

October 5, 1999

FOR: The Commissioners

FROM: William D. Travers /s/
Executive Director for Operations

SUBJECT: RULEMAKING PLAN, PHYSICAL SECURITY REQUIREMENTS FOR EXERCISING POWER REACTOR LICENSEES' CAPABILITY TO RESPOND TO SAFEGUARDS CONTINGENCY EVENTS

PURPOSE:

To seek Commission approval of the attached rulemaking plan on physical security requirements for evaluating power reactor licensees' capability to respond to safeguards contingency events. This rulemaking plan responds to the staff requirements memorandum (SRM) dated June 29, 1999, directing the staff to develop a plan to modify the regulations to require power reactor licensees to identify target sets of equipment that must be protected to maintain safe operation or shutdown of the plant, develop protective strategies to protect against an armed assault by the design basis threat (DBT) of radiological sabotage, and exercise these strategies periodically.

BACKGROUND:

Since 1992, the staff has been evaluating facility licensee capabilities to respond to safeguards contingency events. This program, called Operational Safeguards Response Evaluation (OSRE), is nearing completion of its first full cycle. The last site inspection in the cycle is scheduled for May 2000. In anticipation of the completion of this cycle, the Office of Nuclear Reactor Regulation (NRR) formed the Safeguards Performance Assessment (SPA) Task Force in the fall of 1998 to explore more efficient and effective means of evaluating licensees' development and implementation of protective-strategy capabilities. The SPA Task Force reported its recommendations to the Commission on January 22, 1999, in a paper titled "Recommendations of the Safeguards Performance Assessment Task Force" (SECY-99-024), and the Commission approved the recommendations by an SRM dated June 29, 1999.

The SRM directed the staff to:

- a. develop a regulation requiring licensees to identify target sets of equipment that must be protected to maintain safe operation or shutdown of the plant, develop protective strategies, and exercise these strategies periodically;
- b. suggest how frequently NRC inspectors should observe the drills and exercises;
- c. consider regulatory changes to require licensees to maintain the effectiveness of their contingency plans and upgrade their security plan commitments whenever the exercises reveal weaknesses in their ability to protect against the DBT of radiological sabotage; and
- d. consider and propose, as appropriate, any additional rulemaking identified by the pilot program besides the rulemaking proposed in SECY-99-024.

The SRM approved the development of associated regulatory guides, inspection program changes, revisions to the Enforcement Manual, and necessary training for NRC inspectors. The SRM advised the staff to interact with stakeholders in an open process and to ensure that the changes to the safeguards program would be compatible with the ongoing changes to the overall NRC inspection and assessment program.

The SRM set forth three questions for the staff to address in the rulemaking package:

- a. Why were the OSREs allowed to be conducted with security measures well above the licensing commitments without, at least, evaluating if the minimum licensing conditions were adequate?
- b. Why is requiring a plant to meet its original licensing basis a backfit?
- c. Why are the NRC inspectors not inspecting compliance for all of 10 CFR Part 73.55?

DISCUSSION:

As noted in SECY-99-024 and discussed in the Commission meeting of May 5, 1999, the staff recommends a new regulation requiring power reactor licensees to periodically evaluate their response to safeguards contingency events by conducting drills and exercises and using the information from these drills and exercises to upgrade security at the site, as necessary. The staff also recommended (1) guidance to assist the industry in developing target sets of equipment that must be protected to maintain safe operation and shutdown of the plant, exercise strategy, and methods for evaluating success, (2) a new or revised NRC inspection procedure, and (3) training for NRC regional inspectors in tactical response evaluation.

The requirement for periodic drills and exercises, and the associated ability of the NRC to inspect the drills and exercises, would provide an alternative to the OSRE program. Under the current OSRE program, licensees demonstrate their protective-strategy capabilities every 8 years. This "exercise rule" would enhance licensee performance by requiring more frequent protective-strategy demonstrations, that would be documented and incorporated into the performance indicator program monitored by the NRC. Thus, this new process would result in a more timely NRC involvement when there is

indication that performance may be declining.

