



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

May 13, 1998

The Honorable Newt Gingrich
Speaker of the United States House
of Representatives
Washington, DC 20515

Dear Mr. Speaker:

Pursuant to Subtitle E of the Small Business Regulatory Enforcement Fairness Act of 1996, 5 U.S.C. 801, the Nuclear Regulatory Commission (NRC) is submitting a final rule amending its regulations in 10 CFR Parts 60, 72, 73, 74, and 75, for physical protection requirements for storage of spent fuel and high-level radioactive waste. This final rule will codify standards for protecting spent fuel at the various storage facilities licensed under Part 60 or Part 72. Previous requirements for protecting such material lacked clarity in defining which physical protection regulations were to be applied at such sites. The NRC is also submitting a companion document entitled: "NUREG-1619: Standard Review Plan for Physical Protection Plans for the Independent Storage of Spent Fuel and High-Level Radioactive Waste." NUREG-1619 is a standard review plan for the NRC review and evaluation of physical protection plans submitted by licensees in accordance with this final rule.

We have determined that this rule is not a "major rule," as defined in 5 U.S.C. 804(2). We have made the same determination with regard to NUREG-1619. We have confirmed these determinations with the Office of Management and Budget.

Enclosure 1 contains a copy of the final rule which is being transmitted to the Office of the Federal Register for publication. The Regulatory Flexibility Certification is included in the final rule. Enclosure 2 contains a copy of NUREG-1619 and Enclosure 3 contains the "Regulatory Analysis" that was prepared for this final rule, which contains NRC's cost-benefit determinations. This final rule is scheduled to become effective 180 days after publication in the Federal Register.

Sincerely,

A handwritten signature in cursive script, reading "Dennis K. Rathbun", is written over a horizontal line.

Dennis K. Rathbun, Director
Office of Congressional Affairs

Enclosures:

1. Federal Register Notice
2. NUREG 1619
3. Regulatory Analysis

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May 13, 1998

The Honorable Al Gore
President of the United States Senate
Washington, DC 20510

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Office of Congressional Affairs

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Identical letters sent to:
Honorable Newt Gingrich
Mr. Robert P. Murphy

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

May 13, 1998

Mr. Robert P. Murphy
General Counsel
General Accounting Office
Room 7175, 441 G Street, N. W.
Washington, DC 20548

Dear Mr. Murphy:

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NUCLEAR REGULATORY COMMISSION

10 CFR Parts 60, 72, 73, 74 and 75

RIN: 3150 - AF32

Physical Protection for Spent Nuclear Fuel
and High-Level Radioactive Waste

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule.

SUMMARY: The Nuclear Regulatory Commission is amending its regulations to clarify physical protection requirements for spent nuclear fuel and high-level radioactive waste stored at independent spent fuel storage installations (ISFSIs), monitored-retrievable storage (MRS) installations, and geologic repository operations areas (GROAs). These amendments codify standards for protecting spent fuel at the various storage sites licensed under the Commission's regulations.

EFFECTIVE DATE: (Insert 180 days after publication of this final rule in the Federal Register.)

FOR FURTHER INFORMATION CONTACT: Priscilla A. Dwyer, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone (301) 415-8110, e-mail PAD@NRC.GOV.

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SUPPLEMENTARY INFORMATION:

I. Background.

On August 15, 1995 (60 FR 42079), the Commission published for public comment a proposed rule that would clarify its regulations on the physical protection of spent nuclear fuel and high-level radioactive waste. The proposed regulation would have applied to spent fuel and high-level radioactive waste stored at ISFSIs, power reactors that have permanently ceased reactor operations, MRS installations, and the GROA. The proposed rule stated that the requirements for physically protecting this type of material lacked clarity in defining which regulations were to be applied at these sites. This resulted in a non-cohesive regulatory base. The proposed rule would provide a set of performance-based requirements, consistent with current programs that are currently licensed and implemented at sites under a unified policy for physical protection.

The proposed rule also indicated that the Commission was studying the need for specific protection against the malevolent use of a vehicle at sites affected by the rule (this is discussed further under the "Protection Goal" heading). The rule also proposed a conforming amendment to 10 CFR Part 60 -- to require material control and accounting (MC&A) measures at the GROA that would be identical to that required of ISFSIs under Part 72. The proposed rule added a provision under 10 CFR Part 75 to clarify that if GROAs are subject to International Atomic Energy Agency (IAEA) safeguards, then NRC's nuclear material accounting and control regulations for implementing the "Agreement between the United States and the IAEA for the Application of Safeguards in the United States" apply. Finally, the Commission requested specific comment on five questions regarding impacts of the proposed regulation on licensees.

II. Summary and Analysis of Public Comments.

The proposed rule was subject to a 90-day public comment period which ended on November 13, 1995. Twenty letters of comment were received. Sources for these comments included a nuclear industry group [the Nuclear Energy Institute (NEI)]; one national laboratory; fifteen utilities involved in nuclear activities; two Federal agencies [the Environmental Protection Agency (EPA) and the Department of Energy (DOE)]; and one citizen's group. Twelve letters of comment explicitly endorsed, either in total or in part, the views expressed by the NEI. Four letters of comment, in part, supported the general objectives of the proposed rulemaking. Correspondence received from EPA indicated no comment. The comments have been grouped under the following general topics:

1. Protection Goal.
2. Basis for Requirements.
3. Required Level of Physical Protection.
4. Backfit and Regulatory Analysis.
5. Rule Language Specifics.
6. GROAs.
7. Staff-Generated Amendments.
8. Summary of Responses to Commission's Specific Questions.

1. Protection Goal.

Comment. Commenters noted that, although it was appropriate that a protection goal for spent fuel and high-level radioactive waste be defined, the protection goal needed to be less stringent than the codified design basis threat for radiological sabotage. It was further stated that a 10 CFR Part 100 release, the unofficial criterion for determining radiological sabotage of power reactors, would be extremely difficult to realize with respect to spent fuel and high-level radioactive waste. The citizen's group commented that any protection goal developed for spent fuel should also counter the malevolent use of an airborne vehicle.

Response. The NRC agrees that the establishment of a protection goal should be the first step in the development of any physical protection standards. One issue that may have caused confusion in the proposed rule is that the assumptions for determining "radiological sabotage" differ between Part 72, "Licensing Requirements for the Independent Storage of Spent Fuel and High-Level Radioactive Waste," and Part 73, "Physical Protection of Plants and Material." The differing assumptions are appropriate because "radiological sabotage," as used under Part 73, applies to a power reactor and implies the unofficial criterion of a Part 100 release for power reactors. "Radiological sabotage" as used under Part 72 applies to the storage of spent fuel and high-level radioactive waste and is based on the consequences of a design basis accident as defined under Part 72. Although the same term is used under both 10 CFR Parts; it is based on different assumptions and results in different levels of required protection. The Commission agrees that this is confusing and that "radiological sabotage," as used for operating reactors, is not an appropriate protection level for spent fuel and high-level radioactive waste. The Commission concludes that the protection goal is best characterized by the phrase: "protection against the loss of control of the facility that could be sufficient to cause radiation exposure exceeding the dose as described in 10 CFR 72.106." The final rule has been modified accordingly.

