RULEMAKING ISSUE
NOTATION VOTE

June 14, 2005 SECY-05-0106

FOR: The Commissioners

FROM: Luis A. Reyes
Executive Director for Operations

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

PURPOSE:

To obtain Commission approval to publish the proposed rule for public comment and to approve the staff's recommendation concerning Petition for Rulemaking (PRM) PRM-73-12 and the associated letter to the petitioner.

SUMMARY:

The staff has prepared a proposed rule that would consolidate the supplemental requirements established by the April 29, 2003, design basis threat (DBT) orders with the existing DBT requirements in 10 CFR 73.1(a). Specific details of the attributes of the DBT to be protected against, which include both safeguards information (SGI) and classified information, are consolidated in adversary characteristics documents (ACDs). The proposed rule would revise the DBT requirements both for radiological sabotage and for theft or diversion of Strategic Special Nuclear Material (SSNM). Additionally, the staff considered and proposes disposition of a PRM filed by the Committee to Bridge the Gap (PRM-73-12) on July 23, 2004.

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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 Nuclear Regulatory Commission (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. Possession of these materials would require a licensing action. 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 subsets 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 staff's analysis of DBT adversary characteristics is documented in SECY-03-0052, "Staff Recommendations for Revisions to the Design Basis Threat Statements (U)," April 7, 2003, SECRET//NOFORN.

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.

A central issue in the development of the proposed § 73.1 rule is the question about how much of the design basis threat should be included in the regulation. This is a long-standing issue. In 1977, as the Commission was considering proposed requirements for physical protection in § 73.55, the staff provided an analysis of the linkage between the DBT description and specific force requirements (See memorandum from Rusche and Chapman to the Commission, February 2, 1977). The staff noted that these requirements raised two concerns: (1) the difficulty of explaining why the DBTs vary for different types of facilities (e.g., nuclear power plants and Category I nuclear fuel facilities), and (2) the practice of other agencies (i.e., the Energy Research and Development Administration - predecessor to the Department of Energy) to classify detailed DBT information. In the analysis, the staff identified four basic options for handling design basis threat information: (1) make the DBT information public, (2) reveal a general description of the DBT, (3) withhold the DBT information and inform the licensees on a site-specific basis, and (4) classify the DBT information and provide it to cleared representatives of licensees and the public with a need to know. The staff concluded that the best course would be to adopt a hybrid approach of classifying the DBT information, providing a general description of the DBT in the rule, and specifying minimal and nominal guard force requirements in § 73.55. The Commission adopted the staff's recommendation with the variation of not classifying the DBT, except for theft or diversion of SSNM, even though a general description of the DBT was included in the rule. The NRC staff communicated specific DBT information to licensees during the licensing and inspection process. As observed by the staff in 1977 and today, inclusion of specific details of the threat that licensees are required to protect against, reveals information that could be of use to a potential adversary.

DISCUSSION:

In a memorandum dated July 19, 2004, the staff informed the Commission of plans to develop a comprehensive rulemaking plan to modify the physical protection requirements for power reactors. This memorandum described previous rulemaking efforts that were preempted by the terrorist attacks of September 11, 2001, and summarized the security-related actions taken after the attack. In response to this memorandum, the Commission directed the staff in an August 23, 2004, SRM to forego the development of a rulemaking plan and provide a schedule for completing the § 73.1, § 73.55, and Part 73 Appendix B rulemakings. The staff provided the schedule to the Commission in a memorandum dated November 16, 2004. The attached proposed rule is being provided to the Commission in accordance with the schedule for the § 73.1 rulemaking in the November 16, 2004, memorandum.

Scope of the Rulemaking

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 additional changes to the regulations that are not proposed at this time. These changes (related to transportation, alignment of generally licensed and specifically licensed ISFSIs, and elimination of the exemption for fuel reprocessing plants) go beyond incorporation of the DBT and ISFSI orders and therefore are outside the scope of changes requested by the Commission. Additionally, the staff does not consider the changes necessary at this time to assure safety or security.

The proposed changes to § 73.1 do not address ongoing issues associated with the transportation of SSNM and spent fuel.[1] Security for the transportation of SSNM was evaluated in 2003, as documented in SECY-03-0101, "Results of Joint U.S. Nuclear Regulatory Commission and U.S. Department of Energy Comparability Review of Physical Protection for Category II Transportation." This study identified differences between NRC and DOE which are under consideration by the staff and on which the staff will separately make recommendations to the Commission. This issue is not an immediate priority because SSNM from NRC licensees is being transported by the National Nuclear Security Administration's Office Secure Transportation (OST). Under § 73.6(d), NRC-licensed SSNM transported by OST is exempt from the NRC's transportation security regulations.