The staff's proposal includes a requirement for periodic drills and exercises. Drills are defined as evaluations, that could be limited to a single scenario, applied to a single shift, and would not require the use of a mock adversary force. The scenarios could be a single element of the security response, but would be designed to simulate a realistic attack. The frequency of the drills, which would be determined after planned interaction with the stakeholders, would ensure that each shift could be evaluated at least once a year. Exercises, on the other hand, are defined as having multiple scenarios and would be conducted on an annual, biennial, or triennial basis (the exact frequency to be recommended would be based on interactions with stakeholders). The exercise requirement would include a mock adversary force employed to simulate force on force.

Inspection of the new regulation would be incorporated into the NRC's risk-informed baseline inspection program and would be region based. This proposal would allow the staff to transition from the OSRE program to a program that is risk-informed, is consistent with the agency oversight procedures, and provides for more frequent evaluations to ensure that the high-assurance objective of 10 CFR 73.55 is maintained.

Regarding the Commission's first question, in the past OSREs permitted the use of security resources above those committed to in the security plan. This practice evolved from licensees who indicated that, despite their plan commitments of armed responders, other armed personnel were always available to perform other functions such as access control, vehicle escorts, and dedicated patrols. Licensees further assert that if a contingency were to occur, all armed personnel would eventually be dispatched to the threat. Early on, this approach seemed reasonable, but became problematic as the number of support functions performed by armed personnel declined. This practice was terminated in the modified OSRE program that was instituted upon the reinstatement of OSRE in the spring of 1999 and will be addressed in the new regulatory process. In the modified OSREs and in the staff's proposed exercise rule guidance, licensees will be permitted to conduct the exercise using only the number of armed responders committed to in the security plan.

The Commission's second question asked why requiring a plant to meet its original licensing basis was considered a backfit. The staff understands this question to refer to the fact that a requirement to upgrade a security plan to address shortcomings or weaknesses identified in an OSRE has been referred to as a backfit, even though there is a requirement to have an approved plan to protect against the DBT of radiological sabotage.

Backfitting is defined in 10 CFR 50.109 as "the modification of systems, structures, components . . . or the procedures or organization required to design, construct, or operate a facility; any of which may result from a new or amended provision in the Commission's rules or the imposition of a regulatory staff position interpreting the Commission rules that is either new or different from a previously applicable staff position"

In this case, requiring the licensee to upgrade the previously Commission-approved security plan falls under the definition of a backfit because such an upgrade represents a change in staff regulatory position which would impose new or different requirements on the licensee.

The Commission's third question asked why NRC inspectors are not inspecting compliance for all of 10 CFR 73.55. In the past, requirements of 10 CFR 73.55(a) have been evaluated through a combination of the previous Regulatory Effectiveness Review (RER) program and the current OSRE program. The requirements of 10 CFR 73.55(b) through (h) have been inspected in the core inspection program, since the requirements of (b) through (h) are detailed in the licensees' security plans and are incorporated into the licenses by condition. Therefore, the staff has been inspecting for compliance with all of 73.55. The staff also believes that the proposed new exercise rule will further improve the efficiency and effectiveness of implementation and inspection of 73.55.

The staff has had several public meetings with members of industry, including the Nuclear Energy Institute (NEI), and with members of non-industry groups such as the Nuclear Control Institute. These meetings have provided a forum to discuss the staff's plans, but they have also raised a number of issues. These issues are discussed at greater length in the attached Rulemaking Plan.

In considering the range of issues raised in preparing the Rulemaking Plan, the staff recognizes that it needs to review all the security requirements in 10 CFR 73.55 as an integrated set. In a letter to Chairman Dicus, dated August 31, 1999, NEI agreed to develop a program for assessing security performance, including target sets and force-on-force exercises, and recommended a 2-year effort to produce a "comprehensive rule change and supporting industry implementing guidance." The resource implications of NEI's proposal are discussed in the "Rulemaking Options" section of the attached Rulemaking Plan.

