

RULEMAKING ISSUE AFFIRMATION

October 30, 2006

SECY-06-0219

FOR: The Commissioners

FROM: Luis A. Reyes
Executive Director for Operations

SUBJECT: FINAL RULEMAKING TO REVISE 10 CFR 73.1, DESIGN BASIS
THREAT (DBT) REQUIREMENTS

PURPOSE:

To obtain Commission approval to publish the final rule for 10 CFR 73.1 and to close Petition for Rulemaking (PRM)-73-12.

SUMMARY:

The Nuclear Regulatory Commission (NRC) is recommending that the Commission amend its regulations that govern the requirements pertaining to the design basis threats (DBTs). This final rule would make generically applicable security requirements similar to those previously imposed by the Commission's April 29, 2003 DBT Orders, based upon experience and insights gained by the Commission during implementation, and redefines the level of security requirements necessary to ensure that the public health and safety and common defense and security are adequately protected. The final rule will also satisfy the Commission's statutory obligation under Section 651 of the Energy Policy Act of 2005 (EPAAct) to initiate and complete a rulemaking revising the DBT, considering the 12 factors specified in the Act. Additionally, PRM-73-12, filed by the Committee to Bridge the Gap, was considered as part of this rulemaking. The NRC partially granted PRM-73-12 in the proposed rule, but deferred action on other aspects of the petition to this rulemaking. The NRC's final disposition of PRM-73-12 is contained in this document.

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BACKGROUND

The DBT requirements in 10 CFR 73.1(a) describe general adversary characteristics that designated licensees must defend against with high assurance. The requirements include protection against radiological sabotage (generally applied to power reactors and Category I fuel cycle facilities) and theft or diversion of NRC-licensed Strategic Special Nuclear Material (SSNM) (generally applied to Category I fuel cycle facilities). The DBTs are used by these licensees to form the basis for site-specific defensive strategies implemented through security plans, safeguards contingency plans, and security officer training and qualification plans. Radiological sabotage specifically applies to facilities that use special nuclear material, and therefore create significant quantities of highly radioactive material. Theft or diversion applies to facilities that receive, acquire, possess, use, or transfer formula quantities of SSNM.

Following the terrorist attacks on September 11, 2001, the NRC conducted a thorough review of security to ensure that nuclear power plants and other licensed facilities and radioactive materials continued to have effective security measures in place for the changing threat environment. In so doing, the NRC recognized that some elements of the DBTs required enhancement due to the escalation of the domestic threat level. After soliciting and receiving comments from Federal, State, and local agencies, and industry stakeholders, the NRC imposed by order supplemental DBT requirements which contained additional detailed adversary characteristics. The Commission considered the balance between licensee responsibilities and the responsibilities of the local, State, and Federal Governments during the development of the April 29, 2003 DBT Orders.

Section 651(a) of the EPact amended the Atomic Energy Act (AEA) by adding Section 170E, that required the Commission to initiate a rulemaking to revise the DBTs. In addition, Section 170E also directed the Commission, in the course of that rulemaking, to consider, but not be limited to, the 12 factors specified in the statute. In addition to the 12 factors specified in the statute, this rulemaking took into consideration PRM-73-12, which was filed by the Committee to Bridge the Gap on July 23, 2004.

Summary of Public Comments on Proposed Rule

The proposed rule was published on November 7, 2005, for a 75-day public comment period (70 FR 67380). A 30-day extension of the comment period was granted recognizing that the original comment period spanned the year-end holiday period (71 FR 3791; January 24, 2006). In all, 919 comments were received from the public, stakeholders, and a local government, out of which 893 comments were form letters. The form letters raised concerns that the proposed rule did not adequately address the issues identified in PRM-73-12 and the 12 factors specified by the EPAct. Specifically, many comments focused on the NRC's consideration of waterborne and airborne threats, insisting in many instances that the NRC require licensees to construct "beamhenge" shields to protect against airborne attacks using a large commercial aircraft, and modeling the size of the adversary force on the composition of the September 11th hijackers. The comments have been organized in three groups: (1) comments regarding the 12 factors in the EPAct; (2) In-Scope comments, raising issues and questions directly related to the contents of the DBT rule; and (3) Out-of-Scope comments, raising issues and questions that are not directly related to the DBT rule, although they are generally relevant to the security of nuclear facilities. The staff has considered all comments, and provided detailed responses in the attached document.

