

RULEMAKING ISSUE NOTATION VOTE

May 31, 2006

SECY-06-0126

FOR: The Commissioners

FROM: Luis A. Reyes
Executive Director for Operations

SUBJECT: PROPOSED RULEMAKING - POWER REACTOR SECURITY
REQUIREMENTS (RIN 3150-AG63)

PURPOSE:

To obtain Commission approval to publish for public comment a proposed rulemaking which would amend power reactor security requirements.

SUMMARY:

The staff has prepared a proposed rule (Enclosure 1) that would amend the current security regulations and add new security requirements pertaining to nuclear power reactors. Additionally, this rulemaking includes new security requirements for Category I strategic special nuclear material (SSNM) facilities for access to enhanced weapons and firearms background checks. The proposed rulemaking would: (1) make generically applicable security requirements imposed by Commission orders issued after the terrorist attacks of September 11, 2001, based upon experience and insights gained by the Commission during implementation, (2) fulfill certain provisions of the Energy Policy Act of 2005, (3) add several new requirements that resulted from insights from implementation of the security orders, review of site security plans, and implementation of the enhanced baseline inspection program and force-on-force exercises, (4) update the regulatory framework in preparation for receiving license applications for new reactors, and (5) impose requirements to assess and manage site activities that can adversely affect safety and security. The proposed safety and security requirements would address, in part, a Petition for Rulemaking (PRM 50-80) that requested the establishment of regulations governing proposed changes to facilities which could adversely affect the protection against radiological sabotage.

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BACKGROUND:

Following the terrorist attacks on September 11, 2001, the Nuclear Regulatory Commission (NRC) conducted a thorough review of security to ensure that nuclear power plants and other licensed facilities continued to have effective security measures in place given the changing threat environment. Through a series of orders, the Commission specified a supplement to the Design Basis Threat (DBT), as well as requirements for specific training enhancements, access authorization enhancements, security officer work hours, and enhancements to defensive strategies, mitigative measures, and integrated response. Additionally, in generic communications, the Commission specified expectations for enhanced notifications to the NRC for certain security events or suspicious activities.

Most of the requirements in this proposed rulemaking are derived from the NRC's experience with implementation of the following four security orders:

- EA-02-026, "Interim Compensatory Measures (ICM) Order," dated February 25, 2002;
- EA-02-261, "Access Authorization Order," dated January 7, 2003;
- EA-03-039, "Security Personnel Training and Qualification Requirements (Training) Order," dated April 29, 2003; and
- EA-03-086, "Revised Design Basis Threat Order," dated April 29, 2003.

Nuclear power plant licensees revised their security plans, training and qualification plans, and safeguards contingency plans in response to these orders. The staff completed its review and approval of all of the revised security plans, training and qualification plans, and safeguards contingency plans on October 29, 2004. These plans incorporated the enhancements instituted through the orders. While the specifics of these changes are Safeguards Information, in general the changes resulted in enhancements such as increased patrols, augmented security forces and capabilities, additional security posts, additional physical barriers, vehicle checks at greater standoff distances, enhanced coordination with law enforcement and military authorities, augmented security and emergency response training, equipment, and communication, and more restrictive site access controls for personnel, including expanded, expedited, and more thorough employee background checks.

The Energy Policy Act of 2005 (EPAc 2005), signed into law on August 8, 2005, is another source of some of the proposed requirements reflected in this rulemaking. Section 653, for instance, allows the NRC to authorize licensees to use, as part of their protective strategies, an expanded arsenal of weapons, including machine guns and semi-automatic assault weapons. Section 653 also requires that all security personnel with access to any weapons undergo a background check that would include fingerprinting and a check against the FBI's National Instant Criminal Background Check System (NICS) database. These provisions of EPAc 2005 would be reflected in the newly proposed §§ 73.18 and 73.19, and the proposed NRC Form 754 (Enclosure 2). Though this rulemaking primarily affects power reactor security requirements, to implement the EPAc 2005 provisions efficiently, the NRC expanded the rulemaking's scope in the newly proposed §§ 73.18 and 73.19 to include licensees authorized to possess formula quantities or greater of strategic special nuclear material, (e.g., Category I SSNM facilities). Such facilities would include: production facilities, spent fuel reprocessing facilities, fuel processing facilities, and uranium enrichment facilities. The staff plans to address separately whether the deployment of enhanced weapons is appropriate for other types of facilities, radioactive materials, or other property. Additionally, Section 651 of the EPAc 2005 requires