RESOURCES

The attached Rulemaking Plan describes three options and their resource impacts. The total NRR resources are estimated at 7.5 full-time equivalents (FTEs), including some redirection of resources. Per year resource requirements are described in greater detail in the Rulemaking Options section of the Rulemaking Plan. In addition to the NRR resources, the project is expected to require 0.2 FTE from OGC and 0.1 FTE from NMSS, regardless of the option selected.

Inspection of the new regulation would be integrated with the agency's proposed Baseline Inspection Program, which is already budgeted for regional inspector activities. Inspection resource allocations will be further examined during development of the proposed rule.

COORDINATION:

The Office of the General Counsel has reviewed this plan and has no legal objection to its content. The Chief Financial Officer has reviewed the plan for resource implications and has no objection to its content. The Chief Information Officer has reviewed this plan for information technology and information management implications and concurs with it. The Office of Nuclear Material Safety and Safeguards has reviewed this plan and concurs with it.

RECOMMENDATION:

That the Commission approve Option 3 in the attached plan to proceed with the rulemaking. Action will not be taken until the SRM is received.

William D. Travers
Executive Director for Operations

CONTACT: R. Rosano, NRR
301-415-3282

Attachment: [Rulemaking Plan](#)

ATTACHMENT

RULEMAKING PLAN: PHYSICAL SECURITY REQUIREMENTS
FOR EXERCISING POWER REACTOR LICENSEES' CAPABILITY TO
RESPOND TO SAFEGUARDS CONTINGENCY EVENTS

- [Regulatory Issue](#)
- [Current Regulatory Framework](#)
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Regulatory Issue

There is currently no specific regulation requiring nuclear power reactor facilities to conduct drills and exercises periodically. However, licensees' safeguards contingency response capabilities have been assessed through the Operational Safeguards Response Evaluation (OSRE) program, which is nearing completion of its first full cycle. The last site inspection in the cycle is scheduled for May 2000. In anticipation of the completion of this cycle, the Office of Nuclear Reactor Regulation (NRR) formed the Safeguards Performance Assessment (SPA) Task Force in the fall of 1998 to find more efficient and effective means of evaluating licensees's development and implementation of response strategies. The SPA Task Force reported its recommendations to the Commission on January 22, 1999, in a paper titled "Recommendations of the Safeguards Performance Assessment Task Force" (SECY-99-024), and the Commission approved the recommendations, including rulemaking, by a staff requirements memorandum (SRM) dated June 29, 1999.

The regulation proposed by the staff would require each licensee to conduct drills and exercises at a frequency to be recommended based on interactions with stakeholders. The regulation would evaluate the capabilities of the security organizations to protect against the design basis threat (DBT) of radiological sabotage. A regulatory guide would be issued when the rule was published. A preliminary draft of the requirement follows:

73.55(i) *Drills and exercises.* (1) The licensee shall develop target sets of equipment that must be protected to maintain safe operation or shutdown of the plant. The licensee shall also develop protective strategies to protect against an armed assault by the DBT of radiological sabotage as defined in 10 CFR 73.1(a)(1) and should consider operational intervention to mitigate the consequences of a DBT of radiological sabotage.

(2) The licensee shall develop a range of scenarios to evaluate whether the security organization can protect these target sets of equipment against an armed assault by the DBT of radiological sabotage.

(3) The licensee shall conduct drills (frequency to be determined later) to evaluate the security shift's response to a simulated armed assault by the DBT of radiological sabotage. In addition, the licensee shall conduct (annual/biennial/triennial, frequency to be determined) exercises. The shift conducting the exercise shall be evaluated against a simulated DBT scenario involving force-on-force.

(4) The licensee shall maintain a record of the results of the evaluations of drills and exercises.

(5) When weaknesses are identified through drills and exercises, the licensee shall ensure that corrective actions are taken, including upgrading security program commitments where necessary.

