

NUCLEAR REGULATORY COMMISSION

10 CFR Part 73

RIN 3150-AH60

Design Basis Threat

AGENCY: Nuclear Regulatory Commission

ACTION: Proposed rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is proposing to amend its regulations that govern the requirements pertaining to design basis threat (DBT). The proposed amendment would consolidate the existing DBT requirements in § 73.1(a) with the supplemental DBT requirements put in place by Commission orders issued on April 29, 2003 (68 FR 24517, 68 FR 26675, 68 FR 26676). The specific details related to the threat, which contain both safeguards information (SGI) and classified information, are consolidated in adversary characteristics documents (ACDs) that are not publicly available. These documents include specific details of the attributes of the threat consistent with the requirements imposed in the April 29, 2003, DBT orders. The proposed rule would revise the DBT requirements for radiological sabotage (applied to power reactors and Category I fuel cycle facilities pursuant to § 73.55(a) and § 73.20(a) respectively), and theft or diversion of NRC-licensed Strategic Special Nuclear Material (SSNM) (applied to Category I fuel cycle facilities pursuant to § 73.20(a)). The NRC has developed draft Regulatory Guides (RGs) that provide guidance concerning the DBT for radiological sabotage and theft and diversion. These draft RGs have limited distribution because they contain either safeguards or classified information. Additionally, a Petition for Rulemaking (PRM -73-12), filed by the Committee to Bridge the Gap, was considered as part of this proposed rulemaking; the NRC's disposition of this petition is contained in this document.

DATE: Submit comments by [insert date 75 days after publication in the *Federal Register*.]  
Comments received after this date will be considered if it is practical to do so, but the Commission is able to ensure consideration only for comments received on or before this date.

ADDRESSES: You may submit comments by any one of the following methods. Please include the following number RIN 3150-AH60 in the subject line of your comments. Comments on rulemakings submitted in writing or in electronic form will be made available for public inspection. Because your comments will not be edited to remove any identifying or contact information, the NRC cautions you against including any information in your submission that you do not want to be publicly disclosed.

Mail comments to: Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, ATTN: Rulemakings and Adjudications Staff.

E-mail comments to: [SECY@nrc.gov](mailto:SECY@nrc.gov). If you do not receive a reply e-mail confirming that we have received your comments, contact us directly at (301) 415-1966. You may also submit comments via the NRC's rulemaking web site at <http://ruleforum.llnl.gov>. Address questions about our rulemaking website to Carol Gallagher (301) 415-5905; email [cag@nrc.gov](mailto:cag@nrc.gov).

Comments can also be submitted via the Federal eRulemaking Portal <http://www.regulations.gov>.

Hand deliver comments to: 11555 Rockville Pike, Rockville, Maryland 20852, between 7:30 am and 4:15 pm Federal workdays. (Telephone (301) 415-1966).

Fax comments to: Secretary, U.S. Nuclear Regulatory Commission at (301) 415-1101.

You may submit comments on the information collections by the methods indicated in the Paperwork Reduction Act Statement.

Publicly available documents related to this rulemaking may be viewed electronically on the public computers located at the NRC's Public Document Room (PDR), O1 F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland. The PDR reproduction contractor will copy documents for a fee. Selected documents, including comments, may be viewed and downloaded electronically via the NRC rulemaking web site at <http://ruleforum.inl.gov>.

Publicly available documents created or received at the NRC after November 1, 1999, are available electronically at the NRC's Electronic Reading Room at <http://www.nrc.gov/reading-rm/adams.html>. From this site, the public can gain entry into the NRC's Agencywide Document Access and Management System (ADAMS), which provides text and image files of NRC's public documents. If you do not have access to ADAMS or if there are problems in accessing the documents located in ADAMS, contact the NRC Public Document Room (PDR) Reference staff at 1-800-397-4209, 301-415-4737 or by email to [pdrr@nrc.gov](mailto:pdrr@nrc.gov).

FOR FURTHER INFORMATION CONTACT: Mr. Timothy Reed, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001; telephone (301) 415-1462; e-mail: [tar@nrc.gov](mailto:tar@nrc.gov) or Mr. Richard Rasmussen, Office of Nuclear Security and Incident Response, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001; telephone (301) 415-8380; e-mail: [rar@nrc.gov](mailto:rar@nrc.gov).

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## I. Background

The DBT requirements in 10 CFR 73.1(a) describe general adversary characteristics that designated licensees must defend against with high assurance. The NRC requirements include protection against radiological sabotage (generally applied to power reactors and Category I fuel cycle facilities) and theft or diversion of NRC-licensed SSNM (generally applied to Category I fuel cycle facilities). Radiological sabotage specifically applies to facilities that use special nuclear material. However, current Category I facilities do not typically possess or use nuclear/radioactive materials that would constitute a radiological sabotage threat. Theft or diversion applies to facilities that receive, acquire, possess, use, or transfer formula quantities of SSNM. The DBTs are used by these licensees to form the basis for site-specific defensive strategies implemented through security plans, safeguards contingency plans, and guard training and qualification plans.

