

## RULEMAKING ISSUE (Notation Vote)

February 26, 1998

SECY-98-033

FOR: The Commissioners

FROM: L. Joseph Callan  
Executive Director for Operations

SUBJECT: PROPOSED RULE: MISCELLANEOUS CHANGES TO 10 CFR  
PART 72, LICENSING REQUIREMENTS FOR THE INDEPENDENT  
STORAGE OF SPENT NUCLEAR FUEL AND HIGH-LEVEL  
RADIOACTIVE WASTE

### PURPOSE:

To obtain Commission approval to publish, in the Federal Register, a proposed rule to amend 10 CFR Part 72 to correct several inconsistencies and to clarify certain sections pertaining to the storage of spent nuclear fuel.

### ISSUE:

The Commission's licensing requirements for the independent storage of spent nuclear fuel and high-level radioactive waste are specified in Part 72. Experience in applying Part 72 has indicated that certain additions and clarifications to the rule are necessary. The changes would differentiate the requirements for the storage of spent fuel under wet and dry conditions, clarify requirements for the content and submission of various reports, and specify that quality assurance (QA) records must be maintained as permanent records. The "Purpose" and "Scope" of Part 72 would also be amended to reference the spent fuel storage cask approval process and to delete obsolete information.

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CONTACT: M. L. Au, NMSS/IMNS  
(301) 415-6181

NOTE: TO BE MADE PUBLICLY AVAILABLE  
WHEN THE FINAL SRM IS MADE AVAILABLE

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PDR SECY  
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L-4 IPT 72 License Requirements  
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DISCUSSION:

In SECY-97-069, dated March 28, 1997, the staff submitted a Rulemaking Plan for Commission approval to make a number of miscellaneous changes to Part 72 and Part 40. The Staff Requirements Memorandum (SRM) dated April 24, 1997, advised that the Commission has no objection to implementation of SECY-97-069 for this proposed rulemaking subject to the comments that have been incorporated in the proposed rule.

The staff has reconsidered exempting from the regulatory requirements of 10 CFR Part 40 the item in the rulemaking plan concerning the exemption of the use of natural or depleted uranium in spent fuel storage casks. This is based on the consideration that neither the likely configurations nor the quantity of natural or depleted uranium to be in the casks is known. The staff is in the process of re-evaluating all the exemptions for source and byproduct material, including the exemption provisions in 10 CFR 40.13(c)(6), for natural or depleted uranium used in shipping casks. The re-evaluation is scheduled to be completed by the end of fiscal year 1998. When dose assessments are completed, the staff will consider whether any of the exemptions should be eliminated or modified in order to adequately protect public health and safety. As there are no known spent fuel storage cask designs using natural or depleted uranium as shielding being considered by any prospective applicant, it is not urgent to consider whether the user of storage casks using depleted uranium as shielding should be required to be specifically licensed, generally licensed, or exempt from licensing requirements.

The proposed rule addresses a group of miscellaneous items affecting Part 72, as follows:

- Amendments to the "Purpose" (10 CFR 72.1) and "Scope" (10 CFR 72.2) would make these sections complete by specifically referencing the spent fuel storage cask approval process. The amendments would also delete information in the purpose and scope sections regarding the Federal interim storage program because the time frame for its implementation has expired (61 FR 35935; July 9, 1996).
- A change to 10 CFR 72.4 would provide that, except where otherwise specified, all communications and reports be addressed to U.S. Nuclear Regulatory Commission's Document Control Desk rather than to the Director, Office of Nuclear Material Safety and Safeguards. In addition, 10 CFR 72.216(c) would be changed to correct improper references.
- An amendment to 10 CFR 72.44(d)(3) would permit reactor licensees to submit the annual dry cask storage effluent report to NRC at the same time as the annual reactor operations effluent report.
- An amendment to the event-reporting requirements in 10 CFR 72.75(d)(2) would clearly inform licensees of the information necessary for the staff's review of a licensee's report.
- An amendment to 10 CFR 72.122(h)(4) would clarify that the monitoring requirements can be different for wet and dry storage systems.

- An amendment to 10 CFR 72.122(i) would clarify that, unlike wet spent fuel storage, control systems are not needed for dry storage systems because no active systems are involved.
- An amendment to 10 CFR 72.124(b) would clarify that positive means for verifying the continued efficacy of solid neutron absorbing materials are not required for dry storage systems, where the efficacy is demonstrated at the outset.
- An amendment to 10 CFR 72.140(d) would require reactor licensees to maintain QA records pertaining to storage of spent fuel under Part 72, until termination of the license, even if those records were generated under a previous Commission-approved QA program, in conformance with Appendix B to 10 CFR Part 50.

#### COORDINATION:

The Office of the General Counsel has no legal objection to this proposed rule. The Office of the Chief Financial Officer has reviewed this Commission Paper for resource implications and has no objections. The Office of the Chief Information Officer has reviewed the proposed rule for information technology and information management implications and concurs in it.