Current Regulatory Framework

Section 73.55(a) requires that licensees have a physical protection system designed to protect against the DBT of radiological sabotage. However, there is no current regulatory requirement for power reactor licensees to periodically evaluate the performance of the security organization in exercises that

simulate an attack by the DBT. Although the performance has been subject to assessment through the OSRE program, conduct of the periodic drills and exercises is not required by regulation. Without a requirement to conduct drills and exercises, the NRC is less able to maintain adequate assurance that power reactor licensees can protect against an external assault by the DBT of radiological sabotage.

How Rulemaking Will Address the Regulatory Problem

The rulemaking would address the regulatory problem by instituting a performance-based requirement for periodic evaluations of licensees' ability to protect against a simulated attack by the DBT of radiological sabotage. The information from these evaluations would provide the means to measure each licensee's capabilities relative to protecting against an external assault by the DBT of radiological sabotage, in accordance with 10 CFR 73.55(a).

In the course of this rulemaking, a number of associated issues surfaced that the staff intends to address in the proposed rule and guidance. The staff cannot now offer solutions to these issues, but will develop answers through interactions with stakeholders and from experience gained while conducting the remaining OSREs. Some of the issues are discussed below.

Active Insider. Some stakeholders have criticized the OSRE program for failing to include an active insider in the attack scenarios, as described in the DBT of radiological sabotage. The OSRE program was designed to evaluate the protection strategies against an overt attack. The routine inspection program has traditionally evaluated the programs established to protect against covert actions of the insider. Some programs include requirements for background investigations, psychological evaluations, preaccess drug and alcohol testing, behavioral observation, random and for-cause drug and alcohol testing, and employee assistance programs. However, the staff recognizes the importance of this issue and will consider the active insider issue in performance assessments through the proposed rulemaking process.

Definition of "radiological sabotage." In its August 31, 1999, letter to Chairman Dicus, the Nuclear Energy Institute raised the possibility of using 10 CFR Part 100 radiological limits to define the term "radiological sabotage" in 10 CFR 73.55(a). This is a significant issue and has a direct impact on development of target sets. NEI argues that destruction of safety equipment could damage the core (the OSRE standard for radiological sabotage), but radiological releases would be contained and prevented from harming the public. NEI concludes, therefore, that the "core damage" definition of radiological sabotage is flawed. The staff recognizes this issue as a significant part of understanding the purpose of scenario development and performance evaluation. The staff also agrees that the definition of radiological sabotage should be limited to events which pose a threat to public health and safety. Therefore, the staff proposes to review this issue during the proposed rulemaking and will consider ways to clarify the definition of radiological sabotage in a way that is meaningful for the protective strategy and enhances the process of performance evaluation.

Consistency with 10 CFR 73.46. In 1988, NRC issued requirements (in 10 CFR 73.46) for security contingency exercises at nuclear fuel fabrication facilities possessing formula quantities of special nuclear material. The proposed modification to 10 CFR 73.55 to include requirements for power reactor licensees to conduct drills and exercises against an external assault by the DBT of radiological sabotage would make the two regulations more consistent. The staff intends to balance strict consistency with 73.46 and the need to define requirements that are unique to the reactor security environment.

Rulemaking Options

The SRM of June 29, 1999, directed the staff to prepare a Rulemaking Plan to modify the regulations to require power reactor licensees to identify target sets of equipment that must be protected to maintain safe operation or shutdown of the plant, develop protective strategies, and periodically exercise these strategies. Therefore, in considering its rulemaking options, the staff has not included the option of making no regulatory changes.

Option 1 Goal: Develop an exercise rule and, upon its publication as a final rule, begin a comprehensive review of 10 CFR 73.55 and associated security regulations. This option would produce a final exercise rule in about 21 months and a final rule resulting from the review of 73.55 and associated security regulations within 8 years of approval of this plan.

Resources: This option would be supported by 1.0 full-time equivalent (FTE) per year, for a total of 8.0 FTEs.

Advantages/Disadvantages: The advantage of this option is that it would focus on the exercise rule and not require any redirection of FTE. The disadvantage of the option is the length of time required to complete the comprehensive review of 73.55.