the NRC to conduct security evaluations at selected licensed facilities, including periodic force-on-force exercises. That provision also requires the NRC to mitigate any potential conflict of interest that could influence the results of force-on-force exercises. These provisions would be reflected in proposed § 73.55.

Through implementing the security orders, reviewing the revised site security plans across the fleet of reactors, conducting the enhanced baseline inspection program, and evaluating force-on-force exercises, the staff has identified some additional security measures that provide additional assurance of licensees' capability to protect against the DBT.

Finally, Petition for Rulemaking (PRM 50-80), requested the establishment of regulations governing proposed changes to facilities which could adversely affect their protection against radiological sabotage. This petition was partially granted and the proposed new § 73.58 contains requirements to address this area.

DISCUSSION:

The proposed amendments to the security requirements (power reactors only) and for the new weapons requirements (power reactors and Category I SSNM facilities) would result in changes to the following existing sections and appendices in Part 73:

- 10 CFR 73.2, Definitions
- 10 CFR 73.55, Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage
- 10 CFR 73.56, Personnel access authorization requirements for nuclear power plants
- 10 CFR 73.71, Reporting of safeguards events
- 10 CFR 73, Appendix B, General criteria for security personnel
- 10 CFR 73, Appendix C, Licensee safeguards contingency plans
- 10 CFR 73, Appendix G, Reportable safeguards events

The proposed amendments would add three new sections to Part 73:

- Proposed § 73.18, Firearms background checks for armed security personnel
- Proposed § 73.19, Authorization for use of enhanced weapons
- Proposed § 73.58, Safety/security interface requirements for nuclear power reactors

The proposed amendments would also add a new NRC Form 754 under § 73.18.

Key Features of the Proposed Rule

As discussed previously, the principle source for the requirements in this proposed rulemaking is the staff's experience and insights with the implementation of the power reactor security orders issued after the September 11, 2001 terrorist attacks. In addition to those requirements, the proposed rulemaking contains the following key requirements and features:

1. EPAAct 2005 weapons provisions. Section 653 of EPAAct 2005 added new Sec. 161A. to the Atomic Energy Act of 1954, as amended (AEA), concerning

the transfer, receipt, possession, transport, import, and use of enhanced weapons and the requirements for firearms background checks for security personnel. The staff has engaged with representatives from the U.S. Department of Justice (DOJ), the Federal Bureau of Investigation (FBI), and the U.S. Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF), to develop the guidelines required by Sec. 161A.d of the AEA. The provisions of Sec.161A. of the AEA, take effect upon the issuance of these guidelines by the Commission, with the approval of the Attorney General. Development of the guidelines may result in the necessity for changes to the proposed rule language in §§ 73.18 or 73.19. The staff intends to provide the Commission these guidelines and any necessary rule changes in a separate paper, which will address any associated resource or implementation issues. This proposed rule would not rescind the authority of certain NRC licensees, currently possessing automatic weapons under separate authority, to possess such enhanced weapons; however, these licensees would be subject to the new firearms background check requirements of Sec.161A. of the AEA.

The proposed §§ 73.18 and 73.19 would contain requirements to implement provisions of Sec. 161A. of the AEA. In § 73.18, the staff is also proposing a new NRC Form 754 for licensee security personnel submission to accomplish the firearms background checks under the FBI's National Instant Criminal Background Check System (NICS) database. In § 73.19, the staff is proposing requirements to support a licensee obtaining enhanced weapons under an ATF firearms license.

