

POLICY ISSUE (Notation Vote)

October 25, 2012

SECY-12-0145

FOR: The Commissioners

FROM: R. W. Borchardt
Executive Director for Operations

SUBJECT: DENIAL OF PETITION FOR RULEMAKING
(PRM-70-9) – AMERICAN PHYSICAL SOCIETY

PURPOSE:

To obtain Commission approval to publish the enclosed draft *Federal Register* notice (FRN) (Enclosure 1) denying a petition for rulemaking (PRM) submitted by the American Physical Society (APS or the petitioner) (Enclosure 2).

BACKGROUND:

Dr. Francis Slakey, on behalf of the APS, submitted a petition for rulemaking (PRM-70-9) to the U.S. Nuclear Regulatory Commission (NRC or Commission) on November 10, 2010 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML103260300). The petition requests that the NRC amend its regulations to require each applicant for an enrichment or reprocessing (ENR) facility license to include in its application an assessment of the proliferation risks associated with the construction and operation of the proposed facility because new ENR technologies could pose unique proliferation risks.

A notice of receipt and request for comment was published in the *Federal Register* on December 23, 2010 (75 FR 80730). The public comment period closed on March 8, 2011. The NRC received 2,389 comment letters. Most of these comments were identical form e-mails from individuals who supported the petition. There were also 50 comment letters from individuals, members of Congress, and interested groups that supported the petition.

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SECY NOTE: THIS SECY PAPER TO BE RELEASED TO THE PUBLIC 5 WORKING DAYS AFTER DISPATCH OF THE LETTERS.

Two comment letters, one from a nuclear industry representative and one from an individual, opposed the petition.

The majority of the public comments repeat positions set forth in the petition. Some commenters provide additional information. For example, commenters discuss the NRC's responsibilities under the National Environmental Policy Act to consider proliferation risks, how a formal assessment of the proliferation risks of the technology would enhance facility safeguards, and why a formal assessment of the proliferation risks of the technology should also consider terrorism. The enclosed draft FRN summarizes the petitioner's assertions, the public comment letters, and NRC's responses.

DISCUSSION:

The petition requests that the NRC revise Part 70 of Title 10 of the *Code of Federal Regulations* (10 CFR), "Domestic Licensing of Special Nuclear Material," to include a new requirement:

§ 70.22 Contents of applications.

(o) Nuclear proliferation assessment. Each applicant for the license of an enrichment or reprocessing facility shall include an assessment of the proliferation risks that construction and operation of the proposed facility might pose.

The staff considered the petition, public comments, information related to the current threat environment, and the existing NRC licensing framework for ENR facilities. The staff recognizes the importance of the petitioner's concerns about the risks of nuclear proliferation. Non-proliferation considerations are already an important part of the NRC's regulatory decision-making process. Therefore, for the reasons set forth in the enclosed draft FRN and summarized below, the staff recommends denial of the petition for rulemaking.

Summary of Petition

The petition asserts that a formal assessment of the proliferation risks of ENR technology is consistent with the NRC's requirement to evaluate whether issuance of a license "would be inimical to the common defense and security or to the health and safety of the public" (Assertion 1). The petition also asserts that the NRC's current licensing process is insufficient to address proliferation concerns because the current licensing process uses a "net effect" in which proliferation-relevant issues are spread across the license application and never synthesized (Assertion 2).

According to the petition, the requested rule change is in the national security and energy interests of the United States. The petition states that energy security, national security and nonproliferation are coupled and emphasizes that nuclear power and nuclear materials must be deployed in a safe, secure and responsible manner (Assertion 3). The petition also asserts that over the next several years, the NRC will be reviewing license applications for new technologies that could carry substantial proliferation risks and be "game changers," since they would lead to smaller, more efficient, and possibly less expensive methods for the production and use of nuclear materials that would be more difficult to detect (Assertion 4). The petition suggests that the NRC can address new risks by elevating the priority of nonproliferation (Assertion 5). Finally, the petition states that successful commercialization of ENR technologies may itself

stimulate the interests of proliferants (Assertion 6). Each of these 6 assertions are discussed and responded to in the enclosed draft FRN.

