WRITTEN TESTIMONY

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UNITED STATES NUCLEAR REGULATORY COMMISSION

TO THE

COMMITTEE ON ENERGY AND COMMERCE

SUBCOMMITTEE ON ENERGY AND THE ENVIRONMENT

UNITED STATES HOUSE OF REPRESENTATIVES

H.R. 515, THE RADIOACTIVE IMPORT DETERRENCE ACT

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Mr. Chairman and Members of the Subcommittee, thank you for inviting me to participate in this hearing today. As Director of the NRC's Office of International Programs, I am pleased to have this opportunity to discuss NRC's licensing requirements for importation of low-level radioactive waste. My focus today will be on NRC's regulatory framework for licensing the import of low-level radioactive waste.

Framework for Export and Import of Radioactive Waste

I want to describe the NRC's process in detail so that the Subcommittee has an understanding of the complete framework in which the specific case in question, that of the import of low-level radioactive waste from Italy, is taking place. The Atomic Energy Act of 1954, as amended, grants the NRC exclusive jurisdiction to license exports and imports of source, special nuclear, and byproduct materials to and from the United

States. The Act authorizes the import of radioactive material if domestic health and safety and common defense and security criteria are satisfied. The NRC's regulations governing such exports and imports are set forth in Title 10 of the Code of Federal Regulations, Part 110, "Export and Import of Nuclear Equipment and Material." The NRC's role in evaluating a low-level radioactive waste import application is a regulatory one, limited to ensuring that the proposed import can be accomplished safely and securely in accordance with all applicable legal requirements.

It is important to be clear at the outset regarding the nature of NRC import licensing. The only permission granted by an NRC import license is permission to bring radioactive material across the border into the United States to a specified destination. The import license itself does not in any way regulate what is done with the material after it enters the country and becomes domestic material. Rather, a condition of all import licenses, specific or general, is that once the radioactive material enters the United States, the licensee must comply with domestic laws and regulations applicable to the material. For low-level radioactive waste imports, the federal domestic scheme includes compliance with NRC and Agreement State requirements on safety and security, the Low-Level Radioactive Waste Policy Act regarding the Compact system, and Department of Transportation regulations.

Prior to 1995, the NRC's regulations did not include a separate category for radioactive waste imports or exports. NRC import and export licensing regulations for source, special nuclear, and byproduct materials are applied to radioactive waste depending on the waste's composition. In light of the nature of import licensing, which again simply lets material cross the border into the United States upon the condition that the licensee will comply with applicable domestic laws, the NRC permitted most radioactive material

to be imported into the United States under general licenses (a license that is effective without the filing of a specific application) promulgated in 10 CFR Part 110. NRC's regulations in Part 110 required specific licenses (a license issued to a named person upon approval of a specific license application) only for certain imports that could have nuclear weapons proliferation significance.

In the late 1980s, the United States joined with the international community in establishing better controls for transboundary movement of radioactive waste. The impetus for this decision was concern about the major industrialized nations "dumping" their radioactive waste in countries which did not have the appropriate administrative or technical infrastructure to safely dispose of it. This effort ultimately led to the International Atomic Energy Agency's (IAEA) adoption in September 1990 of the Code of Practice on the International Transboundary Movement of Radioactive Waste (the Code). The Code, which had strong U.S. Government support, established a set of principles to guide countries in the development and harmonization of policies and laws on the transboundary movement of radioactive waste to ensure its safe management and disposal. A basic principle of the Code is that international movements of radioactive waste should take place only with prior notification and/or consent of the sending country, receiving country, and countries through which waste transits. The Code also provides that no receiving country should permit the receipt of radioactive waste for management or disposal unless it has the administrative and technical capacity and regulatory structure to manage and dispose of the waste in a manner consistent with international safety standards. The Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (Joint Convention), which the United States subsequently ratified, is consistent with the Code.

In 1995, the NRC amended its regulations in Part 110 to conform NRC regulatory requirements for the import and export of radioactive waste to the guidelines of the Code. Since a basic principle of the Code is to require countries to track movements of radioactive waste across their borders so as to prevent radioactive waste from ending up in a country ill-equipped for safe management and disposal, the NRC amended its regulations to require, with limited exceptions, specific licensing of both imports and exports of radioactive waste.

