
**Regulatory Analysis of
Modifications to 10 CFR 72.75, “Reporting
requirements for specific events and conditions” and
10 CFR 73.71, “Reporting of safeguards events”**

Final Report

**U.S. Nuclear Regulatory Commission
Office of Nuclear Materials Safety and Safeguards**

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Executive Summary

On August 22, 2002, the Nuclear Regulatory Commission (NRC) published a proposed rule in the Federal Register (67 FR 54360) containing proposed amendments to its event notification regulations in 10 CFR Part 72 that apply to Independent Spent Fuel Storage Installations (ISFSIs) and Monitored Retrievable Storage (MRS) facilities to more closely align them with those of reactor facilities. The proposed rule also contained proposed amendments to the safeguards event notification requirements that apply to facilities subject to 10 CFR Part 73, such as reactor facilities, fuel cycle facilities, ISFSIs, an MRS, licensees who possess or transport special nuclear material or spent fuel, a geological repository operations area, and the gaseous diffusion plants. In addition to requesting public comments on the proposed rule, the Federal Register notice also announced that the NRC had prepared a draft regulatory analysis, and requested public comments on the draft regulatory analysis, including three specific questions listed in the notice.

The comment period on the proposed rule closed on November 5, 2002. The NRC received four public comments on the proposed rule. No public comments were received on the draft regulatory analysis.

In general, none of the commenters were opposed to amending the regulations to make the ISFSI and MRS event notification requirements and the safeguards event notification requirements consistent with recent changes to the power reactor event notification requirements. The NRC considered and adopted specific recommendations by the public commenters to improve the final rule. The NRC also made some clarifications for consistency and editorial changes in the final rule.

This final regulatory analysis updates the draft regulatory analysis to reflect two minor changes made to the proposed rule, both in § 72.75(g). It examines the costs and benefits of the final rule being promulgated by the Commission. With the exception of the analysis of § 72.75(g), and minor textual changes, this final regulatory analysis parallels the draft regulatory analysis.

The rulemaking promulgates the following changes:

1. Eliminates the requirement that the licensee notify the NRC not later than four hours after the discovery of an event involving Spent Nuclear Fuel (SNF), High Level Waste (HLW), or reactor-related Greater than Class C waste (GTCC) that:
 - (a) requires immediate actions necessary to avoid exposures to radiation or radioactive materials that could exceed regulatory limits, or releases of radioactive materials that could exceed regulatory limits (e.g., events such as fires, explosions, and toxic gas releases) (current § 72.75(b)(1)); or
 - (b) is an unplanned fire or explosion damaging any spent fuel, HLW, or GTCC, or any device, container, or equipment containing spent fuel, HLW, or GTCC when the damage affects the integrity of the material or its container (current § 72.75(b)(6)).
2. Adds a requirement that a licensee notify the NRC as soon as possible but not later than four hours after the discovery of any event or situation, involving spent fuel, HLW, or reactor-related GTCC waste related to the health and safety of the public or onsite personnel, or protection of the environment, for which a news release is planned or notification to other government agencies has been or will be made (new § 72.75(b)(2)).

3. Extends the time from four hours to eight hours within which a licensee must notify the NRC Operations Center of a non-emergency event or condition involving spent fuel, HLW, or reactor-related GTCC waste that involves:
 - (a) a defect in any spent fuel, HLW, or reactor-related GTCC waste storage structure, system, or component that is important to safety (new § 72.75(c)(1));
 - (b) a significant reduction in the effectiveness of any spent fuel, HLW, or reactor-related GTCC waste storage confinement system during use (new § 72.75(c)(2); or
 - (c) any event requiring the transport of a radioactively contaminated person to an offsite medical facility for treatment (new § 72.75(c)(3)).
4. Eliminates the requirement that a licensee notify the NRC within 24 hours after the discovery of any unplanned contamination event involving SNF, HLW, or GTCC that requires access to the contaminated area by workers or the public to be restricted for more than 24-hours, by imposing additional radiological controls or by prohibiting entry into the area.
5. Revises the 24-hour notification requirement to provide that a licensee may delay the notification to the NRC, if the end of the 24-hour period occurs outside of the NRC's normal working day, on a weekend, or a Federal holiday. In such cases, the licensee shall notify the NRC before 8:00 a.m. Eastern time on the next working day (new § 72.75(d)(2)).
6. Adds a requirement that a licensee making a 4-hour, 8-hour, or 24-hour report to the NRC Operations Center must identify the Emergency Class declared or identify the § 72.75 requiring notification of the non-emergency event (new § 72.75(e)(2)(i) and (ii)).
7. Adds a requirement that a licensee make followup notifications to immediately report (i.e., by telephone within one hour of discovery) any further degradation in the level of safety of the ISFSI or MRS or other worsening conditions, including those that require the declaration of any of the Emergency Classes, if such a declaration has not been previously made; or any change from one Emergency Class to another; or termination of the Emergency Class, the results of evaluations, effectiveness of responses or protective measures, and information related to ISFSI or MRS behavior that is not understood (new paragraphs 72.75(f)(1) and (2)).
8. Adds a requirement that a licensee maintain an open, continuous communication channel with the NRC Operations Center, upon request by the NRC (new paragraph 72.75(f)(3)).
9. Extends the time from 30 days to 60 days within which a licensee must submit a written report as a followup to an initial notification of a specific event or condition under 10 CFR 72.75 (b)(1), (c)(1), (c)(2), or (d)(1). The final rule also revises the requirement for written follow-up notifications included in the proposed rule to exempt verbal notifications under 72.75(a), (b)(2), and (c)(3) from the requirements for written follow-up notifications. The final rule also adds a new requirement to the second to last sentence of the introductory of § 72.75(g) requiring that reports submitted must be of sufficient quality to permit legible reproduction and optical scanning. The proposed rule included this requirement as a separate § 72.75(g)(8) (new § 72.75(g)).

10. Simplifies the information required to be provided by a licensee in a written report on human performance events (new § 72.75(g)(iv)).
11. Adds a new provision specifying that the Commission may require a licensee to submit supplemental information if such information is necessary for the NRC to obtain a complete understanding of an event (new § 72.75(h)).
12. Adds a new provision specifying that notice is required only for reportable non-emergency events that are discovered within three years of occurrence (new § 72.75(i)(2)).
13. Adds a new provision clarifying the applicability of the requirements of 10 CFR 72.75 to specific licensees and general licensees (new § 72.75(i)).
14. Eliminates as unnecessary the requirement in 10 CFR 72.216 that Part 72 licensees comply with the reporting requirements of §§ 72.74 and 72.75. The need for this section was obviated with the addition of §72.13, "Applicability," to the Part 72 regulations in a final rule issued on August 21, 2000 (65 FR 50606).
15. Extends the time from 30 days to 60 days within which a licensee must submit a written followup notification of a safeguards event under 10 CFR 73.71 (current §§ 73.71(a)(4) and (d)).
16. Extends the time stated in 10 CFR Part 73 Appendix G from 30 days to 60 days within which a licensee must submit a written followup notification of a safeguards event under 10 CFR 73.71(b) (current paragraph I in Appendix G to Part 73).

These changes are consistent with the Commission's strategic goals in that

- The rulemaking will increase NRC's effectiveness and efficiency by more closely aligning the event notification requirements for ISFSIs and MRS facilities and the reporting requirements for safeguards events with those of reactor facilities, whose current reporting requirements are specified by a Part 50 final rule issued October 25, 2000 (65 FR 63769).
- The rulemaking will maintain safety by better aligning the reporting requirements with the NRC's needs for information to carry out its safety mission. Certain reports are needed promptly because they involve events where there may be a need for the NRC to respond to heightened public concern or to take action. Initial reporting times for other reports may be extended, consistent with the time when the reports are needed for NRC action. The requirements therefore are risk-informed, consistent with NRC policy to develop risk-informed regulations.
- The rulemaking will reduce unnecessary reporting burden by reducing requirements for rapid reporting when it is not necessary, provide for more complete and accurate followup reports, and result in fewer revisions and supplemental reports.

The NRC staff considered a number of options for this rulemaking. The following two options are evaluated in this Regulatory Analysis:

Option 1.

No Action. The reporting requirements under 10 CFR 72.75, 10 CFR 73.71, and Appendix G to Part 73 will continue to conform to the existing requirements of §§ 72.75 and 73.71.

Because Option 1 will maintain the current reporting requirements for events involving spent fuel, HLW, or reactor-related GTCC waste at an ISFSI or MRS, as well as the current safeguards event reporting requirements, no values or impacts will result from Option 1.

Option 2.

Revise 10 CFR 72.75, 10 CFR 72.216, 10 CFR 73.71, and Appendix G to Part 73 to more closely align them with the event reporting requirements under 10 CFR Part 50, as they have been amended, for reactor facilities.

Under this option, the annual cost to licensees for complying with Part 72 requirements will be decreased by \$284. New annual costs will be incurred for reports of any event or situation, related to the health and safety of the public or onsite personnel or protection of the environment, for which the licensee plans to issue a news release or to notify other government agencies. These reports will allow the NRC to respond promptly to heightened public concern. Cost savings will be created by extending the deadline for filing followup written reports, which will reduce the number of supplementary written reports that will be prepared, and by the elimination of certain reports. Overall, this option will reduce recurring costs to licensees slightly. Licensees will incur a one-time annualized cost of \$100,800 to revise procedures and conduct training to implement the revised Part 72 reporting criteria.