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 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, local agencies, and industry stakeholders, the NRC imposed by order supplemental DBT requirements which contained additional detailed adversary characteristics. The balance between licensee responsibilities and the responsibilities of the local, State and Federal Governments was considered during the development of the April 29, 2003, DBT orders.

The Commission's decision was based on the analysis of intelligence information regarding the trends and capabilities of the potential adversaries and discussions with Federal, law enforcement, and intelligence community agencies. These enhanced adversary

characteristics are reflective of the new threat environment and are described in the April 29, 2003, DBT orders. In general terms, DBTs are comprised of attributes selected from the overall threat environment. The ACDs set forth the specific details of the attributes of the DBTs. The DBT technical basis document contains a basis for the specific adversary characteristics. These supplemental documents contain safeguards and classified information, and therefore, are withheld from public disclosure and only distributed on a need-to-know basis to persons with authorized access. The NRC's DBT is not based on worst-case scenarios but rather on actual adversary characteristics demonstrated worldwide and a determination as to those characteristics against which a private security force could reasonably be expected to provide protection.

The April 29, 2003, DBT orders required nuclear power reactors and Category I fuel cycle licensees to revise their physical security plans, security personnel training and qualification plans, and safeguards contingency plans to defend against the supplemental DBT requirements. The orders resulted in licensee security enhancements such as increased patrols; augmented security forces and capabilities; additional security posts; additional physical barriers; vehicle checks at greater standoff distances; better 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 worker initial and follow-on screening. Currently, all power reactor and Category I fuel facilities have received NRC approval of security plans consistent with the DBTs imposed by the April 2003 orders.

## II. Rulemaking Initiation

On July 19, 2004, the staff issued a memorandum entitled “Status of Security-Related Rulemaking” to inform the Commission of plans to close two longstanding security-related actions and replace them with a comprehensive rulemaking plan to modify physical protection requirements for power reactors. This memorandum described rulemaking efforts that were preempted by the terrorist activities of September 11, 2001, and summarized the security-related actions taken following the attack. In response to this memorandum, the Commission directed the staff in an August 23, 2004, Staff Requirements Memorandum (SRM), to forego the development of a rulemaking plan and provide a schedule for the completion of 10 CFR 73.1, 73.55, and Part 73 Appendix B rulemakings. The requested schedule was provided to the Commission by memorandum dated November 16, 2004.

## III. Proposed Regulations

The principal objective of the proposed revision to the § 73.1(a) DBT rule is to consolidate the supplemental requirements put in place by the April 29, 2003, DBT orders with the existing DBTs requirements in § 73.1(a) in an expedited manner. During the development of this rule the staff identified several potential changes to the regulations that are not proposed at this time and which the staff does not consider necessary at this time to assure safety or security.

To achieve alignment with requirements imposed by order, the proposed rule would revise certain exemptions for independent spent fuel storage installations (ISFSIs). The current DBT rule exempts ISFSIs from the land vehicle transport and land vehicle bomb threats contained in §§ 73.1(a)(1)(i)(E) and (a)(1)(iii), respectively. These exemptions should no longer be retained because the Commission issued orders to ISFSIs on October 16, 2002,

requiring ISFSIs to protect against these threats. An exemption from the waterborne threat would be added for ISFSIs so that the proposed rule would be consistent with security requirements previously imposed by Commission orders. The Staff evaluated the need for including waterborne requirements in the October 16, 2002, ISFSI orders and concluded that other means in the orders were sufficiently protective that specific requirements for waterborne were not required.

The proposed rule would also amend the exemption in the current § 73.1(a) for licensees subject to the provisions of § 73.20. The current rule exempts these licensees from the requirements to protect against vehicles transporting adversary personnel and equipment and the land vehicle bomb. The Commission's DBT orders now, however, require certain licensees subject to § 73.20 (Category I fuel cycle facilities) to protect against such threats, so the exemption must be amended accordingly. The amended exemption would continue for other licensees described in 10 CFR § 73.20 (e.g., fuel reprocessing plants licensed under Part 50) because the Commission has not issued any orders that would require the exemption to be eliminated.<sup>1</sup>

The approach proposed in this rulemaking maintains a level of detail in the § 73.1(a) rule language that is generally comparable to the current regulation, while updating the general DBT attributes in a manner consistent with the supplemental requirements imposed by the April 29, 2003, DBT orders. The result is a proposed rule with a level of detail that reflects all major features of the DBTs, yet avoids compromising licensee security by not publishing the specific tactical and operational capabilities of the DBT adversaries. The goal of this approach is to provide sufficient public notice of the upgrades to the DBTs, including

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<sup>1</sup>Elimination of the exemption from the DBTs for fuel reprocessing plants should be considered if, in the near future, it appears a license application for such a facility will be filed. Fuel reprocessing plants would possess types and quantities of material requiring robust security. Elimination of the exemption is not being pursued here because of the limited scope of this rulemaking.



the new modes of attack that facilities must be prepared to defend against, so that meaningful public input is possible regarding the proposed rule's scope and content.