With regard to protection against the malevolent use of a land-based vehicle, NRC has determined, based on the opinions of expert study and a peer review of findings, that there is no compelling justification for requiring a vehicle barrier as perimeter protection for spent fuel and high-level radioactive waste stored under a Part 60 or Part 72 license. Inclusion of an airborne vehicle was assessed for possible inclusion into the protection goal for this rule. However, protection against this type of threat has not yet been determined appropriate at sites with greater potential consequences than spent fuel storage installations. Therefore, this type of requirement is not included within the protection goal for this final rule.

2. Basis for Requirements.

Comment. Commenters frequently questioned the need for tying Part 72 requirements to Part 73. The commenters assumed that by involving Part 73 in the rulemaking, it was implied that the level of physical protection normally attributed to power reactors was being required. Phraseology used in the proposed requirements, such as using the term "protected area," (PA) tended to further foster this impression.

Response. The Commission disagrees that placing requirements under Part 73 implies any association with the physical protection requirements for power reactors. It is noted that Part 73 provides, in one consolidated Part, all of the requirements for those facilities needing physical protection. This is one reason why an explicit requirement for the protection of spent fuel and high-level radioactive waste is being added to Part 73. Part 73 includes more stringent requirements for power reactor and Category I fuel cycle facilities and much less stringent requirements for the protection of Category III facilities. With regard to use of the term "protected area," the Commission has determined that the term is correctly used in review of its definition under 10 CFR 73.2. Nonetheless, the Commission has reviewed the physical protection terminology found in the final rule to ensure that it does not imply a different level of physical protection than intended.

3. Level of Physical Protection Needed.

Comment. Some commenters expressed the opinion that the level of physical protection described by the proposed amendments was unnecessary and overly burdensome. The industry group noted that what was truly needed was a level of physical protection comparable to "enhanced industrial security." Cited examples of this type of protection were: use of suitable fencing, locked access points, sufficient illumination, and periodic security patrols. Other commenters questioned the need for some of the redundancy that was included in the proposed rule. One citizen's group believed that physical protection measures should be more stringent than those described in the proposed rule.

Response. The Commission believes that the appropriate level of physical protection for spent fuel and high-level radioactive waste lies somewhere between industrial-grade security and the level that is required at operating power reactors. The Commission also notes that the nature of spent fuel and of its storage mechanisms offers unique advantages in protecting the material. This factor, along with revised consequence considerations, leads the Commission to conclude that physical protection at sites where spent fuel and high-level radioactive waste are stored under a 10 CFR Part 60 or 72 license can be more flexibly applied than previously proposed. Accordingly, the final rule has been revised to minimize redundancy and add flexibility. Specific changes are outlined in Section III, "Summary of Specific Changes Made to the Proposed Rule as a Result of Public Comment."

4. Backfit and Regulatory Analysis.

Comment. NEI and a few licensees commented that the proposed regulation imposes a generic backfit as defined under 10 CFR 50.109 and 72.62. The NRC asserted in the proposed rule that the amendments merely codified and standardized physical protection measures that, through license amendment, were already in place at existing sites. Hence, it was concluded that no backfit was involved. Commenters further stated that, in terms of backfit requirements, the cost to implement the proposed rule was not justified based on the potential increase in protection that the rule would afford public health and safety.

Other commenters specifically responded to the Regulatory Analysis that accompanied the rule. These commenters expressed concern that certain provisions of the regulatory analysis could turn into de facto requirements.

Additionally, it was recommended that affected sites should be "grandfathered" under any final rulemaking. Accordingly, these sites would not be required to meet the provisions of the new physical protection rule because an adequate level of physical protection was already in place at the site, based on an NRC-approved physical protection plan.

Response. Under the proposed rule, the Commission stated that the backfit rule in 10 CFR 50.109 did not apply because the amendments did not impose any additional

requirements on Part 50 licensees. Furthermore, the Commission notes that all references to Part 50 licensees are deleted in the final rule.

The Commission further stated that the backfitting requirements in 10 CFR 72.62 did not apply because the proposed amendments neither imposed nor modified procedures or organizations of ISFSIs licensed under Part 72. The Commission considers these statements true based on their assessment of the proposed regulation and its intended implementation. However, on further review, the backfit rule in 10 CFR 72.62 may be applicable to one facility which has only one isolation zone exterior to the perimeter barrier. The NRC staff has identified alternative measures currently in place that provide an equivalent level of physical protection. The staff does not intend to require this facility to establish an interior isolation zone. Thus, no backfit occurs due to the new rule. Because 10 CFR 72.62 does not cover reporting and recordkeeping requirements, the inclusion of 10 CFR 73.51 in 73.71 event reporting is not a backfit.

With respect to grandfathering existing sites, the Commission believes that implementation of this final rule at these sites presents no undue burden to affected licensees and provides a minimum level of physical protection to adequately protect the public health and safety. Accordingly, there is no need for a grandfathering provision and no change has been made in the final rule in response to this comment. The Commission notes that the Regulatory Analysis for the final rule has been revised to reflect changes made in response to public comment and to eliminate ambiguities.

5. Rule Language Specifics.

Comment. A variety of comments were received regarding specific rule terminology. The suggestion was made that the term "protected area" be revised to "ISFSI controlled access area."

Response. As indicated previously in this notice, the use of the term "protected area," is consistent with its definition in 10 CFR 73.2. Furthermore, because it is the Commission's position that a site where spent fuel and high-level radioactive waste is stored be surrounded by

a fence, it is not considered adequate to call the enclosure a controlled access area (CAA). Under 10 CFR 73.2, the definition of a CAA requires only a demarcation of the area, not a fence.

Comment. Another commenter supported the Commission position that operating power reactor licensees that store spent fuel under a general license should have the option of using the physical protection measures of either 10 CFR 72.212(b)(5) or the proposed 10 CFR 73.51. The commenter also questioned whether the requirements of 10 CFR 72.182, 72.184, and 72.186 apply to a general license, in addition to Subpart K. A related question requested clarification on how general license holders were to notify NRC regarding which option they would exercise.

Response. The Commission notes that a licensee having a Part 50 license does not fall within the scope of the final rule. The Commission believes it is premature to bring these licensees under the provisions of the final rule because continued protection for spent fuel in storage pools at Part 50 sites is currently under study by the NRC.

Comment. One commenter requested clarification on the specific exclusion of an exemption for ISFSIs from the malevolent use of a vehicle threat within the design basis threat. The commenter indicated that it was not readily apparent and also a cumbersome process to determine the current exempt status of an ISFSI under present regulations.

Response. The Commission agrees and has revised the text of the rule to exclude reference to the design basis threat described under 10 CFR 73.1.