Under this option, the annual cost to licensees for complying with Part 73 requirements and Appendix G to Part 73 will be reduced by \$18,432, largely as a result of the elimination of supplementary written reports that will not be necessary if the deadline for filing written reports is extended from 30 to 60 days. Licensees will incur a one-time annualized cost of \$391,667 to revise procedures and conduct training to implement the revised Part 73 reporting criteria.

The NRC will experience approximately \$13,937 in annual savings from the elimination of certain reports. The NRC will incur a one-time cost of \$7,700 for revising guidance documents.

The discounted net present value of the proposed rule at a 3 percent discount rate over 20 years, considering only the changes to the recurring reporting costs of both Part 72 and Part 73, is estimated as approximately \$278,438 in savings to licensees over 20 years. This reflects a discounted present value of approximately \$4,224 in savings under Part 72 and a discounted present value of approximately \$274,214 in savings under Part 73. The discounted present value of recurring savings to the NRC is approximately \$207,331 over 20 years.

In addition, this option will provide the non-quantified benefit that Part 72 and Part 73 requirements will be more compatible with similar requirements for nuclear power plants (NPPs), as well as with each other, thus improving regulatory efficiency. Reporting times will be consistent with the NRC's need for the information, and reports will be received when the NRC needs the information to protect public health and safety and to enhance public confidence by responding quickly to heightened public concern.

Option 2 was determined to be the most preferable based on professional judgment and limited quantitative analysis because it (1) will improve effectiveness and efficiency of the NRC

regulatory process by making the reporting requirements of Parts 72 and 73 more compatible with Part 50; (2) will reduce unnecessary regulatory burden for the licensees; and (3) will not result in significant overall additional implementation or operation costs to NRC.

1.0 Introduction

The NRC is promulgating amendments to its event reporting requirements in 10 CFR 72.75, 10 CFR 73.71, and Appendix G to Part 73 to:

- make conforming changes, where appropriate, to align them with the current reporting requirements of a 10 CFR Part 50 final rule issued October 25, 2000 (65 FR 63769);
- base revised reporting requirements on importance to risk, so the reporting times will be consistent with the time that information is needed for prompt NRC action; and
- eliminate the unnecessary reporting burden associated with reporting events of little or no safety significance, and to improve NRC efficiency and effectiveness, while maintaining public confidence through the timely communication of information on recently occurring, or ongoing, events.

The NRC staff considered several options to change the event reporting requirements in 10 CFR 72.75, 10 CFR 72.216, 10 CFR 73.71, and Appendix G to Part 73. The following two options are evaluated in this Regulatory Analysis: (1) No Action and (2) Revisions to §§ 72.75, 72.216, 73.71, and Appendix G to Part 73.

A draft regulatory analysis (RA) was prepared as part of the analysis of the options considered and was a supporting document for the Federal Register Notice containing the proposed rule. No public comments were received on the draft RA.

The purpose of this final regulatory analysis is to evaluate the costs and benefits associated with the regulatory changes being promulgated by the Commission. The NRC considers the regulatory analysis process an integral part of its statutory mission to ensure reasonable assurance for the protection of public health and safety, property, environmental quality, and national defense and security from civilian uses of nuclear materials. This document presents background material, describes the objectives of the final rule, outlines the alternatives considered, and evaluates the values and impacts of the final action and alternatives. This final regulatory analysis updates the draft regulatory analysis to reflect two changes made to § 72.75(g) between the proposed rule and the final rule. It examines the costs and benefits of the final rule being promulgated by the Commission. With the exception of the analysis of § 72.75(g), and minor textual changes, this final regulatory analysis parallels the draft regulatory analysis.

1.1 Statement of the Problem and Objective

NRC safety and safeguards requirements for nuclear power reactors, nonpower reactors, Independent Spent Fuel Storage Installations (ISFSIs), and Monitored Retrievable Storage (MRS) facilities, and other facilities with spent nuclear fuel, high-level nuclear waste, reactor-related GTCC waste, or special nuclear materials are intended to provide the Commission with reporting of significant events when immediate Commission action to protect the public health and safety may be required or when the Commission needs timely and accurate information to respond to heightened public concern. In 1998, an advance notice of proposed rulemaking (ANPR) was published (63 FR 39522; July 23, 1998) notifying the public that the NRC was considering amending its event reporting requirements. Although the ANPR was primarily directed at potential changes to reactor reporting requirements in 10 CFR 50.72 and 50.73, it also requested public comments to identify areas where other reporting requirements could be

simplified and/or modified to a less burdensome, more risk-informed approach. Pertinent suggestions were provided at public meetings as well as in written comments received on the ANPR. In SECY-99-022, "Rulemaking to Modify Reporting Requirements for Power Reactors" (January 20, 1999) the NRC staff presented recommendations that had been made by commenters for changes to reporting requirements beyond 10 CFR 50.72 and 50.73, to include changes to 10 CFR 72.75 and to 10 CFR 73.71, and Appendix G to Part 73.

In its March 19, 1999, Staff Requirements Memorandum (SRM) on SECY-99-022, the Commission directed the staff to provide the Commission with a schedule and plan of action for revising the reporting requirements. The staff suggested considering conforming changes to Parts 72 and 73 if the reporting requirements in 10 CFR 50.72 and 50.73 were changed. In SECY-00-0093, "Rulemaking to Modify the Event Reporting Requirements for Power Reactors in 10 CFR 50.72 and 50.73 and for Independent Spent Fuel Storage Installations (ISFSI) in 10 CFR 72.216" (April 21, 2000), the staff submitted a final rule to the Commission. The staff also noted that it would provide a rulemaking plan to the Commission for changes to the reporting requirements in Parts 72 and 73 within five months after the Part 50 rule changes were completed. In October, 2000, the Commission issued a final rule revising the event reporting requirements in 10 CFR 50.72, 50.73, and 72.216. (65 FR 63769, October 25, 2000).

In an SRM dated April 18, 2001, on the SECY-01-0054 Rulemaking Plan: 10 CFR Parts 72 and 73—"Conforming Requirements of Event Notification," the Commission indicated that it did not object to the staff proceeding with the development of a proposed rule. The event reporting requirements of Parts 72 and 73 affect both material licensees and nuclear power plant licensees. Most of the facilities subject to the event notification reporting requirements in Parts 72 and 73 (power reactors and ISFSIs) are either physically co-located with reactor facilities or are reactor facilities. Most Part 72 licensees are also Part 50 licensees. These licensees share the same management structure. The large majority of licensees required by Part 73 to have a substantial security force are also Part 50 licensees, and share the same emergency preparedness organization. Currently, the revised event notification reporting requirements in Part 50 approved by the Commission require written notification within 60 days and verbal notification within 1 hour (emergency and non-emergency events), 4 hours (non-emergency events), and 8 hours (non-emergency events). However, the current event notification reporting requirements in Parts 72 and 73 are somewhat different from the requirements in Part 50. The NRC staff believes that some requirements should be changed (e.g., the current 30-day written requirement) while others should remain the same for harmony (e.g., some of the verbal notification requirements). The NRC staff believes that several parts of the regulations can effectively be amended to conform to the event reporting requirements of Part 50 and to eliminate duplicative requirements without compromising safety. Conforming the reporting requirements of Parts 72 and 73 with the revised requirements of Part 50 reduce regulatory burden and potential confusion, will maintain safety, and will take advantage of the work already performed to relate risk to reporting requirements for these types of facilities.

On August 22, 2002, the NRC published a proposed rule in the Federal Register (67 FR 54360) containing proposed amendments to its event notification regulations in 10 CFR Part 72 that apply to Independent Spent Fuel Storage Installations (ISFSIs) and Monitored Retrievable Storage (MRS) facilities to more closely align them with those of reactor facilities. The proposed rule also contained proposed amendments to the safeguards event notification requirements that apply to facilities subject to 10 CFR Part 73, such as reactor facilities, fuel cycle facilities, ISFSIs, an MRS, licensees who possess or transport special nuclear material or spent fuel, a geological repository operations area, and the gaseous diffusion plants. In addition to requesting public comments on the proposed rule, the Federal Register notice also

announced that the NRC had prepared a draft regulatory analysis, and requested public comments on the draft regulatory analysis.

The comment period on the proposed rule closed on November 5, 2002. The NRC received four public comments on the proposed rule. No public comments were received on the draft regulatory analysis.

In general, none of the commenters were opposed to amending the regulations to make the ISFSI and MRS event notification requirements and the safeguards event notification requirements consistent with recent changes to the power reactor event notification requirements. The NRC considered and adopted specific recommendations by the public commenters to improve the final rule. The NRC also made some clarifications for consistency and editorial changes in the final rule.

2.0 Identification and Preliminary Analysis of Alternative Approaches

The specific options considered were:

Option 1. No Action. The event reporting requirements for ISFSI and MRS facilities will continue as currently specified in §§ 72.75, 72.216, 73.71, and Appendix G to Part 73.

Option 2. Revise event reporting requirements to conform more closely to 10 CFR 50.72 and 50.73 and add requirements to permit the NRC to more effectively carry out its responsibilities during emergencies and in responding to public and media inquiries.

