



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

PDR  
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(23)

March 6, 1997

MEMORANDUM TO: L. Joseph Callan  
Executive Director for Operations

FROM: David L. Morrison, Director  
Office of Nuclear Regulatory Research *David L. Morrison*

SUBJECT: RULEMAKING PLAN FOR MISCELLANEOUS CHANGES TO 10 CFR PART 72  
AND AMENDMENT 10 CFR PART 40 TO REMOVE NATURAL OR DEPLETED  
URANIUM USED IN STORAGE CASK SHIELDING FROM PART 40  
LICENSING REQUIREMENTS (WITS-960162)

Attached for your approval is a SECY Paper transmitting a Rulemaking Plan to the Commission for negative consent to amend certain sections in 10 CFR Part 72 to correct several inconsistencies and to clarify certain sections. The rulemaking would also amend the regulations to remove from the licensing requirements of 10 CFR Part 40 the use of natural or depleted uranium in dry spent fuel storage casks.

The Rulemaking Plan for these proposed amendments, has been developed using the guidance in NRC Management Directive 6.3, "The Rulemaking Process."

Attachment:  
Commission Paper w/encl.

CONTACT:  
Mark Au, DRA/RES  
(301) 415-6181

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March 6, 1997

MEMORANDUM TO: L. Joseph Callan  
Executive Director for Operations

FROM: David L. Morrison, Director /s/ David L. Morrison  
Office of Nuclear Regulatory Research

SUBJECT: RULEMAKING PLAN FOR MISCELLANEOUS CHANGES TO 10 CFR PART 72  
AND AMENDMENT 10 CFR PART 40 TO REMOVE NATURAL OR DEPLETED  
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Attached for your approval is a SECY Paper transmitting a Rulemaking Plan to the Commission for negative consent to amend certain sections in 10 CFR Part 72 to correct several inconsistencies and to clarify certain sections. The rulemaking would also amend the regulations to remove from the licensing requirements of 10 CFR Part 40 the use of natural or depleted uranium in dry spent fuel storage casks.

The Rulemaking Plan for these proposed amendments, has been developed using the guidance in NRC Management Directive 6.3, "The Rulemaking Process."

Attachment:  
Commission Paper w/encl.

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[EDO-PL.P72]

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CONTACT:  
Mark Au, DRA/RES  
(301) 415-6181

2/28/97

**COMMISSION PAPER**



FOR: The Commissioners

FROM: L. Joseph Callan, Executive Director for Operations

SUBJECT: RULEMAKING PLAN: MISCELLANEOUS CHANGES TO 10 CFR PART 72  
AND AMENDMENT TO 10 CFR PART 40 TO REMOVE NATURAL OR  
DEPLETED URANIUM USED IN STORAGE CASK SHIELDING FROM PART 40  
LICENSING REQUIREMENTS

PURPOSE:

To inform the Commission that the EDO intends to sign the enclosed Rulemaking Plan to amend certain sections in 10 CFR Part 72 to correct several inconsistencies and to clarify certain sections. The rulemaking would also amend the regulations to remove from the licensing requirements of 10 CFR Part 40 the use of natural or depleted uranium in dry spent fuel storage casks.

ISSUE:

The Commission's licensing requirements for the independent storage of spent nuclear fuel and high-level radioactive waste are specified in 10 CFR Part 72. Experience in applying Part 72 has indicated that it is not adequate in some respects and that certain additions and clarifications to the rule are necessary. This rulemaking would make eight miscellaneous changes to Part 72, and also would extend the exemption from licensing requirements for shipping containers using natural or depleted uranium as shielding (§ 40.13(c)(6)) to storage casks using natural or depleted uranium as shielding.

CONTACT:  
M. L. Au, WMB/DRA/RES  
(301) 415-6181



DISCUSSION:

The Spent Fuel Project Office, NMSS, in a letter dated May 9, 1996, proposed several changes to 10 CFR Part 72 together with a list of 18 miscellaneous items. In response to this request, RES initiated six rulemaking actions that were approved by the EDO on August 13, 1996. This rulemaking plan addresses a group of miscellaneous items that are proposed for implementation by a direct final rule. The items included in this rulemaking action are as follows:

- . An amendment to Section 72.44(d)(3) would permit reactor licensees to submit the annual dry cask storage effluent report to the NRC at the same time as the annual reactor operations effluent report.
- . An administrative change to § 72.4 would provide that, except where otherwise specified, all communications and reports be addressed to NRC's Document Control Desk rather than to the Director, Office of Nuclear Material Safety and Safeguards. In addition, § 72.216(c) would be changed to correct improper references.
- . Amendments to the purpose (§ 72.1) and scope (§ 72.2) would make these sections more complete by specifically referencing the spent fuel storage cask approval process and also delete information in the purpose and scope sections regarding the Federal interim storage program since the time frame for its implementation has expired (61 FR 35935, July 9, 1996).
- . An amendment to § 72.122(h)(4) would clarify that the monitoring requirements can be different for wet and dry storage systems.
- . An amendment to § 72.122(i) would clarify that, unlike wet spent fuel storage, control systems are not needed for dry storage systems, since no active systems are involved.
- . An amendment to § 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 § 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 previously approved quality assurance programs conforming to Appendix B of Part 50.

*Commission*

An amendment to § 40.13(c)(6) would remove the use of natural or depleted uranium in storage casks from the licensing requirements of Part 40.

Event reporting requirements in § 72.75(d)(2) have been found to be incomplete. As a result, staff has frequently needed to request additional information from licensees subsequent to receiving event reports. Part 72 would be amended to clearly inform licensees of the information necessary for the staff's review of a licensee's report.

