

RULEMAKING ISSUE

(Notation Vote)

July 2, 2004

SECY-04-0110

FOR: The Commissioners

FROM: Janice Dunn Lee, Director
Office of International Programs /RA/

SUBJECT: HIGH-RISK MATERIAL - PROPOSED RULE TO AMEND 10 CFR PART 110, "EXPORT AND IMPORT OF NUCLEAR EQUIPMENT AND MATERIAL"

PURPOSE:

Staff is requesting Commission review and approval of a draft proposed rule to amend Title 10 of the Code of Federal Regulations (CFR), Part 110, "Export and Import of Nuclear Equipment and Material." The proposed rule would require specific licenses for the import and export of certain high-risk radioactive material. High-risk radioactive material encompasses those radioactive sources recommended for export/import control measures in the International Atomic Energy Agency (IAEA) Code of Conduct on the Safety and Security of Radioactive Sources (the Code of Conduct). As the U.S. and recipient countries gain more experience in enhancing security measures pursuant to the Code of Conduct, the staff anticipates issuing broad specific export and import licenses for high-risk radioactive material. For example, exports of Iridium-192 that include multiple shipments from or to different countries over a five year period would be permitted under a single license. The proposed rule is intended to update Part 110 with respect to Executive Branch policy, U.S. Government commitments to support the recommendations of the Code of Conduct, and international nuclear export control standards.

Contact: Marvin Peterson, OIP
301-415-1771

BACKGROUND:

In light of the events of September 11, 2001, the Commission has undertaken a comprehensive review of nuclear material security requirements, with particular focus on high-risk radioactive material. Historically, the Commission's regulatory position was that safety requirements imposed on high-risk radioactive material, including its export and import, provided adequate security measures. Additional security-specific requirements applicable to high-risk radioactive material were considered unnecessary. The Commission concludes this is no longer the case and, for exports and imports of high-risk radioactive material under its authority, has directed the staff to develop a proposed rule with appropriate enhancements to Part 110 (see Staff Requirements Memorandum (SRM) - SECY-03-0210 - Security Enhancements for Export/Import Controls on High-Risk Sources, January 8, 2004).

The Commission has played a leading role for the U.S. Government in the development of the revised Code of Conduct, as approved by the IAEA Board of Governors and the General Conference in September 2003. The Code of Conduct is intended to provide common international guidelines for safety and security measures on radioactive sources. In February 2004 the staff participated in negotiations among 39 IAEA Member States in Vienna to prepare a document entitled "Guidance for the Import and Export of Radioactive Sources in Accordance with the Code of Conduct." It is anticipated that final international agreement of this guidance document will occur after the next international negotiation session in July 2004. On June 9, 2004, the Group of Eight Industrial Countries (the G-8), issued an "Action Plan on Nonproliferation" that included agreement on export and import control guidance for high-risk radioactive sources and support for implementing the Code of Conduct and the Guidance document by the end of 2005. The timing and the substance contained in the proposed rule are intended to be consistent with these two key international documents, and the G-8 supported implementation date.

DISCUSSION

In response to the Commission's SRM of January 8, 2004, the staff developed a proposed rule amending Part 110 to require specific export and import licenses for shipments of high-risk radioactive material that meet or exceed the threshold levels in the Code of Conduct (Attachment 1). The companion regulatory analysis is in Attachment 2. Unlike the Code of Conduct, however, the proposed rule encompasses import and export shipments of bulk material, in addition to sealed sources. The proposed changes require specific licenses for all exports and imports of high-risk radioactive material listed in a new Appendix P, if the amounts involved meet or exceed that set out in the Appendix¹. The new Appendix P includes a list of radioactive materials with activities corresponding to thresholds of concern that is essentially identical to those found in the Code of Conduct. Although Radium-226 is encompassed by the Code of Conduct, it is not covered by the proposed regulation because radium, as a naturally occurring radioactive material, is not subject to NRC's licensing authority. However, radium-226

¹To support nonproliferation goals, specific licenses are already required for exports of plutonium in quantities exceeding those listed in § 110.21. These quantities will continue to be the controlling quantities for exports of plutonium.

is subject to export/import controls administered by the Department of Commerce and the Executive Branch is considering appropriate enhancements to Commerce's export/import controls.

