

## POLICY ISSUE (Notation Vote)

August 25, 2007

SECY-07-0147

FOR: The Commissioners

FROM: Luis A. Reyes  
Executive Director for Operations /RA/

SUBJECT: RESPONSE TO U.S. GOVERNMENT ACCOUNTABILITY OFFICE  
RECOMMENDATIONS AND OTHER RECOMMENDATIONS TO  
ADDRESS SECURITY ISSUES IN THE U.S. NUCLEAR REGULATORY  
COMMISSION MATERIALS PROGRAM

PURPOSE:

To request Commission approval of the staff's proposed Action Plan and associated funding to respond to recommendations to address security issues in the U.S. Nuclear Regulatory Commission's (NRC's) and Agreement States' materials programs.

SUMMARY:

Early in 2007, the U.S. Government Accountability Office (GAO) staff used the name of a bogus company to obtain a valid NRC materials license authorizing the possession of portable gauges containing radioactive sources. Following notification of this fact by GAO, the staff took immediate actions to respond to the identified vulnerability. After a Congressional hearing in July, the NRC received recommendations from the GAO and the Senate Committee on Homeland Security and Governmental Affairs, Permanent Subcommittee on Investigations (PSI) staff. As directed by the Commission in the Staff Requirements Memorandum (SRM) dated August 17, 2007, the staff has developed a proposed Action Plan to address needed changes in NRC's process for issuing licenses for radioactive sources.

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The plan includes specific actions and recommends that three working groups develop additional recommendations: a proposed independent panel, a Pre-Licensing Guidance Working Group (already working), and a proposed Materials Program Working Group. In order to implement the plan, the staff requests additional resources: 15.5 Full Time Equivalent (FTE) and \$2.58 million in FY08 and 12.0 FTE and \$8.26 million in FY09.

BACKGROUND:

In late May 2007, staff members from the GAO notified the NRC staff of the results of an investigation, where GAO staff used the name of a bogus company to obtain a valid NRC materials license authorizing the possession of portable gauges containing radioactive sources. The GAO staff then modified the license using computer software to make it appear that a much greater number of gauges were authorized than allowed by the original license.

In the same time frame, GAO attempted to obtain a license from the State of Maryland using a similar bogus application. GAO investigators abandoned the effort when Maryland informed them that Maryland would conduct a pre-licensing visit prior to issuing a license.

Previously, in a 2006 Congressional hearing, GAO presented testimony (GAO-06-583T), which described a 2005 GAO investigation where GAO staff successfully brought small radioactive sources into the U.S. using counterfeit documentation, even though the sources were exempt and did not require a license. Also, in 2003, GAO issued a report (GAO-03-804) that concluded that NRC needed to improve the security of radioactive sources.

The Energy Policy Act of 2005 required the establishment of the Radiation Source Protection and Security Task Force, which is chaired by the NRC. The Task Force issued its first report on August 15, 2006. The report contains 10 recommendations and 18 actions, some of which relate to verification issues similar to those raised by the GAO investigation. Appropriate reference is made to them in the Action Plan that is the subject of this Commission Paper.

In response to the GAO notification in late May 2007, the NRC staff promptly took the following actions:

- We immediately informed our Federal partners and the Agreement States of GAO's findings.
- We promptly terminated the license issued to the bogus company.
- Within 24 hours, we suspended issuance of all new materials licenses for about two weeks, pending issuance of revised interim procedures to address the GAO concerns.
- In mid-June, we issued revised interim procedures that require on-site inspections or in-office meetings for new materials license applicants. Exceptions may be made for applicants who already possess, or are listed on, an NRC or Agreement State license.

- We completed a retrospective examination of certain licenses issued by the NRC to verify that the licensees are legitimate.

When members of the Senate were notified of the GAO investigation, a hearing was scheduled by the PSI for July 12, 2007, entitled "Dirty Bomb Vulnerabilities: Fake Companies, Fake Licenses, Real Consequences." Commissioner McGaffigan and representatives of GAO testified at the hearing. In its testimony, GAO made three recommendations, calling for: (1) improved pre-licensing guidance, including consideration of mandatory site visits for new applicants; (2) periodic oversight of license application reviewers; and (3) improved measures to prevent counterfeiting of licenses (GAO-07-1038T).

