**ACTION:** Affirmation of interim rule.

**SUMMARY:** We are affirming without change an interim rule that amended the regulations governing the interstate movement of cattle because of tuberculosis by raising the designation of Illinois from a modified accredited area to an accredited-free State. This action is necessary because we have determined that Illinois meets the criteria for designation as an accredited-free State. The designation for any given jurisdiction can affect the marketability of cattle from that jurisdiction. While the regulations do not impose restrictions on the interstate movement of cattle not known to be affected with, or exposed to, tuberculosis from either accredited-free States or modified accredited areas, some prospective cattle buyers prefer to buy cattle from accredited-free States.

**EFFECTIVE DATE:** March 17, 1987.

**FOR FURTHER INFORMATION CONTACT:** Dr. Ralph L. Hosker, Domestic Programs Support Staff, VS, APHIS, USDA, Room 815, Federal Building, 6505 Belcrest Road, Hyattsville, MD 20782, 301–436–8438.

**SUPPLEMENTARY INFORMATION:**

**Background**

The interim rule, published November 21, 1986 (51 FR 42081–42082), was effective on the date of publication in the **Federal Register**, and comments were solicited for 60 days ending January 20, 1987. We did not receive any comments. The facts presented in the interim rule still provide a basis for the amendment.

**Executive Order 12291 and Regulatory Flexibility Act**

We are issuing this rule in conformance with Executive Order 12291, and we have determined that it is not a "major rule." Based on information compiled by the Department, we have determined that this rule will have an effect on the economy of less than $100 million; will not cause a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions; and will not cause a significant adverse affect on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

For this action, the Office of Management and Budget has waived its review process required by Executive Order 12291.

Cattle moved interstate are moved for slaughter, for use as breeding stock, or for feeding. Changing the status of the State of Illinois will not cause a significant effect on marketing patterns and will not have a significant economic impact on those persons affected by this document.

Under these circumstances, the Administrator of the Animal and Plant Health Inspection Service has determined that this action will not have a significant impact on a substantial number of small entities.

**Executive Order 12372**

This program/activity is listed in the Catalog of Federal Domestic Assistance under No. 10.025 and is subject to the provisions of Executive Order 12372, which requires intergovernmental consultation with State and local officials. (See 7 CFR Part 3015, Subpart V).

**List of Subjects in 9 CFR Part 77**

Animal diseases, Cattle, Transportation, Tuberculosis.

## PART 77—TUBERCULOSIS IN CATTLE

Accordingly, we are adopting as a final rule without change, the interim rule that amended 9 CFR Part 77 and that was published at 51 FR 42081–42082 on November 21, 1986.

**Authority:** 21 U.S.C. 111, 114, 114a, 115–117, 120, 121, 134b, 134f; 7 CFR 2.17, 2.51, and 371.2(d).

Done in Washington, DC, this 12th day of March, 1987.

**J.K. Atwell,**

*Deputy Administrator, Veterinary Services, Animal and Plant Health Inspection Service.*

[FR Doc. 87–5737 Filed 3–16–87; 8:45 am]

BILLING CODE 3410–34–M

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**9 CFR Part 91**

**[Docket No. 87–002]**

## Ports Designated for Exportation of Animals; Deletion of Indianapolis International Airport

**AGENCY:** Animal and Plant Health Inspection Service, USDA.

**ACTION:** Affirmation of interim rule.

**SUMMARY:** We are affirming without change an interim rule that amended the regulations on "Inspection and Handling of Livestock for Exportation" by deleting Indianapolis International Airport from the list of ports of embarkation. This action is necessary becaue Indianapolis International Airport no longer has export inspection facilities.

**EFFECTIVE DATE:** March 17, 1987.

**FOR FURTHER INFORMATION CONTACT:** Dr. Harvey A. Kryder, Jr., Senior Staff Veterinarian, Import-Export and Emergency Planning Staff, Veterinary Services, Animal and Plant Health Inspection Service, U.S. Department of Agriculture, Room 806, Federal Building, 6505 Belcrest Road, Hyattsville, MD 20782; (301) 436–8695.

**SUPPLEMENTARY INFORMATION:**

**Background**

We published an interim rule in the **Federal Register** (51 FR 41075) on November 13, 1986, and we made it effective on that date. We received no comments. The facts presented in the interim rule still provide a basis for the amendment.

**Executive Order 12291 and Regulatory Flexibility Act**

We are issuing this rule in conformance with Executive Order 12291, and we have determined that it is not a "major rule." Based on information compiled by the Department, we have determined that this rule will have an effect on the economy of less than $100 million; will not cause a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions; and will not cause a signficant adverse effect on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

For this action, the Office of Management and Budget has waived its review process required by Executive Order 12291.

We anticipate that the closing of the animal export inspection facility at Indianapolis International Airport will affect only one business concern. Since approved embarkation ports are available in nearby Chicago, Illinois, and Cincinnati, Ohio, there should be no significant economic impact on this entity.

Under these circumstances, the Administrator of the Animal and Plant Health Inspection Service has determined that this action will not have a significant impact on a substantial number of small entities.

**Executive Order 12372**

This program/activity is listed in the Catalog of Federal Domestic Assistance under No. 10.025 and is subject to the provisions of Executive Order 12372, which requires intergovernmental consultation with State and local

officials. (See 7 CFR Part 3015, Subpart V).

**List of Subjects in 9 CFR Part 91**

Animal diseases, Animal welfare, Exports, Livestock and livestock products, Transportation.

## PART 91—INSPECTION AND HANDLING OF LIVESTOCK FOR EXPORTATION

Accordingly, we are adopting as a final rule without change, the interim rule that amended 9 CFR Part 91 and that was published at 51 FR 41075 on November 13, 1986.

Authority: 21 U.S.C. 105, 112, 113, 114a, 120, 121, 134b, 134f, 612, 613, 614, 618; 46 U.S.C. 466a, 466b; 49 U.S.C. 1509(d); 7 CFR 2.17, 2.51, and 371.2(d).

Done in Washington, DC, this 12th day of March, 1987.

J.K. Atwell,

*Deputy Administrator, Veterinary Services, Animal and Plant Health Inspection Service.*

[FR Doc. 87-5736 Filed 3-16-87; 8:45 am]

BILLING CODE 3410-10-M

## NUCLEAR REGULATORY COMMISSION

**10 CFR Parts 19, 20, 21, 30, 39, 40, 51, 70, 71, and 150**

### Licenses and Radiation Safety Requirements for Well Logging

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Final rule.

**SUMMARY:** The Nuclear Regulatory Commission is amending its regulations to specify radiation safety requirements and license requirements for the use of licensed radioactive materials in well logging. Well logging uses instruments lowered into a drilled hole to obtain information on underground rock formations, such as type of rock, porosity, density, and hydro-carbon content, to locate oil, gas, coal, and other mineral deposits. The regulation, set out in a new Part 39, consolidates radiation safety requirements for well logging into one part, establishes clearly-stated and specific radiation safety requirements, and promotes the adoption of uniform radiation safety requirements among NRC and Agreement States.

**EFFECTIVE DATE:** July 14, 1987.

**FOR FURTHER INFORMATION CONTACT:** Dr. Stephen A. McGuire, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 443-7900.

**SUPPLEMENTARY INFORMATION:**



On April 8, 1985, the Nuclear Regulatory Commission published for public comment a proposed rule specifying safety requirements for the use of licensed radioactive material in well logging (50 FR 13797). Well logging uses instruments lowered into a drilled hole to obtain information on certain properties of the underground rock formations, for example, type of rock, porosity, density, and hydrocarbon content.

The purpose of establishing a new Part 39 specifically for well logging is to have in one place in the regulations the basic safety requirements for well logging. Formerly, the requirements were contained in several different parts of NRC regulations. Those requirements were often very general because they applied to many different types of licensees. The new Part 39 establishes specific requirements for well logging that supplement more general requirements contained in other parts (i.e., training requirements in Part 19 or survey requirements in Part 20).

The public comment period was originally scheduled to end on July 8, 1985. In response to a large number of requests for an extension, the comment period was extended until October 9, 1985, (August 8, 1985; 50 FR 32086). However, all comments received by December 12, 1985, were given full consideration.

### Uses of Licensed Material in Well Logging

The oil and gas industry often needs to determine the types and characteristics of the underground formations in a new or existing well. Licensed materials are used to obtain information on certain properties of an underground formation, such as type of rocks, porosity, hydrocarbon content, and density. Licensed materials are also used for similar purposes in coal or mineral exploration.

In well logging, sealed radioactive sources with associated radiation detectors, known as logging tools, are lowered into a well on a wireline. The depth of the well could range from several hundred feet to greater than 30,000 feet. Information collected by the detectors is sent to the surface through the wireline and plotted on a chart as the logging tool is slowly raised from the bottom of the well. Americium-241 (typically 0.25 curie to 20 curies) and cesium-137 (typically 0.1 to 3 curies) are the radioactive materials most frequently used for this purpose.

In subsurface tracer studies, a small amount of radioactive material in liquid or gaseous form is used. After the liquid or gas tracer is injected into the well, a detector is used in the well to monitor the dispersion of the tracer material. This information will help determine certain underground characteristics such as fluid flow rate and the channeling effect. Iodine-131 (typically 5 to 20 millicuries) is the material most frequently used in subsurface tracer studies.

Other licensed materials used in well logging include cobalt-60 used in collar markers, radioactive iron used in nails, depleted uranium used in sinker bars, and iridium-192 used in sands. Collar markers use Co-60 wire (about 1 to 5 microcuries) to mark collars between two sections of casing and provide positive depth measurement. Radioactive iron nails are used to indicate the movement of cement. Sinker bars are constructed of solid depleted uranium (usually weighing 50 to 100 pounds) and are used to provide additional weight to help push a light weight logging tool through the drilling fluid, called mud by the drilling industry, down to the bottom of the well. Sands mixed with a small amount of iridium-192 are used to determine the extent of underground hydraulic fracturing.

### NRC and Agreement States' Roles

Twenty-eight Agreeemnt States, including most major oil producing States, have assumed responsibility for regulating certain activities, including the use of radioactive materials in well logging, by agreements with the NRC. Each Agreement State issues licenses to persons who use radioactive material in well logging in the State.

The NRC issues licenses to persons using byproduct, source, or special nuclear material for well logging in non-Agreement States. These licenses specify the radiation safety requirements applicable to well logging that the licensee must follow. The NRC had, as of March 1986, 171 licensees authorized to use byproduct, source, or special nuclear radioactive material in well logging. The Agreement States have

approximately 400 licensees involved in well logging.

Well logging licensees from one State frequently perform well logging jobs in other States. To avoid duplication of licensing effort, NRC permits, under reciprocity, Agreement State licensees to operate in non-Agreement States according to the conditions of the license issued by their home State. Reciprocity also applies to licensees of the NRC which wish to operate in and among Agreement States. Section 274(d) of the Atomic Energy Act of 1954, as amended, requires compatibility between NRC and Agreement State regulations with respect to materials within a State covered by an agreement. For well logging this compatibility is important to permit licensees to conduct their activities in various States while maintaining a consistent and effective level of protection necessary to ensure public health and safety.

**NRC's Current Regulatory Practices**

Except for requirements concerning the abandonment of irretrievable well logging sources set forth in 10 CFR 30.56 and 70.60, current NRC regulations do not provide radiation safety requirements specific to the use of licensed material in well logging. General safety requirements which apply to well logging are contained in 10 CFR Parts 20, 30, 40, and 70. At present, NRC reviews a licensee's specific safety program as part of the license application, and incorporates it into the license as license conditions.

**Problems With the Current Practice**

A major problem with the current practice is that radiation safety requirements applicable to the industry are specified as license conditions on a case-by-case basis. They are not currently delineated in uniform regulations that are applicable to all licensees. This requires duplication of NRC staff effort and may result in discrepancies in requirements among specific licenses issued by NRC and the Agreement States. Problems in the consistent and uniform application of these requirements could become a greater concern because, under the NRC's program for the decentralization of material licensing actions, well logging licenses are issued by the five NRC Regional Offices instead of NRC Headquarters.

Though there are about 90,000 well logging operations each year, the probability of an accident is small. Nonetheless, accidents have occurred and additional safety requirements are needed to reduce the risk of radioactive contamination and radiation exposure even further. The NRC believes that certain additional safety requirements should reduce radiation exposures and thereby improve public safety.

Five incidents occurred between August 1982 and April 1986 involving radioactive sources used in well logging. Three involved the rupture of sources in uncontrolled workshop environments by workers performing machining or drilling operations. Two incidents involved the rupture of sources in well holes during logging tool recovery operations. The total cost associated with the cleanup or radioactive contamination from these incidents is estimated to be in excess of $1.5 million.