Summary of Staff Response

The NRC staff disagrees with the petitioner that an applicant seeking an ENR facility license from the NRC is the appropriate party for conducting a nuclear proliferation assessment. A commercial entity would not have access to the intelligence resources, capabilities, and information essential to compiling a meaningful nuclear proliferation assessment. An assessment based solely on information available to a commercial entity would be of little value to the NRC in assessing the proliferation risks associated with licensing a particular facility. The task of assessing proliferation risks is best performed by the Federal Government. Other Federal agencies, led by the Department of State and including the Department of Energy, the Department of Defense, and the Department of Commerce along with the NRC, have primary responsibility for implementing national nonproliferation policies and goals and conducting proliferation assessments of sensitive technologies, including nuclear technologies. The NRC routinely interacts with and provides its expertise and support to these agencies.

Consistent with its statutory authority under the Atomic Energy Act (AEA) of 1954, as amended, the Commission will not issue a license for an ENR facility if it determines that such a facility would constitute an unreasonable risk to the health and safety of the public or would be inimical to the common defense and security. The AEA does not require that a nuclear proliferation assessment be performed as a prerequisite to domestic licensing of an ENR facility. Instead, Congress gave the NRC broad authority to determine the considerations that should be examined when making its inimicality finding.

The staff disagrees that the NRC's current approach to licensing domestic ENR facilities is insufficient. The staff has determined that the NRC's comprehensive regulatory framework, which includes 1) extensive regulatory requirements and review, 2) ongoing oversight, and 3) active interagency cooperation, adequately assesses proliferation risks and concerns associated with the licensing of an ENR facility in the United States. Each aspect of the NRC's comprehensive regulatory framework is discussed below.

The NRC's regulatory requirements in 10 CFR Parts 73, 74, 25, 95, and 110 address proliferation concerns by imposing requirements for the protection of sensitive/classified information, technologies and materials, including that related to ENR facilities. For example, 10 CFR Part 73, "Physical Protection of Plants and Materials," prescribes requirements for the establishment and maintenance of a physical protection system to protect special nuclear material at fixed sites and in transit, and to protect plants where special nuclear material is used, against radiological sabotage, theft and diversion. Requirements to measure, control, detect, and report the loss, theft, attempted theft, or unauthorized production of special nuclear material are included in 10 CFR Part 74, "Material Control and Accounting of Special Nuclear Material." Licensees are required to prevent unauthorized access and to maintain programs for protecting classified National Security Information, Restricted Data, and associated classified technology under 10 CFR Part 25, "Access Authorization," and 10 CFR Part 95, "Facility Security Clearance and Safeguarding of National Security Information and Restricted Data." Finally, 10 CFR Part 110, "Export and Import of Nuclear Equipment and Material," includes requirements for controlling the export and import of nuclear materials and equipment by NRC or Agreement State licensees.

Proliferation concerns also are addressed by the NRC's ongoing oversight activities. The NRC inspects licensee and applicant facilities to enforce compliance with NRC regulatory requirements. If regulatory concerns are identified during these inspections, licensees may be required to take corrective actions to resolve these concerns. Additionally, if inspections identify generic risks applicable to all licensees, the NRC can supplement its regulations and issue orders or regulatory guidance addressing these risks, as appropriate. This ongoing oversight provides an additional layer of protection for sensitive/classified information, technologies and equipment, including those related to ENR facilities.