The NRC recognizes that some stakeholders may expect more detail than is set forth in the current or proposed DBT regulations. However, the more detail that is made publicly available about the specific capabilities of the DBT adversaries, the more information that would be available and that could be exploited by adversaries. If potential adversaries can readily identify the specific design bases for licensee security systems in a publicly available DBT regulation, then they could determine the force size and weapons types necessary to overcome these security systems. Disclosing such details as the specific weapons, ammunition, vehicles, and bomb sizes that licensees must be prepared to defend against could substantially assist an adversary in planning an attack.

On the other hand, it is important for the public to understand the types of attacks against which nuclear power plants and Category I fuel cycle facilities are required to defend. The public has a vital stake in the security of these facilities, as well as the right to meaningful comment when NRC proposes to amend its regulations. Understanding the general scope of the proposed DBT rule is necessary if the public is to exercise its right to meaningful comment and oversight of NRC regulations.

After carefully balancing these competing interests, the NRC arrived at the level of detail regarding the attributes of the DBT presented in the proposed rule. More specific details (e.g., specific weapons, ammunition, etc.) are consolidated in ACDs which contain classified or safeguards information. The technical bases for the ACDs are derived largely from intelligence information, and also contain classified and safeguards information that cannot be publicly disclosed. These documents will be withheld from public disclosure and made available on a need-to-know basis to those who otherwise qualify for access.

The ACDs may be updated from time to time as a result of the NRC's periodic threat reviews, which NRC has been conducting since 1979. Those threat assessments are performed in conjunction with the intelligence and law enforcement communities to identify changes in the threat environment which may in turn require adjustment of NRC security requirements. Future revisions to the ACDs would not require changes to the DBT regulations in § 73.1, provided the changes remain within the scope of the rule text.

The NRC consulted with Federal, State, and local agencies, and with industry stakeholders in developing the updated DBTs. This consultation involved analysis of intelligence information regarding the trends and capabilities of potential adversaries, and discussion with Federal, law enforcement, and intelligence community agencies. Public comments and suggestions received in response to PRM-73-12, also informed the NRC's development of this proposed rule. The resolution of PRM-73-12, which is being granted in part and denied in part, is more fully discussed in Section V of this notice.

The Commission concludes that the proposed amendments to § 73.1 ensure adequate protection of public health and safety and the common defense and security by requiring the secure use and management of radioactive materials. The DBTs represent the largest threats against which private sector facilities must be able to defend with high assurance. The proposed amendments to § 73.1 would not expand the DBTs beyond requirements currently in place under existing NRC regulations and orders.

#### IV. Section by Section Analysis

The following table provides a comparison between the proposed rule text and the current rule text. The changes are based on Commission order EA-03-086 *All Power Reactor Licensees; Order Modifying License (Effective Immediately)* dated April 29, 2003; Commission order EA-03-087 *In the Matter of Nuclear Fuel Services, Inc., Erwin, TN; Order*

*Modifying License (Effective Immediately)*, dated April 29, 2003; *In the Matter of BWX Technologies, Inc., Lynchburg, VA; Order Modifying License (Effective Immediately)*, dated April 29, 2003.

Old	New	Change
<p>(a) Purpose. This part prescribes requirements for the establishment and maintenance of a physical protection system which will have capabilities for the protection of special nuclear material at fixed sites and in transit and of plants in which special nuclear material is used. The following design basis threats, where referenced in ensuing sections of this part, shall be used to design safeguards systems to protect against acts of radiological sabotage and to prevent the theft of special nuclear material. Licensees subject to the provisions of § 72.182, § 72.212, § 73.20, § 73.50, and § 73.60 are exempt from § 73.1(a)(1)(i)(E) and § 73.1(a)(1)(iii).</p>	<p>(a) Purpose. This part prescribes requirements for the establishment and maintenance of a physical protection system which will have capabilities for the protection of special nuclear material at fixed sites and in transit and of plants in which special nuclear material is used. The following design basis threats, where referenced in ensuing sections of this part, shall be used to design safeguards systems to protect against acts of radiological sabotage and to prevent the theft or diversion of special nuclear material. Licensees subject to the provisions of § 73.20 (except for fuel cycle licensees authorized under part 70 of this chapter to receive, acquire, possess, transfer, use, or deliver for transportation formula quantities of strategic special nuclear material ), § 73.50, and § 73.60 are exempt from § 73.1(a)(1)(i)(E), § 73.1(a)(1)(iii), § 73.1(a)(1)(iv), § 73.1(a)(2)(iii) and § 73.1(a)(2)(iv). Licensees subject to the provisions of § 72.212, are exempt from § 73.1(a)(1)(iv).</p>	<p>The proposed paragraph is modified to clarify that the DBTs are designed to protect against diversion in addition to theft of special nuclear material.</p> <p>The proposed exemptions would be updated based on the order requirements and conforming changes to other paragraphs of this part.</p>