**Actions Taken By Agreement States**

Recognizing the need for comprehensive and consistent radiation safety standards, the Conference of Radiation Control Program Directors established a task force in 1974 to develop standards for well logging. The task force was composed of representatives from States, industry, and Federal agencies, including NRC. By 1981, a set of model regulations was proposed to the Conference by the task force. In keeping with previous practices of the organization, the Conference adopted the well logging requirements as Part W of the "Suggested State Regulations for Control of Radiation." Four Agreement States (Arkansas, Kentucky, Oregon, and Texas) have already adopted Part W requirements as State regulations without significant changes.

**NRC's Proposed Approach**

The NRC is amending its regulations to include specific radiation safety requirements for well logging. These requirements are included in 10 CFR Part 39, a new part dedicated exclusively to well logging.

The rule is needed for the following reasons:

(1) The rule provides comprehensive and consistent regulations applicable to well logging. Formerly, NRC regulations did not provide specific requirements; specific requirements pertaining to well logging were imposed as license conditions.

(2) The rule promotes uniformity and consistency between NRC and Agreement State regulations. Compatibility between NRC and Agreement State regulations is required by the Atomic Energy Act and is important for well logging because many companies operate in both Agreement and non-Agreement States. Agreement States will need to adopt requirements similar to Part 39 in order to achieve compatible regulations.

(3) The rule includes safety requirements designed to reduce the likelihood of accidents involving the rupture of radioactive sources and the spread of radioactive contamination. Accidents have resulted from improperly removing a stuck source from a well logging device or retrieving a well logging device lodged in a well.

(4) The rule also includes safety requirements involving the use of radioactive collar markers, uranium sinker bars, and of a sealed source in a well without surface casing.

The new part specifies various safety requirements. It parallels existing Part 34 which is dedicated exclusively to radiographic operations. In addition, the new Part 39 includes the new SI units, for example becquerels, in parentheses for information. However, the NRC still requires that records be kept in the traditional units—rems, rads, roentgens, and curies—in accordance with the requirements of Part 20.

**Public Comments**

One hundred public comments on the proposed rule were received. Many of the commenters strongly opposed the rule because they believed that it would make impractical logging in wells without casing for protecting fresh water aquifers. These commenters said that if they were forced to use surface casing to isolate the hole from fresh water aquifers it would greatly increase the cost of the holes and severely diminish the effectiveness of the log. This would have caused considerable hardship in the mineral exploration industry, especially exploration for coal.

The intent of the rule was not to require surface casing to protect aquifers. The intent was that logging in uncased wells should be performed only if the licensee follows an approved procedure for reducing the chance of the source becoming lodged in the well. The final version of the rule has been reworded to clarify the actual intent of the regulation and, as written, should not be a burden on the mineral logging industry because it can be met by using procedures that are practical and inexpensive to follow. The procedures are discussed in more detail later on.

The more significant comments and their resolution are discussed in detail below, arranged according to the specific section in the rule. In addition to the comments discussed, certain minor wording changes were made in the rule as a result of public comments and as a result of NRC staff reconsideration during discussions on resolution of comments. Because of their minor

nature, these changes are not specifically discussed here.

*General comments*

*Comment:* A few commenters stated that the proposed Part 39 was much more detailed and went far beyond Part W of the Suggested State Regulations published by the Conference of Radiation Control Program Directors. (Specific areas are discussed below.) They stated that Part W should be adopted instead of the proposed Part 39 because Part W is a consensus standard adopted by many States, has withstood challenges, and is understood by the industry and regulators.

*Response:* The NRC agrees that proposed Part 39 exceeds the scope of Part W. The NRC believes that Part 39 improves upon Part W by adding additional requirements to protect public and employee health and safety. However, some changes made in response to public comments narrow the differences between Part W and Part 39. Comments on specific areas are discussed below.

*Comment:* Several commenters said that NRC underestimated the cost of complying with the proposed Part 39, especially with regard to the costs of complying with § 39.51, "Use of a sealed source in a well without casing."

*Response:* The proposed rule estimated that the cost for an average licensee to comply with Part 39 requirements would be $7,400/year and the cost to the entire industry would be $1,326,000/year. The industrywide costs of complying with the proposed § 39.51 were estimated to be minimal ($4,000/yr). However, those estimates included no costs for requirements considered to be already in existence, for example personnel monitoring requirements, survey and survey meter requirements, and requirements concerning lodged and irretrievable sources. Thus, the costs of Part 39 were not claimed to represent the complete costs of radiation protection in well logging.

As part of the final rulemaking the total costs of compliance with Part 39 were reevaluated. The new estimate included the costs of all sections of Part 39 even if the requirements were previously required by other parts of the regulations. In addition, the previous estimates substantially underestimated the number of sealed sources in use, the number of logging supervisors and assistants, the number of logging operations, and the number of logging companies. Thus, the costs represent essentially the entire costs of radiation protection.

The cost of compliance with Part 39 was estimated to be roughly $155,000/year for an average licensee and roughly $47,000,000/year for the industry. Most of the cost is associated with retrieval efforts for lodged sources and abandonment of the sources if they cannot be retrieved. Other areas of substantial cost are: Radiation surveys, leak testing, survey meter calibration, training, and recordkeeping.

However, Part 39 appears to cause virtually no change in existing costs. The Part 39 requirements are essentially identical to the existing requirements currently imposed on NRC licensees by regulations and license conditions. For some licensees there will be minor increases in requirements, for example additional training, and for other licensees minor decreases, for example reduced frequency of physical inventories. Even in those States that have adopted Part W, the States have imposed many license conditions that exceed Part W standards. Thus, the costs to licensees in those States are nearly identical to the costs imposed on licensees in States that have not adopted Part W. The Regulatory Analysis of costs found no cases of substantial new costs, and, overall, the minor increases should be balanced by minor decreases, for no net change.

In particular, § 39.51, requiring procedures for logging in wells without surface casing to protect fresh water aquifers, should be implemented at minimal cost to the licensee. The comments stating that the costs of § 39.51 were greatly underestimated were based on a misunderstanding of the intent of the rule. This is discussed in more detail under the section dealing with comments on § 39.51.

Single copies of the Regulatory Analysis containing the new cost estimates may be obtained without charge, subject to availability, upon written request from NRC Publication Services Section, USNRC, Washington, DC 20555.

*Comment:* Many commenters thought that mineral logging should not be included in Part 39 because of the great difference between it and oil and gas logging. For example, mineral logging uses smaller sources, does not require removing the source from the tool in the field, does not use tracers, operates at lesser depths where temperatures and pressures are lower, and generally operates in uncased wells.

*Response:* The NRC has not accepted the suggestion to delete mineral logging from Part 39 because one of the purposes of the rule is to codify in one place the safety requirements for well-logging. While it would be possible to have one sub-part for mineral logging and another for oil and gas logging, the health and safety requirements being established are equally applicable to both types of well logging. Both types of logging involve the raising and lowering of sealed sources in a logging tool attached to a wireline and require transportation of these sources to a temporary jobsite. In each case U.S. Department of Transportation regulations must be met. In both cases, sealed sources can have high radiation dose rates and may present a major hazard if ruptured. Sources in each case may become lodged in wells and ultimately may need to be abandoned. In both cases, radiation surveys are needed and personnel dosimetry is appropriate. Therefore, the NRC has considered carefully the special conditions found in mineral logging and has accounted for the conditions applicable to it where appropriate.

*Comment:* Several commenters questioned whether State regulations modeled after Part W would be found compatible with the final Part 39. If not, they believed the States adopting Part W would be required to amend their regulations.

*Response:* Most sections of the new rule will be items of compatibility. The final decision on which sections would be items of compatibility has not yet been made because the determination is not made until after the rule has been published in final form, but the NRC expects that all sections except §§ 39.1, 39.5, 39.8, 39.11, 39.13, 39.17, 39.47, 39.73, 39.91, and 39.101 will be items of compatibility. The NRC only requires enforcement authority in Agreement States. Thus, the civil or criminal penalties for violating a requirement in an Agreement State may not be the same as the penalties imposed by the NRC or the United States. Section 39.41 may require adoption verbatim to avoid interference with interstate commerce and because it is based on a national standard. Each Agreement State will have three years after the effective date of Part 39 to adopt compatible regulations.

*Section 39.1 Purpose and scope.*

*Comment:* Three commenters said Part 39 should be clarified to exclude sealed sources used as an auxiliary to well logging, but not lowered into wells, such as densiometers.

*Response:* The clarification was made. It was never intended that sources not used directly in well logging be covered by the regulations

*Section 39.2 Definitions.*

*Comment:* Several commenters said the definition of "surface casing" is

appropriate for oil and gas drilling but not consistent with usage in mineral exploration drilling where surface casing is used to prevent unconsolidated material from falling in the hole rather than protect fresh water acquifers.

*Response:* "Surface casing" as defined in § 39.2 is different from the meaning of the term as generally used in mineral exploration drilling. However, by defining the term "surface casing for protecting fresh water aquifers," the meaning of the regulations should be clear. Surface casing for protecting fresh water aquifers usually is used in oil and gas drilling, to prevent oil from contaminating fresh water aquifers, but rarely is used in coal or mineral exploration because little danger of contamination of the fresh water aquifer exists.

*Comment:* A few commenters suggested deleting "radioactive iron nails" from the definitions of "radioactive marker" and "well logging operations" because they are not used in well logging, in depth determination, or for direction orientation.

*Response:* "Radioactive nails" and "radioactive markers" were included to ensure that they contain only exempt quantities of radioactive materials as proposed in § 39.47, "Radioactive markers." There was no intent to require that radioactive nails or radioactive markers be subject to most other requirements of Part 39. Therefore, § 39.47 has been revised accordingly.

*Section 39.13 Specific licenses for well logging.*

This section describes the information that an applicant must submit to the NRC to obtain a license.

*Comment:* One comment objected to requiring that a copy of the written test (that would be given to logging supervisors and logging assistants) be submitted with the license application. The commenter opined that the proposed requirement would reduce the licensee's flexibility.

*Response:* The section was changed to delete the specific requirement for submission of the written tests as part of the license application. The modification is now consistent with the requirements for industrial radiography as set forth in § 34.11(b). However, the Commission, pursuant to § 39.13(b) (4) and (5), may require an applicant to submit a copy of a sample test of questions and answers or an outline of the test questions and answers.

*Comment:* A commenter objected to the requirement that the written operating and emergency procedures must be approved because this would mean that even minor changes in the procedures could not be made without submitting an application to amend the license.

*Response:* The NRC has changed the requirement to allow the option of submitting either the procedures in their entirety or else an outline of the procedures that includes the radiation safety aspect of the procedures. The Commission's issuance of the license constitutes its approval of what was submitted in the license application. If a licensee desires to change the procedures or the outline submitted pursuant to § 39.13, a license amendment will be required.

*Comment:* Many commenters objected to the requirement for annual inspections of the job performance of each logging supervisor and assistant by the licensee. Commenters said formal annual inspections were necessary because of the extensive initial training and the periodic safety reviews given to logging supervisors and assistants. Commenters also said that the inspections would be extremely burdensome because most logging jobs are in remote areas or offshore and do not occur during the normal 8 to 5 workday. A three-year interval was suggested.

*Response:* The NRC depends on company management to assure that proper radiation safety prcedures are followed. The NRC believes that management should verify at least annually that procedures are properly followed. However, the NRC has dropped the requirement to inspect logging assistants because they are under the constant personal supervision of a logging supervisor while handling radioactive sources.

*Section 39.15 Agreement with well owner or operator.*

*Comment:* Many comments were received on this section. Commenters noted that the requirement was unclear. They were confused about the content of the written agreements and the party responsible for the retrieval and abandonment of a sealed source.

A number of mineral loggers stated that they assumed full responsibility for retrieval efforts, decontamination efforts in the event of a rupture source, and abandonment procedures. They asked if this was in conflict with the regulation.

*Response:* The licensee is responsible for assuring compliance with the regulations. Either the licensee or the well owner or operator may perform the tasks specified in § 39.15. However, a non-licensee's failure to comply with § 39.15 will not obviate the licensee's responsibility. The purpose of the agreement is to specify whether the licensee or the well owner or operator will perform the retrieval and abandonment and to provide some assurance that the well owner or operator will permit the licensee to meet its responsibilities.