COORDINATION:

*the rulemaking plan*

The Office of the General Counsel has no legal objection to this Rulemaking Plan. The Office of the Chief Financial Officer has no objection to the resource estimates contained in this paper. The Office of the Chief Information Officer has reviewed the rulemaking plan for information and technology and information management implications and concurs in it. However, the plan suggests possible information collection requirements that must be submitted to the Office of Management and Budget prior to publication of the ~~proposed~~ rule.

RECOMMENDATION:

*proposed in the rulemaking plan*

Note that it is my intention to approve the Rulemaking Plan within 10 days from the date of this paper unless otherwise directed by the Commission.

L. Joseph Callan  
Executive Director  
for Operations

Enclosure:  
Rulemaking Plan

An amendment to § 40.13(c)(6) would remove the use of natural or depleted uranium in storage casks from the licensing requirements of Part 40.

Event reporting requirements in § 72.75(d)(2) have been found to be incomplete. As a result, staff has frequently needed to request additional information from licensees subsequent to receiving event reports. Part 72 would be amended to clearly inform licensees of the information necessary for the staff's review of a licensee's report.

#### COORDINATION:

The Office of the General Counsel has no legal objection to this Rulemaking Plan. The Office of the Chief Financial Officer has no objection to the resource estimates contained in this paper. The Office of the Chief Information Officer has reviewed the rulemaking plan for information and technology and information management implications and concurs in it. However, the plan suggests possible information collection requirements that must be submitted to the Office of Management and Budget prior to publication of the proposed rule.

#### RECOMMENDATION:

Note that it is my intention to approve the Rulemaking Plan within 10 days from the date of this paper unless otherwise directed by the Commission.

L. Joseph Callan  
Executive Director  
for Operations

Enclosure:  
Rulemaking Plan

**RECORD NOTE:** A copy of the Rulemaking Plan was sent to IG for Information on: FEBRUARY 10, 1997.

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**RULEMAKING PLAN**

RULEMAKING PLAN FOR  
MISCELLANEOUS CHANGES TO 10 CFR PART 72 AND AMENDMENT TO 10 CFR PART 40  
TO REMOVE NATURAL OR DEPLETED URANIUM USED IN STORAGE  
CASK SHIELDING FROM PART 40 LICENSING REQUIREMENTS

Lead Office: Office of Nuclear Regulatory Research

Staff Contact: Mark Au, WMB/DRA/RES

Concurrences:

*D. Morrison* 2/16/97  
D. Morrison, RES Date

*Carl J. Paperiello* 2/23/97  
C. Paperiello, NMSS Date

*R. M. Scroggins* 2/28/97  
R. M. Scroggins, ACFO Date

*A. J. Galante* 2/26/97 memo from Silta  
A. J. Galante, CIO Date  
Ho Au 2/27/97

*B. J. Shelton* 2/27/97  
B. J. Shelton, IRM Date  
Ref Feb 26, 1997 memo for comments.

*W. J. Olmstead* 2/26/97  
W. J. Olmstead, OGC Date  
No legal objections w/ edits

Approval:

L. J. Callan, EDO Date



02/27/97

## Rulemaking Plan

### Miscellaneous Changes to Part 72 and Amendment to Part 40 to Remove Natural or Depleted Uranium Used in Storage Cask Shielding from Part 40 Licensing Requirements

#### I. Regulatory Issue

The Commission's licensing requirements for the independent storage of spent nuclear fuel and high-level radioactive waste are specified in 10 CFR Part 72. Experience in applying Part 72 has indicated that it is not adequate in some respects and that certain additions and clarifications to the rule are necessary. By memorandum dated May 9, 1996, the Spent Fuel Project Office, NMSS, proposed several changes to Part 72 together with a list of 18 miscellaneous items. In response to this request, RES initiated six rulemaking actions that were approved by the EDO. Five of the rulemaking actions are discussed in other rulemaking plans. This rulemaking plan addresses a group of miscellaneous items which would correct several inconsistencies and provide clarification to certain sections of Part 72. This rulemaking would also remove the use of natural or depleted uranium in storage casks from the licensing requirements of 10 CFR Part 40. This would be an extension of the shipping container exemption in § 40.13(c)(6).

#### II. Proposed Changes

##### **Item 1 -- Requirement for Submittal of Dry Cask Storage Effluent Report -- (§ 72.44)**

##### Regulatory Issue

Current regulations in § 72.44(d)(3), "License Conditions", require submittal of a dry cask storage effluent report to the appropriate NRC regional office within the first 60 days of each year. Section 50.36a(a)(2), "Technical specifications on effluents from nuclear power reactors," 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.

## Preliminary Regulatory Analysis

### 1. Draft Rule Language

Section 72.44(d)(3) would be revised as follows (new language is underlined):

"An annual report be submitted to the U.S. Nuclear Regulatory Commission, ATTN Document Control Desk, Washington, DC 20555, with a copy to the appropriate regional office specified in appendix A of Part 73 of this chapter, ~~with a copy to the Director, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, within 60 days after January 1, of each year,~~ 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 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."

### 2. Impact on the Licensees

Reactor licensees will obtain a small benefit since both annual reports may be submitted at the same time to the NRC.