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 order. 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 treatment of specifically-licensed and generally-licensed ISFSIs is an area of inconsistency in the current regulations. Although they have equivalent security measures in place, the source of the requirements are not in alignment. For example, the current regulation in § 73.1(a) contains an exemption for specifically-licensed ISFSIs, subject to 10 CFR § 72.182. However, the physical protection regulations for specifically-licensed ISFSIs, found at 10 CFR §§ 72.180 and 72.182, do not require protection against a DBT, so it is unnecessary to exempt

[1]On June 22, 1999, the State of Nevada filed a petition for rulemaking (PRM-73-10) requesting the Commission to amend § 73.1 to require application of a design basis threat to the transportation of spent nuclear fuel. Because the scope of this rulemaking is limited to the regulatory upgrades imposed by the Commission's April 29, 2003, DBT orders, and because the NRC continues to work on security assessments of spent fuel transportation packages, PRM-73-10 will not be resolved here. Resolution of PRM-73-10 will occur after the completion of the NRC's pending transportation package security assessments and an analysis of the results. If that analysis reveals that further changes to § 73.1 are necessary, the changes would be made through a separate rulemaking process.

specifically-licensed ISFSIs from the DBT regulation. By contrast, generally-licensed ISFSIs are required to protect against the DBT for radiological sabotage by 10 CFR § 72.212(b)(5), but by the same regulation are granted exceptions to specific requirements for protecting against the DBT. Ultimately, both generally-licensed and specifically-licensed ISFSIs have equivalent protective measures in place, including those imposed by the October 2002, order. The staff may consider future rulemakings to align the generally-licensed and specifically-licensed ISFSI requirements, but that effort is also beyond the scope of this rulemaking, which is focused on the security requirements previously imposed by Commission order.

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.[2]

Approach

The staff's approach for this rulemaking differs somewhat from the approach outlined in the proposed rulemaking schedule memorandum dated November 16, 2004. The proposed rule text includes more detail than initially envisioned. Originally the staff drafted the proposed rule text with less detail than is in the current § 73.1. However, the staff later determined that the less-detailed language may not provide adequate notice of the changes being made to the DBTs and could hinder external stakeholders' ability to meaningfully comment on the proposed rule or incorrectly imply that the proposed requirements represent a reduction of the requirements put in place after September 11, 2001.

Meaningful comments on the proposed rule will strengthen the rulemaking record and enable the NRC to better defend the DBTs reflected in the final rule, both in administrative and judicial proceedings. A probing discussion of the DBT upgrades may also have some deterrent effect on would-be adversaries because the NRC can communicate publicly some of the important upgrades it has made to the DBTs since September 11, 2001. Of course, staff responses to specific comments will not delve into safeguards or classified information.

To encourage meaningful comment, and thereby the creation of a sound rulemaking record, the staff revised its initial proposed text to include a level of detail that is generally comparable with the current regulation, while updating the DBT attributes to be consistent with the requirements imposed by the April 29, 2003 DBT orders. The revised approach maintains the current regulatory framework where the rule text includes sufficient detail to enable the public to be informed of the NRC requirements regarding what attributes of the threat need to be protected

[2]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.

against while the specific details of the attributes of the DBTs, which are both safeguards and classified information, are contained in separate non-publicly-available documents. Under this approach, it is the staff's expectation that sufficient detail is provided in the rule such that the staff will be able to respond to comments on the proposed rule addressing the attributes of the DBT without the need to get into tactical and operational capabilities of the DBT adversaries, consistent with the NRC's 1977 approach.

The ACDs will be made available only to those with a need to know who are otherwise qualified to have access under safeguards information and classified information protection requirements. This approach minimizes the amount of information in the DBT rule itself that could benefit adversaries in planning an attack while still providing members of the public with information concerning the attributes of the DBT. Future changes to the ACDs would not require changes to the regulations provided that the changes would still be within the scope of the rule text.

The ACDs will not be available for public comment or referenced in the rule text. Because they are not referenced in the rule, the ACDs have the same regulatory status as guidance documents. The staff's intent is that the ACDs would be incorporated into the licensing basis of each plant through the security plans and therefore, become legally binding. Existing licensee security plans reference the detailed characteristics of the DBT as promulgated in the April 29, 2003, DBT orders which include in the order the level of detail that would be captured in the ACDs. Upon completion of this rulemaking, staff would work with licensees to revise the security plan reference to the ACDs, thus establishing the ACDs as legally binding requirements. This process is analogous to the current and past regulatory practice utilized for quality assurance where the plan is updated to reference NRC regulatory guidance and the license is amended accordingly. If, based on the rulemaking process, the final DBT rule essentially incorporates the essence of the previously issued DBT orders and the ACDs conform to the final rule, the staff expects licensees would voluntarily comply with the request to revise the security plan to reference the ACDs, rather than the DBT orders, because the ACDs would not impose new requirements. The DBT orders could then be rescinded for licensees that change the reference in their security plans to the ACDs. The DBT orders would remain in place for licensees that do not make the change.

Future applicants for an operating license would be expected to reference the ACDs in developing their security plans. These security plans must be approved by the NRC as a condition of the license and would be legally binding.

If the NRC modifies or updates the ACDs (within the scope of the DBT rule text) as a result of the NRC's semiannual threat assessments or for other reasons, licensees would then be expected to revise their security plans to account for the change and reference current ACDs. Theoretically, a licensee could refuse to revise its security plan on the basis that a change in the adversary characteristics document is simply a change in regulatory guidance, and therefore, not legally-binding upon the licensee. If this occurs, the NRC could not automatically take enforcement action. The NRC would first have to issue an order requiring compliance with the updated adversary characteristics. In summary, the possibility of the need for issuance of future orders is not precluded by this rulemaking.