Changes in Rule Text

After considering the public comments, the 12 factors of the EAct, and outstanding issues of PRM-73-12, the staff is proposing to explicitly include the threat of cyber attack as an element of the DBTs. The previous requirements in 10 CFR 73.1 did not include cyber attack as an explicit element of the DBTs. However, the cyber threat was implied as one of the capabilities of the insider.

In Section 651(a)(2) of the EAct, Congress directed the NRC to consider making an “assessment of physical, cyber, biochemical, and other terrorist threats” when writing the revised rule. In addition, the staff had been analyzing the cyber threat well before the EAct. The staff has several bases for adding a cyber attack element to the final rule. In February 2002, licensees subject to the DBTs were directed by the Interim Compensatory Measures Order (EA-02-026) to consider and address cyber safety and security vulnerabilities. In April 2003, the supplemented DBT Orders (EA-03-086 and EA-03-087) contained language concerning the cyber threat. Licensees were subsequently provided with a cyber security self-assessment methodology and the results of pilot studies by the NRC, as well as additional guidance issued by the nuclear industry, to facilitate development of site cyber security programs. Furthermore, according to the February, 2003, U.S. National Strategy to Secure Cyberspace, the cyber threat to critical infrastructure, in general, likely will increase both in capability and frequency in the future. Therefore, the staff recommends that the Commission include a cyber component as an explicit attribute of the DBTs.

The staff concludes that the final revisions to § 73.1 will ensure adequate protection of public health and safety and the common defense and security. The final DBT rule would make generically applicable requirements similar to those previously imposed by the April 29, 2003 DBT Orders, and used by licensees to develop and implement security measures. The NRC required licensees to use the supplemented DBT requirements in the April 29, 2003 Orders to revise their security plans. The staff has reviewed and approved all the licensees’ security plans, and amended the licenses to ensure that licensees fully implement and maintain in effect all provisions of the Commission-approved security plans. Consequently, the final DBTs would not require licensees to revise their current security plans, in spite of the inclusion of a cyber attribute as a part of the DBT rule because the current licensee security plans adequately satisfy the draft final DBT rule. The recommended rule text is provided in the enclosed *Federal Register* Notice (FRN), Enclosure 1.

Consideration of the 12 factors of the Energy Policy Act of 2005

The staff has considered the 12 factors of the EAct in conjunction with its experience in the implementation of the DBT orders, the issues raised in the PRM-73-12, and the stakeholder comments on the proposed rule. The staff’s conclusions are set forth in the statement of considerations in Section II of the attached FRN.

Resolution of Petition for Rulemaking

The staff incorporated into this rulemaking consideration of PRM-73-12 which was filed by the Committee to Bridge the Gap on July 23, 2004. The petition requests that NRC conduct a rulemaking to revise the DBT regulations (including numbers, teams, capabilities, planning, willingness to die, and other characteristics of adversaries) to a level that encompasses, with a

sufficient margin of safety, the terrorist capabilities demonstrated during the attacks of September 11, 2001. The petition also requests that security plans, systems, inspections, and force-on-force exercises be revised in accordance with the amended DBT. Finally, the petition requests that a requirement be added to Part 73 to require licensees to construct shields against air attack (referred to as "beamhenge") to enable nuclear power plants to withstand an air attack from a jumbo jet similar to the September 11, 2001, attacks.

PRM-73-12 was published for public comment on November 8, 2004 (69 FR 64690). There were 845 comments submitted on PRM-73-12, of which 528 were form letters. The staff has reviewed both the petition and the comments on the petition to determine whether the DBTs should be revised as requested by the petitioner. Based on that review, the NRC staff determined that a number of the requested upgrades in PRM-73-12 (e.g., capabilities, planning, characteristics of adversaries) have already been implemented. As noted in the FRN for the proposed rule (70 FR 67380; November 7, 2005), the NRC partially granted PRM-73-12 by conducting the proposed rulemaking revising the DBT requirements in § 73.1(a), but deferred action on other requests of the petition to the final rulemaking, specifically those aspects that deal with air-based attacks.