#### **Item 2 -- Requirement for making initial and written reports (§§ 72.4 and 72.216)**

##### Regulatory Issue

An administrative change needs to be made to § 72.4 to provide that, except where otherwise specified, all communications and reports be addressed to NRC's Document Control Desk rather than to the Director, Office of Nuclear Material Safety and Safeguards. At present, three regulations govern the submission of written reports under Part 72: (1) § 72.75, (2) § 72.216(b), and (3) § 50.72(b)(2)(vii) (which is referenced in § 72.216(a)). Under § 72.75 a report is sent to the Document Control Desk; however, the two other paragraphs direct that the report be sent as instructed in § 72.4 which specifies that reports be addressed to the Director, Office of Nuclear Material Safety and Safeguards. To achieve consistency in the NRC addressee for Part 72 reports, § 72.4 is being revised to instruct that reports be sent to the Document Control Desk. Directing licensing correspondence to the NRC's Document Control Desk will ensure proper docketing and distribution. Also, § 72.216(c) is being changed to correct an error. The present regulation references §§ 72.75(a)(2) and (3). The reference should be to §§ 72.75(b)(2) and (3).

## Preliminary Regulatory Analysis

### 1. Draft Rule Language

Section 72.216(c) would be revised and corrected as follows: (new language is underlined)

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

Section 72.4 would be revised as follows:

"Except where otherwise specified, all communications and reports....should be addressed to the ~~Director, Office of Nuclear Material and Safeguards~~, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001."

### 2. Impact on Licensees

Correcting the error and the administrative change requiring the submittal of reports to NRC headquarters would not increase the regulatory burden on licensees.

Item 3 -- Modify §§ 72.1 and 72.2 to include spent fuel storage cask and delete superseded information

### Regulatory Issue

The purpose (§ 72.1) and scope (§ 72.2) sections of Part 72 were not modified when the Commission amended Part 72 in 1990 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 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, it does not reference the approval process for spent fuel storage casks in Subpart L. This rulemaking will make the purpose and scope sections more complete by specifically referencing the Subpart L cask approval process. This rulemaking will also delete information in the purpose and scope sections regarding the Federal interim storage program since the timeframe for its implementation has expired (61 FR 35935, July 9, 1996).



## Preliminary Regulatory Analysis

### 1. Draft Rule Language

Section 72.1 would be revised as follows: (new language is underlined)

"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 such licenses. ~~including licenses to the U.S. Department of Energy (DOE) for the provision of not more than 1900 metric tons of spent fuel capacity at facilities not owned by the Federal Government on January 7, 1983 for the Federal interim storage program under Subtitle B-Interim Storage Program of the Nuclear Waste Policy Act of 1982 (NWPA).~~ The regulations in this part also establish requirements, procedures, and criteria for the issuance of licenses to 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."

Section 72.2 would be revised as follows: (new language is underlined)

Delete § 72.2(e) -- superseded information regarding the Federal interim storage program. The existing § 72.2(f) will become new § 72.2(e).

Add a new paragraph (f) --

"(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."

### 2. Impact on Licensees

There is no impact on licensees in making the purpose and scope sections of Part 72 comprehensive since no regulatory requirements are being changed.

**Item 4 -- Requirement for capability for continuous monitoring for confinement storage systems (§ 72.122(h)(4))**

#### Regulatory Issue

Under current regulations, § 72.122(h)(4) requires the capability for continuous monitoring of storage confinement systems. The meaning of "continuous" is open to different interpretations 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 which is "continuous" in the sense of uninterrupted. On the other hand, because of the passive nature of dry storage, active heat removal systems are not needed and monitoring can be less frequent. This rulemaking would clarify that the frequency of monitoring can be different for wet and dry storage systems.

#### Preliminary Regulatory Analysis

##### 1. Draft Rule Language

Section 72.122(h)(4) would be revised as follows: (new language is underlined)

"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 shall be based upon the cask design requirements"

##### 2. Impact on Licensees

This revision is to clarify monitoring requirements for dry spent fuel storage and would not change the burden for licensees.

**Item 5 -- Requirement Specifying Instrument and Control Systems for Monitoring Dry Spent Fuel Storage is Not Appropriate (§ 72.122(i)).**

#### Regulatory Issue

Section 72.122(i) requires that instrumentation and control systems be provided to monitor systems important to safety and 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 rulemaking will clarify that control systems are not needed for dry storage systems.

#### Preliminary Regulatory Analysis

##### 1. Draft Rule Language

Section 72.122(i) would be revised as follows: (new language is underlined)

"(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."

## 2. Impact on the Licensees

There would not be any change in regulatory burden for licensees in clarifying dry fuel storage monitoring requirements.

## Item 6 -- Clarify Requirement for Dry Spent Fuel Storage Cask on Methods of Criticality Control (§ 72.124(b))

### Regulatory Issue

Section 72.124(b) requires specific methods for criticality control, including the requirement that where solid neutron absorbing materials are used, the design shall 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 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. Moreover, the potentially corrosive environment under wet storage conditions is not present in dry storage systems since an inert environment is maintained. This rulemaking will clarify that positive means for verifying the continued efficacy of solid neutron absorbing materials are not required for dry storage systems.

### Preliminary Regulatory Analysis

#### 1. Draft Rule Language

Section 72.124(b) would be revised as follows: (new language is underlined)

"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 shall provide for positive means to verify their continued efficacy except for dry spent fuel storage systems where it is determined that significant degradation of the neutron absorbing materials cannot occur over the life of the facility."

*demonstrated*



## 2. Impact on the Licensees

There would be no impact on licensees from this clarification of requirements for dry spent fuel storage systems.

Item 7 -- Clarify Requirements in § 72.140(d) concerning previously Commission approved quality assurance program conforming to Appendix B of 10 CFR Part 50

### Regulatory Issue

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 rulemaking will require such licensees to follow the Part 72 requirement to maintain QA records until termination of the license.