Although there are some difficulties with having the detailed adversary characteristics of the DBTs contained in guidance documents, the NRC has experience with this approach. In the

Commission's 1993 vehicle bomb rulemaking while the rule established the requirement to protect against a four-wheel drive land vehicle bomb, the specific vehicle and explosive characteristics of the design basis vehicle bomb were withheld from the public as safeguards information consistent with the 1977 approach. See Proposed Rule, *Protection Against Malevolent Use of Vehicles at Nuclear Power Plants*, 58 FR 58804, November 4, 1993. The details, while not included in the rule text, are still used by licensees to achieve compliance with the vehicle bomb rule.

The staff proposes a similar approach in this rulemaking, and carefully considered the balance between openness and the protection of sensitive information, as well as the need to comply with the notice-and-comment requirements of the Administrative Procedure Act, in drafting the proposed rule text. The details in the proposed rule would likely be assumed by potential adversaries but would not offer information that would substantially assist adversaries in planning or carrying out an attack. At the same time, the proposed rule would include sufficient detail to enable meaningful comments from external stakeholders on NRC regulatory activities. By placing this information in the rule, the staff concluded that the benefits gained by maintaining more openness in the NRC rulemaking process for § 73.1 exceeded the risks of releasing the information.

Petition for Rulemaking

The staff incorporated into this rulemaking consideration of a Petition for Rulemaking, filed by the Committee to Bridge the Gap (PRM-73-12) 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") so that nuclear power plants would be able to withstand an air attack from a jumbo jet similar to the September 11, 2001 attacks.

PRM-73-12 was published for public comment in the *Federal Register* on November 8, 2004 (69 FR 64690). 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 attorney generals, 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. The staff reviewed both the petition and the comments on the petition against the supplemental DBTs to determine whether the DBTs should be revised as requested by the petitioner. Based on this review, the NRC staff determined that a number of the requested upgrades in PRM-73-12 have already been implemented (see Section V of the attached proposed rule notice for more details). However, the staff recommends that the Commission partially grant PRM-73-12. This partial granting of PRM-73-12 should be understood to mean that the NRC has considered the issues raised by the petition and the public comments filed on the petition as part of the ongoing rulemaking to revise DBT requirements in § 73.1(a). The staff

recommends denial of the petitioner's request that the DBT regulation be amended to include attacks by air. The reasons for the recommended denial are set forth in the attached *Federal Register* notice for the proposed rule.

The staff concludes that the proposed revisions to § 73.1(a) would 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 proposed DBTs would be consistent with the DBTs previously imposed by the April 29, 2003, DBT orders, and used by licensees to develop and implement security measures. The NRC required affected 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 affected licensees' security plans, and amended the licenses to ensure that affected licensees fully implement and maintain in effect all provisions of the Commission-approved security plans. Consequently, the proposed DBT, if adopted as a final rule, would not impose new requirements, or require licensees to revise their current security plans. As noted above, the staff will work with licensees to revise the reference from the DBT orders to the ACDs in the security plans.

Contents of the Proposed Rulemaking Package

This proposed rulemaking package includes the proposed rule *Federal Register* notice, which includes the rule language and statement of considerations (Attachment 1), the supporting draft regulatory analysis (Attachment 2), a supporting environmental assessment (Attachment 3), a summary of the public comments submitted on PRM-73-12 (Attachment 4), and a letter informing the petitioner of the proposed Commission's decision on PRM-73-12 (Attachment 5).

The supplemental DBT reflected in the proposed rule is supported by the documents identified below, which are either safeguards information or classified, 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 and Diversion Adversary Characteristics Document (Confidential)

Technical Basis Document (Secret)

Draft Regulatory Guide (DG)-5017, "Guidance for the Implementation of the Radiological Sabotage Design-Basis Threat" (Safeguards Information)

DG-5018, "Guidance for the Implementation of the Theft and Diversion Design-Basis Threat" (Confidential)

Stakeholders, with authorized access, have been informed regarding the content of the regulatory guidance supporting this proposed rule.

The proposed rule would not amend information collection requirements or impose any new requirements and therefore, is not subject to the requirements of the Paperwork Reduction Act of 1995 (44 U.S.C 3501 et seq.).

RESOURCES:

The staff estimates that the resources needed to complete the rulemaking and supporting guidance is 2.6 FTE, with 1 FTE each for NSIR and NRR, and .6 FTE for NMSS spread across FY 2005 and FY 2006. These resources are budgeted. Inspection of licensee implementation of the proposed DBT requirements is ongoing as part of the baseline inspection program and force-on-force evaluations. The proposed revisions to § 73.1 do not result in the need for additional inspection resources.

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 (ACRS) elected not to review the proposed rule requirements.

The Committee to Review Generic Requirements has deferred its review of the rule until the final rule stage.

RECOMMENDATIONS:

That the Commission:

1. *Approve* the notice of proposed rulemaking for publication (Attachment 1).

2. *Approve* the letter to the petitioner stating the Commission decision on PRM-73-12 (Attachment 5)

3. *Certify* that this rule, if promulgated, will 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.

   Note:

   a. The proposed rule will be published in the *Federal Register* with a 75-day public comment period.

