

June 7, 2005

MEMORANDUM TO: Chairman Diaz  
Commissioner McGaffigan  
Commissioner Merrifield  
Commissioner Jaczko  
Commissioner Lyons

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

SUBJECT: PROTECTIVE MEASURES AND IMPLEMENTING GUIDANCE FOR  
GROUPS 1 THROUGH 4 MATERIALS LICENSEES

This paper responds to Staff Requirements Memoranda (SRMs). This paper also identifies issues related to the release of security information previously withheld by the Commission. In response to the SRMs, the NRC staff and Materials Security Working Group (MSWG) members met with stakeholders regarding the proposed PMs. The MSWG reviewed and considered Groups 1 through 4 stakeholder comments and have appropriately revised the PMs and Implementing Guidance. The draft final Groups 1 through 4 PMs and implementing Order package is attached for Commission review (Attachment 1). Unless the Commission directs the staff to pursue the proposed alternative approach presented by the staff on April 19, 2005, and

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in COMSECY-05-0015, "Initiatives for Increasing Agreement State Participation in the Control of Sources," staff intends to issue Groups 1 through 4 PMs and implementing Orders to licensees. Group 1 PMs and implementing Orders would be issued to licensees who possess self-shielded irradiators (including blood irradiators), panoramic and underwater irradiators with less than 10,000 Curies, teletherapy devices, gamma knife devices, and high and medium dose rate afterloaders; Group 2 PMs and implementing Orders would be issued to licensees who possess radiography cameras and well logging devices; Group 3 PMs and implementing Orders would be issued to broad scope users and master materials licensees; and Group 4 PMs and implementing Orders would be issued to calibration facilities, waste brokers, remote service licensees and general service licensees.

Following transmittal of draft PM implementing Order packages to Groups 1 through 4 licensees for comment beginning in November 2004 and ending in February 2005, the NRC received over 300 stakeholder comments on the PMs, the PM Implementing Guidance, the Order, and the accompanying Regulatory Issue Summary (RIS). Many comments were from attendees of NRC-sponsored workshops held in early 2005, at the NRC headquarters in Rockville, MD, NRC's Region III office in Lisle, IL, NRC's Region IV office in Arlington, TX, Children's Hospital in Boston, MA, and at the Edward R. Roybal Auditorium in Oakland, CA.

Stakeholder comments, with staff responses, are used to provide additional clarification in the form of Questions and Answers, and are appended to the Implementing Guidance.

In its efforts to develop PMs for Groups 1 through 4 in parallel, staff identified many similarities in the enhanced security requirements among all groups. An example is the inclusion of a physical barrier requirement developed only for mobile devices in Group 1 which staff later determined to be applicable to Groups 2 through 4 licensees for portable devices as well. Thus, the process for developing PMs for one group was informed by PM development for other groups. The result has been a consolidation of Groups 1 through 4 PMs around a basic framework of: controlling access to radioactive material (RAM) quantities of concern and devices containing RAM (PM 1); monitoring, detecting, assessing, and responding to possible theft or sabotage of RAM (PM 2); initiating new protocols for RAM in transit (PM 3); enhancing controls on portable and mobile devices containing RAM (PM 4); and records maintenance requirements (PM 5). Stakeholder comments that resulted in a change to a PM in one group were found by staff to be applicable to the same PM in other groups. Based on the similarity of the PMs for Groups 1 through 4, staff intends to issue Orders for Groups 1 through 4, in accordance with previously submitted schedules, upon Commission approval of the attached PM Order implementation package.

The comments did not result in significant changes to the PMs and affiliated documents. Stakeholder input did, however, result in staff making four minor changes, and one substantive change, in the wording of the PMs. The four minor changes include: (1) a new, introductory paragraph to the PMs intended to clarify their purpose; (2) the addition in PM 1 of "devices containing radioactive material quantities of concern," in addition to radioactive material quantities of concern itself, as the focal point of the PMs; (3) the inclusion in PM 1.b. of "non-licensee personnel, such as physicians, physicists, house-keeping personnel, and security personnel under contract," as candidates for trustworthiness and reliability determinations by

licensees, based on their need for access to devices containing radioactive material quantities of concern to perform their duties; and (4) the addition in PM 3 of “domestic highway and rail,” to better describe the type of shipment addressed by this PM and to be consistent with the similar Manufacturing and Distribution (M&D) Additional Security Measures (ASMs).