### Preliminary Regulatory Analysis

#### 1. Draft Rule Language

Section 72.140(d) would be revised by adding the following sentence at the end of the first sentence: (new language is underlined)

"(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 utilizing an Appendix B quality assurance program must meet the requirement of § 72.174. Prior to first use, .... date of Commission approval."

#### 2. Impact on Licenses

All Part 72 licensees, including those who have adopted an Appendix B QA program, currently maintain the QA records which 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. Since 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 annual costs are present worth 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 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 on the order of \$5000 per licensee. This figure is equally applicable to both reactor and non-reactor licensees storing spent fuel. Given that there are about 40 licensees currently relying on the Appendix B QA program in lieu of § 72.142, the incremental burden for the affected licensee population is approximately \$200,000.

Alternatively, 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, those licensees utilizing an Appendix B QA program would continue to make permanent all records generated in support of Part 72 activities.

#### **Item 8 -- Remove natural or depleted uranium metal used in storage cask shielding from Part 40 licensing requirements**

##### Regulatory Issue

The use of natural or depleted uranium in shipping casks is not subject to the Part 40 licensing requirements for source material under § 40.13(c)(6). However, unlike for shipping casks, current licensing requirements do apply to natural and depleted uranium used in spent fuel storage casks. Currently, natural or depleted uranium is not used in the design of storage casks but it is anticipated that designers may want to use this material in future cask designs. The purpose of this rulemaking is to make the use of natural and depleted uranium available for storage casks under § 40.13(c)(6) without subjecting that use to the licensing requirements of Part 40.

##### Preliminary Regulatory Analysis

###### 1. Draft Rule Language

Section 40.13(c)(6) would be revised as follows (new language is underlined):

"(c) Any person is exempt from the regulation in this part and from the requirements for a license set forth in Section 62 of the Act to the

extent that such person receives, possess, uses, or transfers: ....  
....(6) Natural or depleted uranium metal used as shielding constituting part of any shipping container or spent fuel storage cask: ...."

2. Impact on the Licensees

This revision is intended to eliminate the need for licensees to obtain specific authority for use of natural or depleted uranium in spent fuel storage casks. This would provide burden relief for both licensees and the staff since requests for exemptions or applications for a Part 40 license would not be necessary.

**Item 9 -- Reporting Requirements for Specific Events and Conditions --  
§ 72.75**

Regulatory Issue

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. Section 72.75(d)(2) also contains a brief description of the type of information to be included in the required report. Staff's experience has been that this brief description has not been sufficient to elicit sufficient information for the staff to complete its review of a report, necessitating follow-up contacts with the licensee to secure additional information. Many requirements for the content of reports appropriate for reporting ISFSI or MRS events and conditions are found in § 50.73(b) which staff has used as guidance. The proposed rulemaking would place appropriate § 50.73(b) requirements in § 72.75(d)(2) and thereby clearly inform licensees of the information necessary for the staff's review of a report.

Preliminary Regulatory Analysis

1. Draft Rule Language

Section 72.75(d)(2) would be revised as follows: (new language is underlined)

Delete §§ 72.75(d)(2)(i), (ii), (iii), (iv), (v), and (vi).

"(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 of the necessary information and the appropriate distribution is made. These written reports must be sent to the U.S. Nuclear Regulatory Commission, Document Control Desk, Washington, DC 20555-0001, with a copy to the appropriate NRC Regional Office listed in Appendix D of 10 CFR Part 20. These reports must include the following:



(1) 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.

(2)(i) 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.

(ii) 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) For failures of components with multiple functions, include a list of systems or secondary functions that were also affected.

(G) For 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 (applies to wet spent fuel systems storage only).

(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 (i.e., 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."

## 2. Impact on the Licensees

Licensees currently submit follow-up reports for specific events and conditions in accordance with § 72.75(d)(2). Upon review, the staff often requests, via telephone calls and correspondence, that supplemental information be submitted to provide an adequate description of the event. The revised requirements in § 72.75(d)(2) will provide clarification of what information is necessary in the initial submittal. Thus, the revised reporting requirements are an increase in the licensee burden for preparation of the initial report. On balance, however, the total licensee burden under the revised requirements would be similar to the current situation where the initial report is supplemented by requests for additional information by the staff.

## III. Common Elements for Items 1 Through 9

### OGC Legal Analysis.

OGC has no legal objection to this proposed rulemaking. Assuming that Item 8 is supported by the planned safety analysis report and environmental assessment, OGC does not anticipate any legal impediments to promulgation of the contemplated rule.

### Backfit Analysis

The NRC staff has determined that the backfit rule, § 72.62, does not apply to this Direct Final Rule, and therefore a backfit analysis is not required.

### Agreement State Implementation Problems.

No problems from the proposed amendment have been identified that would adversely affect the Agreement States.

### Supporting Documents

It is anticipated that an environmental assessment and Safety Analysis Report will be prepared in support of Item 8. Also, OMB clearance package will be prepared for this rulemaking.

### Resources Needed.

It is anticipated that 0.85 FTEs will be needed to complete this action. No contractor support dollars will be expended. These resources are included in the current budget.

### Lead Office Staff and Staff from Supporting Offices.

Project Manager: Mark Au, RES

User office cognizant staff: Francis Young, NMSS  
Michael Lesar, ADM  
E. Neil Jensen, OGC

### Steering Group/Working Group.

A steering group will not be used on this rulemaking.