#### RECOMMENDATION:

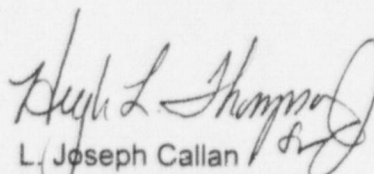
That the Commission:

1. Approve the notice of proposed rulemaking (Attachment 1) for publication in the Federal Register.

#### Note:

- a. This rulemaking will be published in the Federal Register for a 75-day public comment period.
- b. The Chief Counsel for Advocacy of the Small Business Administration will be informed of the certification regarding economic impact on small entities and the reasons for it as required by the Regulatory Flexibility Act.
- c. A regulatory analysis has been prepared (Attachment 2).
- d. The appropriate Congressional committees will be informed (Attachment 3).
- e. The Office of Public Affairs has determined that a public announcement is not necessary for this rulemaking.

- f. Copies of the Federal Register notice of proposed rulemaking will be distributed to all affected Commission licensees. The notice will be sent to other interested parties, on request.
- g. A draft Office of Management and Budget (OMB) Clearance package is attached (Attachment 4).

  
L. Joseph Callan  
Executive Director  
for Operations

Attachments:

- 1. Federal Register Notice
- 2. Regulatory Analysis
- 3. Congressional Letters
- 4. OMB Clearance

Commissioners' completed vote sheets/comments should be provided directly to the Office of the Secretary by COB Monday, March 16, 1998.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT March 9, 1998, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

DISTRIBUTION:

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# **ATTACHMENT 1**

## **FEDERAL REGISTER NOTICE**

**MISCELLANEOUS CHANGES TO 10 CFR PART 72  
LICENSING REQUIREMENTS FOR THE  
INDEPENDENT STORAGE OF SPENT NUCLEAR  
FUEL AND HIGH-LEVEL RADIOACTIVE WASTE**

NUCLEAR REGULATORY COMMISSION

10 CFR Part 72

RIN 3150-AF80

Miscellaneous Changes to

Licensing Requirements for the Independent Storage of  
Spent Nuclear Fuel and High-Level Radioactive Waste

AGENCY: Nuclear Regulatory Commission.

ACTION: Proposed rule.

SUMMARY: The Nuclear Regulatory Commission is proposing to amend its regulations to correct several inconsistencies and to clarify certain sections of the regulations. The amendments would differentiate the requirements for the storage of spent fuel under wet and dry conditions, clarify requirements for the content and submission of various reports, and specify that quality assurance (QA) records must be maintained as permanent records.

DATES: The comment period expires (75 days after publication). Comments received after this date will be considered if it is practical to do so, but the Commission is able to ensure consideration only for comments received on or before this date.

ADDRESSES: Comments may be sent to: Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Attention: Rulemakings and Adjudications Staff.

Deliver comments to: 11555 Rockville Pike, Rockville, Maryland, between 7:30 am and 4:15 pm on Federal workdays.

You may also provide comments via the NRC's interactive rulemaking web site through the NRC home page (<http://www.nrc.gov>). This site provides the availability to upload comments as files (any format) if your web browser supports that function. For information about the interactive rulemaking site, contact Ms. Carol Gallagher, (301) 415-6215; e-mail [CAG@nrc.gov](mailto:CAG@nrc.gov).

Certain documents related to this rulemaking, including comments received may be examined at the NRC Public Document Room, 2120 L Street NW., (Lower Level), Washington, DC. These same documents also may be viewed and downloaded electronically via the interactive rulemaking website established by NRC for this rulemaking.

FOR FURTHER INFORMATION CONTACT: M. L. Au, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone (301) 415-6181, e-mail [mla@nrc.gov](mailto:mla@nrc.gov).

#### SUPPLEMENTARY INFORMATION:

##### Background

The Commission's licensing requirements for the independent storage of spent nuclear fuel and high-level radioactive waste are codified in 10 CFR Part 72. The NRC experience in

applying Part 72 has indicated that certain additions and clarifications to the regulations are necessary. This proposed rule would make eight miscellaneous changes to 10 CFR Part 72. These changes would ensure that necessary information is included in reports and that Quality Assurance records are maintained permanently when identified with activities and items important to safety. These reports and records are needed to facilitate NRC inspection to verify compliance with regulatory reporting requirements to ensure the protection of public health and safety, and the environment.

#### Discussion of Proposed Amendments

1. Modify §§ 72.1 and 72.2 to include spent fuel storage cask and remove the superseded information.

The purpose (§ 72.1) and scope (§ 72.2) were not modified when the Commission amended Part 72 on July 18, 1990 (55 FR 29181) to include a process for providing a general license to a reactor licensee to store spent fuel in an independent spent fuel storage installation (ISFSI) at power reactor sites (Subpart K) and a process for the approval of spent fuel storage casks (Subpart L). Although the language in these sections may be read to include the general license provisions of Subpart K, the approval process for spent fuel storage casks in Subpart L is not referenced. This rulemaking would make the purpose and scope sections complete by specifically referencing the Subpart L cask approval process. This rulemaking also would remove information in the purpose and scope sections regarding the Federal interim storage program since the time for its implementation has expired (61 FR 35935; July 9, 1996).