   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 *Federal Register* notice of the proposed rulemaking will be distributed to all affected Commission licensees. The notice will be sent to other interested parties upon request. Copies of the documents are also available in the NRC's Agencywide Documents Access and Management System (ADAMS), the Public Document Room and on the NRC rulemaking Web site.

   d. A letter informing the petitioner of the Commission decision on PRM-73-12 is attached for the Secretary's signature.

e. A public announcement will be issued.

f. The appropriate congressional committees will be informed.

/RA/

Luis A. Reyes
Executive Director
for Operations

Attachments: 1. *Federal Register* Notice
2. Regulatory Analysis
3. Environmental Assessment
4. Tabular Summary of Public Comments on PRM-73-12
5. Letter to the Petitioner

[7590-01-P]

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. 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. 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.llnl.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 pdr@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 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.

SUPPLEMENTARY INFORMATION

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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.[1]

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

[1]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
(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).	(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).	The proposed paragraph is modified to clarify that the DBTs are designed to protect against diversion in addition to theft of special nuclear material. The proposed exemptions would be updated based on the order requirements and conforming changes to other paragraphs of this part.

(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:	(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:	The proposed paragraph adds new capabilities to the DBT including operation as one or more teams and attack from multiple entry points.
(1)(i)(A) Well-trained (including military training and skills) and dedicated individuals,	(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,	The proposed paragraph would add to the DBT adversaries who are willing to kill or be killed and are knowledgeable about specific target selection.
(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,	(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,	The reference to an individual would be removed and the paragraph reworded to provide flexibility in defining the scope of the inside threat.
(1)(i)(C) suitable weapons, up to and including hand-held automatic weapons, equipped with silencers and having effective long range accuracy,	(1)(i)(C) suitable weapons, including hand-held automatic weapons, equipped with silencers and having effective long range accuracy,	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.

(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	(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	This description is not revised by the proposed rule.
(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	(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	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.
(1)(ii) An internal threat of an insider, including an employee (in any position), and	(1)(ii) An internal threat, and	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.

(1)(iii) A four-wheel drive land vehicle bomb.	(1)(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	(1)(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 paragraph also adds a coordinated attack concept.
(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:	(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:	The proposed paragraph would add new adversary capabilities to the DBT including operation as one or more teams and attack from multiple entry points.

(2)(i)(A) Well-trained (including military training and skills) and dedicated individuals;	(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;	The proposed paragraph would add to the DBT adversaries who are willing to kill or be killed and are knowledgeable about specific target selection.
(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;	(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,	The reference to an individual would be removed and the paragraph reworded to provide flexibility in defining the scope of the inside threat.
(2)(i)(C) Suitable weapons, up to and including hand-held automatic weapons, equipped with silencers and having effective long-range accuracy;	(2)(i)(C) Suitable weapons, including hand-held automatic weapons, equipped with silencers and having effective long-range accuracy;	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.
(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;	(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;	This description is not revised by the proposed rule.

(2)(i)(E) Land vehicles used for transporting personnel and their hand-carried equipment; and	(2)(i)(E) Land and water vehicles, which could be used for transporting personnel and their hand-carried equipment; and	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.
(2)(i)(F) the ability to operate as two or more teams.	Deleted	This requirement would be included in (2)(i) above.
(2)(ii) An individual, including an employee (in any position), and (2)(iii) A conspiracy between individuals in any position who may have: (A) Access to and detailed knowledge of nuclear power plants or the facilities referred to in § 73.20(a), or (B) items that could facilitate theft of special nuclear material (e.g., small tools, substitute material, false documents, etc.), or both.	(2)(ii) An internal threat, and	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.

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.

Document	PDR	Web	ERR
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.

Regulatory Analysis of Proposed Rule, 10 CFR Part 73.1- Design Basis Threat

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

June 2005

Executive Summary

The design basis threat (DBT) requirements in 10 CFR 73.1(a) describe general adversary characteristics that designated licensees must defend against with high assurance. The Nuclear Regulatory Commission (NRC) requirements include protection against radiological sabotage (applied to power reactors and Category I fuel cycle facilities) and theft or diversion of NRC-licensed strategic special nuclear material (SSNM) (applied to Category I fuel cycle facilities). The DBTs are used by these licensees to form the basis for site-specific defensive strategies.

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.

This draft regulatory analysis considers two alternatives for consolidating the supplemental requirements put in place by the orders with the DBT requirements in § 73.1(a). The proposed rulemaking also considers the petition for rulemaking (PRM) filed by the Committee to Bridge the Gap (PRM-73-12).

The first alternative is to take no additional regulatory action (“The No Action Alternative”) beyond the DBT orders. Under this alternative, NRC would not revise the governing regulations in § 73.1 pertaining to DBT, but would continue the status quo, which is implementation of supplemented DBT requirements imposed through the DBT orders.

The second alternative, which was selected, is to revise the § 73.1 DBT requirements through rulemaking. Because the DBT involves the discussion of information that is either safeguards information or classified, three rulemaking strategies were evaluated for the most appropriate approach.