Transition from OSRE: Following completion of the first full OSRE cycle in May 2000, a new cycle will begin and will be scheduled to continue until the exercise rule is published in final form.

Option 2 Goal: Develop an exercise rule and, upon its publication as a proposed rule, begin a comprehensive review of 10 CFR 73.55 and associated security regulations. (This option would overlap the two rulemakings, with publication of the exercise rule in final form occurring at about the same time as publication of the proposed rule resulting from the review of 73.55.) This option would produce a final exercise rule within 2 years of approval of this plan and a final rule resulting from the review of 73.55 and associated regulations within 3 years of approval of this plan.

Resources: This option would be supported by 1.0 FTE the first year, 4.0 FTEs the second year, and 3.5 FTEs the third year, for a total of 8.5 FTEs.

Advantages/Disadvantages: The advantages of this option include: (a) the initial focus would be on the exercise rule, ensuring its early completion, (b) the comprehensive review of 73.55 would be completed sooner than with Option 1, and (c) it would not require redirection of FTE in the first year. This option has the following disadvantages: (a) a 1-year delay in beginning the comprehensive review of 73.55, (b) the staff would be required to redirect 3.0 FTEs in the second year and 2.5 FTEs in the third

year of the project, and (c) there would be some duplication of efforts in issuing two separate rules in proposed and final form. Some of the alternatives for redirection of resources include (a) a reduction in headquarters support of inspection activities (b) a reduction in regional inspection resources and a redirection of those resources to this task, and (c) a deferment of licensing actions. The specific areas would be determined through the planning, budgeting and performance management (PBPM) process.

Transition from OSRE: Following completion of the first full OSRE cycle in May 2000, a new cycle will begin and will be scheduled to continue until the exercise rule is published in final form.

Option 3 Goal: Begin a comprehensive review of 10 CFR 73.55, including exercise requirements, and associated security regulations. Initial emphasis would be on resolving issues associated with exercises, such as the meaning of radiological sabotage and the role of an insider. This option would result in the publication of a final rule within 3 years of the approval of this plan.

Resources: This option would be supported by 2.0 FTEs the first year, 4.0 FTEs the second year, and 2.0 FTEs the third year, for a total of 8.0 FTEs.

Advantages/Disadvantages: The advantages of this option include: (a) prompt initiation of a broad-based review of the security regulations; (b) major issues, such as the definition of radiological sabotage and the role of the insider during exercises, would be decided before the exercise requirements are formulated, and (c) this option would avoid the duplication of effort involving publication of two rules in proposed and final form. This option has the following disadvantage: a need to redirect 1.0 FTE immediately to begin the comprehensive review of 73.55, and 3.0 FTEs the second year, and 1.0 FTE in the third year of the project. This immediate redirection of resources will have an impact on the planned accomplishments for fiscal year (FY) 2000 in safeguards: headquarters support of inspection activities and licensing actions. As in Option 2, redirection of resources in FYs 2001 and 2002 would impact specific areas determined by the PBPM process.

Transition from OSRE: NEI has offered to develop a pilot program of drills and exercises which would be acceptable to both the NRC staff and the industry. This pilot program would be in place by mid-2000 (when the first full OSRE cycle is completed) to provide a continuing series of security evaluations that: (a) ensure continued performance assessments of plant security and (b) provide input to the rulemaking process concerning the comprehensive review of 73.55 and the exercise rule. NEI agreed that, if the pilot program's initiation is delayed, additional OSRE visits would be supported to ensure that there is no cessation of security evaluations.

Preferred Option

The staff's preference is Option 3.

Impact on Licensees

If the preferred option is selected, licensees would be required to expend resources to develop target sets and scenarios, then to evaluate these scenarios with periodic live participation by security force members. Licensee resource requirements for this program are estimated to be between \$50,000 and \$75,000 a year per site. Some of the expenditure will be reduced in subsequent years as the licensees rely on target sets and scenarios already developed to initiate the program. This expenditure may also be offset by a reduction in regulatory requirements resulting from the comprehensive review of 73.55.