2. Change the requirement for making initial and written reports in §§ 72.4 and 72.216.

This change would be made to § 72.4 to provide that, except where otherwise specified, all communications and reports are to be addressed to NRC's Document Control Desk (DCD) rather than to the Director, Office of Nuclear Material Safety and Safeguards (NMSS). Three current regulations govern the submission of written reports under Part 72 (§§ 72.75, 72.216(b), and 50.72(b)(2)(vii)(B) that is referenced in § 72.216(a)). Under § 72.75(d)(2) a report is sent to the DCD. However §§ 50.72(b)(2)(vii)(B) and 72.216(b) indicate that the report be sent as instructed in § 72.4, to the Director, NMSS. To achieve consistency, § 72.4 is being revised to instruct that reports be sent to the DCD. Licensing correspondence forwarded to the NRC's DCD would ensure proper docketing and distribution. Also, § 72.216(c) is being changed to correct an error. The current regulation references §§ 72.75(a)(2) and (3); the reference should be revised to §§ 72.75(b)(2) and (3).

3. Change the requirement for submittal of dry cask storage effluent report in § 72.44.

Currently, § 72.44(d)(3) requires that a dry cask storage effluent report be submitted to the appropriate NRC regional office within the first 60 days of each year. Section 50.36a(a)(2) requires that a similar report be submitted to the Commission once each year specifying liquid and gaseous effluents from reactor operations.

The proposed revision would permit reactor licensees to submit their dry cask storage effluent report to the NRC once each year at the same time as the effluent report from reactor operations. The time between submission of these reports would be no longer than 12 months.

However, after the effective date of the final rule, the licensee may submit the first report for a shorter period of time to get on the same reporting schedule as the annual reactor effluent report.

4. Clarify the reporting requirements for specific events and conditions in § 72.75.

Section 72.75 contains reporting requirements for specific events and conditions, including the requirement in § 72.75(d)(2) for a follow-up written report for certain types of emergency and non-emergency notifications. The proposed rule would clarify the specific information required to meet the intent of the existing reporting requirement. A comparable reporting requirement already exists for similar reactor type events in § 50.73(b). The proposed rule would incorporate the format and content outlined in § 50.73(b) into § 72.75(d)(2) to clearly inform licensees of the information necessary for the NRC staff's review. Since the reporting requirement already exists, no significant increase in the licensee's reporting burden will occur by clarifying the format and content.

5. Clarify the requirement for capability for continuous monitoring of confinement storage systems in § 72.122(h)(4).

Currently, § 72.122(h)(4) requires the capability for continuous monitoring of storage confinement systems. The meaning of "continuous" is open to interpretation and does not differentiate between monitoring requirements for wet and dry storage of spent fuel. Wet storage requires active heat removal systems that involve a monitoring that is "continuous" in the sense of uninterrupted. Because of the passive nature of dry storage, active heat removal

systems are not needed and monitoring can be less frequent. This proposed rule would clarify that the frequency of monitoring can be different for wet and dry storage systems. As part of the NRC approval process, the periodicity of monitoring is specified in the Certificate of Compliance.

6. Clarify the requirement specifying instrument and control systems for monitoring dry spent fuel storage in § 72.122(i).

Section 72.122(i) requires that instrumentation and control systems be provided to monitor systems important to safety but does not distinguish between wet and dry storage systems. For wet storage, systems are required to monitor and control heat removal. For dry storage, passive heat removal is used and a control system is not required. This proposed change would clarify that control systems are not needed for dry storage systems.

7. Clarify the requirement for dry spent fuel storage cask on methods of criticality control in § 72.124(b).

Section 72.124(b) requires specific methods for criticality control, including the requirement that where solid neutron absorbing materials are used, the design must provide for positive means to verify their continued efficacy. This requirement is appropriate for wet spent fuel storage systems but not for dry spent fuel storage systems. The potentially corrosive environment under wet storage conditions is not present in dry storage systems because an inert environment is maintained. Under these conditions, there is no mechanism to significantly degrade the neutron absorbing materials. In addition, the dry spent fuel storage casks are sealed and it is not practical to penetrate the integrity of the cask to make the measurements for

verifying the efficacy of neutron absorbing materials. This proposed rule would clarify that positive means for verifying the continued efficacy of solid neutron absorbing materials are not required for dry storage systems, where the efficacy is demonstrated at the outset.

8. Clarify the requirements in § 72.140(d) concerning the previously approved quality assurance program in conformance with Appendix B of 10 CFR Part 50.

Section 72.174 specifies that quality assurance (QA) records must be maintained by or under the control of the licensee until the Commission terminates the license. However, § 72.140(d) allows a holder of a Part 50 license to use its approved Part 50, Appendix B, QA program in place of the Part 72 QA requirements, including the requirement for QA records. Appendix B allows the licensee to determine what records will be considered permanent records, using Regulatory Guide 1.28. Thus, Part 50 licensees using an Appendix B, QA program could choose not to make permanent all records generated in support of Part 72 activities. This proposed rule would require these licensees to follow the Part 72 requirement to maintain QA records until termination of the license.

#### Environmental Impact: Categorical Exclusion

The NRC has determined that Items 1, 5, 6, and 7 of the proposed rule are the types of action described as a categorical exclusion in 10 CFR 51.22(c)(2) and Items 2, 3, 4 and 8 of the proposed rule are the types of action described as a categorical exclusion in 10 CFR 51.22(c)(3). Therefore, neither an environmental impact statement nor an environmental assessment has been prepared for this proposed regulation.

## Paperwork Reduction Act Statement

This proposed rule amends information collection requirements that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq). This rule has been submitted to the Office of Management and Budget (OMB) for review and approval of the information collection requirements.