Comment. One commenter questioned whether the proposed rule would apply to a permanently shutdown power plant where spent fuel is stored and the plant is operating with a Part 50 possession-only license.

Response. A facility with a Part 50 license is not subject to the provisions of the final rule. This revision to the final rule has been made because the Commission believes it is premature

to include these licensees within the scope of the rule because continued protection for spent fuel in storage pools at Part 50 sites is currently under study by the NRC.

Comment. A commenter requested clarification on the need for back-up power for physical protection-related equipment.

Response. The Commission believes that affected licensees should not be vulnerable to loss of offsite power. Thus, it is necessary for licensees to assure either continuous operation of required physical protection equipment during power failure or to demonstrate the ability to provide immediate compensation for such failures.

Comment. Required illumination levels, assessment techniques, required frequency of physical protection patrols, and searches before entry to the PA were all subjects of comment. A commenter suggested that illumination be provided only during periods of assessment and that the entire PA need not be illuminated to a level of 0.2 footcandle.

Response. The Commission agrees that illumination to a 0.2 footcandle level represents a large operating cost and may be difficult to achieve, given cask structure. This provision has been amended to more clearly indicate that, while illumination should be maintained during all periods of darkness, only an adequate level of illumination is required within the PA for the detection assessment means used. In addition, required performance capabilities regarding detection are clarified in the final rule by specifying the use of active intrusion detection equipment, as opposed to passive systems.

Comment. Some commenters noted that the frequency of patrols should coincide with watchmens' duty shift lengths, as opposed to once every eight hours as recommended in the proposed rule.

Response. The Commission does not agree that the frequency of patrols should coincide with duty shift lengths. However, the Commission agrees that some flexibility can be provided. Accordingly, this provision of the final rule is revised to require daily random patrols, only.

Comment. Licensees cited the burden of maintaining expensive and delicate explosives detection equipment to meet the proposed requirement for explosives searches conducted before entry to the PA.

Response. The Commission agrees. To clarify this issue, the Commission has revised the proposed rule to require only a visual search for explosives. Because pedestrian and vehicular traffic is not expected to be high volume at facilities affected by the rule, this type of search is not considered an undue burden to affected licensees. Furthermore, the amount of explosives that may cause a radiological release is not easily concealed.

Comment. Other commenters noted redundant records retention requirements in 10 CFR 72.180 and 10 CFR 73.51 (c).

Response. This concern has been corrected in the final rule.

Comment. One commenter noted an apparent contradiction in the proposed regulation regarding use of deadly force in the protection of an ISFSI. The commenter had been advised by NRC staff that use of deadly force was not expected of members of the security organization at ISFSIs. The commenter reasoned that this was not consistent with the requirement to protect against radiological sabotage under the proposed rule.

Response. The issue involving the use of the term radiological sabotage has been resolved as discussed previously. Further, the Commission never intended that onsite physical protection personnel at an ISFSI would provide a response to a safeguards event other than calling for assistance from local law enforcement or other designated response force unless their timely response could not be ensured. The Commission also notes that 10 CFR 73.51 only calls for unarmed watchmen, not armed guards.

Comment. Commenters believe that the requirements for redundant alarm monitoring stations and specified staffing levels for the primary alarm station are overly burdensome and unnecessary.

Response. The Commission agrees that the requirement for redundant alarm stations is excessive. Regarding alarm monitoring, this provision is revised in the final rule to require, in the redundant location, only a summary indication that an alarm has been generated. This location need not necessarily be located onsite and could, for example, be a simple readout in a continually-staffed local law enforcement agency office. This is contingent on the assurance that communications with the local law enforcement agency or the designated response force can be maintained. Regarding required staffing levels of the primary alarm station, the Commission has deleted the specific requirement that the physical protection organization be comprised of at least two watchmen from the final rule. This deletion is contingent on the Commission's expectation that a human presence be maintained in the primary alarm station at all times. To achieve this, the Commission clarifies its position that the primary alarm station must be located within the PA, be bullet-resisting, and be configured such that activities within the station are not visible from outside the PA. The intent of these measures is to ensure that a single act cannot destroy the capability of an onsite watchman to call for assistance. The final rule has been modified accordingly.

Comment. Finally, concerning the actual terminology and format of the proposed rule, commenters expressed support for its performance-based nature but rejected the set of provisions under 10 CFR 73.51(d) as being overly prescriptive.

Response. The Commission responds that the proposed regulation found in 10 CFR 73.51 (d) is needed to provide additional clarity in meeting the performance capabilities in 10 CFR 73.51(b) and notes that many of the physical protection measures described under 10 CFR 73.51(d) are relaxed in the final rule and are less prescriptive in a number of cases.

6. GROA.

Comment. Two comments were received from DOE on the amendments to Part 60 dealing with the geologic repository. The first commenter requested that it be emphasized in the "Statement of Considerations" for the final rule that the requirement for physical protection of GROAs be applicable only during their operational phases and not after closure.

Response. The Commission agrees with this observation and has clarified the exemption in the final rule to specifically exempt GROAs from the requirements of 10 CFR 73.51 after permanent closures.

Comment. The second commenter requested clarification on apparent conflicts in Part 60, "Disposal of High-Level Radioactive Waste in Geologic Repositories," regarding the level of detail required of physical protection plans during the different phases of the certification process.

Response. The Commission notes that NUREG 1619, "Standard Review Plan for Physical Protection Plans for the Independent Storage of Spent Fuel and High-Level Radioactive Waste," to be issued concurrently with the effective date of the final rule, will contain guidance in this area.

7. NRC Staff-Generated Amendments.

Subsequent to publication of the proposed rule, a technical issue arose involving the cooling time of spent fuel as it relates to the degree of physical protection needed. Because a response to this issue continues to evolve within the NRC, the Commission believes it would be inappropriate to apply the provisions of the final rule at this time to a licensee holding a 10 CFR Part 50 license. Hence, licensees holding a 10 CFR Part 50 license are not within the scope of the final rule. Further, review indicated that there was some confusion pertaining to MC&A requirements for ISFSIs. Specifically, the NRC staff asked if ISFSIs were exempt from the requirements of 10 CFR 74.51 and, if not, why not. Specific MC&A requirements for ISFSIs are found under Part 72. After consideration of the issue, for clarification, the NRC staff has included an amendment to 10 CFR Part 74 that specifically exempts ISFSIs from 10 CFR 74.51 in the final rule.

8. Summary of Responses to Commission's Specific Questions.

Question 1. Would the proposed amendments impose any significant additional costs for safeguards of currently stored spent nuclear fuel beyond what is now incurred for that purpose?

Summary of Responses. Five responses from nuclear utilities specifically addressed this issue. All indicated that the amendments, as proposed, would significantly increase costs. Manpower-intensive measures, such as the requirement to maintain a minimum of two watchmen per shift, were most often cited as creating an undue burden. One licensee estimated costs of \$1 to 2 million to implement, and a continuing cost increase of 30-50 percent, annually, to physical protection operations.