2.1 Summary of Proposed Revisions

This section summarizes how the proposed revisions will revise the current requirements. Table 2-1 describes the current reporting requirements and the proposed changes.

This section summarizes in Table 2-1 how the amended requirements will revise the current requirements.

Table 2-1: Current Reporting Requirements and Revisions

Proposed Rule	Description of Proposed Revision	Reason for Proposed Revision
§ 72.75(b)(1)	Four-hour notice required for an action taken in an emergency that departs from a condition or a technical specification contained in a license or a COC when action is immediately needed to protect the public health and safety and no action consistent with the license or COC conditions or technical specifications that can provide adequate or equivalent protection is immediately apparent.	Rule retained as a 4-hour notice for an action taken in an emergency. Renumbered for organization.
§ 72.75(b)(2)	New requirement. Four-hour report required for any event or situation, related to the health and safety of the public or onsite personnel, or protection of the environment, for which a news release is planned or notification to other government agencies has been or will be made.	Consistent with requirements in 10 CFR 50.72(b)(2)(xi). Reports are needed promptly because they may involve events (e.g., an onsite fatality or inadvertent release of radioactively contaminated materials) where there may be a need for the NRC to respond to heightened public concern.
§ 72.75(c)	New requirement. “Non-emergency notifications: Eight-hour reports.” Requires a licensee to notify the NRC as soon as possible but not later than eight hours after the discovery of events or considerations involving spent fuel, HLW, or reactor-related GTCC waste listed in this section. Topics of reports listed in this section are former topics of some 4-hour reports in current rule.	Reduce burden on licensee. Make reporting time consistent with NRC’s need for the information.
§ 72.75(c)(1)	Eight-hour notice required for a defect in any spent fuel, HLW, or reactor-related GTCC waste storage structure, system, or component which is important to safety.	Make reporting time consistent with NRC’s need for the information.
§ 72.75(c)(2)	Eight-hour notice required for a significant reduction in the effectiveness of any spent fuel, HLW, or reactor-related GTCC waste storage confinement system during use.	Make reporting time consistent with NRC’s need for the information.
§ 72.75(c)(3)	Eight-hour notice required for an event that requires unplanned medical treatment at an offsite medical facility or an individual with radioactive contamination on the individual’s clothing or body which could cause further radioactive contamination.	Make reporting time consistent with NRC’s need for the information.

Proposed Rule	Description of Proposed Revision	Reason for Proposed Revision
§ 72.75(d)	Non-emergency notifications: 24-hour reports. Requires licensees to notify the NRC within 24 hours after the discovery of certain events specified in the subparagraphs of this section.	Rule reorganized.
§ 72.75(d)(1)	Twenty-four hour notice required for events in which important to safety equipment is disabled to fails to function as designed.	Rule reorganized.
§ 72.75(d)(2)	New requirement. Provides that licensee may delay 24-hour notification to NRC, if the end of the 24-hour period falls outside NRC's normal working day, on a weekend, or a Federal holiday. In such cases, the licensee must notify NRC by 8:00 a.m. Eastern time on the next working day.	Reduce licensee burden.
§ 72.75(e)	Preparation and submission of reports. Provides the reports by licensees must be made according to specifications of the section retitled "Initial Notifications."	Rule reorganized.
§ 72.75(e)(1)	Requires reports to be made by telephone to the NRC Operations Center and specifies the information that must be provided. Reference to new (d) added.	Rule reorganized.
§ 72.75(e)(2)	New requirement. Licensees must identify the Emergency Class declared.	Consistent with § 50.72(a)(5).
§ 72.75(e)(3)	Contains specifications for the information that must be provided. Reference to new (d) added.	Rule reorganized. Information required is useful to NRC for protection of public health and safety.
§ 72.75(f)	New requirement. Follow up notification. Requires licensees, in addition to making the initial notification, during the course of an event, to immediately report by telephone, within one hour of discovery, other events or changes specified in §§ 72.75(f)(1) and (f)(2).	Consistent with understanding that "immediately" is by telephone within one hour. Reporting time consistent with NRC's need for the information.
§ 72.75(f)(1)	New requirement. Requires an immediate follow up report for any further degradation in the level of safety of the ISFSI or MRS or other worsening conditions, including declaration of an Emergency Class, change from one Emergency Class to another, or termination of the Emergency Class.	Enables NRC to determine if immediate response or corrective action is necessary to protect public health and safety. Consistent with § 50.72(b)(1).

Proposed Rule	Description of Proposed Revision	Reason for Proposed Revision
§ 72.75(f)(2)	New requirement. Requires an immediate follow up report for the results of ensuing evaluations or assessments of ISFSI or MRS conditions, the effectiveness or response or protective measures taken, and information relating to ISFSI or MRS behavior that is not understood.	Enables NRC to determine if immediate response or corrective action is necessary to protection public health and safety. Consistent with § 50.72(b)(2).
§ 72.75(f)(3)	New requirement. Requires licensees to maintain an open, continuous communication channel with the NRC Operations Center upon request by the NRC.	Enable NRC to receive immediate and continuing reports, if necessary, to protect public health and safety. Consistent with § 50.72(b)(3).
§ 72.75(g)	Retitled "Preparation and submission of written reports." Time period for written reports revised to within 60 days of the initial notification. Revised to exempt verbal notifications under §§ 72.75(a), (b)(2), and (c)(3) from the requirements for written follow-up notifications. Requirement added that reports submitted under § 72.75 must be of sufficient quality to permit legible reproduction and optical scanning.	Reduce licensee burden. Exempting §§ 72.75(a), (b)(2), and (c)(3) from the requirements for written follow-up notifications is consistent with previous rulemaking on §§ 50.72 and 50.73. Legibility requirement is consistent with §§ 50.73(e) and 73.71(d). Will assist implementation of NRC's electronic document management and reporting program. Enhances readability.
§§ 72.75(g)(1) and (g)(2)	Specifies the information that must be provided in the written report. Information requirements unchanged, except for operator actions.	The required information is useful to NRC. The current requirements are consistent with § 50.73(b).
§ 72.75(g)(2)(ix)	Requirement added that licensees discuss in the written report for each human performance related root cause, "the cause(s) and circumstances."	Consistent with § 50.73(b)(2)(ii)(J).
§ 72.75(h)	New requirement. Provides that the Commission may require the licensee to submit additional information beyond that required by § 72.75(g) if the Commission finds that supplemental material is necessary for complete understanding of an unusually complex or significant event, and requires such reports to be submitted as written supplements to the original written report.	Enables NRC to obtain supplementary reports, if necessary, to protect public health and safety.

Proposed Rule	Description of Proposed Revision	Reason for Proposed Revision
§ 72.75(i)(1)	New requirement. "Applicability." Specifies that the requirements of § 72.75 apply to licensees issued a specific license under 10 CFR 72.40, and licensees issued a general license under 10 CFR 72.210, after the licensee has placed spent fuel on the ISFSI storage pad.	Clarifies applicability. Eliminates potential licensee confusion.
§ 72.75(i)(2)	New requirement. Specifies that notice of non-emergency events under §§ 72.75(b), (c) and (d) of the proposed rule is required for events that occurred within 3 years of the date of discovery.	Reduce licensee burden. Consistent with requirement in § 50.73(a)(1). Reporting historical events provides a low safety benefit and unnecessarily increases the reporting burden. Three years is consistent with the time period that performance indicators are tracked under the oversight process.
§ 73.71(a)(4)	Requires the initial telephone notification of a safeguards event within one hour. Revises the provision to require a written report within 60 days rather than 30 days.	Reduce licensee burden. Consistent with Parts 50 and 72.
Appendix G to Part 73, § 1	Requires licensees subject to 10 CFR §§ 73.20, 73.37, 73.50, 73.55, 73.60 and 73.67 to report safeguards events listed in Appendix G within 1 hour followed by a written report within 30 days. Revises the provision to require a signed written report within 60 days.	Reduce licensee burden. Consistent with Parts 50, 72, and 73.

3.0 Analysis of Values and Impacts

This section identifies and describes the factors within the public and private sectors that the regulatory alternatives (discussed in Section 2) are expected to affect. These factors were classified as "attributes," using the list of potential attributes provided in Chapter 5 of NRC's *Regulatory Analysis Technical Evaluation Handbook*.¹ Each attribute listed in Chapter 5 was evaluated, and the basis for selecting those attributes expected to be affected by the potential action is presented in the balance of this section.

3.1 Identification of Affected Attributes

Attributes expected to be affected are the following:

¹ Each potentially affected attribute is described in Section 5.5 of NRC's *Regulatory Analysis Technical Evaluation Handbook, Final Report*, NUREG/BR-0184, Office of Nuclear Regulatory Research, January 1997. A summary of NRC's requirements for a regulatory analysis is contained in *Regulatory Analysis Guidelines*, NUREG/BR-0058, Revision 3, July 2000.