2. Safety/Security interface requirements. These requirements are located in proposed § 73.58. The safety/security requirements are intended to explicitly require licensee coordination of potential adverse interactions between security activities and other plant activities that could compromise either plant security or plant safety. The proposed requirements would direct licensees to assess and manage these interactions so that neither safety nor security is compromised. These proposed requirements address, in part, a Petition for Rulemaking (PRM 50-80) that requested the establishment of regulations governing proposed changes to the facilities which could adversely affect the protection against radiological sabotage.
3. EPAAct 2005 additional requirements. The EPAAct 2005 requirements that would be implemented by this proposed rulemaking, in addition to the weapons-related additions described above, consist of new requirements to perform force-on-force exercises, and to mitigate potential conflicts of interest that could influence the results of NRC-observed force-on-force exercises. These new requirements would be included in the proposed § 73.55 and Appendix C to Part 73.
4. Accelerated notification and revised four-hour reporting requirements. This proposed rule contains accelerated security notification requirements (i.e., within 15 minutes) in proposed § 73.71 and Appendix G to Part 73 for attacks and imminent threats to power reactors. The proposed accelerated notification

requirements are similar to what was provided to the industry in NRC Bulletin 2005-02, "Emergency Preparedness and Response Actions for Security-Based Events," dated July 18, 2005. The proposed rule also contains two new four-hour reporting requirements. The proposed rule would direct licensees to report to the NRC information pertaining to suspicious activities as described in the proposed requirement. The proposed rule would also include a new four-hour reporting requirement for tampering events that do not meet the current threshold for one-hour reporting.

5. Mixed-oxide (MOX) fuel requirements. These requirements would be incorporated into proposed § 73.55 for licensees who propose to use MOX fuel in their reactor(s). These proposed requirements are in lieu of unnecessarily rigorous Part 73 requirements (e.g., §§ 73.45 and 73.46), which would otherwise apply because of the MOX fuel's low plutonium content and the weight and size of the MOX fuel assemblies. The proposed MOX fuel security requirements are intended to be consistent with the approach implemented by Catawba through the MOX lead test assembly effort.
6. Cyber security requirements. This proposed rule would contain more detailed programmatic requirements for addressing cyber security at power reactors, which build on the requirements imposed by the February 2002 order. The proposed cyber-security requirements are designed to be consistent with ongoing industry cyber-security efforts.
7. Mitigating strategies. The proposed rule would require licensees to develop specific guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities using existing or readily available resources (equipment and personnel) that can be effectively implemented under the circumstances associated with the loss of large areas of the plant due to explosions or fire. These proposed requirements would be incorporated into the proposed Appendix C to Part 73.
8. Access authorization enhancements. The proposed changes would improve the integration of the access authorization requirements, fitness-for-duty requirements, and security program requirements. The proposed rule would include an increase in the rigor for some elements of the access authorization program including requirements for the conduct of psychological assessments, requirements for individuals to report arrests to the reviewing official, and requirements to clarify the responsibility for the acceptance of shared information. The proposed rule would also add requirements to allow NRC inspection of licensee information sharing records. Additionally, the proposed rule would increase the scope of personnel subject to access authorization requirements to include additional individuals who have electronic access to a system that can adversely impact safety, security or emergency preparedness, or those who administer the access authorization program. As directed in the staff requirements memorandum for SECY-06-0047, "Staff Requirements SECY-06-0047 Providing Greater Assurance Regarding the True Identity of Individuals Seeking Escorted Access to NRC-Licensed Power Reactor Facilities," dated

April 13, 2006, the proposed rule does not include additional requirements for licensees to verify the identity of escorted individuals.