In conjunction with the July 12, 2007, hearing, the PSI released a staff report, "Dirty Bomb Vulnerabilities," which contained four additional recommendations to improve NRC's materials program. The recommendations called for NRC to: (1) re-examine its apparent "good-faith" presumption in the licensing process; (2) physically inspect applicants' facilities before issuance of licenses for Category 3 radioactive sources; (3) consider including Category 3 sources in the proposed National Source Tracking System (NSTS); and (4) quickly establish the planned Web-Based Licensing (WBL) system.

Earlier in 2007, the NRC Office of the Inspector General (OIG) released its Audit Report "Summary Report and Perspectives on Byproduct Material Security and Control" (OIG-07-A-12, March 30, 2007). The OIG report concluded that, while NRC has taken a number of steps to improve security of byproduct material, the efforts are incomplete. The OIG report recommended that NRC convene an independent panel of experts external to the agency to identify agency vulnerabilities concerning NRC's material licensing and tracking programs, and validate the agency's byproduct material security efforts.

Since the initial GAO notification in May 2007, the Commission and staff have continued to pursue both short-term and long-term actions to address materials security vulnerabilities. As part of these efforts, the staff discussed the issues with the Executive Boards of the Organization of Agreement States (OAS) and the Conference of Radiation Program Control Directors (CRCPD), and coordinated with the Federal Nuclear Government Coordinating Council (GCC) through contacts with the Department of Homeland Security (DHS).

In addition, the staff is preparing a generic communication to material licensees, which will provide updated guidance on verifying license and possession authorizations prior to transfers of licensed material. (Verification requirements have already been imposed by orders issued to licensees who transfer higher risk sources, and general verification guidance was included in an information notice (IN 2006-12) to all materials licensees in 2006.) In conjunction with preparation of the new notice, the staff is considering suggestions from a major portable gauge vendor on how to improve the verification process for licensees.

The staff discussed these security issues with the Commission in a closed meeting on July 18, 2007. Following the meeting, the Commission issued a SRM dated August 17, 2007, directing the staff to prepare a comprehensive plan to address needed changes in NRC's process for issuing licenses for radioactive sources, including the role of pre-licensing visits to verify applicant authenticity and mechanisms for source suppliers to verify the authenticity of a license; appropriate strategies for aligning Agreement State licensing with recommended

changes; and an independent review of NRC's licensing process. This paper responds to that SRM and presents a comprehensive Action Plan.

#### DISCUSSION:

##### Reasons for Continuing Concerns About Materials Security

Although NRC has worked continuously since the 9/11/01 attacks to improve security for all licensees, the GAO, PSI, and OIG reports illustrate continuing concerns about security vulnerabilities in the NRC's materials licensing process. Two of the key reasons for these continuing concerns are:

1. NRC efforts have focused on higher risk sources. This is consistent with the agency's policy of risk-informed regulation, and with the International Atomic Energy Agency (IAEA) Code of Conduct on the Safety and Security of Radioactive Sources. However, both the GAO and PSI reports raised questions as to why lower risk sources are not being protected to the same degree as higher risk sources. It is difficult to explain the differences to a large segment of the stakeholder population, who may not generally think in terms of the relative risks associated with varying levels of radiation exposure, and the relative costs and benefits involved in reducing the risk.
2. As pointed out by the PSI report, NRC retains an apparent "good faith" presumption in its licensing approach, which assumes that applicants do not harbor malicious motives. According to the PSI report, this presumption is manifested not just by the lack of pre-licensing visits for applicants involving low-risk licensees, but also by NRC licensing guidance which provides applicants with model language and stock responses.

The implications of the security concerns are broad. Some solutions to these concerns are straightforward - for example, increasing pre-licensing visits - but some are not. For example, 10 CFR Section 30.41(d) is a longstanding regulation which specifies acceptable methods for verification of authorization to receive a particular amount and form of licensed material. This regulation allows transfers based on copies of licenses, written certifications from transferees, and even (for emergency shipments) oral certifications from transferees. This regulation may have to be revised to strengthen the verification requirements, and, if so, Agreement States would need to make compatible revisions. The impact of revisions to this regulation would be broad, because many small vendors and other licensees who transfer material directly to other licensees would be affected, as well as large vendors and their customers.