NRC Response. Licensees holding a 10 CFR Part 50 license are no longer within the scope of this rule. The final rule has been revised to minimize redundancy and add flexibility to its implementation. There should be no significant increase in cost to current licensees.

Question 2. Is there reason to expect the costs to future licensees to differ substantially from those of current licensees?

Summary of Responses. Four responses from nuclear utilities specifically addressed this issue. Three utilities cited both higher current and annual operating costs. One utility noted that, to the extent that current licensees have been required to commit to the practices recommended in the proposed rule in initial licensing, there is no anticipated difference in cost.

NRC Response. Licensees holding a 10 CFR Part 50 license are no longer within the scope of this rule. The final rule has been amended to be more consistent with physical protection implemented at sites with currently-approved physical protection plans. Hence, there should be no significant increase in costs to future licensees.

Question 3. Are the cost estimates in Table III of the Draft Regulatory Analysis representative of current industry experience? Are there significant costs that have not been included in the table?

Summary of Responses. Three responses from nuclear utilities specifically addressed this issue. One respondent indicated that the cost estimates in Table III of the "Draft Regulatory Analysis" are sufficiently broad to address industry experience. However, the inclusion of a continual surveillance system is not covered and the respondent suggested that it should be a

separate line item. Another respondent indicated that the cost estimates appear to be comprehensive except they do not include construction and maintenance of physical protection office space, a records retention area, and alarm station(s).

NRC Response. The "Regulatory Analysis" has been revised to reflect public comment to include any omissions or changes made to the final rule.

Question 4. Are the costs justified by the benefits that would be afforded by the proposed amendments? Are there alternatives that would afford essentially the same benefits but be more cost-effective?

Summary of Responses. Three responses from nuclear utilities specifically addressed this issue. All three indicated that the costs were not justified by the benefits derived from the proposed rule. One respondent stated that the individual measures of 10 CFR 73.51(d) have merit, but, when taken in aggregate, they are not necessary to protect public health and safety. This respondent further stated that redundancy in the proposed rule was not needed and the rulemaking should give affected licensees latitude in selecting and justifying the means of physical protection. Alternatives that were suggested involved the deletion of specific provisions of the proposed rule and also the restructuring of the rule so as to not group all ISFSIs under one set of physical protection criteria.

NRC Response. The Commission has revised the requirements of the proposed rule to eliminate unnecessary redundancies, add flexibility in implementation, and reduce manpower-intensive measures while maintaining an adequate level of physical protection.

Question 5. Are the proposed amendments to 10 CFR 73.51 appropriate for an MRS or geologic repository operated by DOE?

Summary of Response. NEI was the only respondent to this issue. NEI noted that NRC should be mindful of the evolving nature of MRS installations and the geologic repository in the development of physical protection regulations for these sites.

NRC Response. NRC staff continues to work closely with DOE staff in the development of the certification process for MRS installations and the GPOA.

III. Summary of Specific Changes Made to the Proposed Rule as a Result of Public Comment.

Major changes made to the proposed rule include:

- (1) The incorporation of a protection goal, and
- (2) Regarding required levels of physical protection, redundancies have been reduced, flexibility added, and manpower intensive measures minimized, for example --
 - Regarding alarm monitoring, the redundant alarm station need only provide a summary indication at a continually staffed location;
 - Redundant records retention has been eliminated;
 - The required staffing level for the security organization has been eliminated and required siting and configuration of the primary alarm station clarified;
 - Hand-held equipment searches for explosives are replaced with visual searches; and
 - Illumination levels need only permit adequate assessment of the PA according to the assessment means used. Detection equipment must be active in nature.

As discussed previously, the final rule does not apply to a licensee holding a 10 CFR Part 50 license.

A section-by-section comparison of the proposed and final rules follows.

Part 60 - - Disposal of High-Level Radioactive Wastes in Geologic Repositories

1. Section 60.21, Content of application. This section is unchanged from the proposed rule.

2. Section 60.31, Construction authorization. This section is unchanged from the proposed rule.

3. Section 60.41, Standards for issuance of a license. This section is unchanged from the proposed rule.

4. Section 60.78, Material control and accounting records and reports. This section is unchanged from the proposed rule.

Part 72 - - Licensing Requirements for the Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste

5. Section 72.24, Contents of application: Technical information. This section is unchanged from the proposed rule. The term "radiological sabotage" is based on Part 72 assumptions and not a Part 100 radiological release.

6. Section 72.180, Physical security plan. This section is unchanged from the proposed rule except for changing the title to Physical Protection Plan to be consistent with 10 CFR Part 73.

7. Section 72.212, Conditions of general license issued under §72.210. Revisions to this section have been deleted in their entirety.

Part 73 - - Physical Protection of Plants and Materials

8. Section 73.1, Purpose and Scope. Paragraph (b)(6) is unchanged from the proposed rule.

9. Section 73.50, Requirements for physical protection of licensed activities. This section remains unchanged from the proposed rule.

10. Section 73.51, Requirements for the physical protection of stored spent nuclear fuel and high-level radioactive waste. Paragraph (a), Applicability, has been revised to more precisely define the type of material affected by the rule and to eliminate 10 CFR Part 50 licensees from the provisions of the rule..

Paragraph (b)(3), General Performance Objectives, has been revised to read: "The physical protection system must be designed to protect against loss of control of the facility that could be sufficient to cause radiation exposure exceeding the dose as described in 10 CFR 72.106." This revised statement describes a more appropriate protection goal that is consistent with Part 72. It also allows for a physical protection system less stringent than required to protect against radiological sabotage at operating power reactors.

The introductory text of paragraph (d) has been revised to more clearly indicate the Commission's intent that alternative measures may also be available for meeting the provisions of (d). For example, several questions arose during final rule development as to whether the use of a hardened and protected alarm station sited at an adjacent operating power reactor would meet the intent of paragraph (d)(3) to have a hardened alarm station within the PA of the ISFSI. Staff considers this to be an acceptable alternative measure for meeting this provision of the final rule.

In paragraph (d)(1), the last sentence has been deleted because it is no longer necessary due to the revision cited in the previous paragraph above.

Paragraph (d)(2) has been revised to read: "Illumination must be sufficient to permit adequate assessment of unauthorized penetrations of or activities within the protected area." This revision has been made to permit flexibility in illumination levels.

Paragraph (d)(3) has been revised to read: "The perimeter of the protected area must be subject to continual surveillance and be protected by an active intrusion alarm system that is capable of detecting penetration through the isolation zone and that is monitored in a continually staffed primary alarm station located within the protected area, and in one additional continually staffed location to ensure that a single act cannot destroy the capability of the onsite watchman to call for assistance. The primary alarm station must be located within the protected area; have bullet-resisting walls, doors, ceiling, and floor; and the interior of the station must not be visible from outside the protected area. A timely means for assessment must also be provided. Regarding alarm monitoring, the redundant location need only provide a summary indication that an alarm has been generated." This clarifies the Commission's position that the necessary level of protection should ensure that a single act cannot destroy the capability of the onsite watchman to call for assistance.