The wording of the section has been changed to permit the parties to identify who will perform the different functions associated with retrieval and abandonment. The modified language more closely follows that found in § 30.56, "Well logging operations using seal sources."

*Comment:* Several commenters did not want the NRC to specify the exact wording of an agreement. Some commenters were concerned about compatibility with Agreement State regulations, others about whether their existing contracts would continue to be acceptable, and others about excessive length in the wording of the agreement. Commenters were concerned that use of the word "specify" meant that the exact same words in the regulation had to be used.

*Response:* The exact words in the regulation do not have to be used. The word "specify" has been removed to reduce confusion.

The agreements can be quite short. For example, in situations in which the well owner or operator would perform retrieval and abandonment efforts, the agreement could read, "If a logging tool containing a sealed radioactive source becomes lodged in a well, (name of well owner or operator) agrees to meet all requirements in § 39.15(a) of NRC regulations concerning retrieval and, if necessary, abandonment of lodged sources and to permit (name of licensee) to monitor the recovery efforts." However, the licensee is ultimately responsible for assuring compliance with § 39.15(a).

If the licensee would perform retrieval and abandonment efforts, the agreement could read, "If a logging tool containing a sealed radioactive source becomes lodged in a well, (name of well owner or operator) agrees to permit (name of licensee) to meet all requirements in § 39.15(a) of NRC regulations concerning retrieval and, if necessary, abandonment of lodged sources."

Agreements also could split responsibilities between the licensee and the well owner or operator. For example, the agreement could state that one party would perform retrieval efforts and the other party would meet the abandonment requirements.

*Comment:* A few commenters said that if the well owner and the logging company are the same company there

should be no need for a written agreement.

*Response:* The NRC agrees and an exception has been added to § 39.15 to address the situation.

*Comment:* To avoid drilling into an abandoned logging source, a half-dozen commenters suggested that it should be acceptable to use "a whipstock or other mechanical device" rather than "a whipstock or other deflection device."

*Response:* The suggestion was adopted.

*Comment:* One comment asked whether a blanket agreement with a well owner or operator who was a frequent customer would be acceptable for meeting the regulation.

*Response:* A blanket agreement would be acceptable.

*Comment:* One comment stated that the requirement is not clear if a mining company's hole is on Federal land.

*Response:* The agreement usually would be between the logging company and the mining company, as the well operator. The Federal government generally would not be a party to the agreement because it is not the well owner or operator. In this case, the Federal government is the land owner, and the land owner need not be a party to the agreement.

*Section 39.31 Labels, security, and transportation precautions.*

*Comment:* Several commenters said the section should be revised to clarify those items requiring labels.

*Response:* The suggestion was adopted and implemented.

*Section 39.33 Radiation detection instruments.*

*Comment:* Many commenters, particularly mineral logging companies and cement pumping companies that use tracers, stated that there is no need for survey meters with a range up to 100 mR/hr for their operations and that replacing otherwise good meters would be an unnecessary expense. Commenters suggested that ranges to 20 mR/hr or 50 mR/hr would be adequate.

*Response:* The NRC has reviewed survey requirements for well logging and concluded that a survey instrument with a range of 0.1 to 50 mR/hr is adequate for the general use survey instrument required at field stations and temporary job sites. The regulation therefore has been changed to specify a range of 0.1 to 50 mR/hr instead of 0.1 to 100 mR/hr.

The 50–mR/hr value was selected, in part, because logging source packages and tools can, in general, be transported using "Radioactive Yellow II" labels pursuant to Department of Transportation regulations. The maximum allowable surface dose rate on a package bearing a "Radioactive II" label is 50 mR/hr. A 50 mR/hr instrument is adequate for surveys of surface radiation levels.

Paragraph 39.67 (b) requires radiation surveys before transportation of the position occupied by each individual in the vehicle and the exterior of the vehicle. In general, the readings will not exceed a few mR/hr if sources are properly packaged and secured. Thus, a 50 mR/hr survey instrument is adequate for these surveys.

Paragraphs 39.67 (c), (d) and (e) require the detection of contamination in different situations. The purpose of these surveys is to determine whether contamination is present. The low end of the survey instrument range is appropriate for these measurements. It is possible, although unlikely, that dose rates could exceed 50 mR/hr. In such a case, the logging supervisor should obtain assistance. The logging supervisor should not attempt to map out dose rates in highly contaminated areas because there is no need for such a map and making the map would result in unnecessary exposure. The necessary measurements can be done with a survey instrument that reads no more than 50 mR/hr. This type of survey meter can be used to locate all highly contaminated areas.

It was suggested that a 100 mR/hr survey meter could be useful for measuring high radiation areas, defined as areas in which a person, if continually present, could receive a dose of 100 mrem in any one hour. In general, there is no reason to measure high radiation areas during well logging. First, high radiation areas will not normally exist in well logging because the dose rates are low enough so that no person would receive a 100 mrem dose during the time the source is unshielded above ground. Typically it takes only a minute to put a logging tool in the hole. Second, in the unusual event that a source could not be shielded or put in the ground, a perfectly adequate survey could be made with a 50 mR/hr survey meter because a precise measurement of the location of the 100 mR/hr dose rate is neither necessary or appropriate. The high radiation area can be located (1) by using the 50 mR/hr dose rate location as a substitute, (2) by extrapolating from the 50 mR/hr location to the 100 mR/hr location, or (3) by calculations. Note that estimates rather than direct measurements of dose rates are recommended by NRC for gamma radiography where high radiation areas normally do exist and must be posted. Regulatory Guide 10.6 (Appendix B, Section C) states, "it is neither necessary nor desirable for a physical survey to be made to confirm the radiation level at the boundary of the high radiation area since such a survey could lead to unnecessary exposure of personnel."

*Comment:* A number of commenters said that the lifetime of survey instruments is 10 or 12 years, not 5, as stated by NRC. Therefore commenters said the rule, as proposed, would have been more expensive than NRC assured because many good instruments would have to be discarded before the end of their natural lifetime.

*Response:* The NRC agrees that the lifetime of survey instruments is generally about 10 or 12 years, but is retaining the 5-year phase-in period from the effective date of the regulation. Since the upper range has been changed to 50 mR/hr most survey meters in use already meet the requirement. Thus the cost impact of the rule will be small.

*Comment:* The suggestion was made by a commenter that the routine use radiation survey instruments required in paragraph (a) should be capable of detecting both betas and gamma radiation because they have greater sensitivity for detecting contamination than instruments that detect gamma rays only.

*Response:* The suggestion was adopted.

*Comment:* There was some uncertainty about what type survey meters should be used for detecting contamination.

*Response:* The intent is that licensees should have or be able to quickly obtain instruments that can detect low levels of radiation or contamination if a source is ruptured. While it is difficult to specify how quickly the instrument should be obtained, good practice dictates that the instrument should be obtained within one day except when special, unusual, or unexpected circumstances complicate delivery of the instrument. In the case of an americium-241 source, the instrument of choice would be highly sensitive to 60 kev gamma rays such as a crystal scintillation detector. Neutron detectors would not be useful because of low sensitivities. Alpha detectors would not be as effective as gamma detectors because alpha particles would be shielded by drilling mud. Paragraph (b) was revised to clarify the intent.

*Comment:* It was stated by a few commenters that survey meters should not be required at temporary job sites where sealed sources are used because the logging tool, which is much more sensitive than a survey meter, can be used to detect contamination. Moreover, a survey meter could be brought from a

field station if one was needed. Commenters noted that Part W does not require a survey meter at a temporary job site.

*Response:* The NRC did not adopt this suggestion because the logging tool may become lodged in the well or damaged and will not be available or operable. In addition, if a sealed source is leaking or ruptured, the tool probably will be contaminated; in such cases it may not be possible or desirable to remove the source from the tool. In this situation, a survey meter can be used to locate highly contaminated areas so that further spreading of contamination can be reduced. For these reasons, the NRC has decided to adopt a stricter requirement than the one found in Part W.

*Section 39.35 Leak testing of sealed sources.*

*Comment:* Several commenters noted that a leak test is composed of two parts—a wipe and an analysis or assay of the wipe. Commenters opined that the intent of the proposed rule was that only the analysis or assay need be performed by a person specifically authorized to do so.

*Response:* The commenters are correct and the regulation has been clarified. In addition, the NRC has added a requirement in § 39.13(f) that the licensee must perform the wipe with a leak test kit approved by the NRC.

*Comment:* Commenters recommended that the NRC notification of leaking sources be required within 30 days rather than within 5 days as proposed. Commenters could not see any reason for great urgency in the report because sources with positive leak tests are taken out of service until the test results can be obtained. Commenters said the 5-day requirement did not allow them to confirm that test results were valid. Commenters said that reports made within 5 days would not be complete.

*Response:* The NRC selected 5 days because it is sufficient time to perform a retest. A retest is generally desirable because most positive leak test results are found to be in error. The report must be made within 5 days because decontamination after a leak is easiest if done as soon as possible after the leak occurred. Therefore the NRC must receive the information quickly, in order to ensure proper decontamination. In addition, the NRC will use the information to determine the necessity for an inspection.

The report may be made by telephone or in writing. To meet the 5-day requirement, letters must be mailed within 5 days after receiving the test results.

The NRC recognizes that contamination surveys and corrective actions may not be finished and thus the report may not be complete. This is perfectly acceptable. If the NRC wants additional information, it can and will request that information.

*Comment:* Several commenters stated that leak-testing every six months is too frequent and unnecessary because leaking sources are so rare.

*Response:* It is true that leaking sources are rare. For example, for the 5-year period from June 1980 to June 1985, NRC's well logging licensees reported only five leaking sources—all cesium-137 sources. None caused significant contamination problems. Some of these sources reported as leaking may have been insufficiently decontaminated after manufacture, but others had imperfect welds. The NRC believes, however, that the six-month interval is appropriate because the cost of leak tests is not significant whereas the cost of a cleanup from a leaking source could be substantial. In addition, a serious leak has the potential to produce unnecessary exposure to radiation.

*Comment:* A few commenters wanted to know whether the NRC plans to approve persons or companies authorized by the NRC to analyze leak test wipes. In addition, the commenters wanted to know how they could find out if the companies they use are approved.

*Response:* The NRC and Agreement States currently approve companies authorized to perform analyses of leak test wipes. If there is a question about whether a company has approval to analyze wipes, it is possible to telephone the NRC or appropriate State agency to confirm that the company has been approved.

*Section 39.37 Physical inventory.*

*Comment:* One commenter noted that this section requires a duplication of records because both leak-testing and inventory must be done at 6-month intervals and both require a separate set of records. The commenter said that the leak test automatically provides an inventory check.

*Response:* A statement has been added saying that the leak test records may be combined with physical inventory records. This can be accomplished by including all information necessary for the physical inventory on the leak test record form since a leak test cannot be made unless the source has been located.

*Section 39.39 Records of material use.*

*Comment:* A few commenters questioned why records of material use had to include the identity of both the logging supervisor and logging assistants. They saw no reason why the logging assistants needed to be listed and said it could create confusion about who was responsible.

*Response:* Section 39.39(a)(3) was reworded to clarify that responsibility for the licensed material rests with the logging supervisor. However, both the supervisor and assistants must be listed on the record so that the NRC can determine who was present at each logging job. This allows the NRC to check whether the people at the site have completed the training required by § 39.61.

*Section 3941 Design and performance criteria for sealed sources.*

This section contains performance criteria for sealed sources used in well logging. The performance criteria in § 39.41 are different from those in §§ 71.75 and 71.77 for "special form" radioactive material. Thus, a well logging sealed source may not be transported as "special form" material unless it also meets the transportation performance criteria in §§ 71.75 and 71.77. As a practical matter, however, sealed sources meeting the performance criteria in § 39.41 will generally be able to meet the requirements in §§ 71.75 and 71.77. in addition, U.S. Department of Transportation regulations (49 CFR 173.476) require each shipper of a special form source to maintain on file a safety analysis documenting the tests demonstrating that the source meets the special form requirements.

*Comment:* A number of commenters said that the requirement that sources contain "licensed material whose chemical and physical forms are as insoluble and non-dispersible as practical" is too vague and that they were unable to determine whether their existing sources met the requirement or not.

*Response:* The NRC maintains a list of acceptable approved models of sealed sources. A licensee can telephone the NRC's regional licensing staffs or headquarters to find out if a particular model of a sealed source has been approved. Agreement States also have the list and may be telephoned. The NRC licensing staff compares the models listed as approved with the models listed in the license application. Licenses generally will be issued only for approved models. Thus, any model now listed on a license should meet this requirement, with the possible exception of a few very old sources.