### Enhanced Public Participation.

The rulemaking will use the FedWorld Bulletin Board to notify the public that a Direct Final Rule has been issued. Comments can still be made during the 30-day comment period before the final rule becomes effective.

### EDO or Commission Issuance.

No significant comments are anticipated on this rulemaking, therefore, RES recommends that the EDO issue a "Direct Final Rule" for the proposed changes. This action does not constitute a significant question of policy, and falls within the EDO's authority. A Direct Final Rule is issued as final but still allows for a public comment period. If no significant issue is raised during this period, the rule becomes final at the specified date. If a significant issue is raised, the Direct Final Rule will revert to a proposed rule. This process should minimize both time and resources expended for this action.

### Schedule.

The schedule is expressed in terms of time from approval of the rulemaking plan.

Rulemaking package for Office concurrence	4 months
Rulemaking package to EDO	6 months
Direct Final Rule published and OMB Clearance Package submitted to OMB	8 months





PDR  
AF 80-1

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## RULEMAKING ISSUE

(NEGATIVE CONSENT)

March 28, 1997

SECY-97-069

FOR: The Commissioners

FROM: L. Joseph Callan, Executive Director for Operations

SUBJECT: RULEMAKING PLAN: MISCELLANEOUS CHANGES TO 10 CFR PART 72  
AND AMENDMENT TO 10 CFR PART 40 TO REMOVE NATURAL OR  
DEPLETED URANIUM USED IN STORAGE CASK SHIELDING FROM PART 40  
LICENSING REQUIREMENTS

PURPOSE:

To inform the Commission that the EDO intends to sign the enclosed Rulemaking Plan to amend certain sections in 10 CFR Part 72 to correct several inconsistencies and to clarify certain sections. The rulemaking would also amend the regulations to remove from the licensing requirements of 10 CFR Part 40 the use of natural or depleted uranium in dry spent fuel storage casks.

ISSUE:

The Commission's licensing requirements for the independent storage of spent nuclear fuel and high-level radioactive waste are specified in 10 CFR Part 72. Experience in applying Part 72 has indicated that it is not adequate in some respects and that certain additions and clarifications to the rule are necessary. This rulemaking would make eight miscellaneous changes to Part 72, and also would extend the exemption from licensing requirements for shipping containers using natural or depleted uranium as shielding (§ 40.13(c)(6)) to storage casks using natural or depleted uranium as shielding.

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

CONTACT:  
M. L. Au, WMB/DRA/RES  
(301) 415-6181

IN THE ABSENCE OF INSTRUCTIONS TO THE  
CONTRARY, SECY WILL NOTIFY THE STAFF ON  
TUESDAY, APRIL 15, 1977 THAT THE COMMISSION,  
BY NEGATIVE CONSENT, ASSENTS TO THE ACTION  
PROPOSED IN THIS PAPER.

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DISCUSSION:

The Spent Fuel Project Office, NMSS, in a letter dated May 9, 1996, proposed several changes to 10 CFR Part 72 together with a list of 18 miscellaneous items. In response to this request, RES initiated six rulemaking actions that were approved by the EDO on August 13, 1996. This rulemaking plan addresses a group of miscellaneous items that are proposed for implementation by a direct final rule. The items included in this rulemaking action are as follows:

- . An amendment to Section 72.44(d)(3) would permit reactor licensees to submit the annual dry cask storage effluent report to the NRC at the same time as the annual reactor operations effluent report.
- . An administrative change to § 72.4 would provide that, except where otherwise specified, all communications and reports be addressed to NRC's Document Control Desk rather than to the Director, Office of Nuclear Material Safety and Safeguards. In addition, § 72.216(c) would be changed to correct improper references.
- . Amendments to the purpose (§ 72.1) and scope (§ 72.2) would make these sections more complete by specifically referencing the spent fuel storage cask approval process and also delete information in the purpose and scope sections regarding the Federal interim storage program since the time frame for its implementation has expired (61 FR 35935, July 9, 1996).
- . An amendment to § 72.122(h)(4) would clarify that the monitoring requirements can be different for wet and dry storage systems.
- . An amendment to § 72.122(i) would clarify that, unlike wet spent fuel storage, control systems are not needed for dry storage systems, since no active systems are involved.
- . An amendment to § 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 § 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 previously Commission approved quality assurance program conforming to Appendix B of Part 50.

An amendment to § 40.13(c)(6) would remove the use of natural or depleted uranium in storage casks from the licensing requirements of Part 40.

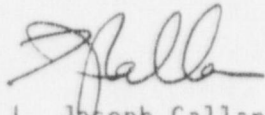
Event reporting requirements in § 72.75(d)(2) have been found to be incomplete. As a result, staff has frequently needed to request additional information from licensees subsequent to receiving event reports. Part 72 would be amended to clearly inform licensees of the information necessary for the staff's review of a licensee's report.

COORDINATION:

The Office of the General Counsel has no legal objection to this Rulemaking Plan. The Office of the Chief Financial Officer has no objection to the resource estimates contained in the rulemaking plan. The Office of the Chief Information Officer has reviewed the rulemaking plan for information and technology and information management implications and concurs in it. However, the plan suggests possible information collection requirements that must be submitted to the Office of Management and Budget prior to publication of the rule proposed in the rulemaking plan.

RECOMMENDATION:

Note that it is my intention to implement the Rulemaking Plan within 10 days from the date of this paper unless otherwise directed by the Commission.



