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# **Environmental Assessment Supporting Proposed Rule, Power Reactor Security Requirements**

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**U.S. Nuclear Regulatory Commission  
Office of Nuclear Reactor Regulation**

**July 2006**



UNITED STATES NUCLEAR REGULATORY COMMISSION  
ENVIRONMENTAL ASSESSMENT AND FINDING OF  
NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (NRC) is proposing to revise the security requirements for nuclear power reactors. The security requirements impacted by this proposed rulemaking include § 73.2, § 73.55, § 73.56, § 73.71, 10 CFR Part 73 Appendix B, 10 CFR Part 73 Appendix C, and 10 CFR Part 73 Appendix G. In addition, the NRC is adding three new requirements to Part 73: § 73.18, § 73.19, and § 73.58. In addition, the proposed rulemaking makes conforming changes to other sections of Part 73, Part 72, and Part 50 to fix cross references and to maintain the scope for licensees not within the scope of this rulemaking.

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 changes to the Design Basis Threat (DBT), as well, as requirements for specific training enhancements, access authorization enhancements, and enhancements to defensive strategies. Additionally, in generic communications, the Commission specified expectations about enhanced notifications to the NRC for certain security events or suspicious activities.

Most of the requirements in this proposed rulemaking are derived directly from, or through 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 NRC completed its review and approval of all of the revised security plans, training and qualification plans, and safeguards contingency plans on October 30, 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 (EPAAct 2005) is another source of the new requirements incorporated into this proposed rule. The President signed the EPAAct 2005 into law on August 8, 2005. The EPAAct 2005 contains provisions that relate to nuclear power plant security. Section 652 of the act expands the scope of personnel and licensees subject to fingerprinting and criminal history checks. However, these fingerprint requirements do not impact the proposed power reactor rulemaking since NRC already has this authority for power reactors. Section 653 allows the NRC to authorize (but not require) licensees to use enhanced weapons. Section 653 also requires that all security personnel with access to any weapons undergo a firearms background check. Additionally, the EPAAct 2005 requires the NRC to implement requirements to conduct security evaluations including periodic force-on-force exercises and to

mitigate any potential conflict of interest that could influence the results of force-on-force exercises. These provisions of EAct 2005 would be incorporated into the newly proposed §§ 73.18 and 73.19, and the revision to proposed 73.55 and the newly proposed NRC Form 754 (Enclosure 2). To implement the EAct 2005 provisions efficiently, the NRC expanded the rulemaking's scope beyond power reactors (for the EAct 2005 provisions related to the use of enhanced weapons and firearms background checks only) to cover facilities authorized to possess formula quantities or greater of strategic special nuclear material (i.e., Category I SSNM facilities). Such facilities would include: production facilities, spent fuel reprocessing facilities, fuel processing facilities, and uranium enrichment facilities.

Through implementing the security orders, reviewing the revised site security plans, and evaluating force-on-force exercises, the NRC has identified some additional security measures necessary to ensure that licensees provide high assurance that public health and safety and the common defense and security are adequately protected.

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.

The proposed amendments to the physical security requirements for power reactors, and for the new weapons requirements, Category I SSNM facilities, would result in changes to the following existing sections and appendices in 10 CFR 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 also 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 rule would also add a new NRC Form 754 under the proposed new § 73.18.

Conforming changes to the requirements listed below are proposed in order to ensure that cross-referencing between the various security regulations in Part 73 are 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 new proposed requirements (§§ 73.18, 73.19, and NRC Form 754) to the list of sections and forms with OMB information collection requirements. A corrective revision to § 73.8 would also be made to reflect OMB approval of existing information collection requirements for NRC Form 366 under 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, “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, the proposed new language for power reactors would be incorporated into fully redundant separate sections within each appendix (i.e., one section remains unchanged and the other section contains the proposed revisions for power reactors).

## ENVIRONMENTAL ASSESSMENT

### Identification of the Action:

The principal objective of the proposed revision to the security requirements in 10 CFR Part 73 is to consolidate the requirements put in place after September 11, 2001, with the existing requirements, to implement applicable provisions of the EAct 2005, and to add several new requirements as described above.

The approach proposed in this rulemaking would maintain a level of specificity in Part 73 that is comparable to the current regulation, while revising requirements to be consistent with the post-September 11, 2001 orders.