In particular, cesium chloride sources do not meet the solubility standard in the regulation. Americium oxide sources

meet the solubility and non-dispersibility standards.

*Comment:* Individual pressure testing of sources is not necessary nor required in the ANSI standard on sealed sources. It should not be required.

*Response:* Prototype pressure testing has been substituted in place of individual pressure testing. The certificate to demonstrate compliance is no longer required because the NRC's list of approved sources meeting the requirements is adequate to determine compliance.

*Comment:* Some commenters noted that the test requirements were somewhat general and that acceptable methods of performing the tests and interpreting the results were not included in the proposed rule.

*Response:* Specific methods of performing the tests and interpreting the results are not included in the regulation because there are a number of valid ways to perform the tests and interpret the results. Useful information on the tests is included in industry standard ANSI N542, "Sealed Radioactive Sources Classification," published by the National Bureau of Standards (NBS Handbook 126) in 1978. (Available from the U.S. Government Printing Office, Washington, DC 20402—stock number SN003–003–01903–8.) The NRC generally accepts the standard as describing acceptable methods to meet the criteria in the regulation, but is willing to consider other methods on a case-by-case basis.

*Comment:* Two commenters thought the puncture test (a 1 meter drop of a 1 gram hammer with a 0.3 cm pin) was not meaningful for sources that also had to pass the impact test (a 1 meter drop of a 5 kg hammer with a 2.5 cm diameter).

*Response:* The puncture test is meaningful because the small diameter pin can hit small thin windows in sources whereas the windows are protected by sidewalls during an impact test.

*Section 39.43 Inspection, maintenance, and opening of a source or source holder.*

*Comment:* The comment was made that routine inspection and maintenance, for example, changing o-rings or moving a source from one holder to another, should not require written procedures because they are so simple.

*Response:* There is no requirement for a written procedure for changing o-rings if the source is removed. The requirement applies to only the relatively uncommon case in which the maintenance, even if it is simple, is done while the source is in the equipment because the sources have high surface radiation dose rates and touching them can cause significant exposures. The NRC reviews these procedures when submitted in the initial application or in a request for a license amendment. The review is designed to ensure that proper safety precautions are included in procedures involving source handling. The NRC believes these procedures should be simple and inexpensive to write.

*Comment:* A few commenters suggested that this section should state specifically that a record is not required of the visual inspection of source holders, logging tools, and source handling tools performed before each use.

*Response:* Defects should be noted so they may be fixed. The section has been revised to include this record. There is no need to maintain records of inspections that do not disclose defects.

*Comment:* A few commenters thought the description of equipment for which written maintenance procedures were required was too broad and too vague.

*Response:* Written maintenance procedures are required only if the maintenance will be done while the sealed source is in the equipment. The rule has been modified accordingly.

*Section 39.45 Subsurface tracer studies.*

*Comment:* Several commenters suggested amending the section so that for small quantities of material, such as 10 millicuries of iodine-131 or iridium-192, protective clothing may not be needed.

*Response:* The Commission agrees that for routine tracer use, for example normal handling of 10 millicuries of iodine-131 or iridium-192, only protective gloves are needed. The section has been amended.

*Comment:* Several commenters objected to prohibiting the injection of radioactive tracers into fresh water aquifers. The U.S. Geological Survey said this would interfere with major missions of the agency.

*Response:* The section does not actually prohibit the injection of tracers into fresh water aquifers. It merely states that Commission approval is needed to do so. The Commission must assure that the tracers are used properly (short half-life radionuclides, small quantitites, and far enough from drinking water wells) in order to avoid contamination of drinking water.

*Section 39.51 Use of a sealed source in a well without surface casing.*

*Comment:* This section received far more comments (over 50) and much stronger objections than any other section. The section was viewed as making impractical the logging of uncased holes. The coal and mineral logging industries believed the regulation would increase enormously the cost of their operations and decrease logging effectiveness because the use of casing would block the radiation emanating from the source.

*Response:* The proposed rule did not express the actual intent of the proposed requirement and was misleading. There was no intention to require surface casing for protecting aquifers in mineral logging. Rather the rule was designed to prevent a source from becoming stuck in an uncased hole, which might lead to a source becoming irretrievable or rupturing. The NRC intended that the licensee adopt some simple and inexpensive procedures to assure that the hole is open and reduce the possibility of the logging tool becoming stuck downhole. Thus the procedures are intended to avoid situations that have a potential of causing exposure of the public to radiation. Mineral logging sources have become lodged and have ruptured during recovery efforts. Among the procedures that are acceptable to the Commission to meet the requirement in § 39.51 are: (1) Obtaining specific knowledge of borehole conditions, for example, from the drilling team, (2) running a caliper log to show the hole is open, (3) running in a tool without a radioactive source to show it can be freely removed, or (4) placing a temporary casing in sections of the hole giving problems. Other procedures may also be acceptable.

A number of mineral logging companies were asked whether these procedures would be reasonably simple and inexpensive, and they agreed with the NRC characterization. Therefore, the NRC has decided to require these procedures because they would not burden industry and would reduce hazards from licensed material.

*Section 39.61 Training.*

*Comment:* Proposed § 39.61 drew strong opposition. Many commenters objected to the proposed forty-hour safety training requirement for logging supervisors as being excessive. They generally suggested that training periods from 16 to 24 hours are adequate. Other commenters objected to any specification of hours in the regulation because the number of hours should be decided on a case-by-case basis in licensing or should remain flexible to take into account the capability of the individual being trained.

*Response:* The NRC agrees that the number of hours of training should not

be specified in the regulations and has been deleted. A regulatory guide will be prepared recommending about 24 hours of initial training to meet § 39.61(a)(1) for people without previous logging experience. Some additional training may be needed to meet the other training requirements in § 39.61(a). Specific licensee proposals in license applications will be reviewed on a case-by-case basis to determine compliance with regulations.

*Comment:* Many commenters objected to the proposed requirement for annual retraining under the belief that retraining required the licensee to conduct initial training annually and retest individuals after the retraining.

*Response:* To clarify the intent of the requirement, the "retraining"was deleted and "safety review" was substituted. The NRC does not expect the safety review to take more than a couple of hours per year. It may be scheduled once during a calendar year or throughout the year as the need arises. The training may be undertaken separately or included in discussions of radiation safety at periodic employee meetings. It does not require testing after the safety reviews.

*Comment:* Several commenters objected to supplying copies of licensee's operating and emergency procedures to logging supervisor trainees and assistant trainees because the procedures often are very extensive.

*Response:* The copies of procedures that must be given during training are limited to the operating and emergency procedures listed in § 39.63 and should not be excessive.

*Comment:* Many commenters objected to the regulation specifying that 3 months of on-the-job training is necessary before satisfying the qualifications to become a logging supervisor. Mineral logging companies reasoned that their operations were simple and present, at worst, a minor hazard that 3 months is far longer than necessary for on-the-job training. These companies stated that the regulation would be extremely expensive and burdensome because they generally use only a single person to perform the logging.

Other commenters questioned whether the length of on-the-job training should be included in the regulations. Some stated that there could be so much variation in their usage of tracers that any fixed length of time might not be enough or might be excessive depending on the workload. Some commenters stated the company is ultimately responsible for safety and consequently it should have the authority and responsibility of deciding when someone had adequate on-the-job training.

*Response:* The length of on-the-job training has been deleted from the regulations. Instead the license application will describe the applicant's on-the-job training program. A regulatory guide will recommend 3 months for oil and gas logging and 1 month for mineral logging when relatively low activity sources are used and the source is not routinely removed from the logging tool. These recommended periods assume no previous experience. Employees with previous experience could be permitted to have less on-the-job training if they can demonstrate competence using the licensee's equipment and procedures. On-the-job training periods with tracers may be specified in terms of number of operations because there is so much variation in how often they are performed.

*Comment:* Several commenters objected to providing copies of NRC regulations during logging supervisor training.

*Response:* The regulation has been modified and now requires the licensee to provide only Parts 19, 20, and 39. The NRC has determined that knowledge and access to the information in these parts are vital to assuring the protection of public and employee health and safety.

*Comment:* Some commenters objected to instructing logging assistants in the use of tracer material because the companies do not use tracers.

*Response:* The regulation was changed by adding "as appropriate for job responsibilities." If the licensee will not permit the logging assistant to perform certain tasks, the licensee need not instruct the logging assistant in those tasks.

*Comment:* A commenter asked how he could obtain information on case histories of well logging accidents in order to include it in training as required by the regulations.

*Response:* The NRC plans to publish a review of accident case histories for well loggers on or about September 1987. A copy will be sent to each well logging licensee. A complete training manual including information on accident case histories as well as information on the other subjects required in § 39.61(e) is scheduled for publication in 1988.

*Section 39.65 Personnel monitoring.*

*Comment:* Several commenters stated that the section is redundant with the requirements in Part 20 and should therefore be deleted.

*Response:* The section was not deleted. The section represents an interpretation of the Part 20 requirements applied to the specific case of well logging and also represents a codification of standard licensing practices. The requirements are considered appropriate because well loggers working in the field normally use unshielded radioactive materials that can deliver significant radiation doses. Also radiation dose data from 1979 (see NRC report NUREG–0714) [1] show that well loggers are among the workers with the highest average measurable doses, the highest average individual doses, and the highest collective doses.

*Section 39.69 Radioactive contamination control.*

*Comment:* A commenter stated that the licensee may only make an offer to monitor recovery operations because the well owner or operator might not allow the licensee to be present.

*Response:* Section 39.15(a) was modified to include monitoring during recovery operations in the written agreement between the logging company and the well owner or operator.

*Comment:* A commenter stated that decontamination of a well was too vague because no residual contamination limits were given. The commenter stated that this has led to unreasonable and inconsistent requirements.

*Response:* The commenter is correct that NRC regulations do not contain criteria for acceptable levels of residual contamination in soil. It is expected that normally licensees will clean up contamination to non-detectable levels as measured using appropriate instrumentation. In cases where it is not practical to remove all detectable contamination, the NRC staff will consider specific requests for approval of release of sites, equipment, or facilities with residual contamination. In evaluating such request, the staff will consider whether all practical efforts have been made to remove the contamination, and whether the residual levels are low enough such that protection of the public health and safety can be assured following release for unrestricted use.

[1] Copies of NUREG–0714 may be purchased through the U.S. Government Printing Office by calling (202) 275–2060 or by writing to the U.S. Government Printing Office, P.O. Box 37082, Washington, DC 20013–7082. Copies may also be purchased from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161. A copy is available for inspection and/or copying for a fee in the NRC Public Document Room, 1717 H Street, NW., Washington, DC 20555.

Although surface contamination levels are not found in the regulations, recommended levels may be found in "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material," July 1982. This may be obtained by writing, Director, Division of Fuel Cycle and Material Safety, Office of Nuclear Material Safety and Safeguards, USNRC, Washington, DC 20555. The same values are also found in Regulatory Guide 1.86, "Termination of Operating Licenses for Nuclear Reactors." This guide may be purchased from the Government Printing Office, telephone (202) 275–2060.

*Section 39.71 Security.*

*Comment:* A commenter stated that the requirement to maintain surveillance over the restricted area was not possible if the source became lodged in a well and the logging supervisor had to leave to obtain assistance. The commenter also noted that the requirement would prevent sources from being left for an extended time while locked in a truck.

*Response:* If the source is lodged in a well, no restricted area will exist. To make that clear, the surveillance requirement was deleted in situations in which the source in below ground. Similarly, the requirement was deleted for sources in shipping containers. The rule was changed accordingly.

*Section 39.73 Documents and records required at field stations.*

*Comment:* A commenter recommended that the rule specify which regulations must be kept on file at the field station.

*Response:* This was done. Parts 19, 20, and 39 are specified.

*Comment:* A recommendation was made that training records should not be maintained at the field station if those records were available at corporate headquarters.

*Response:* The NRC wants training records available at field stations to facilitate inspections. The recommendation was not adopted.

*Section 39.75 Documents and records required at temporary jobsites.*

*Comment:* Several commenters remarked that keeping a copy of the licensee's entire set of operating and emergency procedures at temporary jobsites would be very burdensome because the procedures are voluminous. In addition, it was noted that many topics are inappropriate for use at a temporary jobsite.

*Response:* In response to the comment, § 39.75 has been modified. It now only requires the licensee to keep those procedures listed in § 39.63 at the temporary jobsite.

*Comment:* Several commenters suggested that it was unnecessary to maintain a copy of the license at the temporary jobsite unless the licensee is working under reciprocity.

*Response:* The recommendation was adopted. The license is required at the temporary jobsite only when an Agreeement State licensee is working under reciprocity.