The staff also notes the proposed rule will not cover some radioactive materials that the Commission has required the staff to track for the interim radioactive source database and that will likely be included on the National Source Tracking System (NTS). However, in developing a position on the Code of Conduct, the Commission specifically requested certain radioactive materials be excluded from the list of high-risk radioactive materials listed in the Code. These materials are Ac-227, Th-228, Th-229, Pu-236, Pu-239, Pu-240 and Po-210. The fact that imports and exports of these radioactive materials will not be licensed or tracked may result in discrepancies within NRC's database. It should be recognized that these discrepancies will occur and that they will have to be resolved on a case-by-case basis in the future. Furthermore, the staff points out that the Department of Energy/National Nuclear Security Agency (DOE/NNSA) continues to use a different list of high-risk isotopes in its domestic and international activities. The staff has raised this issue with DOE and DOS, but has made no progress in resolving this issue.

As noted, the G-8, including the U.S., endorsed implementing the Code of Conduct and the Guidance document by December 2005. It should be possible to meet the December 2005 implementation schedule for all import licenses and most export licenses anticipated as a result of the rule. Following Commission approval of the proposed rule, it will be published in the *Federal Register* with a 75-day comment period. The staff anticipates submitting to the Commission a final rule within two months after the 75-day comment period expires. However, this goal will depend on the comments received. Affected companies will then have six months to apply for and receive required export and import licenses.

For imports, the staff believes that meeting the December 2005 date is feasible, because existing NRC and Agreement State licensing programs provide the necessary infrastructure. For exports there is less certainty that December 2005 is a feasible implementation date, as the proposed rule requires a finding that the "receiving country has the appropriate technical and administrative capability, resources and regulatory structure to manage the material in a secure manner." The staff is currently determining which countries have received exports of high-risk radioactive materials from the U.S. as a first step in evaluating their capability to receive such material. The proposed rule also requires confirmation that the recipient is authorized to receive and possess the material. Depending on comments received, the staff may propose giving exporters more time to apply for and receive any necessary specific export licenses in order to minimize impacts on normal commercial trade. This approach should have limited impact on security given that there is no evidence of any malicious use of high-risk material exported under NRC's general export license regime currently in place.

At the present time, the staff believes that a final decision on the implementation date for the specific export licenses required by the proposed rule can be delayed until the Commission's decision on the final rule. At that time, the Commission will have comments available from exporters on the impact of the proposed rule. Furthermore, the staff will be working with the Departments of State and Energy and the IAEA in efforts to assess and enhance the regulatory infrastructure of the countries receiving NRC licensed exports of high-risk sources.

A preliminary review of the Office of Nuclear Materials Safety and Safeguards's (NMSS) interim database of high-risk sources in the U.S. shows that export and import shipments for calendar year 2003 involved only four radionuclides meeting or exceeding the threshold limits: Iridium-192, Americium-241, Cobalt-60 and Cesium-137. There were approximately 740 export shipments of these four radionuclides. Of these, approximately 700, or over 95%, involved Category 2 shipments of Iridium-192 by two companies to approximately 30 different countries, with about 500 shipments made to five countries: South Korea, Malaysia, Canada, Mexico and Singapore. The only export shipments in the Category 1 range involved Cobalt-60. There were 10 such shipments of Cobalt-60, all to Canada, by seven different companies with amounts ranging from 1 to 999 kilo-curies. For Americium-241, there were approximately 20 export shipments of Category 2 amounts by three well logging companies. Finally, there was only one export shipment, to Singapore, of Category 2 amounts of Cesium-137. The staff's conclusion from this preliminary analysis is that the principal impact of the proposed rule is on the two companies involved in Iridium-192 exports. Accordingly, the staff intends to focus on these exports as it prepares its analysis for the final rule.