9. Training and qualification enhancements. The proposed rule would include modifications to the training and qualification requirements that are based on insights from implementation of the security orders, review of site security plans, and implementation of the enhanced baseline inspection program and force-on-force exercises. These new requirements include additional physical requirements for unarmed security personnel to assure that personnel performing these functions meet requirements commensurate with their duties. Proposed new requirements also include a minimum age requirement of 18 years for unarmed responders, qualification scores for testing required by the training and qualification plan, qualification requirements for security trainers, qualification requirements of personnel assessing psychological qualifications, armorer certification requirements, and program requirements for on-the-job training.
10. Security Program implementation insights. The proposed rule would impose new enhancements identified from implementation of the security orders, review of site security plans, and implementation of the enhanced baseline inspection program and force-on-force exercises. These new requirements would include changes to specifically require that the central alarm station (CAS) and secondary alarm station (SAS) have functionally equivalent capabilities such that no single act can disable the function of both CAS and SAS. The proposed additions would also include requirements for new reactor licensees to position the SAS within the protected area, add bullet resistance and limit the visibility into SAS. Proposed additions also require uninterruptible backup power supplies for detection and assessment equipment, "video-capture" capability, and qualification requirements for drill and exercise controllers.
11. Miscellaneous. The proposed rule would eliminate some requirements that the staff found to be unnecessary to ensure high assurance that activities involving special nuclear material are not inimical to the common defense and security and do not constitute an unreasonable risk to the public health and safety, such as the requirement for guards to escort operators of motor vehicles within the protected area if the operators are cleared for unescorted access. The proposed rule would also add new requirements, including predefined provisions for the suspension of safeguards measures for severe weather conditions that could result in life-threatening situations for security personnel (e.g., tornadoes, floods, and hurricanes), and reduced overly-prescriptive requirements through the inclusion of performance-based language to allow flexibility in the methods used to accomplish requirements.

Rule Language and Stakeholder Comment

In the proposed rule on 10 CFR 73.1, "Design Basis Threat," (see 70 FR 67380; November 7, 2005) the Commission approved the staff's recommendations for providing sufficient

information in the proposed rule to support meaningful public comment while providing appropriate levels of information and preventing the inclusion of Safeguards Information (SGI) and Classified Information.¹ Consequently, more detailed information related to the licensee's implementation of and compliance with the proposed rule was included in separate documents; and these separate documents contained information in a level of detail that required the documents to be protected as SGI and/or classified information, as appropriate. The staff plans to use the same approach in this proposed rule on power reactor security requirements (i.e., the text of the proposed rule would set forth all binding regulatory requirements, and information related to the implementation of and compliance with the proposed rule would be contained in regulatory guidance issued separately). Access to the regulatory guidance is not necessary for meaningful comment on the proposed rule. Because this regulatory guidance may contain SGI and/or classified information, these documents would only be available to those individuals with a need-to-know, and are qualified to have access to SGI and/or classified information, as applicable. This regulatory guidance is being developed in parallel with this rulemaking effort and the staff plans to issue this guidance after the publication of the final rule.

Additionally, subsequent to the issuance of a final rule, the staff will provide the Commission recommendations on the disposition, modification, and/or termination of existing power reactor security orders. The proposed rule would require licensees to update their physical security plans, training and qualification plans, and safeguards contingency plans, as appropriate. Upon completion of the staff's review of these newly updated plans, the reactor security orders may be rescinded or modified. Future applicants for an operating license under Parts 50 or 52 would be expected to address the NRC's applicable regulatory guidance in developing their physical security plans, training and qualification plans, and safeguards contingency plans. As with current licensees, compliance with these security plans would be a condition of their operating license.

Lastly, in a Commission memorandum dated July 29, 2005, the staff indicated that in order to meet the accelerated rulemaking schedule, stakeholder participation would not be included during the development of the proposed rule. As a result, the staff's assessments of impacts to individual licensees as a result of the proposed new requirements have not been informed by stakeholder insights. Headquarters and regional staffs have discussed their understanding of the potential differences between the proposed new requirements and the current security measures in place at existing licensees and have incorporated available, non-safeguards, information into the enclosed draft Regulatory Analysis [Enclosure 3]. A second result of the accelerated schedule for this very complex rulemaking is that the staff anticipates significant stakeholder comments on various aspects of the proposed rule. To address these issues, the staff will seek additional insights from stakeholders on feasibility, implementing costs, and schedule issues via questions in the proposed rule *Federal Register* notice and will integrate this information into the final Regulatory Analysis accompanying the final rule. The staff plans to conduct a public meeting during the comment period to obtain stakeholder inputs and insights. These comments will be considered in developing the final rule. Finally, in developing this proposed rule, the staff has recognized that there may be exceptional circumstances affecting a small number of licensees for whom it may be impracticable to comply with all of the requirements of the proposed rule due to site specific conditions. Thus, after it has identified

