(c)&(b)	Training requirements	22	10	220	.25	55
<b>Total</b>				<b>440</b>		<b>275</b>

NRC Licensees' Burden and Cost

It is estimated that, for NRC licensees and applicants, there will be 5 responses with a reporting burden of 16 hours annually, there will be 22 recordkeepers with a recordkeeping burden of 4,659 hours annually, and there will be 22 respondents with a third-party disclosure burden of 275 hours annually. The NRC licensees' total burden is estimated to be 4,950 hours (16 hrs reporting + 4,659 hrs recordkeeping + 275 hrs third-party disclosure) at a cost of \$1,435,500 [4,950 hours (NRC licensees' total burden) x \$290/hr].

TABLE 4  
ANNUAL INFORMATION COLLECTION BURDENS ASSOCIATED WITH  
**REPORTING** REQUIREMENTS OF 10 CFR PART 39 FOR AGREEMENT STATE LICENSEES

Section	Description	Number of Respondents	Responses Per Respondent	Total Responses/yr	Burden Hrs/response	Total Burden
39.11 - See OMB clearance No. 3150-0120	Application for specific License	0	0	0	0	0
39.13(b), (c), (e), (f) - See OMB clearance No. 3150-0120	Requirements for a specific license	0	0	0	0	0
39.15(c)	Requirements for abandoning a well logging source	6	1	6	5	30
39.17 - See OMB clearance No. 3150-0120	Requirements for a specific license	0	0	0	0	0
39.35(d)(2)	Leak testing of sealed sources	0	0	0	4	0
39.43(c)&(d) - See OMB clearance No.3150-0120	Sealed source inspection and maintenance	0	0	0	0	0
39.45(b) - See OMB clearance No. 3150-0120	Subsurface tracer studies	0	0	0	0	0
39.51 - See OMB clearance No.3150-0120	Use of a sealed source	0	0	0	0	0
39.53 - See OMB clearance No. 3150-0120	Energy Compensation Source	0	0	0	0	0
39.63 - See OMB clearance No. 3150-0120	Operating and Emergency procedures	0	0	0	0	0
39.69(a) - See OMB clearance No. 3150-0120	Radioactive Contamination	0	0	0	0	0

Section	Description	Number of Respondents	Responses Per Respondent	Total Responses/yr	Burden Hrs/response	Total Burden
	Control					
39.77(a)	Ruptured sealed source	0	0	0	12	0
39.77(b) - See OMB clearance Nos. 3150-0014 & 0017	Incident reporting requirements	0	0	0	0	0
39.77(c)	Requirements for abandoning a well logging source	6	1	6	0.5	3
39.77(d) -	Incident reporting requirements	6	1	6	7	42
39.91- See OMB clearance No. 3150-0017	Applications for Exemption	0	0	0	0	0
<b>Total</b>				<b>18</b>		<b>75</b>

TABLE 5  
ANNUAL INFORMATION COLLECTION BURDENS ASSOCIATED WITH **RECORDKEEPING** REQUIREMENTS OF 10 CFR PART  
39 FOR AGREEMENT STATE LICENSEES

Section	Description	Number of Recordkeepers	Burden Hrs Per Record-keeper	Total Burden	Record Retention Period
39.13(d)	Requirements for a specific license	161	1.25	201	3 years
39.31(a)	Radioactive material labeling requirements	161	0.5	80	
39.33(d)	Radiation detection instruments	161	1.6	258	3 years
39.35(a)	Leak testing of sealed sources	161	0.8	129	3 years
39.37	Physical Inventory	161	0.8	129	3 years
39.39 (a) and (b)	Records requirements	161	22.5	3,622	3 years
39.43(a)&(b)	Sealed source inspection and maintenance	161	7.7	1,240	3 years
39.61(d)	Training requirements	161	7.5	1,208	3 years
39.65(a)-(c)	Personnel monitoring	161	8.6	1,385	Until Commission authorizes disposition
39.67(a)-(f)	Radiation surveys	161	120	19,320	3 years
39.73	Documents at field stations	161	3	483	
39.75	Documents at temporary	161	37.5	6,038	