The strategy chosen is similar to the rulemaking practice the NRC used when the DBT requirements were last revised. Compared to the other strategies, this rulemaking approach would provide the public with the opportunity for meaningful comment and participation in the process. However, the public’s participation and access to classified and safeguards information is limited to those who have a need-to-know and who otherwise qualify for access. The NRC selected this rulemaking strategy after carefully considering the balance between openness and the protection of sensitive information, as well as the need for complying with the notice-and-comment requirements of the Administrative Procedure Act. The details in the proposed rule would likely be assumed by potential adversaries but would not offer information that would assist adversaries in planning or carrying out an attack. At the same time, the proposed rule would include sufficient detail to enable comments from external stakeholders on NRC regulatory activities. By placing this information in the rule, the NRC concluded that the benefits gained by maintaining more openness in the NRC rulemaking process for § 73.1 exceeded the risks of releasing the information.

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I. Statement of Problem and NRC Objectives

(a) History and Background

The DBT requirements in 10 CFR 73.1(a) describe general adversary characteristics that designated licensees must defend against with high assurance. The Nuclear Regulatory Commission (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.

(b) Objective of Proposed Rulemaking

The proposed rulemaking would consolidate the supplemental requirements put in place by the orders and the existing DBT requirements in § 73.1(a). The proposed rule would describe the DBTs at a level of detail comparable to the current rule. Specific details related to the threat, which include both safeguards information and classified information**,** would be consolidated in adversary characteristics documents that would include requirements consistent with those in the DBT orders. The adversary characteristics documents would be available to those with authorized access. The proposed rulemaking would include the DBTs for both radiological sabotage (applied to power reactors and Category 1 fuel cycle facilities) and theft and diversion (Category 1 fuel cycle facilities). The proposed rulemaking would also consider the petition for rulemaking filed by the Committee to Bridge the Gap (PRM-73-12).

(c) Backfit Rule Concerns

This proposed regulatory action would not involve the imposition of any new requirements. The approach selected for the proposed rule would not expand the DBTs beyond requirements currently in place under existing NRC regulations and orders. Consequently, the proposed § 73.1(a) amendments would not require existing licensees to make additional changes to their current NRC-approved security plans. As such, there would be no backfits involved with this regulatory action.

II. Analysis of Alternatives

There are basically two alternatives for addressing changes to the DBT requirements. Those alternatives are to take no additional regulatory action beyond the DBT orders (No Action Alternative) and rulemaking (of which there are three variations). These alternatives are discussed below in more detail.

(a) No Action Alternative

This alternative is simply to take no additional regulatory action and**,** as a result, not revise the governing regulations in § 73.1(a) pertaining to DBT. This approach would continue the status quo, which is implementation of supplemented DBT requirements as imposed through the DBT orders. While this action would save the agency resources that it would expend revising the regulation, it would leave § 73.1(a) as is, and these requirements do not reflect the supplemented DBT requirements currently in place. As such, the regulations would not be up-to-date; this situation could introduce inefficiencies into the regulatory process. This alternative was not chosen since it is important to consolidate the DBT requirements and revise § 73.1(a) accordingly.

(b) Rulemaking Alternatives

The second alternative is to revise § 73.1(a) DBT requirements. There are several different strategies for revising the requirements in the regulations. The strategies are:

(1) A rulemaking would contain the DBT details (which are safeguards and classified information) but which would withhold this information from public disclosure. This would require a change to Part 2 to develop a new rulemaking process.

(2) A rulemaking that would remove all detail from the regulation and reference documents that contain the DBT details.

(3) A rulemaking that would revise § 73.1(a) requirements to remove detail that might provide useful information to potential adversaries and follow an approach similar to the current regulation by not referencing a document containing DBT attributes, but keeping the level of detail in the rule language consistent with the current detail level in an effort to maximize the opportunity for meaningful stakeholder participation.

The first strategy would require a change in § 2.800 to develop the new rulemaking procedures that would account for the withholding of safeguards and classified information from the public. This approach envisions neither public notice of a rulemaking nor an opportunity for the public to comment on the proposed DBT regulation. This proposed rule could contain detailed DBT requirements (which are safeguards and classified information), but the DBT detail would be withheld from the public. Developing new rulemaking procedures would likely involve considerable resources and there is the potential that this process would not comply with the Administrative Procedure Act (APA). Given these challenges and the additional expenditure of staff resources to pursue this approach, this strategy was not chosen.

The second strategy would remove all DBT details from § 73.1(a) and reference documents containing the DBT requirements. This option would limit availability of information that could aid potential adversaries. However, removing all the DBT details to a document that would be restricted from public access (due to the safeguards and classified content), would create questions regarding whether the approach provides the public with a meaningful opportunity to comment. For this reason, this approach was not selected.

The third strategy would revise the § 73.1(a) requirements to accurately reflect the new DBT requirements except for information that could be useful to potential adversaries, while removing information that is outdated. This strategy would not reference a document within the regulations, and in this sense, this strategy is similar to current regulatory practice (i.e., § 73.1 has been structured this way since its inception). This approach was used when the DBT requirements were last revised to incorporate new vehicle bomb requirements with one important exception. This approach would maintain a level of detail in the rule text that is comparable to the current § 73.1 level of detail in an effort to maximize the opportunity for external stakeholders to participate in the rulemaking. Compared to the other rulemaking strategies described above, this rulemaking strategy would provide the public with the greatest opportunity to comment and participate in the rulemaking process. However, the public's participation and access to safeguards and classified information is restricted to members of the public who have authorized access. This is the rulemaking strategy that is judged as being the best option that balances public participation with the need to protect safeguards and classified sensitive information. As such, this strategy would warrant the expenditure of agency resources**;** consequently, the NRC selected this approach.