*Section 39.77 Notification of incidents; abandonment procedures for irretrievable sources.*

*Comment:* Several commenters objected to submitting reports on irretrievable sources to State agencies having regulatory authority over the drilling because those agencies already require the drilling company or operator to file reports containing the same information. Thus, the reports were characterized as redundant, unnecessary, and a breach of logging company-customer confidence.

*Response:* Although the licensee and the drilling company or well operator would both be required to submit the same information to the State, the recommended change was not adopted because the logging company has direct first-hand information and is most knowledgeable about the nature of the radioactive source. Therefore the logging company is in the best position to send an authoritative report. Moreover, the NRC may not have regulatory authority over the drilling company or well operator. If the NRC relied on reports filed by those non-licensees, the NRC would have no method of ensuring the submittal of information needed to protect public health and safety unless the NRC required its licensees to submit the information. The NRC will use these reports to determine that the irretrievable source has been abandoned properly. The State agency will use the report to prohibit future drilling at the location that could rupture the source.

*Comment:* A few commenters suggested that the rule should contain criteria for determining what is a reasonable effort to retrieve a lodged source.

*Response:* The suggestion was not adopted because there are numerous factors in deciding the amount of reasonable effort. These factors will depend on the circumstances of a particular recovery effort. In some cases the NRC recognizes that it would be too expensive, impractical, dangerous, or even impossible to recover a source. Therefore, reasonability will be determined on a case-by-case basis. While this is not an ideal situation, neither commenters nor the NRC have identified a better solution.

*Comment:* Commenters agreed that ruptured sources should be reported immediately by telephone. However, several thought that the written report describing the circumstances, assessment of consequences, and mitigation efforts should be made within 30 days rather than 5 days because insufficient information would be available in 5 days to make a reasonably complete report. In addition, commenters noted that Part 20 allows 30 days for similar situations.

*Response:* The NRC agrees. Immediate telephone notification remains in the rule, because ruptue of a source presents an immediate and significant hazard but the written reporting period was revised to 30 days. This will allow the licensee more time to take and complete the corrective actions and then make a complete report.

**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 this rule is not a major Federal action significantly affecting the quality of the human environment and therefore an environmental impact statement is not required. These requirements are designed to control the use of licensed materials in well-logging operations. Most of these requirements are already contained in licenses as license conditions. Therefore, the final rule has no measurable negative environmental impact. The environmental assessment and finding of no significant impact on which this determination is based are available for inspection at the NRC Public Document Room, 1717 H Street NW., Washington, DC. Single copies of the environmental assessment and finding of no significant impact are available without charge upon written request from NRC Publication Services Section, USNRC, Washington, DC 20555.

**Paperwork Reduction Act Statement**

This final rule amends information collection requirements that are subject to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.). These requirements were approved by the Office of Management and Budget, approval number 3150–0130.

**Regulatory Analysis**

The Commission has prepared a regulatory analysis on this regulation. The analysis examines the costs and benefits of the alternatives considered by the Commission. Interested persons may examine a copy of the regulatory analysis at the NRC Public Document Room, 1717 H Street NW., Washington, DC. Single copies of the analysis may be obtained without charge upon written request from NRC Publication Services Section, USNRC, Washington, DC 20555.

**Regulatory Flexibility Certification**

As required by the Regulatory Flexibility Act of 1980, 5 U.S.C. 605(b), the Commission certifies that this rule does not have a significant economic impact on a substantial number of small entities. The final rule provides radiation safety requirements, promotes uniformity in NRC and Agreement State regulations, and specifies requirements that would reduce the risks of accidents involving radiation or radioactive materials. The final rule affects about 171 specific licensees, of which approximately 60% are small entities based on the size standards adopted by the Nuclear Regulatory Commission (50 FR 50241, December 9, 1985). Under these size standards, well logging licensees whose annual receipts are less than $3.5 million are considered to be small entities.

The Commission estimates that the total cost of compliance with the requirements contained in this regulation is approximately $155,000 a year for an average well logging licensee and roughly $47,000,000/year for all companies. However, all well logging licensees should be in compliance with virtually all of these requirements because the requirements are currently mandated by NRC regulations or imposed as conditions of the license under which the well loggers operate even is States that have adopted Part W. Therefore, the actual increase in cost of compliance to a licensee would be negligible. The estimated cost to an average well logging licensee for additional requirements imposed by this rule is essentially zero.

Therefore, the Commission finds that this regulation does not impose a significant economic impact on most licensees. A detailed analysis of the cost of each individual requirement imposed by the regulation appears in the Regulatory Analysis prepared for this action.

**Backfit Analysis**

The staff has determined that a backfit analysis is not required for this final rule because 10 CFR 50.109 does not apply to well logging.

**List of Subjects**

*10 CFR Part 19*

Environmental protection, Nuclear materials, Nuclear power plants and reactors, Occupational safety and health, Penalty, Radiation protection, Reporting and recordkeeping requirements, Sex discrimination.

*10 CFR Part 20*

Byproduct material, Licensed material, Nuclear materials, Nuclear power plants and reactors, Occupational safety and health, Packaging and containers, Penalty, Radiation protection, Reporting and recordkeeping requirements, Special nuclear material, Source material, Waste treatment and disposal.

*10 CFR Part 21*

Nuclear power plants and reactors, Penalty, Radiation protection, Reporting and recordkeeping requirements.

*10 CFR Part 30*

Byproduct material, Government contracts, Intergovernmental relations, Isotopes, Nuclear materials, Penalty, Radiation protection, Reporting and recordkeeping requirements.

*10 CFR Part 39*

Byproduct material, Nuclear material, Oil and gas exploration-well logging, Penalty, Reporting and recordkeeping requirements, Scientific equipment, Security measures, Source material, Special nuclear material.

*10 CFR Part 40*

Government contracts, Hazardous materials-transportation, Nuclear materials, Penalty, Reporting and recordkeeping requirements, Source material, Uranium.

*10 CFR Part 51*

Administrative practice and procedure, Environmental impact statement, Nuclear materials, Nuclear power plants and reactors, Reporting and recordkeeping requirements.

*10 CFR Part 70*

Hazardous materials-transportation, Nuclear materials, Packaging and containers, Penalty, Radiation protection, Reporting and recordkeeping requirements, Scientific equipment, Security measures, Special nuclear material.

*10 CFR Part 71*

Hazardous materials-transportation, Nuclear materials, Packaging and containers, Penalty, Reporting and recordkeeping requirements.

*10 CFR Part 150*

Hazardous materials-transportation, Intergovernmental relations, Nuclear materials, Penalty, Reporting and recordkeeping requirements, Security measures, Source material, Special nuclear material.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and 5 U.S.C. 552 and 553, the NRC is adopting the following amendments to 10 CFR Parts 19, 20, 21, 30, 39, 40, 51, 70, 71 and 150.

1. Part 39 is added to 10 CFR Chapter I to read as follows:

## PART 39—LICENSES AND RADIATION SAFETY REQUIREMENTS FOR WELL LOGGING

**Subpart A—General Provisions**

Sec.



**Subpart B—Specific Licensing Requirements.**



**Subpart C—Equipment**



**Subpart D—Radiation Safety Requirements**



**Subpart E—Security, Records, Notifications**

Sec.



**Authority:** Secs. 53, 57, 62, 63, 65, 69, 81, 82, 161, 182, 183, 186, 68 Stat. 929, 930, 932, 933, 934, 935, 948, 953, 954, 955, as amended, sec. 234, 83 Stat. 444, as amended (42 U.S.C. 2073, 2077, 2092, 2093, 2095, 2099, 2111, 2112, 2201, 2232, 2233, 2236, 2282); secs. 201, as amended, 202,. 206, 88 Stat. 1242, as amended, 1244, 1246 (42 U.S.C. 5841, 5842, 5846).

For the purposes of sec. 223, 68 Stat. 958, as amended (42 U.S.C. 2273); §§ 39.15, 39.17, 39.31–39.51, 39.61–39.77 are issued under sec. 161b, 68 Stat. 948, as amended (42 U.S.C. 2201(b); and §§ 39.15, 39.33–39.43, 39.61–39.67, 39.73–39.77 are issued under sec. 161o, 68 Stat. 950, as amended (42 U.S.C. 2201(o)).

## Subpart A—General Provisions

### § 39.1 Purpose and scope.

(a) This part prescribes requirements for the issuance of a license authorizing the use of licensed materials including sealed sources, radioactive tracers, radioactive markers, and uranium sinker bars in well logging in a single well. This part also prescribes radiation safety requirements for persons using licensed materials in these operations. The provisions and requirements of this part are in addition to, and not in substitution for, other requirements of this chapter. In particular, the provisions of Parts 19, 20, 21, 30, 40, 70, 71, and 150 of this chapter apply to applicants and licensees subject to this part.

(b) The requirements set out in this part do not apply to the issuance of a license authorizing the use of licensed material in tracer studies involving multiple wells, such as field flooding studies, or to the use of sealed sources auxiliary to well logging but not lowered into wells.

### § 39.2 Definitions.

"Field station" means a facility where licensed material may be stored or used and from which equipment is dispatched to temporary jobsites.

"Fresh water aquifer," for the purpose of this part, means a geologic formation that is capable of yielding fresh water to a well or spring.

"Injection tool" means a device used for controlled subsurface injection of radioactive tracer material.

"Irretrievable well logging source" means any sealed source containing licensed material that is pulled off or not connected to the wireline that suspends the source in the well and for which all reasonable effort at recovery has been expended.

"Licensed material" means byproduct, source, or special nuclear material received, processed, used, or transferred under a license issued by the Commission under the regulations in this chapter.

"Logging assistant" means any individual who, under the personal supervision of a logging supervisor, handles sealed sources or tracers that are not in logging tools or shipping containers or who performs surveys required by § 39.67.

"Logging supervisor" means an individual who uses licensed material or provides personal supervision in the use of licensed material at a temporary jobsite and who is responsible to the licensee for assuring compliance with the requirements of the Commission's regulations and the conditions of the license.

"Logging tool" means a device used subsurface to perform well logging.

"Personal supervision" means guidance and instruction by a logging supervisor, who is physically present at a temporary jobsite, who is in personal contact with logging assistants, and who can give immediate assistance.

"Radioactive marker" means licensed material used for depth determination or direction orientation. For purposes of this part, this term includes radioactive collar markers and radioactive iron nails.

"Safety review" means a periodic review provided by the licensee for its employees on radiation safety aspects of well logging. The review may include, as appropriate, the results of internal inspections, new procedures or equipment, accidents or errors that have been observed, and opportunities for employees to ask safety questions.

"Sealed source" means any licensed material that is encased in a capsule designed to prevent leakage or escape of the licensed material.

"Source holder" means a housing or assembly into which a sealed source is placed to facilitate the handling and use of the source in well logging.

"Subsurface tracer study" means the release of unsealed license material or a substance labeled with licensed material in a single well for the purpose of tracing the movement or position of the material or substance in the well or adjacent formation.

"Surface casing for protecting fresh water aquifers" means a pipe or tube used as a lining in a well to isolate fresh water aquifers from the well.

"Temporary jobsite" means a place where licensed material are present for the purpose of performing well logging or subsurface tracer studies.

"Uranium sinker bar" means a weight containing depleted uranium used to pull a logging tool toward the bottom of a well.

"Well" means a drilled hole in which well logging may be performed. As used in this part, "well" includes drilled holes for the purpose of oil, gas, mineral, groundwater, or geological exploration.

"Well logging" means all operations involving the lowering and raising of measuring devices or tools which contain licensed material or are used to detect licensed materials in wells for the purpose of obtaining information about the well or adjacent formations which may be used in oil, gas, mineral, groundwater, or geological exploration.

### § 39.5 Interpretations.

Except as specifically authorized by the Commission in writing, no interpretation of the meaning of the regulations in this part by any officer or employee of the Commission, other than a written interpretation by the General Counsel, will be recognized to be binding upon the Commission.

### § 39.8 Information collection requirements: OMB approval.

(a) The Nuclear Regulatory Commission has submitted the information collection requirements contained in this part to the Office of Management and Budget (OMB) for approval as required by the Paperwork Reduction Act of 1980 (44 U.S. 3501 et seq.) OMB has approved the information collection requirements contained in this part under control number 3150–0130.

(b) The approved information collection requirements contained in this part appear in §§ 39.11, 39.13, 39.15, 39.31, 39.33, 39.35, 39.37, 39.39, 39.43, 39.49, 39.51, 39.61, 39.65, 39.67, 39.73. 39.75, and 39.77.