Section	Description	Number of Recordkeepers	Burden Hrs Per Record-keeper	Total Burden	Record Retention Period
	jobsites				
39.77(c)(2) - Included in 39.15(a)&(c)	Requirements for abandoning a well logging source	0	0	0	
<b>Total</b>				<b>34,092</b>	

TABLE 6  
ANNUAL THIRD-PARTY DISCLOSURE REQUIREMENTS OF 10 CFR PART 39  
FOR AGREEMENT STATE LICENSEES

Section	Description	Number of Respondents	Responses Per Respondents	Total Responses/yr	Burden Hrs/response	Total Burden hr/yr
39.15(a)&(b)	Requirements for a Specific License	161	10	1,610	1	1,610
39.49 - Included in 39.31(a)	Radioactive material labeling requirements	0	0	0	0	0
39.61(a)-(c)	Training requirements	161	10	1,610	.25	402
<b>Total</b>				<b>3,220</b>		<b>2,012</b>

Agreement State Licensees' Burden and Cost

It is estimated that, for Agreement State licensees and applicants, there will be 18 responses and a reporting burden of 75 hours annually, there will be 161 recordkeepers and a recordkeeping burden of 34,092 hours annually, and there will be 161 respondents with a third-party disclosure burden of 2,012 hours annually. The Agreement State licensees' total burden will be 36,179 hours (75 hrs reporting + 34,092 hrs recordkeeping + 2,012 hrs third-party disclosure) at a cost \$10,491,910 [36,179 hours (AS licensees' total burden) x \$290/hr].

## Appendix A- Description of Information Collection Requirements for 10 CFR Part 39

Section 39.11 provides that an applicant for a specific license to use licensed material in well logging operations must submit NRC Form 313, "Application for Material License." The NRC materials licensing staff will review the information submitted on NRC Form 313 to determine whether an applicant for a license has adequate training, experience, equipment, facilities, and procedures for the use of licensed material to protect the public health and safety.

The use of NRC Form 313 is approved by OMB under clearance number 3150-0120, which should be referred to for information collection burden and supporting data.

Section 39.13 provides that an applicant must submit the following information with the application:

- 39.13(b) - A description of training programs that specifies initial training, on-the-job training and annual safety reviews to be provided by the licensee;
- 39.13(c) - Written operating and emergency procedures covering important safety aspects of the radiation safety program;
- 39.13(d) - Internal inspection program;
- 39.13(e) - Description of overall organizational structure as it applies to radiation safety responsibilities in well logging, including specified delegations of responsibility and authority;
- 39.13(f) - (1) Description of procedures for leak testing sealed sources, or  
(2) Manufacturer and model number of the leak test kits to be used.

This information is reviewed by the NRC staff to determine whether the training, radiation safety, and internal inspection programs and procedures and the licensee's organizational structure will provide adequate protection of the public health and safety. The NRC review and the findings of this information form the basis for NRC licensing decisions.

Section 39.13(d) provides that a licensee must keep annual internal inspection of the job performance records for each logging supervisor for 3 years. These records are reviewed by NRC inspectors to verify that the licensee is maintaining an effective inspection program and that problems are being identified and corrected.

Sections 39.15(a) and (b) requires that a licensee wishing to conduct well logging operations with a sealed source must first have, and retain as a record, a written agreement with the well owner or operator that identifies who will: carry out responsibilities with regard to recovery of sealed sources which become lodged or lost in a well; perform radiation monitoring; decontaminate the site, equipment, and personnel, if necessary; and that within 30 days after a well logging source has been classified as irretrievable, certain requirements will be implemented to immobilize and protect the separated well logging tool and source. The licensee



must retain a copy of the written agreement for 3 years after the completion of the well logging operation. A permanent identification plaque must be mounted at the surface of the well in which a well logging source has been abandoned. In addition to a warning, the plaque must contain: the date the sealed source was abandoned, the name of the well owner or operator, the well name and well identification number(s) or other designation, identification of the source by radionuclide and quantity of activity, and the depth of the source and the depth to the top of the plug.

The written agreement is needed to ensure that recovery or abandonment procedures will be implemented in the event of a lodged or irretrievable well logging source. The agreement binds the well owner or operator (non licensee) to immobilizing the source with a cement plug, protecting it from subsequent damage with a drill deflecting device, and posting the wellhead with an appropriate plaque. Without this agreement, the well logger would be unable to complete recovery or abandonment procedures if the well owner or operator refused. The identification plaque is necessary to warn anyone reentering the well about the presence of the abandoned source and to provide information on the source and its location within the well.