- Industry Implementation -- The regulatory revisions will result in implementation costs to industry, primarily for revising existing procedures and training staff.
- Industry Operation – Some additional impacts are expected from requirements for additional followup reports and other procedural changes. However, the likely projected net economic effect of the changes is expected to be a savings to industry from the revisions as a result of reduced numbers of supplementary reports, elimination of unnecessary or duplicative reports, and changes in the timing requirements for reports that allow greater efficiencies in their preparation.
- NRC Implementation -- The regulatory revisions will result in NRC implementation costs. Specifically, the NRC will incur implementation costs to revise guidance documents. However, NRC will wait until the guidance is changed for other reasons and include this change at that time.
- NRC Operation -- The regulatory revisions will result in NRC operation savings resulting from a reduction in the number of duplicative or supplementary reports received by the NRC Operations Center, and from receipt of reports at a time consistent with NRC's need for them.
- General Public -- The regulatory revisions are expected to increase NRC's ability to respond to heightened public concern in a timely manner.
- Public Health (Accident) – The action is expected to reduce the consequences of events, as a result of enhanced reporting, such as more complete and accurate licensee event reports, fewer revisions and supplemental reports, and the increased ability of the NRC to monitor the course of events and to take reasonably prompt action as necessary.
- Occupational Health (Accident) – The proposed action is expected to have a potential positive effect as a result of more complete and accurate licensee event reports, and the NRC's increased ability to monitor the course of events and take reasonably prompt action as necessary.
- Regulatory Efficiency -- The regulatory revisions are expected to result in enhanced regulatory efficiency by making the requirements for reactors and ISFSI and MRS facilities, which are frequently co-located with reactors, more consistent; reducing the number of duplicative or supplementary reports that must be submitted by licensees and processed by the NRC; and ensuring that reports are received at a time consistent with the NRC's need for them.
- Improvements in Knowledge -- The regulatory revisions could result in improved data collection and safety evaluations (i.e., less uncertainty) and, consequently, in improvements in regulatory and policy requirements.

Attributes *Not* Affected

- Public Health (Routine) -- No significant changes are expected with respect to routine radiation exposures to the public.

- Occupational Health (Routine) -- Changes to radiation exposures to workers during normal operations are not expected to increase as a result of any of the proposed changes.
- Off-site Property -- Effects on off-site property are not expected to be impacted by any of the changes.
- On-site Property -- Effects on-site property (direct and indirect) are not expected to be impacted by any of the changes.
- Other Government -- The regulatory options are not expected to affect implementation and operation costs of other government agencies. Siting, licensing, and oversight of reactors and ISFSIs is carried out solely by the NRC staff.
- Environmental Considerations -- Effects on the environment, due to changes in accident frequencies and accident consequences are not expected to result from any of the changes. The NRC will be able to respond immediately to heightened public concern about environmental considerations.
- Safeguards and Security Considerations -- The regulatory changes to safeguards reports requirements are not expected to impact security considerations. The revision to the requirements for submission of written followup safeguards reports will not affect the NRC's ability to respond to safeguards events, because the written reports are not relied upon by NRC staff for prompt response to significant events, but instead the reports are used for such actions as considering the need for enforcement action, evaluating whether an Information Notice may be useful, and evaluating the adequacy of existing NRC regulations and guidance.
- Antitrust Considerations -- The regulatory options are not expected to have any antitrust effects.

3.2 Analytical Methodology

The *values* (benefits) of the rule include any desirable changes in affected attributes (e.g., reduction in cost burden for preparing and submitting event reports) while the *impacts* (costs) include any undesirable changes in affected attributes (e.g., increased costs for preparing and submitting current reports or preparing and submitting new reports not previously required).

For many of these attributes, the nature or cause of a value or impact is straightforward. For example, values and impacts associated with the attribute "NRC operations" should result from, respectively, either a decrease or increase in the number of NRC staff hours (or other NRC resources) required for the NRC Operations Center and/or other NRC staff to receive and process event reports.

The overall value or impact for some attributes, however, will result from the interaction of several influencing factors. For example, a regulatory requirement that increases the time within which a report must be submitted may allow for more resources to be used in preparing the report and/or it may allow the report to be prepared more efficiently using fewer resources overall, or it may preclude the need for a supplementary report at the conclusion of studies that were incomplete when the initial written report was required to be submitted. In this case, it will

be the *net effect* of the influencing factors that will govern whether an overall value or impact will result for several affected attributes, including industry implementation.²

Other attributes, such as general public and regulatory efficiency, are not readily quantifiable. Enhanced NRC ability to respond to heightened public concerns about safety, for example, may primarily affect public perceptions concerning the timeliness of governmental actions to address perceived risks. Similarly, values and impacts associated with the attribute “regulatory efficiency” should result from changes to the timing of reports that make them more consistent with the time that information is needed for prompt NRC action.

Whenever possible, this value-impact analysis quantifies these net effects and calculates the overall values and impacts of each regulatory option. This quantification relies upon a baseline characterization of the universe of current and potential licensees, as well as factors such as numbers of reports currently submitted and estimates of the number of person-hours, or other resources used to prepare and submit such reports and to process them upon receipt. The expected effect of non-quantifiable attributes is identified even if the scope of that effect cannot be measured.

Because the proposed rule is designed, in part, to more closely align the event notification requirements for ISFSIs and MRS facilities with those of reactor facilities, analyses conducted to support similar rulemakings for 10 CFR Part 50 were examined for data as well as for the rationales for regulatory revisions. In addition, because the proposed rules address reporting requirements, the NRC’s existing estimates of the Information Collection impacts of the affected sections of 10 CFR Parts 72 and 73, as well as Part 50, were used as a source of data. Finally, data were obtained from the NRC Operations Center, the annual Safeguards Summary Events List, and other sources pertaining to the number and types of licensee reports submitted.

Assumptions

The NRC issues site-specific licenses under 10 CFR Part 72 for storage of spent nuclear fuel and facilities also operate ISFSIs under a general license. Currently, 21 ISFSIs are licensed in the United States. As many as 13 potential near-term new general license ISFSI sites and 6 site-specific sites have been identified.³ However, this analysis assumes that the Part 72 regulatory amendments could affect 21 ISFSI licensees.

This analysis also assumes that the Part 73 amendments could affect 204 licensees, as follows:

² In discussing this issue in the Part 50 rulemaking, NRC stated the following:

Changing the time limit from 30 days to 60 days does not imply that licensees should take longer than they previously did to develop and implement corrective actions. They should continue to do so on a time scale commensurate with the safety significance of the issue. However, for those cases where it does take longer than thirty days to complete a root cause analysis, this change will result in fewer LERs [licensee event reports] that require amendment by submittal of an amended report. (65 FR 63779; October 25, 2000)

³ Presentation by Mr. E. W. Brach, Director, Spent Fuel Project Office, NMSS, NRC, at the NRC Regulatory Information Conference, March 15, 2001, identifying 19 licensees. Two additional facilities have subsequently been licensed. See also, NRC Fact Sheet, “Dry Cask Storage of Spent Nuclear Fuel,” June 2001, Table 2: NRC Dry Spent Fuel Storage Licensees, listing 10 specific and 8 general licensees for dry cask storage.

- 2 Category I fuel facilities and 1 Category I transporter subject to 10 CFR 73.20;
- 31 spent fuel transporters subject to § 73.37 (assumed to be decommissioning reactors and licensed but non-operating nonpower reactors; active reactors and ISFSIs are counted separately below);
- 5 licensees with irradiated strategic special nuclear material subject to § 73.51 (i.e., ISFSIs licensed under Part 50);
- 21 ISFSIs subject to § 73.51;
- 104 power reactors subject to § 73.55,
- 36 nonpower reactors subject to § 73.60; and
- 4 low enriched uranium (LEU) fuel producers subject to § 73.67.

The NRC staff has reviewed past records of verbal reports made to the NRC Operations Center between 1985 and 2000 for Parts 72 and 73. Under the then applicable reporting requirements for spent fuel storage activities (10 CFR 50.72(vii) and 72.75(b)), one information-only and four nonemergency reports were made during this period. During the same time period, approximately 3,600 reports were submitted under Part 73. However, after licensees fully implemented Generic Letter 91-03 (“Reporting of Safeguards Events,” March 6, 1991), the number of reports decreased. Approximately 10 reports have been received between 1985 and 1995, and none between 1996 and 2001 under 10 CFR 73.71(a)(1). Approximately 60 reports annually were received between 1995 and 2000 under § 73.71 that did not specify the relevant paragraph of that section. Review of the Operations Center Event Reports, however, did not identify any in this category that pertained to the subject matter of a § 73.71(a)(1) safeguards event --discovery of the loss of any shipment of SNM or spent fuel. Based on this data, a small number of written followup reports is estimated for future submission under § 73.71(a)(4). The number of written followup reports for safeguards events submitted under Appendix G to Part 73 is based on the most recent Paperwork Reduction Act submission from the NRC to Office of Management and Budget (OMB) for Part 73. The estimated number of licensees potentially affected by the proposed amendments to Appendix G is based on the sum of licensees affected by the requirements of 10 CFR 73.71(b), generated from current licensing data.

3.3 Values and Impacts of Proposed Regulatory Alternatives

Although each of the potential actions will result in certain values and/or impacts for many of the affected attributes, the values and impacts are expected to be negligible. Some of these values and impacts are difficult to estimate due to high levels of variability, and therefore, have not been quantified in this analysis.

3.3.1 Option 1: No-Action Alternative

Under the no-action alternative (Option 1), the NRC will maintain the current event reporting requirements for ISFSI and MRS facility licensees. Thus, no values or impacts will result from Option 1.