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

(1) In § 39.11, Form NRC–313 is approved under control number 3150–0120.

## Subpart B—Specific Licensing Requirements

### § 39.11 Application for a specific license.

A person, as defined in § 30.4 of this chapter, shall file an application for a specific license authorizing the use of licensed material in well logging on Form NRC 313, "Application for Material License." Each application for

a license, other than a license exempted from Part 170 of this chapter, must be accompanied by the fee prescribed in § 170.31 of this chapter. The application must be sent to the appropriate NRC Regional Office listed in Appendix D of Part 20 of this chapter.

**§ 39.13 Specific licenses for well logging.**

The Commission will approve an application for a specific license for the use of licensed material in well logging if the applicant meets the following requirements:

(a) The applicant shall satisfy the general requirements specified in § 30.33 of this chapter for byproduct material, in § 40.32 of this chapter for source material, and in § 70.33 of this chapter for special nuclear material, as appropriate, and any special requirements contained in this part.

(b) The applicant shall develop a program for training logging supervisors and logging assistants and submit to the Commission a description of this program which specifies the—

(1) Initial training;

(2) On-the-job training;

(3) Annual safety reviews provided by the licensee;

(4) Means the applicant will use to demonstrate the logging supervisor's knowledge and understanding of and ability to comply with the Commission's regulations and licensing requirements and the applicant's operating and emergency procedures; and

(5) Means the applicant will use to demonstrate the logging assistant's knowledge and understanding of and ability to comply with the applicant's operating and emergency procedures.

(c) The applicant shall submit to the Commission written operating and emergency procedures as described in § 39.63 or an outline or summary of the procedures that includes the important radiation safety aspects of the procedures.

(d) The applicant shall establish and submit to the Commission its program for annual inspections of the job performance of each logging supervisor to ensure that the Commission's regulations, license requirements, and the applicant's operating and emergency procedures are followed. Inspection records must be retained for 3 years after each annual internal inspection.

(e) The applicant shall submit a description of its overall organizational structure as it applies to the radiation safety responsibilities in well logging, including specified delegations of authority and responsibility.

(f) If an applicant wants to perform leak testing of sealed sources, the applicant shall identify the manufacturers and the model numbers of the leak test kits to be used. If the applicant wants to analyze its own wipe samples, the applicant shall establish procedures to be followed and submit a description of these procedures to the Commission. The description must include the—

(1) Instruments to be used;

(2) Methods of performing the analysis; and

(3) Pertinent experience of the person who will analyze the wipe samples.

**§ 39.15 Agreement with well owner or operator.**

(a) A licensee may perform well logging with a sealed source only after the licensee has a written agreement with the employing well owner or operator. This written agreement must identify who will meet the following requirements:

(1) If a sealed source becomes lodged in the well, a reasonable effort will be made to recover it.

(2) A person may not attempt to recover a sealed source in a manner which, in the licensee's opinion, could result in its rupture.

(3) The radation monitoring required in § 39.69(a) will be performed.

(4) If the environment, any equipment, or personnel are contaminated with licensed material, they must be decontaminated before release from the site or release for unrestricted use. And

(5) If the sealed source is classified as irretrievable after reasonable efforts at recovery have been expended, the following requirements must be implemented within 30 days:

(i) Each irretrievable well logging source must be immobilized and sealed in place with a cement plug.

(ii) A mechanical device to prevent inadvertent intrusion on the source must be set at some point in the well above the cement plug, unless the cement plug and source are not accessible to any subsequent drilling operations. And

(iii) A permanent identification plaque, constructed of long lasting material such as stainless steel, brass, bronze, or monel, must be mounted at the surface of the well, unless the mounting of the plaque is not practical. The size of the plaque must be at least 7 inches (17 cm) square and 1/8-inch (3 mm) thick. The plaque must contain—

(A) The word "CAUTION";

(B) The radiation symbol (the color requirement in § 20.203 of this chapter need not be met);

(C) The date the source was abandoned;

(D) The name of the well owner or well operator, as appropriate;

(E) The well name and well identification number(s) or other designation;

(F) An identification of the sealed source(s) by radionuclide and quantity;

(G) The depth of the source and depth to the top of the plug; and

(H) An appropriate warning, such as, "DO NOT RE-ENTER THIS WELL."

(b) The licensee shall retain a copy of the written agreement for 3 years after the completion of the well logging operation.

(c) A licensee may apply, pursuant to § 39.91, for Commission approval, on a case-by-case basis, of proposed procedures to abandon an irretrievable well logging source in a manner not otherwise authorized in paragraph (a)(5) of this section.

(d) A written agreement between the licensee and the well owner or operator is not required if the licensee and the well owner or operator are part of the same corporate structure or otherwise similarly affiliated. However, the licensee shall still otherwise meet the requirements in paragraphs (a)(1) through (a)(5).

**§ 39.17 Request for written statements.**

Each license is issued with the condition that the licensee will, at any time before expiration of the license, upon the Commission's request, submit written statements, signed under oath or affirmation, to enable the Commission to determine whether or not the license should be modified, suspended, or revoked.

## Subpart C—Equipment

**§ 39.31 Labels, security, and transportation precautions.**

(a) *Labels.*

(1) The licensee may not use a source, source holder, or logging tool that contains licensed material unless the smallest component that is transported as a separate piece of equipment with the licensed material inside bears a durable, legible, and clearly visible marking or label. The marking or label must contain the radiation symbol specified in § 20.203 of this chapter, without the conventional color requirements, and the wording "DANGER (or CAUTION) RADIOACTIVE MATERIAL."

(2) The licensee may not use a container to store licensed material unless the container has securely attached to it a durable, legible, and clearly visible label. The label must contain the radiation symbol specified in § 20.203 of this chapter and the wording "CAUTION (or DANGER),

RADIOACTIVE MATERIAL, NOTIFY CIVIL AUTHORITIES (or NAME OF COMPANY)."

(3) The licensee may 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.

(b) *Security precautions during storage and transportation.* (1) The licensee shall store each source containing licensed material in a storage container or transportation package. The container or package must be locked and physically secured to prevent tampering or removal of licensed material from storage by unauthorized personnel. 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.

**§ 39.33 Radiation detection instruments.**

(a) The licensee shall keep a calibrated and operable radiation survey instrument capable of detecting beta and gamma radiation at each field station and temporary jobsite to make the radiation surveys required by this part and by Part 20 of this chapter. To satisfy this requirement, the radiation survey instrument must be capable of measuring 0.1 milliroentgen $2.58 \times 10^{-8}$ C/kg per hour through at least 50 milliroentgens $1.29 \times 10^{-5}$ C/kg per hour. Survey instruments acquired before [the effective date] and capable of measuring 0.1 milliroentgen ($2.58 \times 10^{-8}$ C/kg) per hour through at least 20 milliroentgens ($5.16 \times 10^{-6}$ C/kg) per hour also satisfy this requirement until July 14, 1992.

(b) The licensee shall have available additional calibrated and operable radiation detection instruments sensitive enough to detect the low radiation and contamination levels that could be encountered if a sealed source ruptured. The licensee may own the instruments or may have a procedure to obtain them quickly from a second party.

(c) The licensee shall have each radiation survey instrument required under paragraph (a) of this section calibrated—

(1) At intervals not to exceed 6 months and after instrument servicing;

(2) For linear scale instruments, at two points located approximately ⅓ and ⅔ of full-scale on each scale; for logarithmic scale instruments, at midrange of each decade, and at two points of at least one decade; and for digital instruments, at appropriate points; and

(3) So that an accuracy within plus or minus 20 percent of the calibration standard can be demonstrated on each scale.

(d) The licensee shall retain calibration records for a period of 3 years after the date of calibration for inspection by the Commission.

**§ 39.35 Leak testing of sealed sources.**

(a) *Testing and recordkeeping requirements.* Each licensee who uses a sealed source shall have the source tested for leakage periodically. The licensee shall keep a record of leak test results in units of microcuries and retain the record for inspection by the Commission for 3 years after the leak test is performed.

(b) *Method of testing.* The wipe of a sealed source must be performed using a leak test kit or method approved by the Commission or an Agreement State. The wipe sample must be taken from the nearest accessible point to the sealed source where contamination might accumulate. The wipe sample must be analyzed for radioactive contamination. The analysis must be capable of detecting the presence of 0.005 microcurie (185 Bq) 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.

(c) *Test frequency.* Each sealed source must be tested at intervals not to exceed 6 months. In the absence of a certificate from a transferor that a test has been made within the 6 months before the transfer, the sealed source may not be used until tested.

(d) *Removal of leaking source from service.* (1) If the test conducted pursuant to paragraphs (a) and (b) of this section reveals the presence of 0.005 microcurie (185 Bq) or more of removable radioactive material, the licensee shall remove the sealed source from service immediately and have it decontaminated, repaired, or disposed of by an NRC or Agreement State licensee that is authorized to perform these functions. The licensee shall check the equipment associated with the leaking source for radioactive contamination and, if contaminated, have it decontaminated or disposed of by an NRC or Agreement State licensee that is authorized to perform these functions.

(2) The licensee shall submit a report to the appropriate NRC Regional Office listed in Appendix D of Part 20 of this chapter, within 5 days of receiving the test results. The report must describe the equipment involved in the leak, the test results, any contamination which resulted from the leaking source, and the corrective actions taken up to the time the report is made.

(e) *Exemptions from testing requirements.* The following sealed sources are exempt from the periodic leak test requirements set out in paragraphs (a) through (d) of this section:

(1) Hydrogen-3 sources;

(2) Sources containing licensed material with a half-life of 30 days or less;

(3) Sealed sources containing licensed material in gaseous form;

(4) Sources of beta- or gamma-emitting radioactive material with an activity of 100 microcuries (3,700,000 Bq) or less; and

(5) Sources of alpha- or neutron-emitting radioactive material with an activity of 10 microcuries (370,000 Bq) or less.

**§ 39.37 Physical inventory.**

Each licensee shall conduct a semi-annual physical inventory to account for all licensed material received and possessed under the license. The licensee shall retain records of the inventory for 3 years from the date of the inventory for inspection by the Commission. The inventory must indicate the quantity and kind of licensed material, the location of the licensed material, the date of the inventory, and the name of the individual conducting the inventory. Physical inventory records may be combined with leak test records.

**§ 39.39 Records of material use.**

(a) Each licensee shall maintain records for each use of licensed material showing—

(1) The make, model number, and a serial number or a description of each sealed source used;

(2) In the case of unsealed licensed material used for subsurface tracer studies, the radionuclide and quantity of activity used in a particular well and the disposition of any unused tracer materials;

(3) The identity of the logging supervisor who is responsible for the licensed material and the identity of logging assistants present; and

(4) The location and date of use of the licensed material.

(b) The licensee shall make the records required by paragraph (a) of this section available for inspection by the Commission. The licensee shall retain

the records for 3 years from the date of the recorded event.

**§ 39.41 Design and performance criteria for sealed sources.**

(a) After July 14, 1989, a licensee may not use a sealed source in well logging unless the sealed source—

(1) Is doubly encapsulated;

(2) Contains licensed material whose chemical and physical forms are as insoluble and nondispersible as practical; and

(3) The sealed source's prototype has been tested and found to maintain its integrity after each of the following tests:

(i) *Temperature.* The test source must be held at −40 °C for 20 minutes, 600 °C for 1 hour, and then be subject to a thermal shock test with a temperature drop from 600 °C to 20 °C within 15 seconds.

(ii) *Impact Test.* A 5 kg steel hammer, 2.5 cm in diameter, must be dropped from a height of 1 m onto the test source.

(iii) *Vibration test.* The test source must be subject to a vibration from 25 Hz to 500 Hz at 5 g amplitude for 30 minutes.

(iv) *Puncture test.* A 1 gram hammer and pin, 0.3 cm pin diameter, must be dropped from a height of 1 m onto the test source.

(v) *Pressure test.* The test source must be subjected to an external pressure of 24,600 pounds per square inch absolute ($1.695 \times 10^7$ pascals).

(b) The requirements in paragraph (a) of this section do not apply to sealed sources that contain licensed material in gaseous form.

**§ 39.43 Inspection, maintenance, and opening of a source or source holder.**

(a) Each licensee shall visually check source holders, logging tools, and source handling tools, for defects before each use 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 listing: the date of check, name of inspector, equipment involved, defects found, and repairs made. These records must be retained for 3 years after the defect is found.