The public reporting burden for this information collection is estimated to average 38 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. The NRC is seeking public comment on the potential impact of the information collection contained in the proposed rule and on the following issues:

1. Is the proposed information collection necessary for the proper performance of the functions of the NRC, including whether the information will have practical utility?
2. Is the estimate of burden accurate?
3. Is there a way to enhance the quality, utility, and clarity of the information to be collected?
4. How can the burden of the information collection be minimized, including the use of automated collection techniques?

Send comments on any aspect of this proposed information collection, including suggestions for reducing the burden, to the Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet electronic mail at BJS1@NRC.GOV; and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150--0132), Office of Management and Budget, Washington, DC 20503.

Comments to OMB on the information collections or on the above issues should be submitted by (insert date 30 days after publication in the Federal Register). Comments received after this date will be considered if it is practical to do so, but assurance of consideration cannot be given to comments received after this date.

#### Public Protection Notification

If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

#### Regulatory Analysis

The NRC has prepared a regulatory analysis on this regulation. The analysis examines the costs and benefits of the alternatives considered by the NRC and concludes that the proposed rule results in an incremental improvement in public health and safety that outweighs the small incremental cost associated with this proposed change. The analysis is available for inspection in the NRC Public Document Room, 2120 L Street, NW (Lower Level), Washington.

Single copies of the analysis may be obtained from M. L. Au, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone (301) 415-6181.

### Regulatory Flexibility Certification

In accordance with the Regulatory Flexibility Act of 1980 as amended 5 U.S.C. 605(b), the Commission certifies that this proposed rule will not, if adopted, have a significant economic impact on a substantial number of small entities. This proposed rule would affect only the operators of independent spent fuel storage installation (ISFSI). These companies do not fall within the scope of the definition of "small entities" set forth in the Regulatory Flexibility Act or the Small Business Size Standards set out in regulations issued by the Small Business Administration at 13 CFR Part 121.

### Backfit Analysis

The NRC has determined that the backfit rule, 10 CFR 72.62, does not apply to this rule, because these amendments do not involve any provisions that would impose backfits as defined in 10 CFR 72.62(a). Therefore, a backfit analysis is not required for this proposed rule.

### List of Subjects in 10 CFR Part 72

Manpower training programs, Nuclear materials, Occupational safety and health, Reporting and recordkeeping requirements, Security measures, Spent fuel.

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. 553, the NRC is proposing to adopt the following amendments to 10 CFR Part 72.

PART 72 - LICENSING REQUIREMENTS FOR THE INDEPENDENT STORAGE OF SPENT  
NUCLEAR FUEL AND HIGH-LEVEL RADIOACTIVE WASTE

1. The authority citation for Part 72 continues to read as follows:

AUTHORITY: Secs. 51, 53, 57, 62, 63, 65, 69, 81, 161, 182, 183, 184, 186, 187, 189, 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. 2071, 2073, 2077, 2092, 2093, 2095, 2099, 2111, 2201, 2232, 2233, 2234, 2236, 2237, 2238, 2282); sec. 274, Pub. L. 86-373, 73 Stat. 688, as amended (42 U.S.C. 2021); sec. 201, as amended, 202, 206, 88 Stat. 1242, as amended, 1244, 1246 (42 U.S.C. 5841, 5842, 5846); Pub. L. 95-601, sec. 10, 92 Stat. 2951 as amended by Pub. L. 102-486, sec. 7902, 106 Stat. 3123 (42 U.S.C. 5851); sec. 102, Pub. L. 91-190, 83 Stat. 853 (42 U.S.C. 4332); secs. 131, 132, 133, 135, 137, 141, Pub. L. 97-425, 96 Stat. 2229, 2230, 2232, 2241, sec. 148, Pub. L. 100-203, 101 Stat. 1330-235 (42 U.S.C. 10151, 10152, 10153, 10155, 10157, 10161, 10168).

Section 72.44(g) also issued under secs. 142(b) and 148(c), (d), Pub. L. 100-203, 101 Stat. 1330-232, 1330-236 (42 U.S.C. 10162(b), 10168(c), (d)). Section 72.46 also issued under sec. 189, 68 Stat. 955 (42 U.S.C. 2239); sec. 134, Pub. L. 97-425, 96 Stat. 2230 (42 U.S.C. 10154). Section 72.96(d) also issued under sec. 145(g), Pub. L. 100-203, 101 Stat. 1330-235 (42 U.S.C. 10165(g)). Subpart J also issued under secs. 2(2), 2(15), 2(19), 117(a), 141(h), Pub. L. 97-425, 96 Stat. 2202, 2203, 2204, 2222, 2224 (42 U.S.C. 10101, 10137(a), 10161(h)).

Subparts K and L are also issued under sec. 133, 98 Stat. 2230 (42 U.S.C. 10153) and sec. 218(a), 96 Stat. 2252 (42 U.S.C. 10198).

2. Section 72.1 is revised to read as follows:

§ 72.1 Purpose.