Paragraph (d)(4) has been revised to reduce the frequency of patrol from "not less than once every 8 hours" to "daily random patrols" with additional discussion provided in guidance issued to support the rule.

Paragraph (d)(5) has been revised to read: "A security organization with written procedures must be established. The security organization must include sufficient personnel per shift to provide for monitoring of detection systems and the conduct of surveillance, assessment, access control, and communications to assure adequate response. Members of the security organization must be trained, equipped, qualified and requalified to perform assigned job duties in accordance with Appendix B to Part 73, I.A, (1) (a) and (b); B(1)(a); and the applicable portions of II." This change eliminates a required staffing level and describes qualification and training levels for watchmen, only, as the primary members of the security organization.

Paragraph (d)(6) has been changed to require "timely" response from the designated response forces. If timely response cannot be provided, additional protective measures may be required, to include use of armed guards.

Paragraph (d)(7) has been deleted.

Paragraph (d)(8) has been redesignated as paragraph (d)(7) and revised to read as follows: "A personnel identification system and a controlled lock system must be established and maintained to limit access to authorized individuals." This eliminates the unnecessary coupling of the identification system with the system used for key and lock control as requested by commenters.

Paragraph (d)(9) has been deleted. If a person is authorized access to the PA, properly identified, and subject to search, there is no need for the individual to be escorted.

Paragraph (d)(10) has been redesignated as paragraph (d)(8). Regarding communications, the term "security organization" has been revised to "onsite security force members" to more precisely define communication channels.

Paragraph (d)(11) has been redesignated as paragraph (d)(9) and revised to read as follows: "All individuals, vehicles and hand-carried packages entering the protected area must be checked for proper authorization and visually searched for explosives before entry." This is permissible because the amount of explosives needed to cause a radiological release is not easily concealable.

Paragraph (d)(12) has been redesignated as paragraph (d)(10). The text of this paragraph is unchanged from the proposed rule.

Paragraph (d)(13) has been redesignated as paragraph (d)(11) and revised to read as follows: "All detection systems, surveillance/ assessment systems, and supporting subsystems including illumination systems must be tamper-indicating with line supervision and be maintained in operable condition. Timely compensatory measures must be taken after

discovery of inoperability to assure that the effectiveness of the physical protection system is not reduced."

Paragraph (d)(14) has been redesignated as paragraph (d)(12) and remains unchanged from the proposed rule.

Paragraph (d)(15) has been redesignated as paragraph (d)(13). This provision has been added to assure that duplication of records under §72.180 is not required. Paragraph (d)(13)(ii) has been revised to read as follows: "Screening records of members of the security organization." Finally, the log of patrols must contain all patrols, not just routine patrols.

Paragraph (e) has been revised for clarity.

11. Section 73.71, Reporting of safeguards events, remains unchanged from the proposed rule.

Part 74 - - Material Control and Accounting of Special Nuclear Material.

12. In Section 74.51, Nuclear material control and accounting for special nuclear material, paragraph (a) has been revised to read as follows: "General performance objectives. Each licensee who is authorized to possess five or more formula kilograms of strategic special nuclear material (SSNM) and to use such material at any site, other than a nuclear reactor licensed pursuant to Part 50 of this chapter, an irradiated fuel reprocessing plant, an operation involved with waste disposal, or an independent spent fuel storage facility licensed pursuant to Part 72 of this chapter, shall establish, implement, and maintain a Commission approved material control and accounting (MC&A) system that will achieve the following objectives..." This paragraph specifically exempts Part 72 ISFSIs from the requirements of 10 CFR 74.51.

Part 75 - - Safeguards on Nuclear Material - Implementation of US/IAEA Agreement.

13. Section 75.4, Definitions, remains unchanged from the proposed rule.

Criminal Penalties

NRC notes that these final amendments are issued under Sections 161b and i of the Atomic Energy Act of 1954, as amended. Therefore, violation of these regulations may subject a person to criminal sanctions under section 223 of the Atomic Energy Act.

Environmental Impact: Categorical Exclusion

The Commission has determined that this final rule is the type of action described as a categorical exclusion in 10 CFR 51.22(c)(3)(i) and (iii). Therefore, neither an environmental impact statement nor an environmental assessment has been prepared for this final rule.

Paperwork Reduction Act Statement

This final rule amends information collection requirements that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). These requirements were approved by the Office of Management and Budget (OMB), approval numbers 3150-0002, 3150-0055, 3150-0123, and 3150-0132.

Public Protection Notification

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

Regulatory Analysis

The Commission has prepared a "Final Regulatory Analysis" for this final rule. The final analysis examines the benefits and alternatives considered by the Commission. The "Final Regulatory Analysis" is available for inspection in the NRC Public Document room, 2120 L Street NW (Lower Level), Washington DC. Single copies of the analysis may be obtained from Priscilla A. Dwyer, Division of Fuel Cycle Safety and Safeguards, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. The "Final Regulatory Analysis" is available for viewing and downloading from the NRC's rulemaking bulletin board.

Regulatory Flexibility Certification

As required by the Regulatory Flexibility Act, 5 U.S.C. 605(b), the Commission certifies that this rule does not have a significant economic impact on a substantial number of small entities. The final rule affects operators of ISFSIs and DOE as the operator of the MRS and GROA. The affected licensees do not fall within the scope of the definition of "small entities" set forth in Section 601(3) of the Regulatory Flexibility Act, or the NRC's size standards (10 CFR 2.810).

Small Business Regulatory Enforcement Fairness Act

In accordance with the Small Business Regulatory Enforcement Fairness Act of 1996, NRC has determined that this action is not a "major rule" and has verified this determination with the Office of Information and Regulatory Affairs of OMB.

Backfit Analysis

The Commission has determined that the backfit rule in 10 CFR 50.109 does not apply because this final rule does not impose new requirements on existing 10 CFR Part 50 licensees. The backfit rule in 10 CFR 72.62 may be applicable to one facility which has only one isolation zone exterior to the perimeter barrier. However, the NRC staff has identified alternative measures currently in place that provide an equivalent level of physical protection. The staff does not intend to require this facility to establish an interior isolation zone. Thus, no backfit occurs due to the new rule. Because 10 CFR 72.62 does not cover reporting and recordkeeping requirements, the inclusion of 10 CFR 73.51 in 10 CFR 73.71 event reporting is not a backfit. Finally, the transfer of spent fuel from a reactor, licensed under 10 CFR Part 50 and subject to 10 CFR 73.55 physical protection requirements, to an ISFSI licensed under 10 CFR Part 72, and its associated physical protection provisions (e.g., 10 CFR 73.51) is not a backfit. A new license under 10 CFR Part 72 is a matter of compliance with regulations. In all cases, transition from 10 CFR 73.55 to 73.51 is a relaxation of requirements and not a backfit.