(b) Each licensee shall have a program for semiannual visual inspection and routine maintenance of source holders, logging tools, injection tools, source handling tools, storage containers, transport containers, and uranium sinker bars to ensure that the required labeling is legible and that no physical damage is visible. If defects are found, the equipment must be removed from service until repaired, and a record must be made listing: date, equipment involved, inspection and maintenance operations performed, any defects found, and any actions taken to correct the defects. These records must be retained for 3 years after the defect is found.

(c) Removal of a sealed source from a source holder or logging tool, and maintenance on sealed sources or holders in which sealed sources are contained may not be performed by the licensee unless a written procedure developed pursuant to § 39.63 has been approved either by the Commission pursuant to § 39.13(c) or by an Agreement State.

(d) If a sealed source is stuck in the source holder, the licensee may not perform any operation, such as drilling, cutting, or chiseling, on the source holder unless the licensee is specifically approved by the Commission or an Agreement State to perform this operation.

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

**§ 39.45 Subsurface tracer studies.**

(a) The licensee shall require all personnel handling radioactive tracer material to use protective gloves and, if required by the license, other protective clothing and equipment. The licensee shall take precautions to avoid ingestion or inhalation of radioactive tracer material and to avoid contamination of field stations and temporary jobsites.

(b) A licensee may not knowingly inject licensed material into fresh water aquifers unless specifically authorized to do so by the Commission.

**§ 39.47 Radioactive markers.**

The licensee may use radioactive markers in wells only if the individual markers contain quantities of licensed material not exceeding the quantities specified in § 30.71 of this chapter. The ues of markers is subject only to the requirements of § 39.37.

**§ 39.49 Uranium sinker bars.**

The licensee may use a uranium sinker bar in well logging after July 14, 1988, only if it is legibly impressed with the words "CAUTION—RADIOACTIVE-DEPLETED URANIUM" and "NOTIFY CIVIL AUTHORITIES (or COMPANY NAME) IF FOUND."

**§ 39.51 Use of a sealed source in a well without a surface casing.**

The licensee may use a sealed source in a well without a surface casing for protecting fresh water 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 § 39.13(c) or by an Agreement State.

## Subpart D—Radiation Safety Requirements

**§ 39.61 Training.**

(a) 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.

(b) 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.

(c) The licensee shall provide safety reviews for logging supervisors and logging assistants at least once during each calendar year.

(d) The licensee shall maintain a record on each logging supervisor's and logging assistant's training and annual safety review. The training records must include copies of written tests and dates of oral tests given after July 14, 1987. The training records must be retained until 3 years following the termination of employment. Records of annual safety

reviews must list the topics discussed and be retained for 3 years.

(e) The licensee shall include the following subjects in the training required in paragraph (a)(1) of this section:

(1) Fundamentals of radiation safety including—

(i) Characteristics of radiation;

(ii) Units of radiation dose and quantity of radioactivity;

(iii) Hazards of exposure to radiation;

(iv) Levels of radiation from licensed material;

(v) Methods of controlling radiation dose (time, distance, and shielding); and

(vi) Radiation safety practices, including prevention of contamination, and methods of decontamination.

(2) Radiation detection instruments including—

(i) Use, operation, calibration, and limitations of radiation survey instruments;

(ii) Survey techniques; and

(iii) Use of personnel monitoring equipment;

(3) Equipment to be used including—

(i) Operation of equipment, including source handling equipment and remote handling tools;

(ii) Storage, control, and disposal of licensed material; and

(iii) Maintenance of equipment.

(4) The requirements of pertinent Federal regulations. And

(5) Case histories of accidents in well logging.

**§ 39.63 Operating and emergency procedures.**

Each licensee shall develop and follow written operating and emergency procedures that cover—

(a) The handling and use of licensed materials including the use of sealed sources in wells without surface casing for protecting fresh water aquifers, if appropriate;

(b) The use of remote handling tools for handling sealed sources and radioactive tracer material except low-activity calibration sources;

(c) Methods and occasions for conducting radiation surveys, including surveys for detecting contamination, as required by § 39.67(c)–(e);

(d) Minimizing personnel exposure including exposures from inhalation and ingestion of licensed tracer materials;

(e) Methods and occasions for locking and securing stored licensed materials;

(f) Personnel monitoring and the use of personnel monitoring equipment;

(g) Transportation of licensed materials to field stations or temporary jobsites, packaging of licensed materials for transport in vehicles, placarding of vehicles when needed, and physically securing licensed materials in transport vehicles during transportation to prevent accidental loss, tampering, or unauthorized removal;

(h) Picking up, receiving, and opening packages containing licensed materials, in accordance with § 20.205 of this chapter;

(i) For the use of tracers, decontamination of the environment, equipment, and personnel;

(j) Maintenance of records generated by logging personnel at temporary jobsites;

(k) The inspection and maintenance of sealed sources, source holders, logging tools, injection tools, source handling tools, storage containers, transport containers, and uranium sinker bars as required by § 39.43;

(l) Identifying and reporting to NRC defects and noncompliance as required by Part 21 of this chapter;

(m) Actions to be taken if a sealed source is lodged in a well;

(n) Notifying proper persons in the event of an accident; and

(o) Actions to be taken if a sealed source is ruptured including actions to prevent the spread of contamination and minimize inhalation and ingestion of licensed materials and actions to obtain suitable radiation survey instruments as required by § 39.33(b).

**§ 39.65 Personnel monitoring.**

(a) The licensee may not permit an individual to act as a logging supervisor or logging assistant unless that person wears, at all times during the handling of licensed radioactive materials, either a film badge or a thermoluminescent dosimeter (TLD), Each film badge or TLD must be assigned to and worn by only one individual. Film badges must be replaced at least monthly and TLDs replaced at least quarterly. After replacement, each film badge or TLD must be promptly processed.

(b) The licensee shall provide bioassay services to individuals using licensed materials in subsurface tracer studies if required by the license.

(c) The licensee shall retain records of film badge, TLD and bioassay results for inspection until the Commission authorizes disposition of the records.

**§ 39.67 Radiation surveys.**

(a) The licensee shall make radiation surveys, including but not limited to the surveys required under paragraphs (b) through (e) of this section, of each area where licensed materials are used and stored.

(b) Before transporting licensed materials, the licensee shall make a radiation survey of the position occupied by each individual in the vehicle and of the exterior of each vehicle used to transport the licensed materials.

(c) If the sealed source assembly is removed from the logging tool before departure from the temporary jobsite, the licensee shall confirm that the logging tool is free of contamination by energizing the logging tool detector or by using a survey meter.

(d) If the licensee has reason to believe that, as a result of any operation involving a sealed source, the encapsulation of the sealed source could be damaged by the operation, the licensee shall conduct a radiation survey, including a contamination survey, during and after the operation.

(e) The licensee shall make a radiation survey at the temporary jobsite before and after each subsurface tracer study to confirm the absence of contamination.

(f) The results of surveys required under paragraphs (a) through (e) of this section mut 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.

**§ 39.69 Radioactive contamination control.**

(a) If the licensee detects evidence that a sealed source has ruptured or licensed materials have caused contamination, the licensee shall initiate immediately the emergency procedures required by § 39.63.

(b) If contamination results from the use of licensed material in well logging, the licensee shall decontaminate all work areas, equipment, and unrestricted areas.

(c) During efforts to recover a sealed source lodged in the well, the licensee shall continuously monitor, with an appropriate radiation detection instrument or a logging tool with a radiation detector, the circulating fluids from the well, if any, to check for contamination resulting from damage to the sealed source.

## Subpart E—Security, Records, Notifications

**§ 39.71 Security.**

(a) A logging supervisor must be physically present at a temporary jobsite whenever licensed material are being handled or are not stored and locked in a vehicle or storage place. The logging supervisor may leave the jobsite

in order to obtain assistance if a source becomes lodged in a well.

(b) During well logging, except when radiation sources are below ground or in shipping or storage containers, the logging supervisor or other individual designated by the logging supervisor shall maintain direct surveillance of the operation to prevent unauthorized entry into a restricted area, as defined in § 20.3 of this chapter.

**§ 39.73 Documents and records required at field stations.**

Each licensee shall maintain the following documents and records at the field station:

(a) A copy of Parts 19, 20, and 39 of NRC regulations;

(b) The license authorizing the use of licensed material;

(c) Operating and emergency procedures required by § 39.63;

(d) The record of radiation survey instrument calibrations required by § 39.33;

(e) The record of leak test results required by § 39.35;

(f) Physical inventory records required by § 39.37;

(g) Utilization records required by § 39.39;

(h) Records of inspection and maintenance required by § 39.43;

(i) Training records required by § 39.61(d), and

(j) Survey records required by § 39.67.

**§ 39.75 Documents and records required at temporary jobsites.**

Each licensee conducting operations at a temporary jobsite shall maintain the following documents and records at the temporary jobsite until the well logging operation is completed:

(a) Operating and emergency procedures required by § 39.63.

(b) Evidence of latest calibration of the radiation survey instruments in use at the site required by § 39.33.

(c) Latest survey records required by §§ 39.67 (b), (c), and (e).

(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.

**§ 39.77 Notification of incidents and lost sources; abandonment procedures for irretrievable sources.**

(a) The licensee shall immediately notify the appropriate NRC Regional Office by telephone and subsequently, within 30 days, by confirmatory letter if the licensee knows or has reason to believe that a sealed source has been ruptured. The letter 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.

(b) The licensee shall notify the Commission of the theft or loss of radioactive materials, radiation overexposures, excessive levels and concentrations of radiation, and certain other accidents as required by §§ 20.402, 20.403, and 20.405 of this chapter.

(c) 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 obtain approval to implement abandonment procedures; 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.

(d) 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) Any other information, such as a warning statement, contained on the permanent identification plaque; and

(10) State and Federal agencies receiving copy of this report.

### Subpart F—Exemptions

**§ 39.91 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.

### Subpart G—Enforcement

**§ 39.101 Violations.**

(a) An injunction or other court order may be obtained to prohibit a violation of any provision of this part.

(b) A court order may be obtained for the payment of a civil penalty imposed for violation of this part.

(c) Any person who willfully violates any provision of this part issued under section 161 b., i., or o. of the Atomic Energy Act of 1954, as amended, or the provisions cited in the authority citation at the beginning of this part may be guilty of a crime and, upon conviction, may be punished by fine or imprisonment, or both, as provided by law.

## PART 19—NOTICES, INSTRUCTIONS AND REPORTS TO WORKERS; INSPECTIONS

2. The authority citation for Part 19 continues to read as follows:

**Authority:** Sec. 161, Pub. L. 83–703, 68 Stat. 948, as amended (42 U.S.C. 2201); sec. 201, Pub. L. 93–438, 88 Stat. 1242, as amended (42 U.S.C. 5841).

**§ 19.2 [Amended]**

3. Section 19.2 is amended by adding "39," after "Parts 30 through 35."

**§ 19.3 [Amended]**

4. Section 19.3(d) is amended by adding "39," after "Parts 30 through 35," in the first sentence.

## PART 20—STANDARDS FOR PROTECTION AGAINST RADIATION

5. The authority citation for Part 20 continues to read as follows:

**Authority:** Sec. 161, Pub. L. 83–703, 68 Stat. 948, as amended (42 U.S.C. 2201); sec. 201, Pub. L. 93–438, 88 Stat. 1242, as amended (42 U.S.C. 5841).

**§ 20.2 [Amended]**

6. Section 20.2 is amended by adding "39," after "Parts 30 through 35."

**§ 20.3 [Amended]**

7. Section 20.3(a)(9) is amended by adding "39," after "Parts 30 through 35."

## PART 21—REPORTING OF DEFECTS AND NONCOMPLIANCE

8. The authority citation for Part 21 continues to read as follows:

Authority: Sec. 161, Pub. L. 83–703, 68 Stat. 948, as amended (42 U.S.C. 2201); sec. 201, Pub. L. 93–438, 88 Stat. 1242, as amended (42 U.S.C. 5841).

**§ 21.2 [Amended]**

9. Section 21.2 is amended by adding "39," after "34, 35," in the first sentence.

## PART 30—RULES OF GENERAL APPLICABILITY TO DOMESTIC LICENSING OF BYPRODUCT MATERIAL

10. The authority citation for Part 30 continues to read as follows:

Authority: Sec. 161, Pub. L. 83–703, 68 Stat. 948, as amended (42 U.S.C. 2201); sec. 201, Pub. L. 93–438, 88 Stat. 1242, as amended (42 U.S.C. 5841).

**§ 30.4 [Amended]**

11. In § 30.4, the introductory text and also paragraphs (b) and (i) are amended by adding "and 39" after "31 through 35", and paragraph (x) is removed.