<p>(1) Radiological sabotage. (i) A determined violent external assault, attack by stealth, or deceptive actions, of several persons with the following attributes, assistance and equipment:</p>	<p>(1) Radiological sabotage. (i) A determined violent external assault, attack by stealth, or deceptive actions, including diversionary actions, by an adversary force capable of operating as one or more teams, attacking from one or more entry points, with the following attributes, assistance and equipment:</p>	<p>The proposed paragraph adds new capabilities to the DBT including operation as one or more teams and attack from multiple entry points.</p>
<p>(1)(i)(A) Well-trained (including military training and skills) and dedicated individuals,</p>	<p>(1)(i)(A) Well-trained (including military training and skills) and dedicated individuals, willing to kill or be killed, with sufficient knowledge to identify specific equipment or locations necessary for a successful attack,</p>	<p>The proposed paragraph would add to the DBT adversaries who are willing to kill or be killed and are knowledgeable about specific target selection.</p>
<p>(1)(i)(B) inside assistance which may include a knowledgeable individual who attempts to participate in a passive role (e.g., provide information), an active role (e.g., facilitate entrance and exit, disable alarms and communications, participate in violent attack), or both,</p>	<p>(1)(i)(B) active (e.g., facilitate entrance and exit, disable alarms and communications, participate in violent attack) or passive (e.g., provide information), or both, knowledgeable inside assistance,</p>	<p>The reference to an individual would be removed and the paragraph reworded to provide flexibility in defining the scope of the inside threat.</p>
<p>(1)(i)(C) suitable weapons, up to and including hand-held automatic weapons, equipped with silencers and having effective long range accuracy,</p>	<p>(1)(i)(C) suitable weapons, including hand-held automatic weapons, equipped with silencers and having effective long range accuracy,</p>	<p>The phrase “up to and including” was changed to “including” to provide flexibility in defining the range of weapons licensees must be able to defend against.</p>

<p>(1)(i)(D) hand-carried equipment, including incapacitating agents and explosives for use as tools of entry or for otherwise destroying reactor, facility, transporter, or container integrity or features of the safeguards system, and</p>	<p>(1)(i)(D) hand-carried equipment, including incapacitating agents and explosives for use as tools of entry or for otherwise destroying reactor, facility, transporter, or container integrity or features of the safeguards system, and</p>	<p>This description is not revised by the proposed rule.</p>
<p>(1)(i)(E) a four-wheel drive land vehicle used for transporting personnel and their hand-carried equipment to the proximity of vital areas, and</p>	<p>(1)(i)(E) land and water vehicles, which could be used for transporting personnel and their hand-carried equipment to the proximity of vital areas, and</p>	<p>The scope of vehicles licensees must defend against would be expanded to include water vehicles and a range of land vehicles beyond four-wheel drive vehicles.</p>
<p>(1)(ii) An internal threat of an insider, including an employee (in any position), and</p>	<p>(1)(ii) An internal threat, and</p>	<p>The current rule describes the internal threat as a threat posed by an individual. The language would be revised to provide flexibility in defining the scope of the internal threat without adding details that may be useful to an adversary.</p>

<p>(1)(iii) A four-wheel drive land vehicle bomb.</p>	<p>(1)(iii) A land vehicle bomb assault, which may be coordinated with an external assault, and</p>	<p>The proposed paragraph would be updated to reflect that licensees are required to protect against a wide range of land vehicles. A new mode of attack not previously part of the DBT would be added indicating that adversaries may coordinate a vehicle bomb assault with another external assault.</p>
<p>none</p>	<p>(1)(iv) A waterborne vehicle bomb assault, which may be coordinated with an external assault.</p>	<p>The proposed paragraph would add a new mode of attack not previously part of the DBT, that being a waterborne vehicle bomb assault. This paragraph also adds a coordinated attack concept.</p>
<p>(2) Theft or diversion of formula quantities of strategic special nuclear material. (i) A determined, violent, external assault, attack by stealth, or deceptive actions by a small group with the following attributes, assistance, and equipment:</p>	<p>(2) Theft or diversion of formula quantities of strategic special nuclear material. (i) A determined violent external assault, attack by stealth, or deceptive actions, including diversionary actions, by an adversary force capable of operating as one or more teams, attacking from one or more entry points, with the following attributes, assistance and equipment:</p>	<p>The proposed paragraph would add new adversary capabilities to the DBT including operation as one or more teams and attack from multiple entry points.</p>

<p>(2)(i)(A) Well-trained (including military training and skills) and dedicated individuals;</p>	<p>(2)(i)(A) Well-trained (including military training and skills) and dedicated individuals, willing to kill or be killed, with sufficient knowledge to identify specific equipment or locations necessary for a successful attack;</p>	<p>The proposed paragraph would add to the DBT adversaries who are willing to kill or be killed and are knowledgeable about specific target selection.</p>
<p>(2)(i)(B) Inside assistance that may include a knowledgeable individual who attempts to participate in a passive role (e.g., provide information), an active role (e.g., facilitate entrance and exit, disable alarms and communications, participate in violent attack), or both;</p>	<p>(2)(i)(B) Active (e.g., facilitate entrance and exit, disable alarms and communications, participate in violent attack) or passive (e.g., provide information), or both, knowledgeable inside assistance,</p>	<p>The reference to an individual would be removed and the paragraph reworded to provide flexibility in defining the scope of the inside threat.</p>
<p>(2)(i)(C) Suitable weapons, up to and including hand-held automatic weapons, equipped with silencers and having effective long-range accuracy;</p>	<p>(2)(i)(C) Suitable weapons, including hand-held automatic weapons, equipped with silencers and having effective long-range accuracy;</p>	<p>The phrase “up to and including” was changed to “including” to provide flexibility in defining the range of weapons licensees must be able to defend against.</p>
<p>(2)(i)(D) Hand-carried equipment, including incapacitating agents and explosives for use as tools of entry or for otherwise destroying reactor, facility, transporter, or container integrity or features of the safeguards system;</p>	<p>(2)(i)(D) Hand-carried equipment, including incapacitating agents and explosives for use as tools of entry or for otherwise destroying reactor, facility, transporter, or container integrity or features of the safeguards system;</p>	<p>This description is not revised by the proposed rule.</p>