Benefit

These evaluations would enable the NRC to more effectively measure the licensees' capabilities to protect against an external assault by the DBT of radiological sabotage. The new regulation takes a performance-oriented view toward compliance by scheduled evaluations of the performance of the security force response. Licensees would benefit from this program since it would be a more defined and better documented program, implemented and managed by the individual sites.

Office of the General Counsel Legal Analysis

The preliminary rule language would be further developed during the rulemaking process. In general, the proposed rule would require power reactor licensees to conduct periodic drills and exercises to evaluate the licensee's ability to protect against an external assault by the DBT of radiological sabotage. To conduct these drills and exercises, the licensees would be required to identify (1) target sets of equipment necessary for the safe operation or shutdown of the plant and (2) scenarios involving an external assault by the DBT of radiological sabotage. The licensees would be required to evaluate the performance of their security organizations during drills and exercises and to correct weaknesses that are identified.

The proposed rule would require the preparation of an environmental assessment in accordance with 10 CFR 51.21, as it appears that no categorical exclusions in 10 CFR 51.22 would apply to this rulemaking.

The proposed rule would constitute a backfit, since the proposed rule would impose new requirements to (1) conduct periodic exercises of the security force response, and (2) evaluate the results of the exercise and make appropriate changes to the security plan, if necessary, based upon the results of the exercise. Accordingly, the NRC must prepare a backfit analysis demonstrating that the new requirements constitute a substantial increase in protection to public health and safety whose cost is justified in light of the increase in protection, unless the NRC prepares a documented evaluation which demonstrates that one or more of the three exceptions in 50.109(a)(4)(i) through (iii) are applicable.

Turning first to the applicability of each of the three exceptions, there is a defensible basis for invoking the compliance exception. Section 73.55(a) requires the licensee to:

establish and maintain an onsite physical protection system and security organization which *shall have as its objective to provide [a] high {level of} assurance* that activities involving special nuclear material are not inimical to common defense and security and do not constitute an unreasonable risk to public health and safety [emphasis added].

The regulation could be read as a performance-based requirement that the physical security system and organization must be able to provide high assurance that they will be effective against security threats. This is further supported by the third sentence of paragraph (a) of this section, which states:

To achieve *this general performance objective*, the onsite physical security system and security organization must *include, but not necessarily be limited to, the capabilities* required to meet the specific requirements contained in paragraphs (b) through (h) of this section [emphasis added]. This provision clearly contemplates that additional measures not specified in paragraphs (b) through (h) of the regulation may be required to meet the overall performance objective of providing high assurance. Thus, it could be argued that the new requirements in the proposed rule are necessary to assure compliance with the overall performance objective of 73.55. However, the introduction to 73.55 provides that the NRC is to review and approve the security plan amendments necessary to meet the requirements of the (then) newly adopted provisions of 73.55. All licensees' security plans have been approved by the Commission as meeting the requirements of this section, and it is difficult to identify any specific requirements in 73.55 with which licensees are not currently complying or are reasonably likely not to comply in the future. Licensees could therefore argue that 73.55 does not establish an ongoing performance-based requirement to upgrade security plans as needed and that imposition of the exercise requirement in the proposed rule constitutes a backfit. In light of these factors and the licensees' general dissatisfaction with the NRC's reliance on the compliance exception in the past, it may not be prudent to rely solely upon the compliance exception.

With respect to the exceptions for defining or redefining adequate protection (50.109(a)(4)(i) and (iii)), their invocation would require the NRC to explain what actions are necessary (or why no actions are necessary) while the rule is being finalized and fully implemented by licensees. Although the NRC could argue that there is no imminent threat to public health and safety and that interim action is not necessary prior to adoption and implementation of the rule, it may be difficult to develop such a rationale in light of current events.