**§ 30.5 [Amended]**

12. Section 30.5 is amended by adding "and 39" after "31 through 35".

**§ 30.6 [Amended]**

13. In § 30.6, paragraphs (a) and (b)(1) are amended by adding "39" after "30 through 35".

**§ 30.11 [Amended]**

14. In § 30.11, paragraph (a) is amended by adding "and 39" after "31 through 35".

**§ 30.13 [Amended]**

15. Section 30.13 is amended by adding "and 39" after "31 through 35".

**§ 30.14 [Amended]**

16. In § 30.14, paragraph (a) is amended by adding "and 39" after "31 through 35," and paragraph (c) is amended by removing "and 34" and adding "34 and 39" after "32, 33".

**§ 30.15 [Amended]**

17. In § 30.15, paragraph (a) is amended by adding "and 39" after "31 through 35".

**§ 30.16 [Amended]**

18. Section 30.16 is amended by adding "and 39" after "30 through 35".

**§ 30.18 [Amended]**

19. In § 30.18, paragraph (a) is amended by adding "and 39" after "30 through 34".

**§ 30.19 [Amended]**

20. In § 30.19, paragraph (a) is amended by adding "and 39" after "30 through 35".

**§ 30.20 [Amended]**

21. In § 30.20, paragraph (a) is amended by adding "and 39" after "30 through 35".

**§ 30.31 [Amended]**

22. Section 30.31 is amended by adding "and 39" after "32 through 35".

**§ 30.33 [Amended]**

23. Section 30.33, paragraph (a)(4) is amended by adding "and 39" after "32 through 35".

**§ 30.34 [Amended]**

24. Section 30.34, paragraphs (a) and (b) are amended by adding "and 39" after "31 through 35"; paragraph (c) is amended by adding "and 39" after "31 through 35" in the first and the second sentences; paragraphs (d) and (e) are amended by adding "and 39" after "31 through 35".

**§ 30.39 [Amended]**

25. Section 30.39 is amended by adding "and 39" after "32 through 35".

**§ 30.51 [Amended]**

26. In § 30.51, paragraphs (a), (b), (d)(1), and (d)(2) are amended by adding "and 39" after "31 through 35".

**§ 30.53 [Amended]**

27. Section 30.53 is amended by adding "and 39" after "31 through 35".

**§ 30.56 [Removed]**

28. Section 30.56 is removed.

## PART 40—DOMESTIC LICENSING OF SOURCE MATERIAL

29. The authority citation for Part 40 continues to read as follows:

Authority: Sec. 161, Pub. L. 83–703, 68 Stat. 948, as amended (42 U.S.C. 2201); sec. 201, Pub. L. 93–438, 88 Stat. 1242, as amended (42 U.S.C. 5841).

**§ 40.5 [Amended]**

30. In § 40.5, paragraph (b)(1) is amended by adding "39," after "30 through 35," in the first sentence.

## PART 51—ENVIRONMENTAL REGULATIONS FOR DOMESTIC LICENSING AND RELATED REGULATORY FUNCTIONS

31. The authority citation for Part 51 continues to read as follows:

Authority: Sec. 161, 68 Stat. 948, as amended (42 U.S.C. 2201); secs. 201, as amended, 202, 88 Stat. 1242, as amended 1244 (42 U.S.C. 5841, 5842).

**§ 51.22 [Amended]**

32. In § 51.22, paragraphs (c)(3), (c)(10) and (c)(14) are amended by adding "39," after "34, 35."

**§ 51.60 [Amended]**

33. In § 51.60, paragraph (a) is amended by adding "39," after "34, 35,".

**§ 51.66 [Amended]**

34. In § 51.66, paragraph (a) is amended by adding "39," after "34, 35,".

**§ 51.68 [Amended]**

35. Section 51.66 is amended by adding "39," after "34, 35,".

## PART 70—DOMESTIC LICENSING OF SPECIAL NUCLEAR MATERIAL

36. The authority citation for Part 70 continues to read as follows:

Authority: Sec. 161, Pub. L. 83–703, 68 Stat. 948, as amended (42 U.S.C. 2201); sec. 201, Pub. L. 93–438, 88 Stat. 1242, as amended (42 U.S.C. 5841).

**§ 70.4 [Amended]**

37. In § 70.4, paragraph (w) is removed and reserved.

**§ 70.5 [Amended]**

38. In § 70.5, paragraph (b)(1) is amended by adding "39" after "30 through 35."

**§ 70.20a [Amended]**

39. In § 70.20a, paragraph (b) is amended by adding "39," after "30 through 35,".

**§ 70.60 [Removed]**

40. Section 70.60, is removed.

## PART 71—PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL

41. The authority citation for Part 71 continues to read as follows:

Authority: Sec. 161, Pub. L. 83–703, 68 Stat. 948, as amended (42 U.S.C. 2201); sec. 201, Pub. L. 93–438, 88 Stat. 1242, as amended (42 U.S.C. 5841).

**§ 71.0 [Amended]**

42. In § 71.0, paragraph (b) is amended by adding "39," after "21, 30," in the first sentence.

## PART 150—EXEMPTIONS AND CONTINUED REGULATORY AUTHORITY IN AGREEMENT STATES AND IN OFFSHORE WATERS UNDER SECTION 274

43. The authority citation for Part 150 continues to read as follows:

Authority. Sec. 161, Pub. L. 83–703, 68 Stat. 948, as amended (42 U.S.C. 2201); sec. 201, Pub. L. 93–438, 88 Stat. 1242, as amended (42 U.S.C. 5841).

**§ 150.20 [Amended]**

44. In § 150.20, paragraph (b) is amended by removing "70.60, to 70.62,

inclusive," and adding "70.61, 70.62," after "70.51 to 70.56, inclusive,"; and by adding "§§ 39.15 and 39.31 through 39.77 inclusive of Part 39" after "and to the provisions of Parts 19, 20, and 71" of the first sentence.

## PART 170—FEES FOR FACILITIES AND MATERIALS LICENSES AND OTHER REGULATORY SERVICES UNDER THE ATOMIC ENERGY ACT OF 1954, AS AMENDED

45. The authority citation for Part 170 continues to read as follows:

**Authority:** 31 U.S.C. 9701 96 Stat. 1051; sec. 301, Pub. L. 92–314, 86 Stat. 222 (42 U.S.C. 2201w); sec. 201, 88 Stat. 1242, as amended (42 U.S.C. 5841).

**§ 170.2 [Amended]**

46. In § 170.2, paragraph (a) is amended by adding "and 39" after "32 through 35".

Dated at Washington, DC, this 11th day of March, 1987.

For the Nuclear Regulatory Commission.

**John C. Hoyle,**

*Acting Secretary of the Commission.*

[FR Doc. 87–5610 File 3–16–87; 8:45 am]

BILLING CODE 7590–01–M

## FEDERAL HOME LOAN BANK BOARD

### 12 CFR Parts 561 and 563

**[No. 87–247]**

### Deposit, Share, and Withdrawable Accounts; Technical Amendment

Dated: March 12, 1987.

**AGENCY:** Federal Loan Bank Board.

**ACTION:** Final rule; technical amendment.

**SUMMARY:** The Federal Home Loan Bank Board ("Board") is amending its final regulation concerning Deposit, Share, and Withdrawable Accounts published in the **Federal Register** on Monday, March 31, 1986, (51 FR 10810) in order to correct typographical and other technical errors contained in the Board's regulation.

**EFFECTIVE DATE:** March 17, 1987.

**FOR FURTHER INFORMATION CONTACT:** Carol J. Rosa, Paralegal Specialist, Regulations, and Legislation Division, Office of General Counsel, (202) 377–7037, Federal Home Loan Bank Board, 1700 G Street NW., Washington, DC 20552.

Pursuant to 12 CFR 508.11 and 508.14, the Board finds that, because of the minor, technical nature of this corrective amendment, notice and public procedure are unnecessary, as is the 30-day delay of the effective date.

**List of Subjects in 12 CFR Parts 561 and 563**

Bank deposit insurance, Investments, Reporting and recordkeeping requirements, Savings and loan associations.

Accordingly, the Board hereby amends Parts 561 and 563, Subchapter D, Chapter V, Title 12 Code of Federal Regulations, as set forth below.

**SUBCHAPTER D—FEDERAL SAVINGS AND LOAN INSURANCE CORPORATION**

## PART 561—DEFINITIONS

1. The authority citation for Part 561 continues to read as follows:

**Authority:** Sec. 1, 47 Stat. 725, as amended (12 U.S.C. 1421 *et. seq.*); sec. 5A 47 Stat 727, as added by sec. 1, 64 Stat. 256, as amended (12 U.S.C. 1425a); sec. 5B, 47 Stat. 727, as added by sec. 4, 80 Stat. 824, as amended (12 U.S.C. 1425b); sec. 17, 47 Stat. 736, as amended (12 U.S.C. 1437); sec. 2, 48 Stat. 128, as amended (12 U.S.C. 1462); sec. 5, 48 Stat. 132, as amended (12 U.S.C. 1464); secs. 401–407, 48 Stat. 1255–1260, as amended (12 U.S.C. 1724–1730); sec. 408, 82 Stat. 5, as amended (12 U.S.C. 1730a); Reorg. Plan No. 3 of 1947, 12 FR 4981, 3 CFR, 1943–1948 Comp., p. 1071.

2. Amend § 561.11a by revising the introductory phrase of paragraph (f)(2) to read as follows:

**§ 561.11a Checking accounts.**

* * * * *

(f) * * *

(2) Is paid to a *bona fide* broker if:

* * *

3. Amend § 561.11f by revising the first sentence of paragraph (a)(3)(ii) to read as follows:

**§ 561.11f Money Market Deposit Accounts.**

(a) * * *

(3) * * *

(ii) Adopt procedures to monitor those transfers on an after-the-fact basis and contact customers who exceed the limits on more than an occasional basis. * * *

* * * * *

**§ 561.11g [Amended]**

4. Amend § 561.11g by correcting the word "withdrawable" the first place it appears in paragraph (a) to read "withdrawal".

## PART 563—OPERATIONS

5. The authority citation for Part 563 continues to read as follows:

**Authority:** Sec. 1, 47 Stat. 725, as amended (12 U.S.C. 1421 *et seq.*); sec. 5A, 47 Stat. 727, as added by sec. 1, 64 Stat. 256, as amended (12 U.S.C. 1425a); sec. 5B, 47 Stat. 727, as added by sec. 4, 80 Stat. 824, as amended (12 U.S.C. 1425b); sec. 17, 47 Stat. 736, as amended (12 U.S.C. 1437); sec. 2, 48 Stat. 128, as amended (12 U.S.C. 1462); sec. 5, 48 Stat. 132, as amended (12 U.S.C. 1464); secs. 401–407, 48 Stat. 1255–1260, as amended (12 U.S.C. 1724–1730); sec. 408, 82 Stat. 5, as amended (12 U.S.C. 1730a); Reorg. Plan No. 3 of 1947, 12 FR 4981, 3 CFR 1943–1948 Comp., p. 1071.

6. Amend § 563.6 by revising paragraph (d) to read as follows:

**§ 563.6 Payment of insured accounts on demand.**

* * * * *

(d) An insured institution may continue to pay interest for a period between a maturity date and the date of renewal of the deposit: *Provided,* That such certificate is renewed not more than ten days after maturity. The payment of such interest is not payment of interest on a demand deposit.

By the Federal Home Loan Bank Board.

**Jeff Sconyers,**

*Secretary.*

[FR Doc. 87–5701 Filed 3–16–87; 8:45 am]

BILLING CODE 6720–01–M

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

### 14 CFR Part 71

**[Airspace Docket No. 86–AGL–11]**

### Alteration of Federal Airways V–219, V–412 and V–456—MN

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** On February 10, 1987, the FAA published a final rule to alter Federal Airways V–219, V–412 and V–456 located in the Minneapolis/St. Paul area, effective April 9, 1987. However, since February 10, the realigned V–412 has been found to be unsatisfactory for air traffic control purposes because the minimum en route altitude (MEA) on that amended segment is 7,000 feet, and the new alignment would not improve the flow of traffic in the Minneapolis/St. Paul terminal area. This action amends the final rule, before it becomes effective, to withdraw the amendment to V–412.

**EFFECTIVE DATE:** 0901 UTC, April 9, 1987.

**FOR FURTHER INFORMATION CONTACT:** Lewis W. Still, Airspace and Air Traffic Rules Branch (ATO–230), Airspace-Rules and Aeronautical Information Division, Air Traffic Operations Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591; telephone: (202) 267–9250.