(c) Conclusion Regarding Alternative Strategies

Based on the reasons discussed above, the NRC concludes that a rulemaking approach described in the third strategy is the best approach.

III. Estimate and Evaluation of Values and Impacts

(a) Overview

This rulemaking would revise the governing regulations pertaining to the DBTs to more closely align the regulation with the actual requirements that were implemented by the April 29, 2003 DBT orders. This rulemaking would not impose any new requirements beyond those which have already been imposed through orders. A Petition for Rulemaking (PRM-73-12) is being considered as part of this rulemaking with the intention of determining whether DBT requirements need to be strengthened as the petitioner requests. The NRC is granting PRM-73-12 in part, and denying PRM in part (refer to Section V of the proposed rule notice). As a result of the DBT orders, licensees revised their security plans and submitted them for staff review and approval. The staff reviews were completed on October 29, 2004. Furthermore, this rulemaking would not impose any new information collection requirements.

This rulemaking would have no impact on plant risk. This rulemaking would not change the risk associated with security-related events from the current level because requirements that are currently in place per the orders, remain in place. Because there would be no net change in risk related to radiological sabotage or theft and diversion (the implemented orders have already addressed this), there would be no net change in potential value (in terms of reduced risk) due to this rulemaking.

There is value in pursuing this rulemaking, because revising § 73.1(a) requirements to more accurately reflect the implemented DBT requirements (with the constraint that certain information would not be revealed within § 73.1(a)), would further increase the regulatory coherency by updating the DBT requirements in § 73.1(a).

(b) Impacts on Licensees

Impacts upon the licensees from this proposed rulemaking would be minimal. Because the adversary characteristics would remain consistent with those promulgated by orders, no technical changes will be required. Licensees may need to update references in their security plan documentation, which could be accomplished without NRC review and in conjunction with future plan updates.

(c) Impacts to the NRC

a. The primary impact on the NRC would be the resources expended in conducting this rulemaking, including the consolidation of security guidance related to the DBT. This guidance was developed during the post September 11, 2001, time frame, and was used by licensees to revise security plans per the new DBT. This effort is therefore, to consolidate the DBT guidance into stand-alone documents, not to revise or create the guidance.

b. NRC would not need to expend resources to review and approve security plans as a result of the revised DBT because this effort has already occurred and was completed on October 29, 2004.

c. There would be no additional resource impacts from adjusting inspection guidance or processes to take into account the existence of the new DBT requirements that have not already been incurred as a result of the April 29, 2003, DBT order implementation. The NRC uses force-on-force mock exercises as a primary means to judge the effectiveness of security plans. The force-on-force exercises were revised concurrent with the DBT order implementation effort, and as such, this impact is not part of this rulemaking.

(d) Impacts to Other Stakeholders

The NRC staff has not identified any impacts upon other stakeholders. Public health and safety would be assured through either the existing requirement implemented by orders or the revised requirements (which more closely align the governing regulations with the orders). There would be no new costs of implementation associated with the rulemaking.

(e) Values of the Proposed Rulemaking for NRC, Industry, and Other Stakeholders

The NRC staff has identified a value to stakeholders, that being the conduct of a proposed rulemaking that allows their participation in the process. In terms of values measured by risk reductions, the requirements are not changing and as a result, this rulemaking would not impact the risk associated with security events.

IV. Decision Rationale for Selection of Proposed Action

This regulatory analysis is largely qualitative which is dictated by the nature of a proposed rulemaking that seeks to more closely align § 73.1(a) with the requirements already imposed through orders. The rulemaking would neither impose additional requirements nor would it require licensees to take action or respond to the revised requirements. As a result, the regulatory analysis presents a decision as to whether the NRC should expend its resources to revise § 73.1(a) requirements to more closely reflect the supplemental DBT requirements imposed by order. As previously discussed, the NRC has decided that the expenditure of its resources is warranted to accomplish this objective.

V. Implementation

NRC is proposing to revise § 73.1(a) to consolidate and more closely align NRC regulations with the supplemental DBT requirements required by orders dated April 29, 2003. The proposed rule would not impact licensees nor would the proposed rule require licensee responses, submittals, or affirmative actions. Review guidance was developed during the order implementation period; this rulemaking would not change that guidance, but would consolidate it where appropriate. The proposed rule will be publicly noticed and will provide for a public comment period to be followed by publication of a final rule approximately one year after publication of the proposed rule. No impediments to implementation of the recommended alternative have been identified.

Environmental Assessment Supporting Proposed Rule, 10 CFR Part 73.1- Design Basis Threat

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

June 2005

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 requirements in 10 CFR 73.1. Specifically, the proposed rule would revise the design basis threat (DBT) requirements for both radiological sabotage, which are generally applied to power reactors and Category I fuel cycle facilities, and theft or diversion of NRC-licensed Strategic Special Nuclear Material (SSNM), which are 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. The rulemaking also considered a petition for rulemaking filed by the Committee to Bridge the Gap on July 23, 2004, (PRM-73-12) that pertains to the DBT.

ENVIRONMENTAL ASSESSMENT

Identification of the Action:

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).