3.3.2 Option 2: Adopt Revised Event Reporting Requirements under 10 CFR 72.75, 72.216, 73.71, and Appendix G to Part 73.

Analysis

Part 72

The following revisions will be made to conform verbal and written event notification requirements to the recent changes to the event reporting requirements in 10 CFR 50.72 and 50.73:

1. *Eliminate the requirements that the licensee notify the NRC not later than four hours after the discovery of an event involving spent fuel, HLW, or reactor-related GTCC waste that:*
 - (a) requires immediate actions necessary to avoid exposures to radiation or radioactive materials that could exceed regulatory limits, or releases of radioactive materials that could exceed regulatory limits (e.g., events such as fires, explosions, and toxic gas releases); or*
 - (b) is an unplanned fire or explosion damaging any spent fuel, HLW, or GTCC, or any device, container, or equipment containing spent fuel, HLW, or GTCC when the damage affects the integrity of the material or its container.*

Current Rule

Sections 72.75 (b)(1) and (b)(6) currently provide that each licensee shall notify the NRC as soon as possible but not later than 4 hours after the discovery of these events.

Amended Rule

The amended rule will eliminate these reports. The events that will trigger these reports are also covered by the emergency plan requirements of 10 CFR 72.32. In addition, the events that would trigger this report (e.g., fire and explosion) will also be required to be reported under § 72.75(a), so these requirements are unnecessary.

Cost Impacts

Licenses will experience small cost savings for industry operations. The NRC currently estimates that 0.15 four-hour reports are submitted annually by licensees under § 72.75(b), which has 6 subsections. Assuming that the two subsections being eliminated account for one third of the reports, or 0.05 reports, and that each report requires 2 hours of licensee time to prepare,⁴ licensees are expected to have cost savings of approximately \$14 per year as result of this change. (0.05 reports/year x 2 hours/report x \$144 /hour)

The NRC will experience a small cost savings for NRC operations as a result of this change because it will not be required to receive and process reports.

⁴ Supporting Statement for 10 CFR Part 72 Paperwork Reduction Act Clearance Extension, January 2000. Unless otherwise noted, references below to NRC estimates of report frequency and licensee time to prepare reports are from this source.

Health and Safety Impacts

None are anticipated. The events that would trigger this report are also covered by the EP plan (e.g., the fire and explosion EAP). Therefore, reports of these events will be submitted pursuant to the EP plan. No impact is expected to general public; public health (accident) or occupational health (accident).

Benefits

Reduces burden for industry operation and for NRC operation; increases regulatory efficiency.

2. *Add a requirement that a licensee notify the NRC not later than four hours after the discovery of any event or situation, involving spent nuclear fuel (SNF), High Level Waste (HLW), or reactor-related GTCC waste related to the health and safety of the public or onsite personnel, or protection of the environment, for which a news release is planned or notification to other Government agencies has been or will be made.*

Current Rule

Section 72.75(b) currently requires a licensee to notify the NRC not later than 4 hours after the discovery of certain specified events or conditions involving spent fuel or HLW. Those events and conditions do not include issuance of a press release or notice to another Government agency.

Amended Rule

The amended rule will add a requirement under § 72.75(b)(2) that a licensee notify the NRC not later than 4 hours after the discovery of any event or situation related to the health and safety of the public or onsite personnel, or protection of the environment, for which a news release is planned or notification to other Government agencies has been or will be made.

Cost Impacts

Licenses will experience small cost impacts. Assuming that eight of the ISFSI licensees issues at least one news release or notification annually, the number of four-hour reports required under this provision would be expected to be eight annually. The NRC estimates that this four-hour report will require one hour of licensee time to prepare. This new requirement will lead to an increase in licensees costs of approximately \$1,152 annually (eight reports x 1 hour/report x \$144/hour).

The NRC will also experience increased costs from receiving and processing additional reports. However, NRC's cost increases could be offset by reductions in the costs that NRC currently incurs from seeking and obtaining information in situations when a licensee has issued a press release or notified another government agency but has not notified NRC.

Health and Safety Impacts

None expected.

Benefits

Regulatory efficiency. The NRC will be notified in a timely way of press releases and notices to other government agencies, and will be better prepared to respond to inquiries. This will provide the information at the time it may be needed to improve public confidence by allowing the NRC to respond to heightened public concern. The requirement for ISFSI licensees will be consistent with the requirement in 10 CFR 50.72(b)(2)(xi) for reactor licensees. Because most ISFSIs are currently co-located with reactors, similar requirements will allow similar and simplified procedures to be adopted and this will reduce potential confusion and increase efficiency.

3. *Extend the time from four hours to eight hours within which a licensee must notify the NRC Operations Center of a non-emergency event or condition involving spent fuel, HLW, or reactor-related GTCC waste that involves:*

(a) a defect in any spent fuel, HLW, or reactor-related GTCC waste storage structure, system, or component that is important to safety;

(b) a significant reduction in the effectiveness of any spent fuel, HLW, or GTCC waste storage confinement system during use; or

(c) any event requiring the transport of a radioactively contaminated person to an offsite medical facility for treatment.

Current Rule

Section 72.75(b)(2) currently requires a licensee to report within four hours of discovery a defect in any spent fuel storage structure, system, or component that is important to safety.

Section 72.75(b)(3) currently requires a licensee to report within four hours of discovery a significant reduction in the effectiveness of any spent fuel storage confinement system during use.

Section 72.75(b)(5) currently requires a licensee to report within four hours of discovery an event that requires unplanned medical treatment at an offsite medical facility of an individual with radioactive contamination on the individual's clothing or body that could cause radioactive contamination.

Amended Rule

The amended rule will amend each of these requirements to require a report within 8 hours. Section 72.75(b)(2) will be redesignated as § 72.75(c)(1), § 72.75(b)(3) will be redesignated as § 72.75(c)(2), and § 72.75(b)(5) will be redesignated as § 72.75(c)(3). In addition, the language of § 72.75(b)(5) will be simplified in the new § 72.75(c)(3) to require a report of any event requiring the transport of a radioactively contaminated person to an offsite medical facility for treatment.

Cost Impacts

The cost impact to licensees is uncertain. Licensees could experience small reductions in costs, as a result of being able to produce the report more efficiently. If the time available to

produce the report is doubled from 4 to 8 hours, licensees may be able to avoid inefficiencies caused by the need to produce the report quickly. However, these savings could not be large because of the short time in which the report is now prepared. Alternatively, licensees may devote additional time to preparing the reports, because additional time would be available. The possible increase in report preparation time also would not be large. The NRC estimates under 10 CFR 72.216, which requires the submission of reports under 10 CFR 72.75, that two reports are submitted annually and that preparation of each report requires 4 hours of licensee time. Because 10 CFR 72.216 is being eliminated in this proposed rule (see discussion below), the burden previously allocated to 10 CFR 72.216 is being reallocated to the new § 72.75(c)(1) of the proposed rule. This requirement will be expected to cost licensees approximately \$1,152 annually. (2 reports/year x 4 hours/report x \$144/hour)

No cost impacts to the NRC are expected. The NRC will require the same amount of time to receive and process a report under an eight-hour rule as it required when the reports were submitted within four hours.

Health and Safety Impacts

None expected.

Benefits

In addition to possible minimal cost savings to licensees, the quality of reports may increase because licensees will be less hurried and potential errors in reports caused by haste in preparation may be avoided.

4. *Eliminate the requirement that a licensee notify the NRC within 24 hours after the discovery of any unplanned contamination event involving spent fuel, HLW, or reactor-related GTCC waste that requires access to the contaminated area by workers or the public to be restricted for more than 24 hours by imposing additional radiological controls or by prohibiting entry into the area.*

Current Rule

Section 72.75(c)(1) currently contains a requirement that licensees notify the NRC within 24 hours of discovery of any unplanned contamination event involving spent fuel or HLW that requires access to the contaminated area by workers or the public to be restricted for more than 24 hours by imposing additional radiological controls or by prohibiting entry into the area.

Amended Rule

The amended rule will eliminate this requirement.

Cost Impacts

The NRC currently estimates that 0.3 reports are submitted annually under the two requirements specified in of § 72.75(c). This is the equivalent of approximately 0.15 reports per requirement. Therefore, eliminating this requirement, which is estimated to require a licensee 1 hour per report to prepare, will be expected to save licensees approximately \$22 annually. (0.15 reports/year x 1 hour/report x \$144/hour)

The NRC will have a cost savings of less than \$22 as a result of having to receive and process 0.15 fewer reports annually (0.15 x 1 hour/ report x \$77/hour).

Health and Safety Impacts

None anticipated.

Benefits

Regulatory efficiency will be enhanced, because licensees in some cases post signs at ISFSIs restricting access to certain areas (if, for example, ongoing maintenance is being performed), and contact the NRC to determine if these actions are considered imposition of additional radiological controls or prohibitions on entry in the area and must be reported. This change will eliminate these unnecessary contacts.

5. *Revise the 24-hour notification requirement to provide that a licensee may delay the notification to the NRC until 8:00 a.m. Eastern time on the next working day if the end of the 24-hour period occurs outside of the NRC's normal working day, on a weekend, or on a Federal holiday.*

Current Rule

Section 72.75(c) currently requires non-emergency notifications to be submitted to NRC "within 24 hours."

Amended Rule

The amended rule will clarify that when the 24-hour period ends outside of NRC's normal working hours, on a weekend, or a Federal holiday, the report may be submitted before 8:00 a.m. Eastern time on the next working day.