### The Need for the Action:

The proposed action is primarily needed because the Commission has determined that the security requirements previously imposed by orders, which applied only to existing licensees, should be made generically applicable. As a result, the governing security requirements in 10 CFR Part 73 would be more closely aligned with the requirements imposed by the post-September 11, 2001 orders. The current requirements described in Part 73 do not reflect the requirements which are currently in place at power reactors, and which were imposed by orders after September 11, 2001. Additionally, the current requirements do not reflect the relevant provisions of the EAct 2005 which the Commission is required to implement.

### Environmental Impacts of the Proposed Action:

This environmental assessment focuses on those aspects of the proposed rulemaking in which the revised requirements could potentially affect the environment. The NRC has concluded that there will be no significant radiological environmental impacts associated with implementation of the proposed rule requirements for the following reasons:

(1) The proposed revision to the Part 73 security requirements would not result in changes to the design basis requirements for the structures, systems, and components (SSCs) in the facility that function to limit the release of radiological effluents during and following postulated accidents. As a result, all the SSCs associated with limiting the releases of offsite radiological effluents would continue to be able to perform their functions, and as a result, there would be no significant radiological effluent impact. In this regard, the safety-security requirement (new section added as § 73.58) is intended to address the interface between security and safety, and the need to ensure that the potential for adverse effects on safety (due to security actions) or security (due to safety actions) are assessed and managed such that facility safety and security is maintained.

(2) The standards and requirements applicable to radiological releases and effluents would not be affected by this rulemaking and would continue to apply to the SSCs affected by this rulemaking.

The principal effect of this action would be to revise the governing regulations pertaining to security to make them more closely align with the previously imposed orders, to make changes required to implement the EAct 2005, and to add several new requirements. The majority of these requirements stem from the security orders issued after September 11, 2001, and are already in place at power reactors. None of the proposed revisions have an impact on occupational exposures, consequently the NRC has concluded that this action would cause no impact on occupational exposure.

For the reasons discussed above, the action will not significantly increase the probability or consequences of accidents, nor result in changes being made in the types of any effluents

that may be released off-site, and there would be no significant increase in occupational or public radiation exposure.

With regard to potential nonradiological impacts, implementation of the rule requirements would have no impact on the environment. The revised requirements would not affect any historic sites, would not affect nonradiological plant effluents, and would have no other environmental impact. Therefore, there would be no significant nonradiological environmental impacts associated with the action.

Accordingly, the NRC staff concludes that there would be no significant environmental impacts associated with the action.

Alternatives to the Proposed Action:

As an alternative to the rulemakings described above, the NRC staff considered not taking the action (i.e., the “no-action” alternative). Not revising the security regulations would result in no change in current environmental impacts since the proposed requirements have no environmental impact and taking no action therefore results in no net change to the environment. However, the no action alternative would leave the governing security regulations as they are, and the regulation would not reflect the actual requirements governing security. In addition, not taking action would cause the NRC to not be responsive to the EPA Act 2005. The NRC staff concluded that leaving the governing security regulations unaligned with order requirements is not a desirable regulatory practice . The Commission has directed the staff to revise the regulations in a Staff Requirements Memorandum dated August 23, 2004.

Alternative Use of Resources:

This action would not involve the use of any resources not previously considered by the NRC in its past environmental statements for issuance of operating licenses for the facilities that would be affected by this action.

Agencies and Persons Consulted:

The NRC staff developed the proposed rule and this environmental assessment. In accordance with its stated policy, the NRC staff provided a copy of the proposed rule to designated liaison officials for each state. No other agencies were consulted.

FINDING OF NO SIGNIFICANT IMPACT

On the basis of the environmental assessment, the NRC concludes that the action will not have a significant effect on the quality of the human environment. Accordingly, the NRC has determined not to prepare an environmental impact statement for the action.

Documents may be examined and/or copied for a fee, at the NRC's Public Document Room, located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland 20852. Publicly available records will be accessible electronically from the Agencywide Documents Access and Management System (ADAMS) Public Library component on the NRC web site <http://www.nrc.gov> (Electronic Reading Room).

Dated at Rockville, Maryland, this    th day of           , 2006.

FOR THE NUCLEAR REGULATORY COMMISSION

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