The proposed rule could be justified as a cost-justified substantial increase in safety, which would normally require preparation of a quantitative assessment of the projected benefits of the proposed backfit. The staff has advised OGC that preparation of a quantitative analysis of the benefits of the proposed regulation may be difficult. OGC notes that the Commission stated in a June 30, 1993, SRM that *qualitative* arguments could be made to demonstrate that a proposed backfit represented a substantial increase in safety.⁽¹⁾ OGC believes that the Commission's SRM authorizes the staff to prepare a qualitative discussion of the benefits of the proposed rule.

Assuming, however, that the staff is unable to prepare a qualitative demonstration that the rule constitutes a substantial increase in safety, the Commission could nonetheless adopt the proposed rule as an "exception" to the Backfit Rule on the basis that the rule represents a worthwhile change and should be adopted primarily for non-safety reasons (see page 2 of the June 30, 1993, SRM). However, the Commission also directed that if a rule is adopted as an exception to the Backfit Rule, the proposal not to apply the Backfit Rule should be made the subject of notice and comment (*id.*). Accordingly, if the staff intends to seek Commission approval to adopt the rule as an exception to the Backfit Rule, the statement of considerations (SOC) for the proposed rule should inform the public of the Commission's proposal and seek public comment on this subject. The SOC should also set forth the reasons why the rule represents a worthwhile change and should be adopted as an exception to the Backfit Rule.

The regulatory analysis will develop information concerning the cost impacts of this rule. If the rule would result in a \$100 million impact on nuclear power plants licensees, it would constitute a "major rule" under the Small Business Regulatory Enforcement Fairness Act, and the final rule could only become effective on 60 day's notice.

The new rule would require licensees to maintain records of the results of the drills and exercises conducted in accordance with the new rule; therefore these requirements must be reviewed and approved by the Office of Management and Budget for purposes of the Paperwork Reduction Act.

In accordance with the National Technology Transfer and Advancement Act of 1995, the staff should determine whether there are any industry consensus codes or standards that could be adopted in this rulemaking.

In conclusion, OGC has identified no basis for legal objection to the contemplated rulemaking.

Backfit Analysis

The proposed rule would represent a backfit because the rule would contain new requirements to (1) conduct periodic drills and exercises of the security plans and (2) evaluate the results of the drills and exercises and make appropriate changes to the security plans, if necessary. Therefore, the NRC must demonstrate either that one or more of the three exceptions in 50.109(a)(4)(i) through (iii) apply or that the new requirements represent a substantial cost-justified increase in safety. If the criteria of the Backfit Rule cannot be met, the Commission could adopt the proposed rule as an exception to the Backfit Rule.

As discussed in OGC's legal analysis above, OGC believes that while the compliance exception (10 CFR 50.109(a)(4)(ii)) could be supported, sole reliance on this exception would likely be controversial with the nuclear power plant licensees. With respect to adequate protection, the staff also believes that invoking the exception would be controversial, and would also require the NRC to explain why immediate action is not necessary to provide adequate protection at currently licensed nuclear power plants.

The Commission stated in the SRM of June 30, 1993, that the "substantial increase in safety" criterion of the Backfit Rule could be met by qualitative arguments (see page 2 of the June 30, 1993, SRM). The staff believes that the exercise rule is warranted for several qualitative reasons. The proposed rule would provide assurance of the licensee's capability to protect the power reactor sites against an external assault by the DBT of radiological

sabotage, in accordance with 10 CFR 73.55(a). Since many of the skills necessary to maintain an effective protection system are easily lost, failure to demonstrate those skills periodically could significantly diminish assurance that the system will perform as intended during a safeguards contingency. If weaknesses were identified during the demonstration, licensee would be required to modify the protection system as appropriate. The exercise rule would increase licensees' security program effectiveness through the training provided by more frequent drilling, especially in the areas of individual and team tactics. Enhanced licensee performance would likely result in increased public confidence in the capabilities of licensees and in the NRC's ability to evaluate them. The staff contends that these factors represent a substantial increase in safety and that the proposed rulemaking has merit on the basis of the stated qualitative reasons.