<p>(2)(i)(E) Land vehicles used for transporting personnel and their hand-carried equipment; and</p>	<p>(2)(i)(E) Land and water vehicles, which could be used for transporting personnel and their hand-carried equipment; and</p>	<p>The scope of vehicles licensees must defend against would be expanded to include water vehicles and a range of land vehicles beyond four-wheel drive vehicles.</p>
<p>(2)(i)(F) the ability to operate as two or more teams.</p>	<p>Deleted</p>	<p>This requirement would be included in (2)(i) above.</p>
<p>(2)(ii) An individual, including an employee (in any position), and</p> <p>(2)(iii) A conspiracy between individuals in any position who may have:</p> <p>(A) Access to and detailed knowledge of nuclear power plants or the facilities referred to in § 73.20(a), or</p> <p>(B) items that could facilitate theft of special nuclear material (e.g., small tools, substitute material, false documents, etc.), or both.</p>	<p>(2)(ii) An internal threat, and</p>	<p>The current rule describes the internal threat as a threat posed by an individual. The language would be revised to provide flexibility in defining the scope of the internal threat without adding details that may be useful to an adversary.</p>



none	(2)(iii) A land vehicle bomb assault, which may be coordinated with an external assault, and	The proposed paragraph would be updated to reflect that licensees are required to protect against a wide range of land vehicles. A new mode of attack not previously part of the DBT would be added indicating that adversaries may coordinate a vehicle bomb assault with another external assault.
none	(2)(iv) A waterborne vehicle bomb assault, which may be coordinated with an external assault.	The proposed paragraph would add a new mode of attack not previously part of the DBT, that being a waterborne vehicle bomb assault. This coordinated attack concept is another upgrade to the current regulation.

Additional guidance concerning the adversary characteristics is located in the corresponding draft regulatory guides (radiological sabotage in DG-5017 and theft and diversion in DG-5018). These draft RGs contain either safeguards or classified information and are not publicly available. The DBT requirements in proposed § 73.1 and the adversary characteristic documents are consistent with the April 29, 2003, DBT orders and as a result would not impose any additional DBT requirements. As such, current licensees would not be

required to revise their security plans in response to the proposed § 73.1 requirements, nor would any additional reporting requirements be imposed.

#### V. Petition for Rulemaking (PRM-73-12)

As discussed above in this notice, the NRC staff reviewed PRM-73-12 to determine whether the regulations in Part 73 regarding the DBT should be amended in response to requests in PRM-73-12 and public comments received on the petition. PRM-73-12 was filed by the Committee to Bridge the Gap on July 23, 2004. The petition requests that the NRC amend its regulations to revise the DBT regulations (in terms of the 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 evidenced by 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 a requirement be added to Part 73 to construct shields against air attack (the shields are referred to as “beamhenge”) which the petition asserts would enable nuclear power plants to withstand an air attack from a jumbo jet.

PRM-73-12 was published for public comment in the *Federal Register* on November 8, 2004 (69 FR 64690). The public comment period expired on January 24, 2005. There were 845 comments submitted on PRM-73-12, of which 528 were form letters. Many of the comments were submitted after the comment period expired, however the staff reviewed and considered all of the comments. Comments were received from nine state attorneys general, approximately 20 public interest groups, a U.S. Congressman from Massachusetts, and six industry groups and licensees. In addition, two U.S. Senators and a U.S. Representative (all from New Jersey) requested an extension to the comment period. The bulk of the comments

either supported the petition, requested a stronger DBT, or requested that NRC give consideration to the petition. All the comments from industry and licensees opposed the petition and indicated that the supplemental DBT requirements imposed (by order) to date were adequate.

Based on a review of PRM-73-12 public comments, the NRC staff prepared a summary of those comments in the PRM-73-12 comment summary table (ML050540521). The table does not list each individual comment. The staff has grouped the comments by topic and provided the NRC's response. A review of the table shows that although there were a large number of comments, the comments fell into a relatively small number of topics.

The table contains the NRC's responses to the issues raised by public comments, but the responses to comments do not include a detailed comparison of the differences between the current DBT requirements (as imposed by the April 29, 2003 orders) and the requests in PRM-73-12. Such a comparison could reveal the limits of the proposed DBT rule, thereby compromising security. The NRC's post-September 11, 2001, review of security requirements encompassed all the issues raised by the petitioner, and a number of the petitioner's requested changes to the DBT have been incorporated into the proposed DBT amendments as discussed below.