List of Subjects

10 CFR Part 60

Criminal penalties, High-level waste, Nuclear power plants and reactors, Nuclear materials, Reporting and recordkeeping requirements, Waste treatment and disposal.

10 CFR Part 72

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

10 CFR Part 73

Criminal penalties, Hazardous materials transportation, Export, Import, Nuclear materials, Nuclear power plants and reactors, Reporting and recordkeeping requirements, Security measures.

10 CFR Part 74

Accounting, Criminal penalties, Hazardous materials transportation, Material control and accounting, Nuclear materials, Packaging and containers, Radiation protection, Reporting and recordkeeping requirements, Scientific equipment, Special nuclear material.

10 CFR Part 75

Criminal penalties, Intergovernmental relations, Nuclear materials, Nuclear power plants and reactors, Reporting and recordkeeping requirements, Security measures.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and 5 U.S.C. 552 and 553 the NRC is adopting the following amendments to 10 CFR Parts 60, 72, 73, 74, and 75.

PART 60 -- DISPOSAL OF HIGH-LEVEL RADIOACTIVE WASTES IN GEOLOGIC REPOSITORIES

1. The authority citation for Part 60 continues to read as follows:

AUTHORITY: Secs. 51, 53, 62, 63, 65, 81, 161, 182, 183, 68 Stat. 929, 930, 932, 933, 935, 948, 953, 954, as amended (42 U.S.C. 2071, 2073, 2092, 2093, 2095, 2111, 2201, 2232, 2233); secs. 202, 206, 88 Stat. 1244, 1246 (42 U.S.C. 5842, 5846); secs. 10 and 14, Pub. L. 95-601, 92 Stat. 2951 (42 U.S.C. 2021a and 5851); sec. 102, Pub. L. 91-190, 83 Stat. 853 (42 U.S.C. 4332); secs. 114, 121, Pub. L. 97-425, 96 Stat. 2213g, 2228, as amended (42 U.S.C. 10134, 10141) and Pub. L. 102-486, sec 2902, 106 Stat. 3123 (42 U.S.C. 5851).

2. In §60.21, paragraphs (b)(3), (b)(4), and (c)(10) are revised to read as follows:

§60.21 Content of application.

* * * * *

(b) ***

(3) A detailed plan to provide physical protection of high- level radioactive waste in accordance with §73.51 of this chapter. This plan must include the design for physical protection, the licensee's safeguards contingency plan, and security organization personnel training and qualification plan. The plan must list tests, inspections, audits, and other means to be used to demonstrate compliance with such requirements.

(4) A description of the program to meet the requirements of §60.78.

* * * * *

(c) ***

(10) A description of the program to be used to maintain the records described in §§60.71 and 60.72.

* * * * *

3. In §60.31, paragraph (b) is revised to read as follows:

§60.31 Construction authorization.

* * * * *

(b) Common defense and security. That there is reasonable assurance that the activities proposed in the application will not be inimical to the common defense and security.

* * * * *

4. In §60.41, paragraph (c) is revised to read as follows:

§60.41 Standards for issuance of license.

* * * * *

(c) The issuance of the license will not be inimical to the common defense and security and will not constitute an unreasonable risk to the health and safety of the public.

* * * * *

5. A new §60.78 is added to read as follows:

§60.78 Material control and accounting records and reports.

DOE shall implement a program of material control and accounting (and accidental criticality reporting) that is the same as that specified in §§ 72.72, 72.74, 72.76, and 72.78 of this chapter.

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

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

AUTHORITY: Secs. 51, 53, 57, 62, 63, 65, 69, 81, 161, 182, 183, 184, 186, 187, 189, 68 Stat. 929, 930, 932, 933, 934, 935, 948, 953, 954, 955, as amended, sec. 234, 83 Stat. 444, as amended (42 U.S.C. 2071, 2073, 2077, 2092, 2093, 2095, 2099, 2111, 2201, 2232, 2233, 2234, 2236, 2237, 2238, 2282); sec. 274, Pub. L. 86-73, 73 Stat. 688, as amended (42 U.S.C. 2021); sec. 201, as amended, 202, 206, 88 Stat. 1242, as amended, 1244, 1246 (42 U.S.C. 5841, 5842, 5846); Pub. L. 95-601, sec. 10, 92 Stat. 2951 as amended by Pub. L. 102-486, sec. 7902, 106 Stat. 3123 (42 U.S.C. 5851); sec. 102, Pub. L. 91-190, 83 Stat. 853 (42 U.S.C. 4332); secs. 131, 132, 133, 135, 137, 141, Pub. L. 97-425, 96 Stat. 2229, 2230, 2232, 2241, sec. 148, Pub. L. 100-203, 101 Stat. 1330-235 (42 U.S.C. 10151, 10152, 10153, 10155, 10157, 10161, 10168).

Section 72.44(g) also issued under secs. 142(b) and 148(c), (d), Pub. L. 100-203, 101 Stat. 1330-232, 1330-236 (42 U.S.C. 10162(b), 10168(c), (d)). Section 72.46 also issued under sec. 189, 68 Stat. 955 (42 U.S.C. 2239); sec. 134, Pub. L. 97-425, 96 Stat. 2230 (42 U.S.C.

10154). Section 72.96(d) also issued under sec. 145(g), Pub. L. 100-203, 101 Stat. 1330-235 (42 U.S.C. 10165(g)). Subpart J also issued under secs. 2(2), 2(15), 2(19), 117(a), 141(h), Pub. L. 97-425, 96 Stat. 2202, 2203, 2204, 2222, 2224 (42 U.S.C. 10101, 10137(a), 10161(h)). Subparts K and L are also issued under sec. 133, 98 Stat. 2230 (42 U.S.C. 10153) and sec. 218(a), 96 Stat. 2252 (42 U.S.C. 10198).

7. In §72.24, paragraph (o) is revised to read as follows:

§ 72.24 Contents of application: Technical information.

* * * * *

(o) A description of the detailed security measures for physical protection, including design features and the plans required by Subpart H. For an application from DOE for an ISFSI or MRS, DOE will provide a description of the physical protection plan for protection against radiological sabotage as required by Subpart H.

* * * * *

8. Section 72.180 is revised to read as follows:

§ 72.180 Physical protection plan.

The licensee shall establish, maintain, and follow a detailed plan for physical protection, as described in §73.51 of this chapter. The licensee shall retain a copy of the current plan as a record until the Commission terminates the license for which the procedures were developed and, if any portion of the plan is superseded, retain the superseded material for 3 years after each change or until termination of the license. The plan must describe how the applicant will meet the requirements of §73.51 of this chapter and provide physical protection during on-site transportation to and from the proposed ISFSI or MRS and include within the plan the design for physical protection, the licensee's safeguards contingency plan, and the security

organization personnel training and qualification plan. The plan must list tests, inspections, audits, and other means to be used to demonstrate compliance with such requirements.