The staff recognizes that nuclear power plant licensees may oppose any rulemaking which would impose a requirement for the conduct of exercises intended to evaluate the licensee's response to safeguards contingencies, on the basis that the exercise does not represent a substantial increase in protection either on a quantitative or qualitative basis. The June 30, 1993, SRM states that when the staff believes that a proposed rule is worthwhile and should be promulgated for non-safety reasons, the Commission could decide to adopt such a rule as an exception to the Backfit Rule. However, the Commission stated that such exceptions should be made only if the proposal not to apply the Backfit Rule is made the subject of notice and comment (see page 2 of the June 30, 1993, SRM).

Accordingly, the staff intends to prepare the backfit section of the proposed rule (i) by providing a documented evaluation of reliance on the compliance exception, as required by 10 CFR 50.109(a)(4); (ii) a backfit analysis that relies on qualitative factors for demonstrating a substantial increase in safety, and presents quantitative cost information on the impacts of the proposed rule; and (iii) a discussion of why the proposed rule is a worthwhile improvement, with a request for comment on whether the proposed rule should be adopted as an exception to the Backfit Rule.

Agreement State Implementation Issues

All three options would not apply to facilities or licensees regulated by Agreement States.

Supporting Documents

A regulatory analysis and an Office of Management and Budget (OMB) statement will be prepared. An environmental assessment will be prepared for this rule in compliance with 10 CFR 51.21, and a backfit analysis will be prepared pursuant to 10 CFR 50.109. A regulatory guide and inspection procedure will be issued in conjunction with the rule.

Issuance by EDO or Commission

This rulemaking will be issued by the Commission.

Interoffice Management Steering Group

All three options will affect only NRR; however, due to the possible generic safeguards implications of the requirement, this action will be coordinated with the Office of Nuclear Material Safety and Safeguards (NMSS).

Staff Level Working Group/Concurring Official

The staff-level working group will consist of Ronald J. Albert, Robert F. Skelton, David N. Orrik, Zan-Shing (Ray) Hsu, Jesse A. Arildsen, Dennis D. Gordon, Charles E. Gaskin, Andrew D. Rayland, and Sandra D. Frattali. The concurring officials will be Richard P. Rosano, Robert M. Gallo, and Bruce A. Boger.

Public/Industry Participation

All three options will use the interactive rulemaking Web site, as appropriate, to enhance input from the public. In addition, NEI has expressed a willingness to work with the NRC staff on this rule, and a series of public meetings has been scheduled to facilitate this cooperative effort. Other stakeholders have expressed an interest in this new regulation, and efforts are being made to keep these stakeholders informed of the process and aware of upcoming public meetings.

Resources

The preferred rulemaking option, which includes development of regulations, associated guidance, and inspection procedures, is estimated to take 3 years to complete. It is also estimated to require a total of 8.0 FTEs from NRR, a total of 0.1 FTE from NMSS, and a total of 0.2 FTE from OGC. When the rules become final, the staff intends to devote a portion of its FTEs to direct observation of the licensees' drills and exercises. Inspection of the new regulation will be coordinated with the agency's proposed Baseline Inspection Program, which is already budgeted for regional inspector activities. Inspection resource allocations will be further examined during development of the regulation.

NRR Lead:	Ronald J. Albert
NRR Support:	Sandra D. Frattali
NMSS Support:	Charles E. Gaskin, Andrew D. Rayland
OGC Contact:	Kathryn L. Winsberg

Schedule (Option 3)

CRGR and ACRS review	TBD
Proposed Rule to Commission	18 months after approval of rulemaking plan by the Commission

Proposed Rule published in <i>Federal Register</i> with 75-day comment period	24 months after approval
Resolution of public comments	28 months after approval
Final Rule to EDO	30 months after approval
Final Rule to the Commission	32 months after approval
Publication of Rule	36 months after approval

1. The June 30, 1993, SRM stated:

A majority of the Commission...continues to believe that these words [in the 1985 statement of considerations for the Backfit Rule] embody a sound approach to the "substantial increase" criterion and that this approach is flexible enough to allow for qualitative arguments that a given proposed rule would substantially increase safety.