Transshipments of high-risk material sources though U.S. territory are not covered by the Commission's export/import regulations and are therefore not covered by this proposed rule. As directed by the Commission's SRM of January 8, 2004, the staff is continuing to consult with other government agencies on the issue of transshipments.

COORDINATION:

The Executive Branch was requested to provide comments on the proposed rule in early June. While formal Executive Branch comments have not been received, staff contacts with the relevant Executive Branch agencies indicate strong support for the proposed rule. Since NRC has sole authority for the import and export of material, the compatibility category for this rule is "NRC." The compatibility category "NRC" means the rule is adopted and implemented solely by NRC concerning import and exports of material by both NRC and Agreement State licensees. Therefore there is no requirement for Agreement States to adopt this rule. Staff will coordinate and seek comment from the Agreement States during the public comment period. The CFO and the EDO concur in this paper. OGC has no legal objection.

The Office of the Chief Information Officer has reviewed the proposed rule for information management implications and concurs in it. However, the rule contains changes in information collection requirements that must be submitted to the Office of Management and Budget (OMB) no later than the date the proposed rule is forwarded to the Federal Register for publication.

RESOURCES:

The initial burden on NRC's export licensing staff is expected to significantly increase following implementation of the final rule as staff assists the exporter/importer community in understanding and implementing the provisions of the rule, including, as necessary, contacting foreign regulatory agencies and using the services of the Department of State to contact competent authorities to grant consent for import of high-risk radioactive materials. However, the resources are within OIP's budget. Resources currently dedicated to the rulemaking and development of procedures will be shifted to processing license applications. Further, the

Commission will be required to review and approve first-of-the-kind cases as applications involving exceptional circumstances are received.

RECOMMENDATION:

The staff recommends that the Commission approve the attached proposed rulemaking.

OMB review is required and a clearance package will be forwarded to OMB no later than the date the proposed rule is forwarded to the Office of the Federal Register for publication.

This paper, including the attachments, should be withheld from public disclosure until the Commission issues a decision unless the Commission determines otherwise.

Janice Dunn Lee, Director
Office of International Programs

Attachment: 1. Proposed Rule
 2. Regulatory Analysis

foreign regulatory agencies and using the services of the Department of State to contact competent authorities to grant consent for import of high-risk radioactive materials. However, the resources are within OIP's budget. Resources currently dedicated to the rulemaking and development of procedures will be shifted to processing license applications. Further, the Commission will be required to review and approve first-of-the-kind cases as applications involving exceptional circumstances are received.

RECOMMENDATION:

The staff recommends that the Commission approve the attached proposed rulemaking.

OMB review is required and a clearance package will be forwarded to OMB no later than the date the proposed rule is forwarded to the Office of the Federal Register for publication.

This paper, including the attachments, should be withheld from public disclosure until the Commission issues a decision unless the Commission determines otherwise.

Janice Dunn Lee, Director
Office of International Programs

Attachment: 1. Proposed Rule
2. Regulatory Analysis

DISTRIBUTION:

SECY

OIP r/f

Export Licensing Staff

DOCUMENT NAME: C:\ORPCheckout\FileNET\ML041840481.wpd

ACCESSION NO.:

ADAMS - Non-public, predecisional, unless the Commission determines otherwise

*=see previous concurrence

To receive a copy of this document, indicate in the box: "C" = Copy without enclosures "E" = Copy with enclosures "N" = No copy

☐ Publicly Available ☒ Non-Publicly Available ☒ Sensitive ☐ Non-Sensitive

OFFICE	OIP	NSIR	ADM	OGC	NMSS	OCIO
NAME	MPeterson	RZimmerman*	MSpringer*	KCyr*	JStrosnider*	JSilber*
DATE	6/30/04	6/28/04	6/25/04	6/28/04	6/23/04	6/29/04
OCFO	OSTP	EDO	OIP	OIP		
JFunches*	PLohaus*	LReyes	EBaker	J Dunn Lee		
6/22/04	6/28/04	6/ /04	6/ /04	6/ /04		

OFFICIAL RECORD COPY