Cost Impacts

Licensees may experience small cost savings. Licensees may be able to prepare reports more efficiently, as a result of not being required to expedite preparation of the reports to ensure that the NRC receives it within both the 24- hour period and the NRC's regular working hours. As noted above, the NRC estimates that few such reports are submitted annually. Therefore, cost savings to licensees are expected to be minimal.

No cost impacts are expected for NRC.

Health and Safety Impacts

None anticipated.

Benefits

Regulatory efficiency will be enhanced.

6. *Add a requirement that a licensee making a 1-hour, 4-hour, 8-hour, or 24-hour report to the NRC Operations Center must identify the Emergency Class declared.*

Current Rule

Section 72.75(d)(1) of the current rule specifies that licensees shall make reports required by §§ 72.75 (a), (b), or (c) by telephone to the NRC Operations Center.

Amended Rule

Section 72.75(e)(1) of the amended rule will require licensees making reports required by §§ 72.75 (a), (b), (c), or (d) to contact the NRC Operations Center by telephone and § 72.75(e)(2) will add a requirement that the licensee identify the Emergency Class declared.

Cost Impacts

No cost impacts are expected for licensees.

No cost impacts are expected for NRC.

Health and Safety Impacts

None anticipated.

Benefits

Regulatory efficiency will be enhanced. The NRC will be ensured of obtaining information about the Emergency Class declared in the telephone notification. The requirement for ISFSI licensees will be consistent with the requirement for reactor licensees in 10 CFR 50.72(a)(5).

7. *Add a requirement that a licensee make followup verbal notifications to immediately report any further degradation in the level of safety of the ISFSI or MRS, including those that require the declaration of any of the Emergency Classes, if such a declaration has not been previously made; or any change from one Emergency Class to another, or termination of an Emergency Class; the results of evaluations or assessments of ISFSI or MRS conditions; the effectiveness of responses or protective measures taken; and information on related to ISFSI or MRS behavior that is not understood.*

Current Rule

Section 72.75(d) requires the preparation and submission of verbal reports required by §§ 72.75(a), (b), and (c) and written follow-up reports to the initial verbal report. However, § 72.75(d) does not contain any requirements pertaining to follow-up verbal notifications.

Amended Rule

The amended rule will create requirements in new §§ 72.75(f)(1) and (2) for licensees to make immediate follow-up verbal notification of any further degradation in the level of safety of the ISFSI or MRS or other worsening conditions, including those that require the declaration of any of the Emergency Classes, if such a declaration has not been previously made, or any change from one Emergency Class to another, or termination of an Emergency Class. The amended

rule will also require an immediate follow-up notification of the results of ensuing evaluations or assessments of ISFSI or MRS conditions, the effectiveness of responses or protective measures taken, and information related to ISFSI or MRS behavior that is not understood.

Cost Impacts

Licenseses will experience slight cost increases as a result of these changes. If an estimated 0.25 reports annually will require followup and if the preparation of the required reports requires 1 hour each, licenseses will experience cost increases of about \$36 (0.25 reports x 1 hour x \$144/hour)

The NRC will also incur slight cost increases to review and process 0.25 additional reports annually. This cost increase is expected to be about \$19. (0.25 reports/year x 1 hour/ report x \$77/hour)

Health and Safety Impacts

These reports will enable the NRC to review the situation and consider whether action, such as activating a response plan or initiating a special inspection or investigation, is needed. Followup reports of ensuing evaluations will allow the NRC to consider whether action is needed to ensure the situation is addressed at other ISFSIs as appropriate.

Benefits

Protection of health and safety. Requirements for ISFSI licenseses will be consistent with requirements for reactor licenseses in 10 CFR 50.72(b)(1) and 50.72(b)(2).

8. *Add a requirement that a licensee maintain an open, continuous communication channel with the NRC Operations Center, upon request by the NRC.*

Current Rule

Section 72.75 (a) requires emergency notification to the NRC Operations Center. However, § 72.75 does not address ongoing communication between the licensee and NRC during an emergency.

Amended Rule

The amended rule in § 72.75(f)(3) will require that a continuous open communications channel be established between the licensee and the NRC during an emergency if requested by the NRC.

Cost Impacts

Licenseses co-located with reactor facilities are expected to be able to make use of the communications channel existing between the reactor and the NRC. The NRC estimates that in approximately 0.015 cases annually, a separate communications channel will be required. The estimated time necessary to establish and maintain such a channel is 8 hours. Therefore,

the burden to licensees of establishing a continuous open channel of communications is estimated as approximately \$17 (0.015 events/year x 8 hours x \$144/hr).

No cost impacts are expected to the NRC.

Health and Safety Impacts

In the event of a declared emergency, a continuous, open communications channel will allow the NRC to respond to situations that might pose health or safety problems.

Benefits

Better protection of health and safety during an emergency. Requirements for ISFSI licensees will be consistent with requirements for reactor licensees in 10 CFR 50.72(b)(3).

9. *Extend the time from 30 days to 60 days within which a licensee must submit a written report as a followup to an initial notification of a specific event or condition under 10 CFR 72.75 and reduce the number of categories of verbal reports that require a written follow-up report.*

Current Rule

Section 72.75(d)(2) currently requires each licensee who makes an initial verbal notification under §§ 72.75 (a), (b), or (c) to submit a written follow-up report within 30 days of the initial notification.

Amended Rule

The amended rule will provide in § 72.75(g) that written reports must be submitted within 60 days of the initial verbal report required by §§ 72.75(b)(1), (c)(1), (c)(2), or (d)(1) rather than the current 30 days.

Cost Impacts

Licensees will experience savings as a result of the increase in time for preparing the initial written follow-up report by the elimination of the need to prepare and send supplementary written followup reports to the initial written report. Assuming licensees currently prepare and transmit an average of 0.6 of these follow-up reports annually and that half of them are supplementary, and the time to prepare the report is estimated as 3.5 hours per report, savings to licensees will be approximately \$151 per year (0.3 reports x 3.5 hours x \$144/hr).

Licensees also will experience savings as a result of the elimination of the requirement to prepare and submit written follow-up reports to verbal reports submitted pursuant to 72.75(a), (b)(2), and (c)(3). Assuming that half of the initial written follow-up reports are eliminated, and that preparation of the report requires 3.5 hours, savings to licensees will be approximately \$76 per year (0.3 reports x 0.5 x 3.5 x \$144).

The NRC will experience savings through elimination of the need to receive and store reports. The NRC will not be required to receive, evaluate, and store 0.45 reports annually. Assuming 8 hours per report, savings to the NRC will be 3.6 hours per year, or approximately \$277 (0.45 reports/year x 8 hours/report x \$77/hour)

Health and Safety Impacts

None are anticipated. The events will continue to be fully investigated, and NRC will continue to receive information to carry out trend analyses and timely perform any other necessary studies.

Benefits

Licenseses will be enabled to perform the necessary followup studies and obtain the information required by § 72.75 without having to divert attention and time to prepare an initial written report that would subsequently be amended or superseded. Licenseses and the NRC will obtain cost savings. Written reports are required from reactor licenseses within 60 days. Because most ISFSIs are currently co-located with reactors, similar requirements will allow similar and simplified procedures to be adopted and this will reduce potential confusion and increase efficiency.

10. *Add a new requirement on legibility of reports.*

Current Rule

The current rule does not address this topic.

Amended Rule

Section 72.75(g) of the amended rule will provide that written reports submitted under § 72.75 must be of sufficient quality to permit legible reproduction and optical scanning.

Cost Impacts

No significant cost impacts to licenseses are expected. Licenseses will be required to carry out sufficient quality control to ensure that this standard is met. Modern word processing, printing, and photocopying technology, and facsimile or electronic mail transmission are expected to make the necessary quality control impact minimal.

Health and Safety

No impacts are expected.

Benefits

This revision will make the requirements of Part 72 consistent with recent revisions to Part 50 (See 65 FR 63788; October 25, 2000) and with Part 73 (See § 73.71(d)).

11. *Simplify the information required to be provided by a licensee in a written report on human performance events.*

Current Rule

Section 72.75(d)(2)(ii)(I)(1) requires written reports to address operator actions that affected the course of the event, including operator errors, procedural deficiencies, or both, that contributed to the event. Section 72.75(d)(2)(ii)(I)(2)(i) - (iv) lists the items that must be discussed for each personal error.

Amended Rule

The amended rule in § 72.75(g)(2)(ix) will amend the requirements to parallel the similar requirements in 10 CFR 50.73(b)(2)(ii)(J), as amended on October 25, 2000, 65 FR 63769. § 72.75(f)(3). This change will involve removing the existing list of items that must be discussed and substituting in their place the following: “For each human performance related root cause, the licensee shall discuss the cause(s) and circumstances.”

Cost Impacts

The impact on licensees is expected to be minimal. The change will bring the Part 72 requirements into conformity with the similar requirements in Part 50 enacted to clarify the requirement. (See 65 FR 63775; October 25, 2000). The NRC currently estimates that written reports under § 72.75(d)(2) require 4 hours to prepare, and that 0.3 of these reports are prepared annually. Assuming that the proposed change does not require additional analysis to address, no change in impact is expected.