The regulations in this part establish requirements, procedures, and criteria for the issuance of licenses to receive, transfer, and possess power reactor spent fuel and other radioactive materials associated with spent fuel storage in an independent spent fuel storage installation (ISFSI) and the terms and conditions under which the Commission will issue these licenses. The regulations in this part also establish requirements, procedures, and criteria for the issuance of licenses to the Department of Energy (DOE) to receive, transfer, package, and possess power reactor spent fuel, high-level radioactive waste, and other radioactive materials associated with the spent fuel and high-level radioactive waste storage in a monitored retrievable storage installation (MRS). Furthermore, the regulations in this part also establish requirements, procedures, and criteria for the issuance of Certificates of Compliance approving spent fuel storage casks.

3. In § 72.2, paragraph (e) is removed, paragraph (f) is redesignated as paragraph (e), and a new paragraph (f) is added to read as follows:

§ 72.2 Scope.

\* \* \* \* \*

(f) Certificates of Compliance approving the use of spent fuel storage casks shall be issued in accordance with the requirements of this part as stated in § 72.236.

4. Section 72.4 is revised to read as follows:

§ 72.4 Communications.

Except where otherwise specified, all communications and reports concerning the regulations in this part and applications filed under them should be addressed to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001.

5. In § 72.44, paragraph (d)(3) is revised to read as follows :

§ 72.44 License conditions.

\* \* \* \* \*

(d) \* \* \*

(3) An annual report be submitted to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, specifying the quantity of each of the principal radionuclides released to the environment in liquid and in gaseous effluents during the previous 12 months of operation and such other information as may be required by the Commission to estimate maximum potential radiation dose commitment to the public resulting from effluent releases. On the basis of this report and any additional information that the Commission may obtain from the licensee or others, the Commission may from time to time

require the licensee to take such action as the Commission deems appropriate. The time between submission of reports must be no longer than 12 months.

\* \* \* \* \*

6. In § 72.75, paragraph (d)(2) is revised, and paragraphs (d)(3), (d)(4), (d)(5), (d)(6) and (d)(7) are added to read as follows:

§ 72.75 Reporting requirements for specific events and conditions.

\* \* \* \* \*

(d) \* \* \*

(2) Written report. Each licensee who makes an initial report required by paragraph (a) or (b) of this section shall submit a written follow-up report within 30 days of the initial report. Written reports prepared pursuant to other regulations may be submitted to fulfill this requirement if the reports contain all the necessary information and the appropriate distribution is made. These written reports must be sent to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001. These reports must include the following:

(i) A brief abstract describing the major occurrences during the event, including all component or system failures that contributed to the event and significant corrective action taken or planned to prevent recurrence;

(ii) A clear, specific, narrative description of what occurred so that knowledgeable readers conversant with the design of ISFSI or MRS, but not familiar with the details of a particular

facility, can understand the complete event; and the narrative description must include the following specific information as appropriate for the particular event:

- (A) ISFSI or MRS operating conditions before the event;
- (B) Status of structures, components, or systems that were inoperable at the start of the event and that contributed to the event;
- (C) Dates and approximate times of occurrences;
- (D) The cause of each component or system failure or personnel error, if known;
- (E) The failure mode, mechanism, and effect of each failed component, if known;
- (F) A list of systems or secondary functions that were also affected for failures of components with multiple functions;
- (G) For wet spent fuel systems storage only, after failure that rendered a train of a safety system inoperable, an estimate of the elapsed time from the discovery of the failure until the train was returned to service;
- (H) The method of discovery of each component or system failure or procedural error;
- (I)(1) Operator actions that affected the course of the event, including operator errors, procedural deficiencies, or both, that contributed to the event;
- (2) For each personnel error, the licensee shall discuss:
  - (i) Whether the error was a cognitive error (e.g., failure to recognize the actual facility condition, failure to realize which systems should be functioning, failure to recognize the true nature of the event) or a procedural error;
  - (ii) Whether the error was contrary to an approved procedure, was a direct result of an error in an approved procedure, or was associated with an activity or task that was not covered by an approved procedure;

(iii) Any unusual characteristics of the work location (e.g., heat, noise) that directly contributed to the error; and

(iv) The type of personnel involved (e.g., contractor personnel, utility-licensed operator, utility nonlicensed operator, other utility personnel);

(J) Automatically and manually initiated safety system responses (wet spent fuel storage systems only);

(K) The manufacturer and model number (or other identification) of each component that failed during the event;

(L) The quantities and chemical and physical forms of the spent fuel or HLW involved;

(3) An assessment of the safety consequences and implications of the event. This assessment must include the availability of other systems or components that could have performed the same function as the components and systems that failed during the event;

(4) A description of any corrective actions planned as a result of the event, including those to reduce the probability of similar events occurring in the future;

(5) Reference to any previous similar events at the same plant that are known to the licensee;

(6) The name and telephone number of a person within the licensee's organization who is knowledgeable about the event and can provide additional information concerning the event and the plant's characteristics;

(7) The extent of exposure of individuals to radiation or to radioactive materials without identification of individuals by name.

7. In § 72.122, paragraphs (h)(4) and (i) are revised to read as follows:

§ 72.122 Overall Requirements.

\* \* \* \* \*

(h) \* \* \*

(4) Storage confinement systems must have the capability for continuous monitoring in a manner such that the licensee will be able to determine when corrective action needs to be taken to maintain safe storage conditions. For dry storage, periodic monitoring is sufficient provided that periodic monitoring is consistent with the cask design requirements. The monitoring period must be based upon the cask design requirements.