¹ See SECY-05-0106, "Proposed Rulemaking to Revise 10 CFR 73.1, Design Basis Threat (DBT) Requirements," June 14, 2005.

those specific licensees, if any, during the comment period, the staff will consider the need for flexibility in the final rule in evaluating the use of alternative measures and extended implementation schedules for selected licensees, so as to not impose an unnecessarily regulatory burden on these licensees.

Conforming and Corrective Changes

In addition to the proposed changes identified above, conforming changes to the requirements listed below are expected to ensure that cross-referencing between the various security regulations in Part 73 is preserved, and to avoid revising requirements for licensees who are not within the scope of this proposed rule. The following requirements contain conforming changes:

- Section 50.34, "Contents of applications; technical information" would be revised to align the application requirements with the proposed revisions to Appendix C to 10 CFR Part 73.
- Section 50.54, "Conditions of licenses" would be revised to conform with the proposed revisions to sections in Appendix C to 10 CFR Part 73.
- Section 50.72, "Immediate notification requirements for operating nuclear power reactors" would be revised to state (in footnote 1) that immediate notification to the NRC may be required (per the proposed § 73.71 requirements) prior to the notification requirements under the current § 50.72.
- Section 72.212, "Conditions of general license issued under § 72.210" would be revised to reference the appropriate revised paragraph numbers in proposed § 73.55.
- Section 73.8, "Information collection requirements: OMB approval" would be revised to add the newly proposed requirements (§§ 73.18, 73.19, 73.58, and NRC Form 754) to the list of sections and forms with the Office of Management and Budget (OMB) information collection requirements. A corrective change would also be made to § 73.8 to reflect the existence of a current OMB approved information collection requirement for NRC Form 366 which is specified under the existing § 73.71.
- Section 73.70, "Records" would be revised to reference the appropriate revised paragraph numbers in proposed § 73.55 regarding the need to retain a record of the registry of visitors.

Additionally, § 73.81(b), "Criminal penalties" which sets forth the sections within Part 73 that are not subject to criminal sanctions under the AEA, would remain unchanged since willful violations of the newly proposed §§ 73.18, 73.19, and 73.58 could be subject to criminal sanctions.

Appendix B and Appendix C to Part 73 require special treatment in this rulemaking to preserve, with a minimum of conforming changes, the current requirements for licensees and applicants to whom this proposed rule would not apply. Accordingly, section I through V of Appendix B would remain unchanged, and the proposed new language for power reactors would be added as section VI. Appendix C would be divided into two sections, with Section I maintaining all current requirements, and Section II containing all proposed requirements related to power reactors.

COMMITMENTS:

1. The staff plans to provide a final rule to the Commission within one year of the close of the public comment period on the proposed rule.
2. The staff plans to conduct a public meeting to obtain stakeholder insights during the public comment period.
3. The staff plans to, as necessary, update the Enforcement Policy (Supplements I, II, and III); develop new and update, consolidate, or eliminate existing regulatory guidance documents; and update inspection procedures, after the publication of the final rule.
4. The staff plans to provide the Commission a separate paper containing the guidelines required by Sec. 161A.d of the AEA upon completion of its coordination with DOJ, FBI, and ATF. The NRC staff plans to discuss any associated resource and implementation issues associated with the guidelines in this separate paper.
5. The staff plans to provide the Commission recommendations on what other types of facilities, radioactive material, or other property are appropriate for the use of enhanced weapons in implementing a protective strategy, subsequent to the publication of the guidelines.
6. The staff plans to provide the Commission recommendations on the disposition, modification, and/or termination of existing power reactor security orders, subsequent to the issuance of the final rule and licensee implementation of the revised regulations.