##### The Comprehensive Action Plan

As directed by the Commission in the SRM dated August 17, 2007, the staff has developed a proposed Action Plan (enclosed) to address needed changes in NRC's process for issuing licenses for radioactive sources. The Action Plan contains short-term, mid-term, and long-term actions, with timeframes ranging from a few months to more than two years. A milestone chart for the planned actions is included in the plan.

The Action Plan addresses all eight recommendations contained in the recent GAO, PSI, and OIG reports. Six of the recommendations are specific, and two are broad. In developing the

Action Plan, the staff took a comprehensive approach. Therefore, some of the proposed actions address issues that go beyond the recommendations, but that are nevertheless appropriate in order to address potential security vulnerabilities.

One of the broad recommendations (from OIG) calls for an independent review by an external panel of experts. The staff has developed a proposed charter for this panel (attached to the Action Plan), and, following Commission approval, will convene the panel in accordance with the agency's advisory committee process including consultation with the U.S. General Services Administration in accordance with 10 CFR 7.5. The panel will be chaired by a former Agreement State program manager, and will include another member who has not had substantial involvement in design or implementation of the current NRC materials program. The staff has identified specific individuals to fill these roles. These individuals have been selected based on their individual qualifications, knowledge of NRC regulatory programs, and impartiality with respect to the existing NRC materials policies and procedures. It is expected that another Federal agency, most likely the Defense Threat Reduction Agency, will provide a third qualified member.

The second broad recommendation (from the PSI report) calls for a reevaluation of the apparent "good-faith" presumption in the licensing process. As reflected in the enclosed Action Plan, the staff recommends that this issue be assigned to the external panel, because it challenges a fundamental premise of NRC's regulatory approach.

The plan proposes that the report of the independent review be completed by January 31, 2008. The panel's report will be provided to the Director, Office of Federal and State Materials and Environmental Management Programs (FSME) and a newly formed Materials Program Working Group, to consider adoption of the findings and recommendations for changes in the materials regulatory program. FSME and the working group will provide recommended actions to the Commission by Spring 08.

The Action Plan envisions two phases: development and implementation. Initially, proposals and actions must be developed to respond to recommendations and other known vulnerabilities. In addition to specific actions already identified, at least three working groups will be developing additional recommendations: the proposed independent panel, the Pre-Licensing Guidance Working Group, and the proposed Materials Program Working Group. Further, the plan recommends that consideration be given to expanding the NSTS and the associated rulemaking to include Category 3.5 sources, which are an order of magnitude smaller in amount of radioactivity than Category 3 sources. Category 3.5 does not appear in the IAEA Code of Conduct on Safety and Security of Radioactive Sources and is not well understood outside the agency. Adding Category 3.5 will require explanation and coordination with other government agencies to assure consistent implementation of the final NSTS. Also, in addition to the planned general license rulemaking, the plan recommends that a review be undertaken to identify any gaps or modifications that might be appropriate to ensure a consistent, risk-informed, graded approach for the general license program based on both safety and security.

As described in more detail in the Action Plan, the Pre-Licensing Guidance Working Group will develop and issue revised guidance to address pre-licensing reviews and visits, while the proposed Materials Program Working Group will identify other short-term and long-term

measures to be implemented for both specific and general licensees. Subsequently, the additional activities and recommendations arising from these groups must be evaluated, and implementation actions must be determined. Therefore, the proposed Action Plan focuses on the developmental phase, because full information on implementation will not be available until further progress is made by the working groups.

#### Strategies for Attaining Alignment with the Agreement States and NRC Regional Offices

To assure the consistent, nationwide implementation of the plan, it is likely that many of the actions implemented by the NRC will involve consideration of Agreement State compatibility. The resources required for the Agreement States to implement the recommendations and additional activities as a result of the Action Plan will be significant, because the Agreement States administer a much larger number of licenses than NRC (about 17,500 State licenses vs. about 4,500 NRC licenses). Funding for these activities will need to come from existing budgets which, in most States, are already stretched. In addition to programmatic changes, the plan also proposes enhancements to information technology systems (i.e., NSTS and Web-based Licensing (WBL)) that would include participation by Agreement States.