\* \* \* \* \*

(i) *Instrumentation and control systems.* Instrumentation and control systems for wet spent fuel storage must be provided to monitor systems that are important to safety over anticipated ranges for normal operation and off-normal operation. Those instruments and control systems that must remain operational under accident conditions must be identified in the Safety Analysis Report. Instrumentation systems for dry spent fuel storage casks must be provided in accordance with cask design requirements to monitor conditions that are important to safety over anticipated ranges for normal conditions and off-normal conditions. Systems that are required under accident conditions must be identified in the Safety Analysis Report.

\* \* \* \* \*

8. In § 72.124, paragraph (b) is revised to read as follows:

§ 72.124 Criteria for nuclear criticality safety.

\* \* \* \* \*

(b) *Methods of criticality control.* When practicable the design of an ISFSI or MRS must be based on favorable geometry, permanently fixed neutron absorbing materials (poisons), or both. Where solid neutron absorbing materials are used, the design must provide for positive means of verifying their continued efficacy. For dry spent fuel storage systems, the continued efficacy may be confirmed by a demonstration and analysis before use, showing that significant degradation of the neutron absorbing materials cannot occur over the life of the facility.

\* \* \* \* \*

9. In § 72.140, paragraph (d) is revised to read as follows:

§ 72.140 Quality assurance requirements.

\* \* \* \* \*

(d) *Previously approved programs.* A Commission-approved quality assurance program which satisfies the applicable criteria of Appendix B to Part 50 of this chapter and which is established, maintained, and executed with regard to an ISFSI will be accepted as satisfying the requirements of paragraph (b) of this section except that a licensee using an Appendix B quality assurance program also shall meet the requirement of § 72.174 for recordkeeping. Prior to initial use, the licensee shall notify the Director, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, of its intent to

apply its previously approved Appendix B program to ISFSI activities. The licensee shall identify the program by date of submittal to the Commission, docket number, and date of Commission approval.

10. In § 72.216, paragraph (c) is revised to read as follows:

§ 72.216 Reports.

\* \* \* \* \*

(c) The general licensee shall make initial and written reports in accordance with §§ 72.74 and 72.75, except for the events specified by § 72.75(b)(2) and (3) for which the initial reports will be made under paragraph (a) of this section.

Dated at Rockville, Maryland, this \_\_\_\_\_ day of \_\_\_\_\_, 1998.

For the Nuclear Regulatory Commission.

\_\_\_\_\_  
John C. Hoyle  
Secretary of the Commission.

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2/13/98

**ATTACHMENT 2**  
**REGULATORY ANALYSIS**

**DRAFT REGULATORY ANALYSIS**  
**Miscellaneous Changes to 10 CFR Part 72**  
**Licensing Requirements for the Independent Storage of**  
**Spent Nuclear Fuel and High-Level Radioactive Waste**

Statement of the Problem

The Nuclear Regulatory Commission is proposing to amend its regulations to ensure that Part 72 requirements would include maintaining quality assurance (QA) records (prescribed in § 72.174) as permanent records for those licensees who adopted an Appendix B to Part 50 Quality Assurance Program.

Objectives

The intent of this proposed rulemaking is to clarify that requirements that all Part 72 licensees, including those licensees under an Appendix B, QA program, maintain QA records permanently until termination of the license.

Cost and Benefit of Alternative

All Part 72 licensees, including those who have adopted an Appendix B to Part 50 QA program, currently maintain the QA records that are prescribed in § 72.174 as permanent records. However, the maintenance of QA records beyond those required under Appendix B is voluntary on the part of licensees who have adopted an Appendix B, QA program. Permanent

QA records retention is needed to ensure traceability of systems or components for future use to determine root cause of accidents and analysis of failure. For general Part 72 licensee, records are needed if the license is converted to specific license and records are needed to ensure proper decommissioning of the facility. Because there is no assurance that these additional records would continue to be maintained in the future, NRC's regulatory analysis policy prescribes that for base case cost-benefit calculations, it is appropriate to give no credit for those voluntary actions and to view this as an incremental burden of the proposed regulatory action. The staff estimates that the 20-year present worth cost to a reactor licensee to maintain all permanent records is on the order of \$100,000 per licensee. This assumes an average one-time cost of \$40,000 for a vault or cabinet, an annual labor cost of \$6000 to maintain the records, and an annual storage fee of \$500. The present worth of the annual cost is based on a 7 percent real discount rate over a 20-year period which corresponds to the life of the license. Based on discussion with NRC staff directly involved in oversight of § 72.174 requirements, it is estimated that the permanent independent spent fuel storage installation (ISFSI) records represent no more than 5 percent of the total permanent records required to be maintained by a reactor licensee. Thus, it is estimated that the 20-year incremental burden resulting from this rule change is \$5000 per licensee. This figure is equally applicable to both reactor and non-reactor licensees storing spent fuel. Given that there are about 50 licensees currently relying on the Appendix B, QA program in lieu of § 72.142, the life-time incremental burden for the affected licensee population is approximately \$250,000.

For sensitivity analysis purposes, it is useful to recognize that this new regulatory requirement is currently being met under existing licensee practices, and in terms of real dollar outlay there is no change in burden associated with this regulatory action. This presumes, however, that absent this proposed change licensees using an Appendix B, QA program would

continue to permanently maintain all records generated in support of Part 72 activities. The emphasis on making reports with the necessary information and maintaining permanent QA records until termination of the license would be on those activities and items that are identified as being important to safety.