RESOURCES:

The resources needed to complete the proposed rulemaking and guidance are estimated in the table below. These resources are currently included in the office budgets or budget requirements.

	FY 2006		FY 2007		FY 2008	
	FTE	\$K	FTE	\$K	FTE	\$K
NRR	1.1	30	1.2	80	0.4	0
NSIR	6.3	660	3.5	500	1.2	200
NMSS	0.2	0	0.1	0	0	0
OGC	0.4	0	0.3	0	0.1	0
OE	0	0	0.1	0	0.3	0
Total	8.0	690	5.2	580	2.0	200

RECOMMENDATIONS:

That the Commission:

1. Approve for publication in the *Federal Register* the proposed amendments to 10 CFR Parts 50, 72, and 73 with appendices (Enclosure 1).
2. Certify that this rule, if promulgated, will not have a negative economic impact on a substantial number of small entities in order to satisfy requirements of the Regulatory Flexibility Act, 5 U.S.C. 605(b).
3. Note:
 - a. The proposed rule will be published in the *Federal Register* for a 75-day comment period (Enclosure 1);
 - b. A new draft NRC Form 754 has been prepared for licensee security personnel to submit to accomplish the FBI NICS firearms background checks (Enclosure 2);
 - c. A draft regulatory analysis (including a backfit analysis) has been prepared (Enclosure 3);
 - d. A draft environmental assessment and finding of no significant impact has been prepared (Enclosure 4);
 - e. This proposed rule amends and creates new information collection requirements that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. § 3501 *et seq.*). This rule will be submitted to the OMB for review and approval of the paperwork requirements (Section XII of Enclosure 1);
 - f. The Chief Counsel for Advocacy of the Small Business Administration will be informed of the certification regarding the economic impact on small entities and the reasons for it as required by the Regulatory Flexibility Act (Section XIV of Enclosure 1);
 - g. The appropriate Congressional Committees will be informed.
 - h. The Office of Public Affairs will issue a press release.

COORDINATION:

The Office of the General Counsel has no legal objection concerning this paper. The Office of the Chief Financial Officer has reviewed this paper for resource implications and has no objections. The Advisory Committee on Reactor Safeguards (ACRS) has deferred its review of the technical aspects of this rulemaking that relate to reactor safety (i.e., the safety/security interface requirements portion of the proposed rulemaking) until the final rulemaking. The Committee to Review Generic Requirements review of this rulemaking has been deferred until the final rule stage.

/RA Martin J. Virgilio Acting For/

Luis A. Reyes
Executive Director
for Operations

Enclosures:

1. Federal Register Notice
2. Proposed NRC Form 754
3. Draft Regulatory Analysis
4. Draft Environmental Assessment

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*See previous concurrence

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NAME	R Rasmussen*	T Reed*	E McKenna*	C Grimes*	PKleene*	L Solander*
DATE	4/4 /06	4/4/06	5/12/06	5/12/06	4/10/06	4/20/06
OFFICE	NSIR/DDRSR	NSIR/DPR	NSIR/DSO	NSIR/DSP	OIS	ADM/DFS
NAME	VOrdaz*	E Leeds*	D Dorman*	G Tracy*	B Shelton*	S Stewart*
DATE	5/8/06	5/3/06	5/12/06	5/12/06	5/16 /06	4/25 /06
OFFICE	ADM/RDB*	OGC*	OI	OCFO	RES	NMSS*
NAME	M Lesar	STreby	G Caputo*	J Funches*	B Sheron*	J Strosnider
DATE	4/ 25 /06	5/23/06	4/ 25 /06	5/ 3 /06	5/8 /06	4/26 /06
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DATE	5/8 /06	5/12/06	5/19/06	5/31/06	5/30/06	5/31/06

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