During the course of this rulemaking, the staff has considered whether an airborne threat should be included as part of the DBTs. The staff, after a thorough evaluation, is proposing that the Commission maintain the two-track response discussed below, to the air threat that excludes "beamhenges." First, the NRC has determined that the active protection against the airborne threat rests with other Federal Government organizations, including the military. Active protection against the airborne threat requires military weapons and ordnance (e.g. ground-based air defense missiles), that rightfully belong to and are under control of the Department of Defense. Thus, the airborne threat is one that is beyond what a private security force can reasonably be expected to defend against using active defensive measures. Notwithstanding active protection measures, the staff considers that passive measures already in place, such as increased aviation security instituted since September 11, 2001, are appropriate for protecting nuclear facilities from an aerial attack. Second, licensees have implemented mitigative measures to limit the effects of an aircraft strike. See, for example, Key Radiological Protection Mitigation Strategies Order, 71 FR 36554, June 27, 2006.

Therefore, the staff proposes denial of the request by PRM-73-12 to include an airborne threat in the DBT, as well as "beamhenges" as physical security measures.

Contents of the Final Rulemaking Package

This final rulemaking package contains the final rule, which includes the rule language and statement of considerations (Enclosure 1), the supporting regulatory analysis (Enclosure 2), a supporting environmental assessment (Enclosure 3), and a summary of the public comments submitted on the proposed rule (Enclosure 4).

Guidance and detailed information related to the DBTs reflected in the final rule are contained in the documents identified below, which are either Safeguards Information or classified information, and therefore, are withheld from public disclosure and made available only on a need-to-know basis to those with authorized access:

- Radiological Sabotage Adversary Characteristics Document (Safeguards Information)

- Theft or Diversion Adversary Characteristics Document (Confidential National Security Information)
- Technical Basis Document (Secret National Security Information)
- Regulatory Guide (RG)-5.69, "Guidance for the Implementation of the Radiological Sabotage Design-Basis Threat" (Safeguards Information)
- RG-5.70, "Guidance for the Implementation of the Theft or Diversion Design-Basis Threat" (Confidential National Security Information)

Stakeholders with authorized access have been informed regarding the content of the regulatory guidance relating to this rule.

If approved by the Commission, a cyber attack would be included as an explicit attribute of the DBTs in the final rule that was not included in the proposed rule. However, this does not create new information collection requirements beyond those required by Interim Compensatory Measures and DBT orders (EA-02-026, EA-02-027, EA-02-086, and EA-03-087). Therefore, this rule is not subject to the requirements of the Paperwork Reduction Act of 1995 (44 U.S.C 3501 et seq.).

RESOURCES

The draft final revisions to § 73.1 do not result in the need for additional inspection resources. Inspection of licensee implementation of the draft final DBT requirements is ongoing as part of the baseline inspection program and force-on-force evaluations.

COORDINATION:

The Office of the General Counsel has no legal objection to this paper.

The Office of the Chief Financial Officer has reviewed this Commission paper for resource implications and has no objections.

The Advisory Committee on Reactor Safeguards elected not to review the final rule requirements.

The Committee to Review Generic Requirements has completed its review of the final rule package and has no objections.

RECOMMENDATIONS:

That the Commission:

1. *Approve* the final rule for publication (Enclosure 1).
2. *Certify* that this rule does not have a negative economic impact on a substantial number of small entities in order to satisfy the requirements of the Regulatory Flexibility Act, 5 U.S.C. 605(b).3.
3. *Close* PRM-73-12.

Note:

- a. The final rule will be published in the Federal Register with a deferred 30-day effective date.
- b. The Chief Counsel for Advocacy of the Small Business Administration will be informed of the certification regarding economic impact on small entities and the basis for the certification, as required by the Regulatory Flexibility Act.
- c. Copies of the published final rule will be distributed to all affected Commission licensees. The document will be sent to other interested parties upon request. Copies of these documents are also available in the NRC's Agencywide Document Access and Management System, the Public Document Room and on the NRC rulemaking Web site.
- d. A public announcement will be issued.
- e. The appropriate Congressional committees will be informed.

/RA William F. Kane Acting for/

Luis A. Reyes
Executive Director
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Enclosures:

1. Final Rule
2. Regulatory Analysis
3. Environmental Assessment
4. Summary of Public Comments on the Proposed Rule

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W200400177

Adams Package No.: ML062130289

Commission Paper: ML062130442

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