The benefits associated with these rule changes are that necessary information is included in reports and QA records are maintained permanently when identified with activities and items important to safety. In the staff's view, this incremental benefit exceeds the relatively small incremental cost associated with this proposed change.

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**ATTACHMENT 3**  
**CONGRESSIONAL LETTERS**



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

The Honorable Dan Schaefer, Chairman  
Subcommittee on Energy and Power  
Committee on Commerce  
United States House of  
Representatives  
Washington, DC 20515

Dear Mr. Chairman:

The U.S. Nuclear Regulatory Commission has sent to the Office of the Federal Register, for publication, the enclosed proposed amendments to the Commission's rule in 10 CFR Part 72. The proposed amendments would differentiate the requirements for the storage of spent fuel under wet and dry conditions, clarify requirements for the content and submission of various reports, and specify that Quality Assurance (QA) records must be maintained as permanent records. The proposed rule, if promulgated, would also correct several inconsistencies and clarify certain sections in this regulation.

The Commission is issuing the proposed rule for public comment.

Sincerely,

Dennis K. Rathbun, Director  
Office of Congressional Affairs

Enclosure: Federal Register Notice

cc: Representative Ralph Hall



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

The Honorable James M. Inhofe, Chairman  
Subcommittee on Clean Air, Wetlands, Private  
Property and Nuclear Safety  
Committee on Environment and Public Works  
United States Senate  
Washington, DC 20510

Dear Mr. Chairman:

The U.S. Nuclear Regulatory Commission has sent to the Office of the Federal Register, for publication, the enclosed proposed amendments to the Commission's rule in 10 CFR Part 72. The proposed amendments would differentiate the requirements for the storage of spent fuel under wet and dry conditions, clarify requirements for the content and submission of various reports, and specify that Quality Assurance (QA) records must be maintained as permanent records. The proposed rule, if promulgated, would also correct several inconsistencies and clarify certain sections in this regulation.

The Commission is issuing the proposed rule for public comment.

Sincerely,

Dennis K. Rathbun, Director  
Office of Congressional Affairs

Enclosure: Federal Register Notice

cc: Senator Bob Graham

ATTACHMENT 4

DRAFT OMB CLEARANCE PACKAGE

U. S. NUCLEAR REGULATORY COMMISSION  
Documents Containing Reporting or Recordkeeping  
Requirements: Office of Management and Budget  
(OMB) Review

AGENCY: U. S. Nuclear Regulatory Commission (NRC)

ACTION: Notice of the OMB review of information collection and solicitation of public comment.

SUMMARY: The NRC has recently submitted to OMB for review the following proposal for the collection of information under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35).

1. Type of submission, new, revision or extension: Revision
2. The title of the information collection: Proposed Rule:  
"Miscellaneous Changes to 10 CFR Part 72."
3. The form number if applicable: Not applicable
4. How often the collection is required: Annually.
5. Who will be required or asked to report licensees under the  
Appendix B Quality Assurance Program of 10 CFR Part 50.

6. An estimate of the number of responses for record retention requirements under § 72.140(d) - 50 recordkeepers.
7. The estimated number of annual respondents record retention requirements under § 72.140(d) - 50 respondents per year.
8. An estimate of the total number of hours needed annually to complete the requirement or request:  
  
Record keeping under § 72.140(d)      38X50=1900 hours  
  
Total annual number of hours                      =1900 hours
9. An indication of whether Section 3507(d), Pub. L. 104-13 applies: Applicable.
10. Abstract: The proposed rule would amend the regulations to clarify that a licensee using an approved Part 50 B Quality Assurance Program in place of the Part 72 QA requirements must maintain the quality assurance records which are prescribed in § 72.174 as permanent records.

Submit by (insert date 30 days after publication in the Federal Register),  
comments that address the following questions:

1. Is the proposed collection of information necessary for the NRC to properly perform its functions? Does the information have practical utility?

2. Is the burden estimate accurate?
3. Is there a way to enhance the quality, utility, and clarity of the information to be collected?
4. How can the burden of the information collection be minimized including the use of automated collection techniques or other forms of information technology?

A copy of the submittal may be viewed free of charge at the NRC Public Document Room 2120 L Street NW. (lower level). Washington, DC. The proposed rule indicated in "The title of the information collections" is or has been published in the Federal Register within several days of the publication date of this Federal Register Notice. Instructions for accessing the electronic OMB clearance package for the rulemaking have been appended to the electronic rulemaking. Members of the public may access the electronic OMB clearance package by following the directions for electronic access provided in the preamble to the titled rulemaking.

Comments and questions should be directed to the OMB reviewer by (insert date 30 days after publication in the Federal Register):

Martin Offutt  
Office of Information and Regulatory Affairs (3150-0132)  
NEOB-10202  
Office of Management and Budget  
Washington DC 20503

Comments can also be submitted by telephone at (202) 395-3087.

The NRC Clearance Officer is Brenda Jo Shelton (301) 415-7233.

Dated at Rockville, Maryland, this \_\_\_\_ day of \_\_\_\_\_, 1998.