L. Joseph Callan  
Executive Director  
for Operations

Enclosure:  
Rulemaking Plan

DISTRIBUTION:

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CIO  
CFO  
EDO  
SECY



**ENCLOSURE**

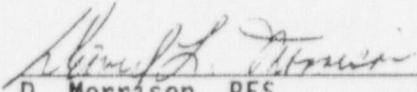
**RULEMAKING PLAN**

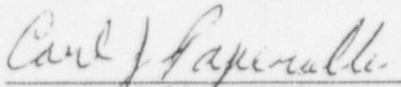
RULEMAKING PLAN FOR  
MISCELLANEOUS CHANGES TO 10 CFR PART 72 AND AMENDMENT TO 10 CFR PART 40  
TO REMOVE NATURAL OR DEPLETED URANIUM USED IN STORAGE  
CASK SHIELDING FROM PART 40 LICENSING REQUIREMENTS

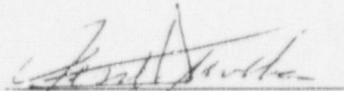
Lead Office: Office of Nuclear Regulatory Research

Staff Contact: Mark Au, WMB/DRA/RES


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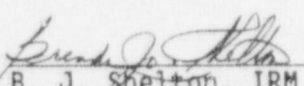
 2/11/97  
D. Morrison, RES Date

 2/20/97  
C. Paperiello, NMSS Date

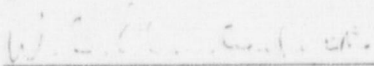
 2/25/97  
R. M. Scroggins, ACFO Date

Ref 2/26/97 memo from Shelta  
A. J. Galante, CIO Date

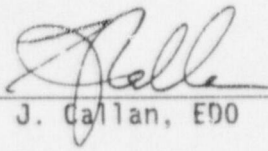
Ho Au  2/27/97

 2/27/97  
B. J. Shelton, IRM Date

Ref Feb 26, 1997 memo for conditions.

 2/28/97  
W. J. Olmstead, OGC Date

Approval:

 3-28-97  
L. J. Callan, EDO Date

03/27/97

## Rulemaking Plan

### Miscellaneous Changes to Part 72 and Amendment to Part 40 to

### Remove Natural or Depleted Uranium Used in Storage Cask Shielding from Part 40 Licensing Requirements

#### I. Regulatory Issue

The Commission's licensing requirements for the independent storage of spent nuclear fuel and high-level radioactive waste are specified in 10 CFR Part 72. Experience in applying Part 72 has indicated that it is not adequate in some respects and that certain additions and clarifications to the rule are necessary. By memorandum dated May 9, 1996, the Spent Fuel Project Office, NMSS, proposed several changes to Part 72 together with a list of 18 miscellaneous items. In response to this request, RES initiated six rulemaking actions that were approved by the EDO. Five of the rulemaking actions are discussed in other rulemaking plans. This rulemaking plan addresses a group of miscellaneous items which would correct several inconsistencies and provide clarification to certain sections of Part 72. This rulemaking would also remove the use of natural or depleted uranium in storage casks from the licensing requirements of 10 CFR Part 40. This would be an extension of the shipping container exemption in § 40.13(c)(6).

#### II. Proposed Changes

Item 1 -- Requirement for Submittal of Dry Cask Storage Effluent Report  
-- (§ 72.44)

##### Regulatory Issue

Current regulations in § 72.44(d)(3), "License Conditions," require submittal of a dry cask storage effluent report to the appropriate NRC regional office within the first 60 days of each year. Section 50.36a(a)(2), "Technical specifications on effluents from nuclear power reactors," 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.



## Preliminary Regulatory Analysis

### 1. Draft Rule Language

Section 72.44(d)(3) would be revised as follows (new language is underlined):

"An annual report be submitted to the U.S. Nuclear Regulatory Commission, ATTN Document Control Desk, Washington, DC 20555, with a copy to the appropriate regional office specified in appendix A of Part 73 of this chapter, ~~with a copy to the Director, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, within 60 days after January 1, of each year,~~ 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 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."

### 2. Impact on the Licensees

Reactor licensees will obtain a small benefit since both annual reports may be submitted at the same time to the NRC.

Item 2 -- Requirement for making initial and written reports (§§ 72.4 and 72.216)

#### Regulatory Issue

An administrative change needs to be made to § 72.4 to provide that, except where otherwise specified, all communications and reports be addressed to NRC's Document Control Desk rather than to the Director, Office of Nuclear Material Safety and Safeguards. At present, three regulations govern the submission of written reports under Part 72: (1) § 72.75, (2) § 72.216(b), and (3) § 50.72(b)(2)(vii) (which is referenced in § 72.216(a)). Under § 72.75 a report is sent to the Document Control Desk; however, the two other paragraphs direct that the report be sent as instructed in § 72.4 which specifies that reports be addressed to the Director, Office of Nuclear Material Safety and Safeguards. To achieve consistency in the NRC addressee for Part 72 reports, § 72.4 is being revised to instruct that reports be sent to the Document Control Desk. Directing licensing correspondence to the NRC's Document Control Desk will ensure proper docketing and distribution. Also, § 72.216(c) is being changed to correct an error. The present regulation references §§ 72.75(a)(2) and (3). The reference should be to §§ 72.75(b)(2) and (3).

## Preliminary Regulatory Analysis

### 1. Draft Rule Language

Section 72.216(c) would be revised and corrected as follows: (new language is underlined)

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

Section 72.4 would be revised as follows:

"Except where otherwise specified, all communications and reports....should be addressed to the ~~Director, Office of Nuclear Material and Safeguards~~, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001."