Additionally, interagency cooperation activities also address proliferation concerns. The NRC staff has ongoing contact and engages in active collaboration with other government agencies to assist in meeting the U.S. Government's broader national nuclear nonproliferation goals and policies. The staff coordinates continuously with other Federal agencies to share information related to various threats and activities, including those related to proliferation concerns, inside and outside the United States. To the extent that the petitioner is concerned about a spread of proliferation-sensitive technology beyond the United States, as noted above, other Federal agencies within the Executive Branch with intelligence, arms control, and foreign policy expertise have primary responsibility for developing and promoting global implementation of the U.S. Government's policies and goals relating to nonproliferation. These agencies already perform assessments of the international threat environment to ascertain which foreign nations or sub-national organizations are or may be trying to obtain or use ENR technology for proliferation purposes. These agencies have both the responsibility and the expertise to work through diplomatic and other channels to deter such efforts. The NRC directly accomplishes non-proliferation objectives through the application of regulatory requirements for physical and information security, material control and accounting, and export and import control.

The staff agrees with the petitioner that nuclear power and nuclear materials must be developed and utilized in a safe, secure and responsible manner. Furthermore, the staff agrees that the security of the nation's energy supply and reducing proliferation risks are related to the national security of the United States. However, the staff does not agree that an NRC domestic licensing proceeding is the proper forum for establishing national nonproliferation policies and objectives.

The NRC is committed to protecting public health and safety and promoting the common defense and security of the United States and recognizes that the agency must remain vigilant in protecting nuclear materials and technologies. Protecting the Nation's nuclear facilities and materials is a priority of the NRC that is articulated in the NRC's mission statement and is one of the two strategic goals identified in NRC's Strategic Plan. The NRC's licensing framework is flexible and adaptable. The staff continually assesses the threat environment and coordinates with Federal partners to identify threats or proliferation risks not currently addressed by the existing regulatory framework. Should the staff identify new risks not currently addressed by the NRC's regulatory framework, the NRC can take appropriate steps (e.g., issue orders, regulations, and regulatory guidance) to address those risks.

The NRC's licensing responsibilities under the AEA are regulatory in nature. The NRC neither encourages nor discourages the development of a particular technology. Moreover, it is neither the NRC's role, nor is it within the NRC's capability, to restrict scientific research into the feasibility of concepts associated with the nuclear fuel cycle. The petitioner's concern that issuance of an NRC license may demonstrate that a technology is feasible or commercially

viable is not a valid regulatory basis for denying a license under the AEA. When a license application is received, the NRC reviews the application and makes a licensing determination consistent with its statutory responsibility to protect the public health and safety and promote the common defense and security. The staff recognizes that new ENR technologies may pose proliferation risks. The NRC's regulatory framework enables it to meet its responsibilities and adequately protect against proliferation risks associated with ENR technologies.

Requiring an applicant to perform a nuclear proliferation assessment as part of the license application for construction and operation of an ENR facility in the United States would not enhance the NRC's ability to carry out its statutory responsibilities when licensing such a facility. An applicant does not have the capability to perform a meaningful assessment. Furthermore, the NRC's comprehensive regulatory framework and ongoing interaction with the Departments of State, Commerce, and Energy and other Federal agencies responsible for implementing national nonproliferation goals adequately address the proliferation risks associated with the domestic licensing of an ENR facility. The petitioner has failed to demonstrate that there are gaps in the NRC's comprehensive regulatory framework for ENR facilities that would necessitate imposing on applicants a requirement that they perform a proliferation assessment.

RECOMMENDATIONS:

For the reasons set forth in the enclosed draft FRN and summarized above, the staff recommends that the Commission approve publication of the enclosed draft FRN denying PRM-70-9 (Enclosure 1).

The enclosed letter for signature by the Secretary of the Commission (Enclosure 3) informs the petitioner of the Commission's decision to deny PRM-70-9. The staff will inform the appropriate Congressional committees.

COORDINATION:

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

/RA by Michael F. Weber for/

R. W. Borchardt
Executive Director
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Enclosures:

1. *Federal Register* notice
2. APS petition
3. Denial letter to the petitioner

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