The NRC is partially granting PRM-73-12 by conducting this proposed rulemaking to revise the DBT requirements in § 73.1(a). Some of the requested changes in PRM-73-12 are reflected in the proposed rule text. These changes include the proposed requirements in §§ 73.1(a)(1)(i) and (a)(2)(i) that licensees be required to protect against one or more teams of adversaries operating from multiple entry points. PRM-73-12 also requested that the DBT regulation make clear that adversaries are willing to kill and be killed. This change is reflected in proposed §§ 73.1(a)(1)(i)(A) and (a)(2)(i)(A). The proposed rule would also require

licensees to protect against waterborne threats, a wider range of land vehicles, and coordinated attacks. All of these features of the proposed rule grant requests made in PRM-73-12.

The NRC intends to deny the other requests in PRM-73-12, specifically the aspects of PRM 73-12 which deal with the defense of nuclear power plants against aircraft. PRM-73-12 requests that NRC require licensees to defend against air attack by constructing a series of steel beams that would break apart an attacking plane before it could impact the facility. The structure is referred to as “beamhenge.”

Federal efforts to protect the nation from terrorist attacks by air have increased substantially since September 11, 2001. Those efforts already include a variety of measures such as enhanced airline passenger and baggage screening, strengthened cockpit doors, and the federal Air Marshals program. Federal law enforcement and intelligence agencies have increased efforts to identify potential aircraft-related threats before they can be carried out. The Department of Defense and the Federal Aviation Administration have acted to protect airspace above a nuclear power plant in response to a threat at the time thought to be credible, but which was later determined to be non-credible. These and other governmental-wide efforts have improved protection against air attacks on all industrial facilities, both nuclear and non-nuclear.

Following the September 11, 2001, attacks in New York, the Pentagon, and Pennsylvania, the NRC conducted assessments of the potential for and consequences of terrorists targeting a nuclear power plant for aircraft attack, the physical effects of such a strike, and compounding factors such as meteorology that would affect the impact of potential radioactive releases. As a result of these preliminary assessments, the NRC required nuclear power plant licensees to implement enhancements to mitigate potential consequences in the

unlikely event of a successful attack on a nuclear power plant. As part of a comprehensive review of security for NRC-licensed facilities, the NRC conducted detailed site-specific engineering studies of a limited number of nuclear power plants to assess potential vulnerabilities of deliberate attacks involving large commercial aircraft. In conducting these studies, the NRC drew on national experts from several Department of Energy laboratories using state-of-the-art structural and fire analyses. For the facilities analyzed, the vulnerability studies confirm that the likelihood of both damaging the reactor core and releasing radioactivity that could affect public health and safety is low. Even in the unlikely event of a radiological release due to terrorist use of a large aircraft, there would be sufficient time to implement mitigating actions and offsite emergency plans such that the NRC's emergency planning basis remains valid. Furthermore, the NRC staff will continue to review intelligence and threat reporting to recommend any appropriate modifications to the DBT or NRC requirements to mitigate air attacks. Therefore, based on the review of the petition and the considerations noted above, the NRC intends to deny this portion of PRM-73-12.

PRM-73-12 also requests that nuclear power plants be required to defend against more than the number of attackers that carried out the September 11, 2001 attacks, and identifies specific weapons that nuclear power plants should be able to defend against. The Commission cannot comment publicly on the precise numbers of attackers or types of weapons that nuclear power plants are required to defend against under the proposed DBTs and ACDs for reasons stated earlier in this notice. However, the Commission has conducted a thorough review of security to continue to ensure that nuclear power plants and other licensed facilities have effective security measures in place given the changing threat environment. An important part of this review was the consideration of a terrorist attack similar to that which occurred on September 11, 2001. However, the DBT is based upon

review and analysis of actual adversary characteristics demonstrated in a range of terrorist attacks worldwide and a determination as to which attacks a private security force could reasonably be expected to defend against.

In summary, the NRC grants PRM-73-12 in part by conducting this proposed rulemaking to revise the DBT requirements in § 73.1(a) to reflect certain specific requested changes contained in PRM-73-12 in the proposed rule text. The NRC intends to deny the remainder of the petition.

## VI. Guidance

The NRC staff is preparing new regulatory guides, as listed below, to provide detailed guidance on the revised DBT requirements in proposed § 73.1. These guides are intended to assist future license applicants in the development of their security programs and plans. The guidance consolidates other guidance that was used to develop, review, and approve the site security plans that licensees put in place in response to the April 2003 orders. As such, this regulatory guidance would not cause current licensees to revise security measures at their facilities. The publication of the regulatory guides is planned to coincide with the publication of the final rule. The guides are described below.

1. Draft Regulatory Guide (DG-5017) , "Guidance for the Implementation of the Radiological Sabotage Design-Basis Threat (Safeguards)." This regulatory guide will provide guidance to the industry on the radiological sabotage DBT. DG-5017 contains safeguards information and therefore, is being withheld from public disclosure and distributed on a need-to-know basis to those with who otherwise qualify for access.

2. Draft Regulatory Guide (DG-5018), "Guidance for the Implementation of the Theft and Diversion Design-Basis Threat (Classified)." This regulatory guide will provide guidance

to the industry on the theft or diversion DBT. DG-5018 contains classified information and therefore is withheld from public disclosure and distributed on a need to know basis to those who otherwise qualify for access.