Section 39.15(c) provides that a licensee or applicant may apply to the Commission for approval of proposed procedures to abandon an irretrievable well logging source in a manner other than that currently authorized. Such an application would be reviewed by the NRC to determine whether the proposed procedures would provide an adequate margin of protection to the environment, public health and safety.

Section 39.17 provides that the NRC may require further statements, signed under oath or affirmation, after the filing of the application and before expiration of the license to enable the NRC to determine whether a license should be modified or revoked. Such additional information is sometimes needed to clarify information or to rectify deficiencies in existing programs for protection of the public health and safety, the common defense and security, or protection of the environment.

The additional information submitted is reviewed by the NRC staff to assess the adequacy of the applicant's physical plant, procedures and plans for protection of the public health and safety, common defense and security, and protection of the environment. The NRC review and the findings based on this information form the basis for NRC decisions concerning the issuance, amendment, or revocation of a license.

Section 39.31(a) requires that a licensee label (1) the source, the source holder, or the logging tool containing radioactive materials; and (2) the storage or transport container. The labels are needed to warn people that these devices or containers contain radioactive materials and that persons should notify civil authorities or the company if they find a labeled device or container.

Section 39.33(d) provides that a licensee must maintain calibration records for a period of 3 years for each installation and temporary job site, after the date of calibration of a survey instrument. Calibration of radiation survey instruments is necessary to ensure that these instruments function properly.

The information documents that the calibrations were performed. The records also permit NRC inspectors to verify that the licensee is keeping a calibrated and operable radiation survey instrument at each field station and temporary job site to make required radiation surveys. Inspections are conducted at least every 3 years.

Section 39.35(a) requires the licensee to keep a record of the results of leak testing of sealed sources for 3 years after the leak test is performed and record the leak test results in units of microcuries.

The information documents that the leak tests were performed periodically. The records also permit NRC inspectors to verify that the licensee is performing the leak tests.

Section 39.35(d)(2) provides for reporting of leak test failures by the licensee to the NRC within 5 days of receiving the test results. The reporting requirement is needed to inform the NRC that the licensee has taken actions to remove the leaking sealed source from service and to check for radioactive contamination.

The information contained in the report allows NRC regional offices to determine, within approximately 1 week, whether an inspector should be sent to check potential problems that may adversely affect public health and safety.

Section 39.37 provides for a licensee to keep records of each semiannual physical inventory to account for all licensed material received and possessed under the license. The record of inventory must be retained for 3 years. The information is needed to indicate that the licensee has conducted semiannual inventories to account for licensed material received and possessed under the license.

The information documents that sources possessed under the license were accounted for at the time of inventory. The information also permits NRC inspectors to verify that the licensee has conducted an inventory at least every 6 months.

Section 39.39 (a) & (b) requires that a licensee keep utilization records for sealed and unsealed sources of licensed material. The records must be retained for 3 years. This information permits the licensee to trace the history of the use of sources, radioactive markers, or unsealed licensed material if there are any questions concerning licensed material.

The information also permits NRC inspectors to verify that the licensee is utilizing licensed material appropriate to particular well logging operations.

Section 39.43(a) requires that a licensee maintain a record of defects found and repairs made as a result of visual checks of source holders, logging tools, and source handling tools. The record must be retained for 3 years. The records are reviewed by NRC inspectors to ensure that the licensee is maintaining an effective program for identification and correction of defects.

Section 39.43(b) provides that a licensee must maintain records of semiannual inspections and maintenance for 3 years. The inspection and maintenance are needed to ensure that the sealed sources and source holders are in good working condition.

The information permits NRC inspectors to verify that the licensee conducted the required semiannual inspection and maintenance.

Section 39.43(c) prohibits the licensee from removing a sealed source from a source holder or logging tool and performing maintenance on a sealed source or holders in which sealed sources are contained without written procedures developed pursuant to Section 39.63 that have been approved either by the Commission pursuant to Section 39.13(c) or by an Agreement State. The procedures are submitted with NRC Form 313, the submission is covered under OMB clearance number 3150-0120.