The NRC may incur slight additional costs for receiving and analyzing the additional contents of the reports. However, the additional information also may reduce the need for NRC follow-up to request additional information or analysis from licensees. Therefore, on balance no significant change in NRC costs is expected.

Health and Safety Impacts

Human performance events root cause analysis may identify factors whose change will improve health and safety performance.

Benefits

Potential improvements to health and safety protection. Requirements under Part 72 will be consistent with requirements in 10 CFR 50.73(b)(2)(ii)(J). Because most ISFSIs are currently co-located with reactors, similar requirements will allow similar and simplified procedures to be adopted, reduce potential confusion, and increase efficiency.

12. *Add a new provision specifying that the Commission may require a licensee to submit supplemental information if such information is necessary for the NRC to obtain a complete understanding of an event.*

Current Rule

Section 72.75 requires the preparation and submission of verbal reports and written follow-up reports. However, § 72.75 does not require the licensee to submit specific supplementary information requested by the Commission.

Amended Rule

The amended rule will create a new § 72.75(h) to specify that the Commission may require the licensee to submit specific additional information beyond that required by § 72.75(d)(2) if the Commission finds that supplemental material is necessary for complete understanding of an unusually complex or significant event.

Cost Impacts

Licensees could experience cost increases as a result of these changes. The extent of the costs will depend on the frequency the Commission requires additional information and the type and extent of the information requested. If an estimated 0.03 responses are required annually, and 4 hours are needed to prepare the report licensees will incur about \$17 in additional costs, (0.03 reports x 4 hours/ report x \$144/hr).

The NRC will experience equivalent additional costs to specify the information needed and to review, evaluate, and manage the report.

Health and Safety Impacts

These reports will enable the NRC to review the situation and consider whether action, such as activating a response plan or initiating a special inspection or investigation, is needed. Supplementary reports also will allow the NRC to consider if action is needed to ensure the situation is addressed at other ISFSIs as appropriate.

Benefits

Protection of health and safety.

13. *Add a new provision specifying that notice is required only for reportable non-emergency events that are discovered within three years of occurrence.*

Current Rule

Sections 72.75 (b) and (c) currently provide that for specified types of non-emergency events licensees shall notify the NRC as soon as possible after the discovery of the event.

Amended Rule

The amended rule will specify that notice is required only for reportable non-emergency events that are discovered within three years of occurrence.

Cost Impacts

Licensees will experience small cost savings as a result of this change. Past records of verbal reports made to the NRC Operations Center related to spent fuel storage casks for the period between 1985 and 2000 indicate that four non-emergency reports were made during this period. Even if all of these reports involved non-emergency events that had occurred more than three years prior to discovery, cost savings to licensees from the elimination of the reports will be small (approximately \$77 per year). (4 reports/15 years or 0.25 reports per year x 2 hours/report x \$144/hr)

The NRC will experience small cost savings as a result of this change because it will not be required to receive and process reports.

Health and Safety Impacts

None are anticipated. Reports of non-emergency events that occurred more than three years previously would be unlikely to require immediate action by the NRC to protect health and safety. The data from reports of non-emergency events that occurred more than three years prior to discovery, however, might be of some use for analysis of trends and identification of problems.

Benefits

The change is consistent with changes to 10 CFR Part 50. It reduces unnecessary paperwork burden and increases regulatory efficiency.

14. *Add a new provision clarifying the applicability of the requirements of 10 CFR 72.75 to specific licensees and general licensees.*

Current Rule

Part 72, Subpart D currently does not contain an applicability section.

Amended Rule

The amended rule will add an applicability section that provides that the requirements of § 72.75 apply to licensees issued a specific license under 10 CFR 72.40 and to licensees issued a general license under 10 CFR 72.210 after the licensee has placed spent fuel on the ISFSI storage pad (if the ISFSI is located inside the co-located protected area for a reactor licensed under 10 CFR Part 50) or after the licensee has transferred spent fuel outside the reactor licensee's protected area to the ISFSI storage pad (if the ISFSI is located outside the protected area, for a reactor licensed under 10 CFR Part 50).

Cost Impacts

Licensees will experience cost savings by avoiding the costs of telephone calls to the NRC seeking clarifications. Data are not available on the number of these calls that will be avoided. Licensees also may avoid the costs of reports that may be submitted by licensees who are uncertain about when to begin submitting reports but who do not contact the NRC to obtain clarification. The NRC will avoid the cost of responding to telephone enquiries.

Health and Safety Impacts

None are anticipated.

Benefits

Regulatory efficiency will be enhanced.

15. *Eliminate 10 CFR 72.216, "Reports."*

Current Rule

Section 72.216 currently directs a Part 72 general licensee to comply with the reporting requirements of §§ 72.74 and 72.75.

Amended Rule

The amended rule will eliminate as unnecessary the requirement in 10 CFR 72.216 that Part 72 licensees comply with the reporting requirements of §§ 72.74 and 72.75. The need for this section was obviated with the addition of § 72.13, "Applicability," to the Part 72 regulations in a final rule issued on August 21, 2000 (65 FR 50606). Section 72.13 contains direction on which Part 72 regulations apply to specific licensees, general licensees, or certificate holders, and § 72.13(c) requires a general licensee to comply with §§ 72.74 and 72.75. Therefore, § 72.216 is no longer needed and will be removed. Licensees will continue to be required to comply with the reporting requirements of §§ 72.74 and 72.75, including the reporting requirements in this amended rule.

Cost Impacts

Licensees will continue to incur costs from complying with the reporting requirements of §§ 72.74 and 72.75. In this analysis, these costs formerly attributed to 10 CFR 72.216 are attributed to new § 72.75(c)(1). Therefore, elimination of § 72.216 will have no cost impacts to licensees or to the NRC.

Health and Safety Impacts

None are anticipated.

Benefits

Regulatory efficiency will be enhanced.

16. *Extend the time from 30 days to 60 days within which a licensee must submit a written followup notification of a safeguards event under 10 CFR 73.71*

Current Rule

Section 73.71(a)(4) currently requires a written report to be prepared and submitted within 30 days following a verbal report to the NRC Operations Center under § 73.71(a)(1), which requires notice within one hour to the NRC Operations Center of the discovery of the loss of any shipment of SNM or spent fuel and within one hour of the recovery of or accounting for the lost shipment.

Amended Rule

The amended rule will amend § 73.71(a)(4) to require written reports to be submitted within 60 days of the initial verbal report under § 73.71(a)(1) rather than the current 30 days.

Cost Impacts

Licensees could experience savings through elimination of the need to prepare and send a followup report to the initial written report. The size of the savings will depend on the number of initial written reports prepared. The NRC estimates that there are no licensee responses annually under §§ 73.71(a)(1) or 73.71(a)(4) (See OMB supporting statement under the Paperwork Reduction Act), and a review of data obtained from the NRC Operations Center did not uncover any reports under §§ 73.71(a)(1) or 73.71(a)(4) from 1996 to 2000. From 1985 through 1995, ten reports were submitted under § 73.71(a)(1). Based on this data, assuming licensees in the future prepare and transmit an average of 0.5 such reports annually, and the time savings as a result of not being required to prepare a supplemental report is estimated as 16 hours per report, savings to licensees will be 8 hours per year, or approximately \$1,152 (0.5 reports/year x 16 hours/report x \$144/hour).

The NRC will experience savings through elimination of the need to receive and store reports, and will not be required to receive, evaluate, and store 0.5 reports annually. Assuming 30 hours per report, savings to the NRC will be 15 hours per year, or approximately \$1,155. (0.5 reports/year x 30 hours/report x \$77/hour)

Health and Safety Impacts

None are anticipated. The events will continue to be fully investigated. The NRC will continue to receive information to carry out trend analyses and perform any other necessary studies.

Benefits

Licensees will be able to perform the necessary followup studies and obtain the information required by § 73.71(a)(4) without having to divert effort to prepare an initial written report that would be superseded. Both licensees and the NRC will lower costs.

17. *Revise the reference in § 73.71(d) from “30-day” written reports to “60-day” written reports.*

Current Rule

Section 73.71(d) currently provides that each licensee shall submit to the Commission the 30-day written reports required under the provisions of § 73.71 that are of a quality that will permit legible reproduction and processing.

Amended Rule

Replace the words “30-day written reports” with the words “60-day written reports” in § 73.71(d).

Cost Impacts

No impacts are expected.

Health and Safety

No impacts are expected.

Benefits

This change will make § 73.71(d) consistent with § 73.71(a).

18. *Extend the time from 30 days to 60 days within which a licensee must submit a written report as a followup to an initial notification of a safeguards event under 10 CFR Part 73, Appendix G.*

Current Rule

Part 73, Appendix G currently provides that pursuant to the provisions of 10 CFR 73.71(b) and (c) licensees subject to 10 CFR 73.20, 73.37, 73.50, 73.55, 73.60, and 73.67 who make an initial one-hour verbal notification of a safeguards event listed in Appendix G must submit a written follow-up report within 30 days of the initial notification.

Amended Rule

The amended rule will amend Appendix G to provide that pursuant to the provisions of 10 CFR 73.71(b) and (c), licensees subject to 10 CFR 73.20, 73.37, 73.50, 73.55, 73.60, and 73.67 who make an initial one hour verbal notification of a safeguards event listed in Appendix G must submit a written follow up report within 60 days of the initial verbal report rather than the current 30 days.