### 2. Impact on Licensees

Correcting the error and the administrative change requiring the submittal of reports to NRC headquarters would not increase the regulatory burden on licensees.

Item 3 -- Modify §§ 72.1 and 72.2 to include spent fuel storage cask and delete superseded information

### Regulatory Issue

The purpose (§ 72.1) and scope (§ 72.2) sections of Part 72 were not modified when the Commission amended Part 72 in 1990 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 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, it does not reference the approval process for spent fuel storage casks in Subpart L. This rulemaking will make the purpose and scope sections more complete by specifically referencing the Subpart L cask approval process. This rulemaking will also delete information in the purpose and scope sections regarding the Federal interim storage program since the timeframe for its implementation has expired (61 FR 35935, July 9, 1996).

## Preliminary Regulatory Analysis

### 1. Draft Rule Language

Section 72.1 would be revised as follows: (new language is underlined)

"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 such licenses. ~~, including licenses to the U.S. Department of Energy (DOE) for the provision of not more than 1300 metric tons of spent fuel capacity at facilities not owned by the Federal Government on January 7, 1983 for the Federal interim storage program under Subtitle B-Interim Storage Program of the Nuclear Waste Policy Act of 1982 (NWPA).~~ The regulations in this part also establish requirements, procedures, and criteria for the issuance of licenses to 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."

Section 72.2 would be revised as follows: (new language is underlined)

Delete § 72.2(e) -- superseded information regarding the Federal interim storage program. The existing § 72.2(f) will become new § 72.2(e).

Add a new paragraph (f) --

"(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."

### 2. Impact on Licensees

There is no impact on licensees in making the purpose and scope sections of Part 72 comprehensive since no regulatory requirements are being changed.

Item 4 -- Requirement for capability for continuous monitoring for confinement storage systems (§ 72.122(h)(4))

#### Regulatory Issue

Under current regulations, § 72.122(h)(4) requires the capability for continuous monitoring of storage confinement systems. The meaning of "continuous" is open to different interpretations 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 which is "continuous" in the sense of uninterrupted. On the other hand, because of the passive nature of dry storage, active heat removal systems are not needed and monitoring can be less frequent. This rulemaking would clarify that the frequency of monitoring can be different for wet and dry storage systems.

#### Preliminary Regulatory Analysis

##### 1. Draft Rule Language

Section 72.122(h)(4) would be revised as follows: (new language is underlined)

"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 shall be based upon the cask design requirements."

##### 2. Impact on Licensees

This revision is to clarify monitoring requirements for dry spent fuel storage and would not change the burden for licensees.

**Item 5 -- Requirement Specifying Instrument and Control Systems for Monitoring Dry Spent Fuel Storage is Not Appropriate (§ 72.122(i)).**

#### Regulatory Issue

Section 72.122(i) requires that instrumentation and control systems be provided to monitor systems important to safety and 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 rulemaking will clarify that control systems are not needed for dry storage systems.

#### Preliminary Regulatory Analysis

##### 1. Draft Rule Language

Section 72.122(i) would be revised as follows: (new language is underlined)

"(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."

## 2. Impact on the Licensees

There would not be any change in regulatory burden for licensees in clarifying dry fuel storage monitoring requirements.

### **Item 6 -- Clarify Requirement for Dry Spent Fuel Storage Cask on Methods of Criticality Control (§ 72.124(b))**

#### Regulatory Issue

Section 72.124(b) requires specific methods for criticality control, including the requirement that where solid neutron absorbing materials are used, the design shall 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 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. Moreover, the potentially corrosive environment under wet storage conditions is not present in dry storage systems since an inert environment is maintained. This rulemaking will clarify that positive means for verifying the continued efficacy of solid neutron absorbing materials are not required for dry storage systems.

#### Preliminary Regulatory Analysis

##### 1. Draft Rule Language

Section 72.124(b) would be revised as follows: (new language is underlined)

"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 shall provide for positive means of verifying their continued efficacy. For dry spent fuel storage systems, the continued efficacy may be confirmed by demonstration before use and an analysis showing that significant degradation of the neutron absorbing materials cannot occur over the life of the facility.

## 2. Impact on the Licensees

There would be no impact on licensees from this clarification of requirements for dry spent fuel storage systems.

**Item 7 -- Clarify Requirements in § 72.140(d) concerning previously Commission approved quality assurance program conforming to Appendix B of 10 CFR Part 50**

### Regulatory Issue

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 rulemaking will require such licensees to follow the Part 72 requirement to maintain QA records until termination of the license.

### Preliminary Regulatory Analysis

#### 1. Draft Rule Language

Section 72.140(d) would be revised by adding the following sentence at the end of the first sentence: (new language is underlined)

"(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 utilizing an Appendix B quality assurance program must meet the requirement of § 72.174. Prior to first use, .... date of Commission approval."

#### 2. Impact on Licenses

All Part 72 licensees, including those who have adopted an Appendix B QA program, currently maintain the QA records which 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. Since 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 costs 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 on the order of \$5000 per licensee. This figure is equally applicable to both reactor and non-reactor licensees storing spent fuel. Given that there are about 40 licensees currently relying on the Appendix B QA program in lieu of § 72.142, the incremental burden for the affected licensee population is approximately \$200,000.

Alternatively, 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, those licensees utilizing an Appendix B QA program would continue to make permanent all records generated in support of Part 72 activities.