Section 39.43(d) requires that licensees may not perform any operation, such as drilling, cutting, or chiseling, on a stuck sealed source unless approved by the Commission or an Agreement State.

Section 39.45(b) A licensee may not knowingly inject licensed material into freshwater aquifers unless specifically authorized to do so by the Commission,

Section 39.49 requires the licensee using a uranium sinker bar in well logging applications to properly display a caution marker indicating it is radioactive depleted uranium to inform persons to notify civil authorities or the company if the bar is found. The labels are needed to warn people that the bars are radioactive.

Section 39.51 The licensee may use a sealed source in a well without a surface casing for protecting freshwater aquifers only if the licensee follows a procedure for reducing the probability of the source becoming lodged in the well. The procedure must be approved by the Commission pursuant to Section 39.13(c) or by an Agreement State.

Section 39.53 provides that a licensee may use an energy compensation source (ECS), contained within a logging tool or other tool components, only if the ECS contains quantities of licensed material not exceeding 3.7 MBq [100 microcuries]. When used in well logging applications with a surface casing for protecting freshwater aquifers, use of the ECS is subject to the requirements of Sections 39.35, 39.37, and 39.39. When used in well logging applications without a surface casing for protecting freshwater aquifers, use of the ECS is subject to the requirements of Sections 39.15, 39.35, 39.37, 39.39, 39.51, and 39.77.

Section 39.61(a) states that the licensee may not permit an individual to act as a logging supervisor until that person (1) Has completed training in the subjects outlined in paragraph (e) of this section; (2) Has received copies of, and instruction in (i) The NRC regulations contained in the applicable sections of parts 19, 20, and 39 of this chapter; (ii) The NRC license under which the logging supervisor will perform well logging; and (iii) The licensee's operating and emergency procedures required by § 39.63; (3) Has completed on-the-job training and demonstrated competence in the use of licensed materials, remote handling tools, and radiation survey instruments by a field evaluation; and (4) Has demonstrated understanding of the requirements in paragraphs (a) (1) and (2) of this section by successfully completing a written test.

Section 39.61(b) states that the licensee may not permit an individual to act as a logging assistant until that person (1) Has received instruction in applicable sections of parts 19 and 20 of this chapter; (2) Has received copies of, and instruction in, the

licensee's operating and emergency procedures required by §39.63; (3) Has demonstrated understanding of the materials listed in paragraphs (b) (1) and (2) of this section by successfully completing a written or oral test; and (4) Has received instruction in the use of licensed materials, remote handling tools, and radiation survey instruments, as appropriate for the logging assistant's intended job responsibilities.

Section 39.61(c) requires that a licensee provide safety reviews for logging supervisors and logging assistants at least once during each calendar year.

Section 39.61(d) requires that a licensee maintain records of training and of the annual safety review for each logging supervisor and logging assistant. The training records must include copies of written tests and dates of oral tests given. The records are needed to confirm that the logging supervisors and logging assistants received the required training. The training records must be retained until 3 years after termination of employment. Records of annual safety reviews must be retained for 3 years.

Section 39.63 requires that licensees maintain and follow written operating and emergency procedures that cover: handling and use of licensed material, use of remote handling tools, surveys, control of personnel exposures, locking and securing of sources, personnel monitoring, transportation, receipt, recordkeeping, inspection and maintenance, reporting, and actions in case of a stuck or ruptured source.

The information is used by the licensee and its employees to guide the handling and use of radioactive material in normal and emergency situations. Submission of the procedures is covered by Section 39.13(c). The procedures must be retained as a record until the Commission terminates the license. The procedures are submitted with the Form 313, the submission is covered under OMB clearance number 3150-0120

Section 39.65(a)-(c) requires that a licensee keep records of personnel dosimeter and bioassay results until the Commission authorizes disposition. The personnel dosimeter and bioassay results are needed to measure exposure received by workers during well logging operations.

The information documents the radiation doses received by the licensee's employees. This information also permits NRC inspectors to verify that the licensee kept dosimetry and bioassay records.