Coordination with other Federal agencies and the States during the development of these systems is ongoing and will continue. The elements of the Action Plan have been discussed with the Office of Infrastructure Protection, DHS and the major elements of the plan were entered into a list of important actions to improve security of radioactive sources discussed at a meeting of the GCC.

The staff initially coordinated with the Agreement States by discussing the Action Plan with a State program manager who oversees the license for a major portable gauge vendor, and with the Executive Boards of the OAS and the CRCPD. The State manager indicated a willingness to work with NRC to make improvements on license verifications. The OAS Executive Board recently sent a letter dated August 10, 2007, to Senator Carl Levin, which expresses concerns that the GAO testimony and PSI staff report do not provide adequate evidence or other basis to support the GAO and PSI recommendations, and that those recommendations could have a serious impact on the regulation of radioactive materials nation-wide. However, discussions with representatives of the OAS and CRCPD Boards indicate their willingness to work with the NRC staff to develop solutions in response to the Action Plan. Working groups established in conjunction with the plan will include Agreement State representatives. The staff will continue to coordinate closely with the Agreement States, to assure consistent, nation-wide implementation.

The plan has also been coordinated with the NRC Regions; regional representatives will participate in proposed Materials Program Working Group and in the planning and implementation of actions developed in response to the Action Plan.

The staff believes that implementation of the Action Plan and resulting regulatory improvements will improve safety, security, and public confidence by reducing the risk of fraudulent transfers, and establishing a more integrated, comprehensive regulatory framework for all radioactive sources.

RESOURCES:

While some of the activities in the Action Plan are ongoing and budgeted, the majority are unplanned activities that were not included in either the FY08 or FY09 budget process. The following table summarizes the unbudgeted NRC resources required for the Action Plan. Further details for each action item and the associated resources are included in the enclosed Action Plan.

FY08 Unbudgeted		FY09 Unbudgeted	
FTE	\$ (Thousands)	FTE	\$ (Thousands)
15.5	2,580	12.0	8,260

The table includes 1.0 FTE and \$400,000 in FY08 for the independent panel activities.

The resource estimates in this paper are a subset of the resource estimates recently provided to the Commission. Resource estimates for a few items, such as NSTS Categories 1 and 2, that were previously provided, have been excluded from this Action Plan, based on further reexamination of their relationship to the GAO findings. Estimates for comparable items in this paper have increased from the resource estimates previously provided by 3.0 FTE and \$110,000 in FY 2008.

The staff does not believe that the needed additional resources can be reallocated from other activities in the key program offices (FSME, the Office of Nuclear Security and Incident Response (NSIR), and the Office of Information Services (OIS)) without significantly impacting ongoing programs, given current resource constraints and the large amount of unbudgeted resources involved.

In addition to resource impacts for the NRC, the Agreement States will likely incur substantial unbudgeted costs to carry out recommendations coming from implementation of the Action Plan.

RECOMMENDATION:

That the Commission:

Approve the enclosed Action Plan to respond to the recommendations from the GAO, PSI, and OIG to address security issues in the NRC materials program.

Approve, as part of its review of the FY09 budget proposal and the supplemental information provided by the staff, the allocation of resources to fund the Action Plan.

Note that if the Action Plan is approved, the staff will prepare a communication plan in conjunction with its implementation.

The Commissioners

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COMMITMENTS:

The proposed commitments, subject to Commission approval, are included in the enclosed Action Plan.

COORDINATION:

This paper has been coordinated with the Office of the General Counsel which has no legal objection. The Action Plan involves significant unbudgeted resources, and the resource estimates have been coordinated with the Office of the Chief Financial Officer.

The Action Plan has also been coordinated with the Agreement States and Regions as discussed above.

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for Operations

Enclosure:

Action Plan to Respond to  
Recommendations to Address Security  
Issues in the NRC Materials Program

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