#### Item 8 -- Remove natural or depleted uranium metal used in storage cask shielding from Part 40 licensing requirements

##### Regulatory Issue

The use of natural or depleted uranium in shipping casks is not subject to the Part 40 licensing requirements for source material under § 40.13(c)(6). However, unlike for shipping casks, current licensing requirements do apply to natural and depleted uranium used in spent fuel storage casks. Currently, natural or depleted uranium is not used in the design of storage casks but it is anticipated that designers may want to use this material in future cask designs. The purpose of this rulemaking is to make the use of natural and depleted uranium available for storage casks under § 40.13(c)(6) without subjecting that use to the licensing requirements of Part 40.

##### Preliminary Regulatory Analysis

###### 1. Draft Rule Language

Section 40.13(c)(6) would be revised as follows (new language is underlined):

"(c) Any person is exempt from the regulation in this part and from the requirements for a license set forth in Section 62 of the Act to the

extent that such person receives, possess, uses, or transfers: ....  
....(6) Natural or depleted uranium metal used as shielding constituting part of any shipping container or spent fuel storage cask: Provided, That:

(i) The shipping container or spent fuel storage cask is conspicuously and legibly impressed with the legend "CAUTION - RADIOACTIVE SHIELDING - URANIUM"; and"

## 2. Impact on the Licensees

This revision is intended to eliminate the need for licensees to obtain specific authority for use of natural or depleted uranium in spent fuel storage casks. This would provide burden relief for both licensees and the staff since requests for exemptions or applications for a Part 40 license would not be necessary.

## Item 9 -- Reporting Requirements for Specific Events and Conditions -- § 72.75

### Regulatory Issue

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. Section 72.75(d)(2) also contains a brief description of the type of information to be included in the required report. Staff's experience has been that this brief description has not been sufficient to elicit sufficient information for the staff to complete its review of a report, necessitating follow-up contacts with the licensee to secure additional information. Many requirements for the content of reports appropriate for reporting Independent Spent Fuel Storage Installation (ISFSI) or Monitored Retrievable Storage (MRS) events and conditions are found in § 50.73(b) which staff has used as guidance. The proposed rulemaking would place appropriate § 50.73(b) requirements in § 72.75(d)(2) and thereby clearly inform licensees of the information necessary for the staff's review of a report.

### Preliminary Regulatory Analysis

#### 1. Draft Rule Language

Section 72.75(d)(2) would be revised as follows: (new language is underlined)

Delete §§ 72.75(d)(2)(i), (ii), (iii), (iv), (v), and (vi).

"(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 of the necessary information and the appropriate distribution is made. These written reports must be sent to the U.S. Nuclear Regulatory Commission, Document Control Desk, Washington, DC 20555-0001, with a copy to the appropriate NRC Regional Office listed in Appendix D of 10 CFR Part 20. These reports must include the following:

(1) 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.

(2)(i) 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.

(ii) 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) For failures of components with multiple functions, include a list of systems or secondary functions that were also affected.

(G) For 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 (applies to wet spent fuel systems storage only).

(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 (i.e., 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."

## 2. Impact on the Licensees

Licensees currently submit follow-up reports for specific events and conditions in accordance with § 72.75(d)(2). Upon review, the staff often requests, via telephone calls and correspondence, that supplemental information be submitted to provide an adequate description of the event. The revised requirements in § 72.75(d)(2) will provide clarification of what information is necessary in the initial submittal. Thus, the revised reporting requirements are an increase in the licensee burden for preparation of the initial report. On balance, however, the total licensee burden under the revised requirements would be similar to the current situation where the initial report is supplemented by requests for additional information by the staff.

## III. Common Elements for Items 1 Through 9

### OGC Legal Analysis.

OGC has no legal objection to this proposed rulemaking. Assuming that Item 8 is supported by the planned safety analysis report and environmental assessment, OGC does not anticipate any legal impediments to promulgation of the contemplated rule.

### Backfit Analysis.

The NRC staff has determined that the backfit rule, § 72.62, does not apply to this Direct Final Rule, and therefore a backfit analysis is not required.

#### Agreement State Implementation Problems.

No problems from the proposed amendment have been identified that would adversely affect the Agreement States.

#### Supporting Documents.

It is anticipated that an environmental assessment and Safety Analysis Report will be prepared in support of Item 8. Also, OMB clearance package will be prepared for this rulemaking.

#### Resources Needed.

It is anticipated that 0.85 FTEs will be needed to complete this action. No contractor support dollars will be expended. These resources are included in the current budget.

#### Lead Office Staff and Staff from Supporting Offices.

Project Manager: Mark Au, RES

User office cognizant staff: Francis Young, NMSS  
Michael Lesar, ADM  
E. Neil Jensen, OGC

#### Steering Group/Working Group.

A steering group will not be used on this rulemaking.

#### Enhanced Public Participation.

The rulemaking will use the FedWorld Bulletin Board to notify the public that a Direct Final Rule has been issued. Comments can still be made during the 30-day comment period before the final rule becomes effective.

#### EDO or Commission Issuance.

No significant comments are anticipated on this rulemaking, therefore, RES recommends that the EDO issue a "Direct Final Rule" for the proposed changes. This action does not constitute a significant question of policy, and falls within the EDO's authority. A Direct Final Rule is issued as final but still allows for a public comment period. If no significant issue is raised during this period, the rule becomes final at the specified date. If a significant issue is raised, the Direct Final Rule will revert to a proposed rule. This process should minimize both time and resources expended for this action.

Schedule.

The schedule is expressed in terms of time from approval of the rulemaking plan.

Rulemaking package for Office concurrence  
Rulemaking package to EDO  
Direct Final Rule published and  
OMB Clearance Package submitted to OMB

4 months

- Aug 23

6 months

Oct.

8 months

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