PART 73 -- PHYSICAL PROTECTION OF PLANTS AND MATERIALS

9. The authority citation for Part 73 continues to read as follows:

AUTHORITY: Secs. 53, 161, 68 Stat. 930, 948, as amended, sec. 147, 94 Stat. 780 (42 U.S.C. 2073, 2167, 2201); sec. 201, as amended, 204, 88 Stat. 1242, as amended, 1245, sec. 1701, 106 Stat. 2951, 2952, 2953 (42 U.S.C. 5841, 5844, 2297f).

Section 73.1 also issued under secs. 135, 141, Pub. L. 97-425, 96 Stat. 2232, 2241 (42 U.S.C. 10155, 10161). Section 73.37(f) also issued under sec. 301, Pub. L. 96-295, 94 Stat. 789 (42 U.S.C. 5841 note). Section 73.57 is issued under sec. 606, Pub. L. 99-399, 100 Stat. 876 (42 U.S.C. 2169).

10. In §73.1, paragraph (b)(6) is revised to read as follows:

§73.1 Purpose and scope.

* * * * *

(b) ***

(6) This part prescribes requirements for the physical protection of spent nuclear fuel and high-level radioactive waste stored in either an independent spent fuel storage installation (ISFSI) or a monitored retrievable storage (MRS) installation licensed under Part 72 of this chapter, or stored at the geologic repository operations area licensed under Part 60 of this chapter.

* * * * *

11. The introductory text of §73.50 is revised to read as follows:

§73.50 Requirements for physical protection for licensed activities.

Each licensee who is not subject to §73.51, but who possesses, uses, or stores formula quantities of strategic special nuclear material that are not readily separable from other radioactive material and which have total external radiation dose rates in excess of 100 rems per hour at a distance of 3 feet from any accessible surfaces without intervening shielding other than at a nuclear reactor facility licensed pursuant to Part 50 of this chapter, shall comply with the following:

* * * * *

12. A new §73.51 is added to read as follows:

§73.51 Requirements for the physical protection of stored spent nuclear fuel and high-level radioactive waste.

(a) Applicability. Notwithstanding the provisions of §§73.20, 73.50, or 73.67, the physical protection requirements of this section apply to each licensee that stores spent nuclear fuel and high-level radioactive waste pursuant to paragraphs (a)(1)(i), (ii), and (2) of this section. This includes --

(1) Spent nuclear fuel and high-level radioactive waste stored under a specific license issued pursuant to Part 72 of this Chapter:

- (i) At an independent spent fuel storage installation (ISFSI) or
- (ii) At a monitored retrievable storage (MRS) installation; or

(2) Spent nuclear fuel and high-level radioactive waste at a geologic repository operations area (GROA) licensed pursuant to Part 60 of this Chapter;

(b) General performance objectives.

(1) Each licensee subject to this section shall establish and maintain a physical protection system with the objective of providing high assurance that activities involving spent

nuclear fuel and high-level radioactive waste do not constitute an unreasonable risk to public health and safety.

(2) To meet the general objective of paragraph (b)(1) of this section, each licensee subject to this section shall meet the following performance capabilities.

(i) Store spent nuclear fuel and high-level radioactive waste only within a protected area;

(ii) Grant access to the protected area only to individuals who are authorized to enter the protected area;

(iii) Detect and assess unauthorized penetration of, or activities within, the protected area;

(iv) Provide timely communication to a designated response force whenever necessary; and

(v) Manage the physical protection organization in a manner that maintains its effectiveness.

(3) The physical protection system must be designed to protect against loss of control of the facility that could be sufficient to cause a radiation exposure exceeding the dose as described in §72.106 of this Chapter.

(c) Plan retention. Each licensee subject to this section shall retain a copy of the effective physical protection plan as a record for 3 years or until termination of the license for which procedures were developed.

(d) Physical protection systems, components, and procedures. A licensee shall comply with the following provisions as methods acceptable to NRC for meeting the performance capabilities of §73.51(b)(2). The Commission may, on a specific basis and upon request or on its own initiative, authorize other alternative measures for the protection of spent fuel and high-level radioactive waste subject to the requirements of this section, if after evaluation of the specific alternative measures, it finds reasonable assurance of compliance with the performance capabilities of paragraph (b)(2) of this section.

(1) Spent nuclear fuel and high-level radioactive waste must be stored only within a protected area so that access to this material requires passage through or penetration of two physical barriers, one barrier at the perimeter of the protected area and one barrier offering substantial penetration resistance. The physical barrier at the perimeter of the protected area

must be as defined in §73.2. Isolation zones, typically 20 feet wide each, on both sides of this barrier, must be provided to facilitate assessment. The barrier offering substantial resistance to penetration may be provided by an approved storage cask or building walls such as those of a reactor or fuel storage building.

(2) Illumination must be sufficient to permit adequate assessment of unauthorized penetrations of or activities within the protected area.

(3) The perimeter of the protected area must be subject to continual surveillance and be protected by an active intrusion alarm system which is capable of detecting penetrations through the isolation zone and that is monitored in a continually staffed primary alarm station and in one additional continually staffed location. The primary alarm station must be located within the protected area; have bullet-resisting walls, doors, ceiling, and floor; and the interior of the station must not be visible from outside the protected area. A timely means for assessment of alarms must also be provided. Regarding alarm monitoring, the redundant location need only provide a summary indication that an alarm has been generated.

(4) The protected area must be monitored by daily random patrols.

(5) A security organization with written procedures must be established. The security organization must include sufficient personnel per shift to provide for monitoring of detection systems and the conduct of surveillance, assessment, access control, and communications to assure adequate response. Members of the security organization must be trained, equipped, qualified, and requalified to perform assigned job duties in accordance with Appendix B to Part 73, sections I.A, (1) (a) and (b), B(1)(a), and the applicable portions of II.

(6) Documented liaison with a designated response force or local law enforcement agency (LLEA) must be established to permit timely response to unauthorized penetration or activities.

(7) A personnel identification system and a controlled lock system must be established and maintained to limit access to authorized individuals.

(8) Redundant communications capability must be provided between onsite security force members and designated response force or LLEA.

(9) All individuals, vehicles, and hand-carried packages entering the protected area must be checked for proper authorization and visually searched for explosives before entry.

(10) Written response procedures must be established and maintained for addressing unauthorized penetration of, or activities within, the protected area including Category 5, "Procedures," of Appendix C to Part 73. The licensee shall retain a copy of response procedures as a record for 3 years or until termination of the license for which the procedures were developed. Copies of superseded material must be retained for 3 years after each change or until termination of the license.

(11) All detection systems, surveillance/assessment systems, and supporting subsystems, including illumination systems, must be tamper-indicating with line supervision and be maintained in operable condition. Timely compensatory measures must be taken after discovery of inoperability, to assure that the effectiveness of the security system is not reduced.

(12) The physical protection program must be reviewed once every 24 months by individuals independent of both physical protection program management and personnel who have direct responsibility for implementation of the physical protection program. The physical protection program review must include an evaluation of the effectiveness of the physical protection system and a verification of the liaison established with the designated response force or LLEA.