## VII. Criminal Penalties

For the purposes of Section 223 of the Atomic Energy Act, as amended, the Commission is issuing the proposed rule to revise § 73.1 under one or more sections of 161 of the Atomic Energy Act of 1954 (AEA). Criminal penalties, as they apply to regulations in Part 73 are discussed in § 73.81.

## VIII. Compatibility of Agreement State Regulations

Under the “Policy Statement on Adequacy and Compatibility of Agreement States Programs,” approved by the Commission on June 20, 1997, and published in the Federal Register (62 FR 46517; September 3, 1997), this rule is classified as compatibility “NRC.” Compatibility is not required for Category “NRC” regulations. The NRC program elements in this category are those that relate directly to areas of regulation reserved to the NRC by the AEA or the provisions of Title 10 of the Code of Federal Regulations, and although an Agreement State may not adopt program elements reserved to NRC, it may wish to inform its licensees of certain requirements via a mechanism that is consistent with the particular State’s administrative procedure laws, but does not confer regulatory authority on the State.

## IX. Availability of Documents

Some documents discussed in this notice are not available to the public. The following table indicates which documents are available to the public and how they may be obtained.

Public Document Room (PDR). The NRC Public Document Room is located at 11555 Rockville Pike, Rockville, Maryland 20852.

Rulemaking Website (Web). The NRC's interactive rulemaking Website is located at <http://ruleforum.llnl.gov>. These documents may be viewed and downloaded electronically via this Website.

NRC's Electronic Reading Room (ERR). The NRC's electronic reading room is located at [www.nrc.gov/reading-rm.html](http://www.nrc.gov/reading-rm.html).



<b>Document</b>	<b>PDR</b>	<b>Web</b>	<b>ERR</b>
Environmental Assessment	X	X	ML050530182
Regulatory Analysis	X	X	ML050530158
Public Comments on PRM-73-12	X	X	ML050540521
Radiological Sabotage Adversary Characteristics document	no	no	no
Theft and Diversion Adversary Characteristics document	no	no	no
Technical Basis Document	no	no	no
Draft RG DG-5017 on Radiological Sabotage	no	no	no
Draft RG DG-5018 on Theft or Diversion	no	no	no
Memorandum: Status of Security-Related Rulemaking	x	x	ML041180532
Commission SRM dated August 23, 2004	x	x	ML042360548
Memorandum: Schedule for Part 73 Rulemakings	x	x	ML043060572
Letter to Petitioner	x	x	ML050880455

#### X. Plain Language

The Presidential memorandum dated June 1, 1998, entitled "Plain Language in Government Writing," published on June 10, 1998 (63 FR 31883) directed that the Government's documents be in plain, clear, and accessible language. The NRC requests comments on the proposed rule specifically with respect to the clarity and effectiveness of the language used. Comments should be sent to the NRC as explained in the ADDRESSES caption of this notice.

## XI. Voluntary Consensus Standards

The National Technology Transfer and Advancement Act of 1995, Pub. L. 104-113, requires that Federal agencies use technical standards that are developed or adopted by voluntary consensus standards bodies unless using such a standard is inconsistent with applicable law or is otherwise impractical. The NRC is not aware of any voluntary consensus standard that could be used instead of the proposed Government-unique standards. The NRC will consider using a voluntary consensus standard if an appropriate standard is identified.

## XII. Finding of No Significant Environmental Impact: Environmental Assessment: Availability

The Commission has determined under the National Environmental Policy Act of 1969, as amended, and the Commission's regulations in Subpart A of 10 CFR Part 51, that this rule, if adopted, would not be a major Federal action significantly affecting the quality of the human environment and, therefore, an environmental impact statement is not required.

The determination of this environmental assessment is that there will be no significant offsite impact to the public from this action. However, the general public should note that the NRC is seeking public participation; availability of the environmental assessment is provided in Section IX. Comments on any aspect of the environmental assessment may be submitted to the NRC as indicated under the ADDRESSES heading.

The NRC has sent a copy of the environmental assessment and this proposed rule to every State Liaison Officer and requested their comments on the environmental assessment.

### XIII. Paperwork Reduction Act Statement

This proposed rule does not contain new or amended information collection requirements subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing requirements were approved by the Office of Management and Budget, approval number 3150-0002.

### Public Protection Notification

The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid OMB control number.

### XIV. Regulatory Analysis

The Commission has prepared a draft regulatory analysis on this proposed regulation. The analysis examines the costs and benefits of the alternatives considered by the Commission. The Commission requests public comment on the draft regulatory analysis. Availability of the regulatory analysis is provided in Section IX. Comments on the draft analysis may be submitted to the NRC as indicated under the ADDRESSES heading.

### XV. Regulatory Flexibility Certification

In accordance with the Regulatory Flexibility Act (5 U.S.C. 605(b)), the Commission certifies that this rule will not, if promulgated, have a significant economic impact on a substantial number of small entities. This proposed rule affects only the licensing and operation of nuclear power plants and Category I fuel cycle facilities. The companies that

own these plants do not fall within the scope of the definition of "small entities" set forth in the Regulatory Flexibility Act or the size standards established by the NRC (10 CFR 2.810).