For the Nuclear Regulatory Commission

Brenda Jo Shelton, NRC Clearance Officer  
Management

DOCUMENT NAME: O:\AU\PT72\P72INFOR.PR \*See previous concurrence

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Martin Offutt  
Office of Information and Regulatory Affairs (3150-0132)  
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Washington, DC 20503

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For the Nuclear Regulatory Commission

Brenda Jo Shelton, NRC Clearance Officer  
Management

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OMB SUPPORTING STATEMENT FOR  
PROPOSED RULE, "MISCELLANEOUS CHANGES TO PART 72"

(3150-0132)  
Revision

Description of Information Collection

This clearance package covers the recordkeeping requirements of an amendment to 10 CFR Part 72, "Licensing Requirements for the Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste," § 72.140, "Quality Assurance Requirements."

Section 72.174 specifies that quality assurance (QA) records shall be maintained by or under the control of the licensee until the Commission terminates the license. However, § 72.140(d) allows a holder of a Part 50 license to use its approved Part 50, Appendix B, QA program in place of the Part 72 QA requirements, including the requirement for QA records. Appendix B allows the licensee to determine what records will be considered permanent records, using Regulatory Guide 1.28. Thus, Part 50 licensees utilizing an Appendix B, QA program could choose not to make permanent all records generated in support of Part 72 activities. This proposed rulemaking will require such licensees to follow the Part 72 requirement to maintain QA records until termination of the license.

A. JUSTIFICATION

1. Need for and Practical Utility of the Collection of Information

The intent for the proposed amendment to § 72.140(d) would require that a licensee using an Appendix B quality assurance program meet the requirement in § 72.174 to maintain quality assurance records until the NRC terminates the license. The maintenance of QA records beyond those required under Appendix B has been on a voluntary basis by the licensees who have adopted an Appendix B, QA program. There is no assurance that these additional records would be maintained in the future.

The information collection requirement of the amendment to 10 CFR Part 72 is identified below.

## § 72.140 Quality assurance requirements

Paragraph (d) specifies that licensees under a previously Commission-approved quality assurance program which satisfies the applicable criteria of Appendix B to Part 50 of this chapter, and which is established, maintained, and executed with regard to an ISFSI, will be accepted as satisfying the requirements of paragraph (b) of this section for an established quality assurance plan except that a licensee utilizing an Appendix B quality assurance program must also meet the recordkeeping requirement of § 72.174. Section 72.174 requires that the QA records must be maintained by or under the control of the licensees until the Commission terminates the license.

### 2. Agency Use of Information

Records maintained by the licensee will be used by the NRC inspectors to evaluate compliance with NRC regulations to assure that public health and safety are protected. The expanded reporting requirement would clearly inform licensees of the necessary information for the NRC staff's review of the report to ensure public health and safety.

### 3. Reduction of Burden Through Information Technology

NRC encourages licensees to utilize any technology which reduces the burden of recordkeeping and reporting.

### 4. Effort to Identify Duplication and Use of Similar Information

There is no similar information available to the NRC. The Information Requirements Control Automated System (IRCAS) was searched for duplication, and none was found.

### 5. Effort to Reduce Small Business Burden

The NRC believes that there is no way to reduce the burden on small businesses by less frequent or less complete records while maintaining the required level of safety.

### 6. Consequences to Federal Program or Policy Activities if the Collection is Not Conducted or is Conducted of Less Frequency

The consequences of less frequent recordkeeping and reporting would be that there would be no basis for demonstrating compliance with the required level of safety through the NRC inspection program.

7. Circumstances Which Justify Variation from OMB Guidelines

There are no variations from OMB guidelines.

8. Consultations Outside the Agency

Not applicable.

9. Payment or Gift to Respondents

Not applicable.

10. Confidentiality of Information

No information normally considered confidential is requested.

11. Justification for Sensitive Information

No sensitive information is requested under these regulations.

12. Estimated Burden and Burden Hour Cost

§ 72.140(d) - Recording requirements of 1900 hours  
(38 hrs. per response X 50 responses).

Total annual burden - 1900 hours

13. Estimated of Other Additional Costs

None.

14. Estimated Annualized Cost to Federal Government

1. The estimated burden on the NRC to review reports is estimated to be 2 hours per NRC licensee per year and 50 NRC licensees. At a cost of \$125 per hour, the annual cost to NRC is \$12,500 annually. This cost is fully recovered through fee assessments to NRC licensees pursuant to 10 CFR Part 171.

2. The estimated burden on the NRC to review reports is estimated to be 1 hour per NRC licensee per year and 50 NRC licensees or 50 hours for all NRC licensees. At a cost of \$125 per hour, the annual cost to NRC is \$6250 annually. This cost is fully recovered through fee assessments to NRC licensees pursuant to 10 CFR Part 171.

15. Reasons for Change in Burden or Cost

The amendment adds recordkeeping requirements to 10 CFR Part 72.140(d) to ensure that licensees under 10 CFR Part 50, Appendix B quality assurance program maintain QA records until the Commission terminates the license. This amendment would require such licensees to follow the 10 CFR Part 72.174 requirement to maintain QA records until termination of the license by the NRC.

16. Publication for Statistical Use

There is no application to statistics in the information collected. There is no publication of this information.

17. Reason for Not Displaying the Expiration Date

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

18. Exceptions to the Certification Statement

Not applicable.

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

Not applicable.

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