(13) The following documentation must be retained as a record for 3 years after the record is made or until termination of the license. Duplicate records to those required under §72.180 of Part 72 and §73.71 of this Part need not be retained under the requirements of this section:

- (i) A log of individuals granted access to the protected area;
 - (ii) Screening records of members of the security organization;
 - (iii) A log of all patrols;
 - (iv) A record of each alarm received, identifying the type of alarm, location, date and time when received, and disposition of the alarm; and
 - (v) The physical protection program review reports.
- (e) A licensee that operates a GROA is exempt from the requirements of this section for that GROA after permanent closure of the GROA.

13. In §73.71, paragraphs (b)(1) and (c) are revised to read as follows:

§73.71 Reporting of safeguards events.

* * * * *

(b)(1) Each licensee subject to the provisions of §§ 73.20, 73.37, 73.50, 73.51, 73.55, 73.60, or 73.67 shall notify the NRC Operations Center within 1 hour of discovery of the safeguards events described in paragraph I(a)(1) of Appendix G to this Part. Licensees subject to the provisions of §§73.20, 73.37, 73.50, 73.51, 73.55, 73.60, or each licensee possessing strategic special nuclear material and subject to §73.67(d) shall notify the NRC Operations Center within 1 hour after discovery of the safeguards events described in paragraphs I(a)(2), (a)(3), (b), and (c) of Appendix G to this Part. Licensees subject to the provisions of §§73.20, 73.37, 73.50, 73.51, 73.55, or 73.60 shall notify the NRC Operations Center within 1 hour after discovery of the safeguards events described in paragraph I(d) of Appendix G to this Part.

* * * * *

(c) Each licensee subject to the provisions of §§ 73.20, 73.37, 73.50, 73.51, 73.55, 73.60, or each licensee possessing SSNM and subject to the provisions of §73.67(d) shall maintain a current log and record the safeguards events described in paragraphs II (a) and (b) of Appendix G to this Part within 24 hours of discovery by a licensee employee or member of the licensee's contract security organization. The licensee shall retain the log of events recorded under this section as a record for 3 years after the last entry is made in each log or until termination of the license.

* * * * *

Part 74 -- MATERIAL CONTROL AND ACCOUNTING OF SPECIAL NUCLEAR MATERIAL

14. The authority citation for Part 74 continues to read as follows:

AUTHORITY: Secs 53, 57, 161, 182, 183, 68 Stat. 930, 932, 948, 953, 954, as amended, sec. 234, 83 Stat. 444, as amended (42 U.S.C. 2073, 2077, 2201, 2232, 2233, 2282, 2297f); secs. 201, as amended 202, 206, 88 Stat. 1242, as amended, 1244, 1246 (42 U.S.C. 5841, 5842, 5846).

15. In § 74.51, the introductory text of paragraph (a) is revised to read as follows:

§74.51 Nuclear material control and accounting for special nuclear material.

(a) General performance objectives. Each licensee who is authorized to possess five or more formula kilograms of strategic special nuclear material (SSNM) and to use such material at any site, other than a nuclear reactor licensed pursuant to Part 50 of this chapter, an irradiated fuel reprocessing plant, an operation involved with waste disposal, or an independent spent fuel storage facility licensed pursuant to Part 72 of this chapter shall establish, implement, and maintain a Commission-approved material control and accounting (MC&A) system that will achieve the following objectives:

* * * * *

PART 75 -- SAFEGUARDS ON NUCLEAR MATERIAL - IMPLEMENTATION OF US/IAEA AGREEMENT

16. The authority citation for Part 75 continues to read as follows:

AUTHORITY: Secs. 53, 63, 103, 104, 122, 161, 68 Stat. 930, 932, 936, 937, 939, 948, as amended (42 U.S.C. 2073, 2093, 2133, 2134, 2152, 2201); sec. 201, 88 Stat. 1242, as amended (42 U.S.C. 5841).

Section 75.4 also issued under secs. 135, 141, Pub. L. 97-425, 96 Stat. 2232, 2241 (42 U.S.C. 10155, 10161).

17. In §75.4, paragraph (k)(5) is revised to read as follows:

§75.4 Definitions.

* * * * *

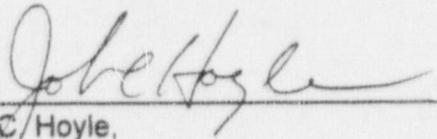
(k) ***

(5) Any location where the possession of more than 1 effective kilogram of nuclear material is licensed pursuant to Parts 40, 60, or 70 of this Chapter, or pursuant to an agreement state license.

* * * * *

Dated at Rockville, Maryland, this 11th day of May, 1998.

For the Nuclear Regulatory Commission.



John C. Hoyle,
Secretary of the Commission.

NUREG-1619
MAY 1998

STANDARD REVIEW PLAN FOR PHYSICAL PROTECTION
PLANS FOR THE INDEPENDENT STORAGE OF SPENT FUEL
AND HIGH-LEVEL RADIOACTIVE WASTE

U.S. NUCLEAR REGULATORY COMMISSION

Office of Nuclear Material Safety and Safeguards

P. A. Dwyer

FINAL REGULATORY ANALYSIS
PHYSICAL PROTECTION FOR SPENT NUCLEAR FUEL
AND HIGH-LEVEL RADIOACTIVE WASTE STORAGE FACILITIES

1. STATEMENT OF THE PROBLEM AND REGULATORY APPROACH

1.1 Problem

On August 15, 1995 (60 FR 42079), the Nuclear Regulatory Commission (NRC) published, for public comment, a proposed rule to clarify physical protection requirements for spent nuclear fuel and high-level radioactive waste stored at independent spent fuel storage installations (ISFSIs); power reactors that have permanently ceased operations; monitored retrievable storage (MRS) installations; and the geologic repository operations area (GROA). The proposed rule would also allow general licensees the option of implementing the proposed physical protection requirements for spent nuclear fuel stored in approved casks at operating power reactor sites. Public comments were received on the proposed rule. The Commission revised this regulatory analysis and the proposed physical protection requirements in response to these public comments. Revisions have also been made to the applicability section of the final rule to eliminate licensees holding 10 CFR Part 50 licenses. This is to permit full evaluation of a current on-going issue within the NRC regarding the cooling time of spent fuel as it relates to the level of physical protection required.

The objective of the final rule is to reduce the regulatory uncertainty regarding the physical protection requirements for the storage of spent nuclear fuel and high-level radioactive waste under a 10 CFR Part 60 or Part 72 license without reducing the level of protection for public health and safety.

1.2 Background

The Commission's regulations addressing the storage of spent nuclear fuel and high-level radioactive waste -- 10 CFR Part 72, "Licensing Requirements for the Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste" -- refer the applicant or licensee to "...applicable requirements of 10 CFR Part 73..." for requirements for physical protection. However, Part 73 does not identify any physical protection requirements that are specific to the storage of spent nuclear fuel and high-level radioactive waste. In practice, NRC

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