The substantive change involved PM 5. In the SRM, the Commission directed that PM 5 require licensees to maintain all records required by the Order for the life of the facility (a change from the M&D ASMs) and requested staff obtain information on the potential impact of this requirement. Stakeholders commented that records retained beyond an employee’s termination serve no useful purpose, and that the facility lifetime data retention requirement simply adds to the burden of human resource records management without commensurate value. Others indicated that this requirement reflects a significantly longer retention period than records maintenance request for other personnel records. At many facilities, human resource departments do not keep personnel records beyond three years following employee termination. Similarly, Part 30 and Part 40 licensees are required to maintain records on receipt of byproduct and source material, “as long as the material is possessed and for three years following transfer or disposal...” Part 70 licensees need only retain a copy of the plan for the physical protection of special nuclear material as a record for the period during which the licensee possesses a formula quantity of special nuclear material and each change to the plan for three years from the effective date of the change. Consistent with these observations, staff has revised PM 5 to be more in line with current human resource department practices and consistent with other materials licensing requirements in the following manner: “The licensee shall retain documentation required by these protective measures for three years after they are no longer effective.” PM 5 then identifies particular types of documentation records, and the time horizon beyond which licensees may choose to no longer maintain such documents, as a result of such records losing their usefulness or becoming obsolete.

Concerning Group 5 licensees (Radioisotope Thermoelectric Generators [RTGs]), staff has re-considered the need for issuing Orders to this group. Group 5 includes only four licensees at this time, including two Master Materials licensees (U.S. Navy and U.S. Air Force) and two private sector licensees. The staff is currently re-analyzing the need for this Order in light of the fact that the U.S. Navy and U.S. Air Force likely have security-related requirements in place governing RAM that are equal to, or more stringent than, the proposed Group 5 PMs. In addition, the staff noted that one private sector licensee was previously issued the M&D Order and provides the necessary security enhancements which would be required of Group 5 licensees and the other private sector licensee dispositioned its RAM source of concern in May 2005. Staff is actively pursuing open issues related to Group 5 PM Order issuance, and will communicate its conclusions to the Commission in July 2005.

In SRMs the Commission directed the staff to propose a method to protect the site-specific plans generated by licensees’ implementation of the Order, from disclosure. As discussed in Attachment 2, the MSWG recommends that the Order imposing the PMs for Groups 1 through 4 contain language requiring licensees to protect information generated in response to the Order, but not at the SGI-M level. This would allow licensees to protect such information without the telecommunications and mailing restrictions required of SGI-M protocols, thus easing the important pre- and post-implementation communications between licensees and

regulators that will be necessary to ensure effective implementation. These information-protection requirements would be issued under the Commission's general ordering authority, and their violation would subject licensees to traditional enforcement mechanisms. More details regarding this discussion are provided in Attachment 2.

Staff also recommends that the PMs, the associated Guidance, and the Homeland Security Advisory System (HSAS) action table be released without restriction. This represents a significant policy issue warranting Commission review. The currently proposed PMs provide risk-informed, performance-based requirements rather than prescriptive security measures. As a result, and as previously discussed in "Information Security for Protective Measures for Group 1 Materials Licensees" (ML041960558), the PMs (individually and in the aggregate) impose requirements and the associated Guidance provide guidelines, that are generic, and would provide some helpful information but would not substantially aid an adversary in planning an attack. Sharing of such information with the public-at-large through unrestricted release of the PMs, the Implementing Guidance, and the HSAS action table, will also provide potential deterrent value, and will improve public confidence in the security of these radioactive sources. Such an approach would be consistent with the release to the general public of the Department of Health and Human Services' security requirements (similar to those being considered by the NRC) governing possession, use, and transfer of Select Agents and Toxins, as published in the Code of Federal Regulations at 42 Part 73.11. This approach is also consistent with the Information Security Task Force recommendations (SECY-05-0091, "Task Force Report on Public Disclosure of Security-Related Information," [ML051400108]) that are under Commission review. The Order in Attachment 1 has been drafted accordingly.