The approach proposed in this rulemaking would maintain a level of specificity in § 73.1(a) rule language that is comparable to the current regulation, while revising DBT attributes to be consistent with the requirements imposed by the April 29, 2003, DBT orders. The revised approach would keep certain specific additional details, which are both safeguards and classified information, in separate, non-publicly-available adversary characteristics documents.

A Petition for Rulemaking, PRM-73-12, filed by the Committee to Bridge the Gap, was considered as part of this proposed rulemaking, would be dispositioned as described in the notice of proposed rulemaking. The petition requests that the NRC amend its regulations to upgrade the DBT regulations (in terms of 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 provision be added to Part 73 to require licensees to construct shields against air attack (referred to as “beamhenge”), so that nuclear power plants would be able to withstand an air attack from a jumbo jet similar to the September 11, 2001 attacks. 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 from 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 attorney generals, 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. The staff reviewed both the petition and the comments on the petition to determine whether the DBTs should be revised as the petitioner requests. Based on this review, the NRC staff determined that PRM-73-12 should be granted in part and denied in part (see Section V of the proposed rule notice for more details).

The proposed § 73.1(a) rule language is provided below.

§ 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.

The Need for the Action:

The proposed action is needed to more closely align the governing regulations in § 73.1(a) pertaining to the DBT with the DBT requirements imposed by the April 29, 2003, DBT orders.

Environmental Impacts of the Proposed Action:

This environmental assessment focuses on those aspects of the § 73.1(a) proposed rulemaking where 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) This rule change pertains only to security requirements, and specifically, would revise only the DBT requirements; it would not revise any of the Part 73 requirements which govern the response to the DBT requirements. The rule change is simply to more closely align the regulations with the DBT orders which have already been imposed on licensees. As a result, the revised requirements would not change the DBT requirements from what is currently in place, and as such, there would be no additional environmental impacts including any impact that could affect offsite radiological releases.

(2) The proposed revision to the requirements in § 73.1(a) would not result in changes to the design basis functional 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.

(3) The standards and requirements applicable to radiological releases and effluents are not affected by this rulemaking (nor by the orders) and continue to apply to the SSCs affected by this rulemaking. As already discussed, implementation of the rule requirements would not result in any additional actions beyond what has already been imposed by the DBT orders, and furthermore, the DBT orders themselves do not result in impacts to a facility related to normal operation and any associated releases.

Because the net effect of this action would be to revise the governing regulations pertaining to DBT to make them more closely align to the previously imposed DBT orders, the NRC has concluded that this action would cause no impact on occupational exposure.

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. The basis for this conclusion is that the proposed rule requirements would not impose new requirements beyond those already imposed through the DBT orders.

With regard to potential nonradiological impacts, implementation of the rule requirements would have no impact on the environment other than what has been previously discussed. The revised requirements would not affect any historic sites, would not affect nonradiological plant effluents, and would no other environmental impact. Therefore, there are 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 DBT regulations would result in no change in current environmental impacts since the DBT requirements have already been imposed and not taking the proposed regulatory would therefore, not change the current DBT requirements. However, the no action alternative would leave the governing DBT regulations as they are, and the regulation would not reflect the actual requirements governing DBT. The NRC staff concluded that leaving the governing DBT regulations unaligned with order requirements is not a desirable regulatory practice. In addition, the Commission directed the

staff to revise the DBT 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 power reactors.

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 , 2005.

FOR THE NUCLEAR REGULATORY COMMISSION.

Catherine Haney, Program Director,
Policy and Rulemaking Program,
Division of Regulatory Improvement Programs,
Office of Nuclear Reactor Regulation.

TABLE 1. Summary of Public Comments on PRM-73-12

There were 845 comments submitted on PRM-73-12, of which 528 were from 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 attorney generals, 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 DBT requirements imposed (by order) to date were adequate.

No.	COMMENT SUMMARY	NRC RESPONSE
1.	Many comments urged the NRC to accept PRM-73-12 in its entirety. Many of these comments cited specific portions of the PRM, as well as offering other information that was not relevant to either the NRC's review of the PRM or to the proposed DBT rulemaking.	The NRC does not agree with the comments that request adoption of the petition DBT requirements. The NRC review of PRM-73-12 is contained in Section V of the proposed notice of rulemaking for § 73.1. The conclusion of that review is that the NRC's previous DBT reviews remain valid, and as a result, there is not a need to further revise the DBT as suggested by PRM-73-12. As a result, the proposed rulemaking for § 73.1 does not impose any new DBT requirements beyond what has previously been imposed upon reactor licensees and Category I fuel cycle facilities through the April 29, 2003 orders.
2.	Comments were submitted requesting that the NRC give serious consideration to the petition, although these comments were noncommittal as to whether the stakeholder agrees or disagrees with the proposal in PRM-73-12.	The NRC agrees in part with these comments. The NRC is denying the aspects of PRM-73-12 which deal with the aerial hazard for the reasons stated in Section V of the notice for proposed rulemaking on § 73.1. The NRC agrees that it is appropriate to review the petition (including the comments submitted on it) to determine whether there is a need for expansion of DBT requirements in detail based on the issues and concerns expressed in the petition. The NRC did review the petition and the results of the review are provided in Section V of the notice for proposed rulemaking on § 73.1