Cost Impacts

Licensees will experience savings through elimination of the need to prepare and submit supplementary reports pursuant to 10 CFR 73.71 within 30 days, as specified by Appendix G. The NRC currently estimates that pursuant to 10 CFR 73.71(b), 40 reports are submitted annually and 6 hours are required to prepare each report. Assuming half of these reports are supplementary reports that will be prepared if written reports are required within 60 days rather than 30 days, licensees will experience cost savings of approximately \$17,280 (20 reports x 6 hours/report x \$144/hour).

The NRC will experience savings through elimination of the need to receive and store supplementary reports. The NRC will not be required to receive, evaluate, and store 20 reports annually. Assuming 8 hours per report, savings to the NRC will be 160 hours per year, or approximately \$12,320. (20 reports x 8 hours/report x \$77/hour)

Health and Safety Impacts

None are anticipated. The NRC will continue to receive information to carry out analyses and perform any other necessary studies.

Benefits

Licensees will be able to perform the necessary followup studies and obtain the information required by § 73.71 and Appendix G without having to divert effort to prepare an initial written report that would be amended or superseded. Licensees and the NRC will lower costs.

3.3.3 Summary of Values and Impacts

Table 3.1 provides a summary of the estimated changes in cost or burden in terms of hours and dollars.

Table 3.1: Estimated Changes in Annual Costs/(Savings) and Burden in Terms of Hours

Section	Number of Licensee Responses Annually	Licensee Staff Hours Per Submittal	Total Annual Licensee Burden (hrs)	Total Annual Licensee Cost (nearest \$)
Sections Eliminated:				
72.75(b)(1)	(0.05)	(2)	(0.10)	(\$14)
72.75(b)(6)	(0.05)	(2)	(0.10)	(\$14)
72.75(c)(1)	(0.15)	(1)	(0.15)	(\$22)
72.216(c)	(2)	(4)	(8)	(\$1,152)
New Sections:				
72.75(b)(2)	8	1	8	\$1,152
72.75(c)	No additional burden			
72.75(e)(2)(i) & (ii)	No add'l burden. Burden estimated under 72.75(a)-(d)			
72.75(f)(1) & (2)	0.25	1	0.25	\$36
72.75(f)(3)	0.015	8	0.12	\$17
72.75(h)	0.03	4	0.12	\$17
72.75(i)(2)	(0.25)	(2)	(0.50)	(\$77)
Changes in Reporting Deadlines From 4 to 8 Hours:				
72.75(c)(1)-(3)	No Burden Change			
Changes in Reporting Deadlines From 30 Days to 60 Days and Elimination of Certain Written Follow-up Reports				
72.75(g)	(0.45)	(3.5)	(1.58)	(\$227)
Total Part 72			(1.94)	(\$284)

73.71(a)(4)	(0.5)	(16)	(8)	(\$1,152)
73.71(b)	(20)	(6)	(120)	(\$17,280)
73.71(d)	Included in 73.71(b)			
Appendix G, §I	Included in 73.71(b)			
Total Part 73			(128)	(\$18,432)
Total (Net)	--	--	(129.41)	(\$18,716)

Note: Total annual cost varies slightly from the product of total annual burden x \$144/hour due to rounding.

Part 72 One-Time Implementation Costs

The one-time implementation costs to Part 72 licensees for the changes are estimated to be about 35 hours per ISFSI or MRS facility licensee for revising procedures and about 65 hours per licensee for training. This yields an estimated one-time burden increase of about 100 hours per licensee for 21 ISFSIs (currently there are no licensed MRS facilities). The implementation costs are estimated as \$302,400 (2,100 hours x \$144/hour) over the 3-year period of this clearance, or \$100,800 per year, as shown by Table 3.2.

Table 3.2: One-Time Implementation Burden and Cost for Part 72 Licensees

Requirements	Number of ISFSI or MRS Licensees Affected	Burden: Hours per Licensee	One-Time Cost @ \$144/hr
10 CFR 72.75: (Licensees must revise procedures and conduct training to implement revised reporting criteria)	21	100	\$302,400 ÷ 3 = \$100,800

Part 73 One-Time Implementation Costs

The one-time implementation costs to licensees subject to 10 CFR 73.71(b) and Appendix G to Part 73 for the changes are estimated to be about 40 hours per licensee for revising procedures and training. Reactor licensees are assumed to require relatively few resources for implementing these changes because they are expected to have already revised procedures and conducted training for similar changes under Part 50. ISFSIs will be able to carry out the necessary activities simultaneously with the implementation activities required under Part 72. The following licensees are expected to be affected:

- 2 Category I fuel facilities and 1 Category I transporter subject to § 73.20;
- 31 spent fuel transporters subject to § 73.37 (assumed to be decommissioning reactors and licensed but non-operating nonpower reactors; active reactors and ISFSIs are counted separately below);
- 5 licensees with irradiated strategic special nuclear material subject to § 73.51 (i.e., ISFSIs licensed under Part 50);

- 21 ISFSIs subject to § 73.51;
- 104 power reactors subject to § 73.55;
- 36 nonpower reactors subject to § 73.60; and
- 4 low enriched uranium (LEU) fuel producers subject to § 73.67.

In total, approximately 204 licensees will be affected by the proposed amendments. Their implementation costs are estimated as \$1,175,000 (8,160 hours x \$144/hour) over the 3-year period of this clearance, or \$391,667 per year, as shown by Table 3.3.

Table 3.3: One-Time Burden and Cost to Implement Part 73 Appendix G Revisions

Requirements	Estimated Number of Licensees Affected	Burden: Hours per Licensee	One-Time Cost @ \$144/hr
10 CFR 73.71(a)(4) and Appendix G, § I: (Licensees must revise procedures and conduct training to implement changes to timing of written followup reports.)	204	40	\$1,175,000 ÷ 3 = \$391,667

Table 3.4 provides a summary of the estimated changes in costs and burden for both licensees and the NRC for both one-time implementation costs and recurring costs. It also provides an estimate of the discounted recurring costs or savings over a 20-year period at 3 percent.

Table 3.4: Summary of Estimated Changes in Costs/(Savings) and Burden

	Number of Licensees	One-Time Implementation Costs	Recurring Costs/(Savings) (Annual)	Discounted Recurring Costs/(Savings) (20 years @ 3%)
<u>Licensees:</u>				
Part 72 Licensees	21	\$302,400 2,100 hours	(\$284) (1.41) hours	(\$4,224)
Part 73 Licensees	204	\$1,175,000 8,160 hours	(\$18,432) (128 hours)	(\$274,214)
<u>Licensee Total</u>		\$1,477,000	(\$18,716)	(\$278,438)
<u>NRC:</u>				
Part 72		\$5,775 75 hours	(\$462) (6 hours)	
Part 73		\$1,925 25 hours	(\$13,475) (175 hours)	
<u>NRC Total</u>		\$7,700 100 hours	(\$13,937) (181 hours)	(\$207,331)

1. *Status quo*

This is the base case. The incremental values and impacts for the base case are zero. However, maintaining the status quo would result in continued submittal of some reports according to schedules that the NRC has now identified as unnecessary to provide the information when it is needed for NRC action or analysis.

2. *Proposed action*

As Table 3.4 demonstrates, the preferred alternative will result in recurring cost savings to both licensees and the NRC. However, both licensees and the NRC will incur one-time costs for implementing the amended rule. Licensees will be required to revise procedures and train staff. The NRC will need to revise guidance documents.

In addition to cost savings, value will be provided by adoption of this option because Part 72, Part 73, and Appendix G to Part 73 requirements will be more compatible with similar requirements for nuclear power plants (NPP), as well as with each other, thus improving regulatory efficiency. Reporting times will be consistent with the NRC's need for the information, and reports will be received when the NRC needs the information to protect public health and safety and to respond to heightened public concern. Further, this option may provide improvements in knowledge that could result in improvements in regulatory and policy requirements. However, these values are difficult to evaluate and therefore, have not been quantified in this analysis. Option 2 was determined to be the most preferable based on professional judgment and limited quantitative analysis because it: (1) improves effectiveness and efficiency of the NRC regulatory process by making the reporting requirements of Part 72, Part 73, and Appendix G to Part 73 more compatible with Part 50 and with each other; (2) reduces unnecessary regulatory burden for the licensees; and (3) will not result in significant overall additional implementation or operation costs to the NRC.

4.0 Backfit Analysis

The NRC has determined that the backfit rule (10 CFR 50.109 and 10 CFR 72.62) does not apply to information collection and reporting requirements such as those contained in this amended rule because they do not impose backfits as defined in 10 CFR 50.109(a)(1). Therefore, a backfit analysis has not been prepared. However, this regulatory analysis examines the costs and benefits of the proposed requirements of this rule. The NRC regards the regulatory analysis as a disciplined process for assessing information collection and reporting requirements to determine that the burden imposed is justified in light of the potential safety significance of the information to be collected.

5.0 Decision Rationale

The benefits of the proposed action, which consist of reduced recurring costs as well as benefits from regulatory efficiency, outweigh the costs, which entail one-time implementation costs.

6.0 Implementation

This action is being enacted through publication of a final rule notice. No impediments to implementation of the recommended alternatives have been identified. The NRC has determined, as described in section 4.0, that none of the alternatives will result in the need for a backfit as defined in § 50.109(a)(1).