Section 39.67(f) requires the results of surveys required under paragraphs (a) through (e) of this section must be recorded and must include the date of the survey, the name of the individual making the survey, the identification of the survey, instrument used, and the location of the survey. The licensee shall retain records of surveys for inspection by the Commission for 3 years after they are made.

The information documents that the licensee conducted radiation surveys. The information also permits NRC inspectors to verify that the licensee complies with the survey requirements.

Section 39.69(a) requires that a licensee initiate emergency procedures as required by Section 39.63 procedures. The procedures are submitted with the Form 313, the

submission is covered under OMB clearance number 3150-0120. These procedures may include reporting as required under Section 39.77.

Section 39.73 requires that a licensee maintain certain documents and records at each field station. This information is needed at the site so that the licensee's operating personnel can have easy access to the documents they need to perform the job safely. Also, when an NRC inspector inspects a field station, the information provides the inspector with indications that the licensee complies with NRC requirements.

Section 39.75 requires that a licensee conducting operations at temporary job sites maintain certain the following documents and records at the temporary job site until the well logging operating is completed. The documents include operating and emergency procedures required by Section 39.63, evidence of latest calibration of the radiation survey instruments in use at the site required by Section 39.33, and the latest survey records required by Sections 39.67(b), (c), and (e).

Section 39.77(a) requires that a licensee shall immediately notify the appropriate NRC Regional Office by telephone and subsequently, within 30 days, by confirmation in writing, using an appropriate method listed in § 30.6(a) of this chapter, if the licensee knows or has reason to believe that a sealed source has been ruptured. The written confirmation must designate the well or other location, describe the magnitude and extent of the escape of licensed materials, assess the consequences of the rupture, and explain efforts planned or being taken to mitigate these consequences.

Section 39.77(b) reminds licensees to follow Parts 20 and 30 reporting requirements for certain incidents. Requirements under Parts 20 and 30 have been cleared under OMB clearance numbers 3150-0014 and 3150-0017, respectively.

Section 39.77(c) provides If a sealed source becomes lodged in a well, and when it becomes apparent that efforts to recover the sealed source will not be successful, the licensee shall (1) Notify the appropriate NRC Regional Office by telephone of the circumstances that resulted in the inability to retrieve the source and (i) Obtain NRC approval to implement abandonment procedures; or (ii) That the licensee implemented abandonment before receiving NRC approval because the licensee believed there was an immediate threat to public health and safety; and (2) Advise the well owner or operator, as appropriate, of the abandonment procedures under § 39.15 (a) or (c); and (3) Either ensure that abandonment procedures are implemented within 30 days after the sealed source has been classified as irretrievable or request an extension of time if unable to complete the abandonment procedures.

Section 39.77(d) requires that the licensee shall, within 30 days after a sealed source has been classified as irretrievable, make a report in writing to the appropriate NRC Regional Office. The licensee shall send a copy of the report to each appropriate State or Federal agency that issued permits or otherwise approved of the drilling operation. The report must contain the following information: (1) date of occurrence; (2) a description of the irretrievable well logging source involved including the radionuclide and its quantity, chemical, and physical form; (3) surface location and identification of the well; (4) results of efforts to immobilize and seal the source in place; (5) a brief description of the attempted recovery effort; (6) depth of the source; (7) depth of the top of the cement plug; (8) depth of the well; (9) the immediate threat to public health and safety justification for implementing abandonment if prior NRC approval was not obtained in accordance with paragraph (c)(1)(ii) of this section; (10) any other information, such as a warning statement, contained on the permanent identification plaque; and nmss/dmsst/(11) State and Federal agencies receiving copy of this report.

Section 39.91 provides that the Commission may grant exemptions from the requirements of Part 39 under specified conditions, upon the application of any interested person or on its own initiative. Applications under this section are examined by the NRC materials licensing staff to determine whether the requested exemption is authorized by law and whether it will not endanger life or property or the common defense and security, and to determine if it is otherwise in the public interest. Burden and cost has been approved under OMB clearance number 3150-0017.

GUIDANCE DOCUMENTS FOR  
10 CFR PART 39  
LICENSES AND RADIATION SAFETY REQUIREMENTS FOR WELL LOGGING  
(3150-0130)

Document	ADAMS accession No
NUREG-1556 Vol. 20 Guidance About Administrative Licensing Procedures	ML20318A384