#### XVI. Backfit analysis

The NRC has determined that the backfit rule does not apply to this proposed rule. A backfit analysis is not required for this proposed rule because these amendments do not impose more stringent requirements on licensees. Current DBT requirements were imposed by orders dated April 29, 2003, and implemented through the revised and NRC-approved security plans for each licensee. The proposed DBT requirements for § 73.1 are the same as those imposed by the DBT orders.

#### List of Subjects in 10 CFR Part 73

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

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; and 5 U.S.C. 553, the NRC is proposing to adopt the following amendments to 10 CFR Part 73.

## **PART 73 – PHYSICAL PROTECTION OF PLANTS AND MATERIALS**

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

AUTHORITY: Secs. 53, 161, 68 Stat. 930, 948, as amended, sec. 147, 94 Stat. 780 (42 U.S.C. 2073, 2167, 2201); sec. 201, as amended, 204, 88 Stat. 1242, as amended, 1245, sec. 1701, 106 Stat. 2951, 2952, 2953 (42 U.S.C. 5841, 5844, 2297f); sec. 1704, 112 Stat. 2750 (44 U.S.C. 3504 note). Section 73.1 also issued under secs. 135, 141, Pub. L. 97-425, 96 Stat. 2232, 2241 (42 U.S.C. 10155, 10161). Section 73.37(f) also issued under sec. 301, Pub. L. 96-295, 94 Stat. 789 (42 U.S.C. 5841 note). Section 73.57 is issued under sec. 606, Pub. L. 99-399, 100 Stat. 876 (42 U.S.C. 2169).

2. In § 73.1, paragraph (a) is revised to read as follows:

### **§ 73.1 Purpose and scope.**

(a) *Purpose.* This part prescribes requirements for the establishment and maintenance of a physical protection system which will have capabilities for the protection of special nuclear material at fixed sites and in transit and of plants in which special nuclear material is used. The following design basis threats, where referenced in ensuing sections of this part, shall be used to design safeguards systems to protect against acts of radiological sabotage and to prevent the theft or diversion of special nuclear material. Licensees subject to the provisions of § 73.20 (except for fuel cycle licensees authorized under Part 70 of this chapter to receive, acquire, possess, transfer, use, or deliver for transportation formula quantities of strategic special nuclear material), § 73.50, and § 73.60 are exempt from § 73.1(a)(1)(i)(E), § 73.1(a)(1)(iii), § 73.1(a)(1)(iv), § 73.1(a)(2)(iii), and § 73.1(a)(2)(iv). Licensees subject to the provisions of § 72.212 are exempt from § 73.1(a)(1)(iv).

(1) *Radiological sabotage.* (i) A determined violent external assault, attack by stealth, or deceptive actions, including diversionary actions, by an adversary force capable of operating as one or more teams, attacking from one or more entry points, with the following attributes, assistance and equipment:

(A) Well-trained (including military training and skills) and dedicated individuals, willing to kill or be killed, with sufficient knowledge to identify specific equipment or locations necessary for a successful attack,

(B) Active (e.g., facilitate entrance and exit, disable alarms and communications, participate in violent attack) or passive (e.g., provide information), or both, knowledgeable inside assistance,

(C) Suitable weapons, including hand-held automatic weapons, equipped with silencers and having effective long range accuracy,

(D) Hand-carried equipment, including incapacitating agents and explosives for use as tools of entry or for otherwise destroying reactor, facility, transporter, or container integrity or features of the safeguards system, and

(E) Land and water vehicles, which could be used for transporting personnel and their hand-carried equipment to the proximity of vital areas, and

(ii) An internal threat, and

(iii) A land vehicle bomb assault, which may be coordinated with an external assault, and

(iv) A waterborne vehicle bomb assault, which may be coordinated with an external assault.

(2) *Theft or diversion of formula quantities of strategic special nuclear material.* (i) A determined violent external assault, attack by stealth, or deceptive actions, including diversionary actions, by an adversary force capable of operating as one or more teams, attacking from one or more entry points, with the following attributes, assistance and equipment:

(A) Well-trained (including military training and skills) and dedicated individuals, willing to kill or be killed, with sufficient knowledge to identify specific equipment or locations necessary for a successful attack;

(B) Active (e.g., facilitate entrance and exit, disable alarms and communications, participate in violent attack) or passive (e.g., provide information), or both, knowledgeable inside assistance,

(C) Suitable weapons, including hand-held automatic weapons, equipped with silencers and having effective long-range accuracy;

(D) Hand-carried equipment, including incapacitating agents and explosives for use as tools of entry or for otherwise destroying reactor, facility, transporter, or container integrity or features of the safe-guards system;

(E) Land and water vehicles, which could be used for transporting personnel and their hand-carried equipment; and

(ii) An internal threat, and

(iii) A land vehicle bomb assault, which may be coordinated with an external assault, and

(iv) A waterborne vehicle bomb assault, which may be coordinated with an external assault.

Dated at Rockville, Maryland this \_\_\_\_ day of \_\_\_\_ 2005.

For the Nuclear Regulatory Commission.

Annette L Vietti-Cook,

Secretary of the Commission.