No.	COMMENT SUMMARY	NRC RESPONSE
3.	The NRC should reject PRM-73-12 in its entirety. These comments generally indicated that current security requirements implemented after September 11, 2001, are adequate. These comments, in some cases, also took issue with specific provisions of PRM-73-12. It was also commented that for the NRC to consider PRM-73-12 would require an amendment to § 50.13, since the petition appears to be largely designed to thwart an attack by a group that meets the criteria for an enemy of the United States (and licensees are not required to defend against such entities per § 50.13).	The NRC does not agree that PRM-73-12 should be rejected in its entirety, although the NRC concludes that the requirements imposed by the April 29, 2003, DBT orders, which are being incorporated into proposed § 73.1 remain adequate. The upgrades required by the DBT orders which are now being incorporated into the proposed rule, grant a number of requests contained in PRM-73-12. Consideration of PRM-73-12 does not require amendment to § 50.13, and none of the DBT upgrades proposed in this rulemaking conflict with that regulation. No amendment of § 50.13 is required at this time.
4.	Comments were submitted that suggested that NRC should require additional physical protection features in addition to the physical feature (i.e., “beamhenge”) proposed in PRM-73-12.	The NRC does not agree with these comments. First, the requirements governing specific security features employed by the licensees to defend against the DBTs (e.g., vehicle barriers, personnel searches, intrusion detection systems) are not contained in § 73.1(a). Amendment of those requirements is beyond the limited scope of this rulemaking, which focuses only on DBTs in § 73.1(a). Nor does the NRC agree that additional physical protection features are required to defend against the upgraded DBTs. The NRC concludes that current DBT requirements (imposed in the April 29, 2003, orders) are adequate, and that the resulting physical security features are also adequate to defend against the revised DBT requirements.
5.	Comments that were noncommittal in supporting the petition, and instead commented that NRC should increase security requirements based on the stakeholder’s concerns regarding the potential terrorist threat to nuclear power plants.	The NRC agrees with these comments. It was this same concern which caused the NRC to conduct a thorough review of security following the September 11, 2001, terrorist attacks. The result of these reviews was the issuance of the DBT orders on April 29, 2003.
6.	Comments that were noncommittal in supporting the petition, and instead commented that NRC should review security issues on a continuing basis and upgrade security plans accordingly.	The NRC agrees with this comment. The NRC believes it is extremely important for the agency to remain vigilant with regard to the potential threat to nuclear facilities in this country. The NRC continues to work with the Department of Homeland Security, intelligence agencies, and other Federal agencies to monitor the threat environment. The NRC will continue its review of the DBTs on a semiannual basis against changes in the threat environment to ensure their continued validity.

Mr. Daniel Hirsch
Committee to Bridge the Gap
1637 Butler Avenue
Suite 203
Los Angeles, California 90025

SUBJECT: PETITION FOR RULEMAKING PRM-73-12: A PETITION FOR RULEMAKING FILED BY THE COMMITTEE TO BRIDGE THE GAP

Dear Mr. Hirsch:

I am responding to your letter dated July 23, 2004, in which you submitted a petition for rulemaking (PRM) requesting that the U.S. Nuclear Regulatory Commission (NRC) amend its regulations to upgrade the design basis threat (DBT) and associated requirements. The petition requests that the NRC amend its regulations to upgrade the DBT regulations (in terms of the numbers, teams, capabilities, planning, willingness to die and other characteristics) 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") such that nuclear power plants would be able to withstand an air attack from a fully loaded jumbo jet similar to what occurred on September 11, 2001.

Your petition was published in the *Federal Register* for comment on November 8, 2004, (69 FR 64690). The public comment period expired on January 24, 2005, and the staff received a large number of public comments including many form letters. Comments were provided by individuals, licensees, states, and public interest groups.

We have decided to partially grant PRM-73-12. The partial granting of PRM-73-12 should be understood to mean that the NRC will consider the issues raised by your petition and the public comments filed on the petition as part of the ongoing rulemaking to revise DBT requirements in § 73.1. The intent of this review is to determine whether there is a need for further expansion of DBT requirements (with the exception of the aspects of your petition which the NRC is denying as discussed below), in light of the issues and concerns you have raised. In this regard, the NRC plans to publish a proposed § 73.1 rule for public comment in the *Federal Register*. In Section V of the proposed § 73.1 rule notice, you will find an evaluation of your petition.

NRC intends to deny the portion of your petition which deals with the defense against aircraft (both in the specific suggested DBT requirements and in the proposed defense structure referred to as "beamhenge"). This determination was based, in part, on the results of detailed assessments conducted by the NRC after the September 11, 2001, attacks in New York and on the Pentagon. These assessments considered both the potential for, and the 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. 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 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 time to implement mitigating actions and offsite emergency plans such that the NRC's emergency planning basis remains valid.

The NRC believes that the most effective strategy for preventing an aircraft attack and protecting our nation's infrastructure continues to be through enhanced measures such as airport passenger and baggage screening, strengthening of cockpit doors and the Air Marshal program.

Additional site-specific studies of operating nuclear power plants are underway or being planned to determine the need, if any, for additional mitigating capability on a site-specific basis. Furthermore, the NRC staff will continue to review intelligence and threat reporting to recommend any appropriate modifications to the DBT.

Sincerely,

Annette Vietti-Cook
Secretary of the Commission.