Regarding future inspection activities for this Order, currently nine Agreement States are conducting inspections through Section 274i Agreements. Due primarily to resource limitations and process concerns, many States have thus far declined to participate. As a result, from 60% to 70% of the required inspection efforts may need to be undertaken by NRC inspectors, while only some 20% of Group 1 through 5 licensees are, in fact, NRC licensees. Thus, a significant burden on the NRC inspection resources, particularly in Regions I and IV, is anticipated. The NRC fiscal year 2007 budget has been designed to support these inspections.

To effectively address this burden and distribute resource needs, the staff plans to prioritize these inspections through use of a "smart audit questionnaire" which would be distributed with the Orders. Based on licensee responses to the questionnaire, current source data reported to the interim database by licensees, and risk informed metrics developed by the NRC in concert with other federal and state organizations, staff would develop a priority listing for inspections. Because of the resources needed, staff plans a three-year window for completing the initial security inspections of Group 1 through 4 licensees. After all initial security inspections are complete, the reinspection schedule for Panoramic Irradiator, M&D, and Groups 1 through 5

licensees, would be re-evaluated. The NRC staff will revisit the issue of inspection frequency at these facilities, based on both safety and security risks, in the future.

The MSWG considered security effectiveness, the potential burden on licensees, and potential costs required of licensees to comply with the PMs, and chose countermeasures that are effective but not cost prohibitive or overly burdensome. For example, in many cases, the objectives of the PMs can be met through procedural changes to existing security programs and through the use of detection, alarm, and communications technologies that are widely available to the commercial market at relatively low cost. Some stakeholders agreed that the actions required of the PMs are necessary and, in some instances, are currently being implemented at their facilities. Other stakeholders expressed concern that costs associated with Order implementation would be overly burdensome. Costs to implement the PMs may range from several hundred dollars to several tens of thousands of dollars depending upon the size of the licensee, the extent of its current security operations, and the number and physical distribution of a licensee's sources affected by the Order.

staff has aligned the Table 1: Radionuclides of Concern (Table 1) values in this paper to those in the IAEA's "Code of Conduct on the Safety and Security of Radioactive Sources." This is also consistent with the values communicated in the final rule to 10 CFR Part 110 on the export/import of radioactive material quantities of concern. Radionuclides and the quantities of concern used to identify the population of licensees in each group to receive security measures, were based upon the focus on Category 1 and 2 RAM quantities in the IAEA Code of Conduct, and efforts to achieve alignment with the IAEA Code of Conduct.

On March 22 and April 12, 2005, NSIR staff met with the New York (NY) City Police Department (NYPD) Deputy Commissioner for Counter Terrorism, Assistant Commissioner for Counter Intelligence, NY City Office of Emergency Management, NY State Office of Homeland Security, the Department of Homeland Security, and Radiological Program Directors from the NY Department of Health, NY State Department of Labor, and NY State Department of Health, to discuss security of radioactive material sources in the NY City (NYC) area. The NRC provided an overview of its activities with respect to the enhanced security of radioactive materials and copies of the draft PMs and PM Implementing Guidance for NYPD review and comment. Staff has since contacted the NYPD for comments and has thus far received none. Upon receiving NYPD comments, staff will forward them to the Commission.

The Communications Plan for this Order is provided as Attachment 3.

The Federal Register Notice for this Order is provided as Attachment 4.

The MSWG developed these PMs and Guidance in consultation with the Materials Security Steering Committee (MSSC). The MSSC provided comments in April and May 2005 which have been incorporated, and endorses this package for Commission consideration.

Staff plans to issue the Groups 1 through 4 PMs and implementing Orders, and release as non-sensitive information the PMs, the Implementing Guidance, and the HSAS action table.

SECY, please track.

Attachments: As stated

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