Regulatory Review of Applications for the Export and Import of Radioactive Waste

I will now turn to how the NRC processes applications for the export and import of radioactive waste.

The NRC reviews import/export license applications against the criteria defined in Part 110. The NRC determines whether to issue an import license for radioactive waste based on its own health and safety and common defense and security evaluation. The NRC reaches its conclusions on an application after consulting with the Executive Branch, the applicable State, and the applicable Low-Level Radioactive Waste Compact, and after considering public comments. The NRC bases its licensing decisions on the following criteria found in 10 CFR § 110.43: (1) the proposed import will not be inimical to the common defense and security; (2) the proposed import will not constitute an unreasonable risk to the public health and safety; and (3) an appropriate facility has agreed to accept the waste for management or disposal.

An applicant seeking to import (or export) radioactive waste must specify the maximum quantity of material in grams or kilograms (or terabequerels for byproduct material) and its chemical and physical form, the volume, waste classification (as defined in 10 CFR § 61.55 of NRC's regulations), the physical and chemical characteristics, the route of transit of shipment, and the ultimate disposition including forms of management of the waste. The applicant must also specify the industrial or other processes responsible for generation of the waste, and the status of the arrangements for disposition, for example, any agreement by a Low-Level Radioactive Waste Compact or host State to accept the material for management purposes or disposal. In some cases, bounding values for the amounts of waste and for the classification may be provided, and in no case can the maximum amount specified result in the licensee exceeding the limits of its existing domestic materials possession license. The description must be sufficiently detailed so that the NRC staff can be assured that transportation, management and disposal requirements in the U.S. will be met for ensuring protection of public health, safety, and security.

NRC's regulations and practices provide for significant coordination with the Executive Branch through the U.S. Department of State (DOS) and the host State and Low-Level Radioactive Waste Compacts where the waste would be processed and/or disposed. The NRC also consults with the U.S. Environmental Protection Agency regarding applications that include mixed waste, in other words, radioactive waste mixed with other hazardous wastes. All license applications for the import and export of radioactive waste are made available to the public through the NRC Web site. The NRC publishes a notice in the *Federal Register* to provide the public with an opportunity to comment on the application and to request a hearing or petition for leave to intervene.

Early in the review process, the NRC forwards the application to the DOS. That agency is responsible for coordinating review by interested Federal agencies. To either provide notice or obtain consent in accordance with the Joint Convention obligations, DOS also contacts the foreign government in the nation where the material originated or is destined to go. If necessary to satisfy the Joint Convention obligations, DOS may also consult with foreign governments of nations through which the material may transit. For proposed imports of radioactive waste, DOS contacts the government of the exporting nation and seeks acknowledgement they are aware of the proposed transaction and requests any comments they might wish to provide.

The NRC has exclusive jurisdiction within the United States for granting or denying licenses to import radioactive waste. The NRC, however, recognizes that the relevant host State and Low-Level Radioactive Waste Compact each have some authority with respect to disposal or management of low-level radioactive waste within the compact region. Accordingly, the NRC consults the applicable host Agreement State regulatory officials for their health and safety views on the proposed import and to confirm that the proposed import of radioactive waste is consistent with the state-issued possession license for the disposal facility. Likewise, the NRC consults the applicable Low-Level Radioactive Waste Compact Commission to determine whether the compact will accept out-of-compact waste for disposal in a regional facility. To ensure that no radioactive waste imported into the United States becomes orphaned waste, the NRC will not grant an import license for waste intended for disposal unless it is clear from these consultations that the waste will be accepted by the applicable host Agreement State and, where applicable, Low-Level Radioactive Waste Compact.

Implementation Experience

Since the 1995 rule was promulgated, the NRC has issued 14 licenses authorizing the import of radioactive waste. Of these, eight have authorized import for disposal in the United States; of those eight, four have authorized import of U.S.-origin waste, and the other four have authorized import of waste originating outside the United States. The remaining six licenses authorized import for processing and return of the processed waste to the country of origin. For additional information on waste import licenses issued by the NRC since 1995, please see the attached table.

EnergySolutions Low-Level Radioactive Waste Import/Export Application

The NRC has before it a request from EnergySolutions, Inc. for a license to import low-level radioactive waste from Italy. The application requests the import of up to approximately 20,000 tons of radioactively contaminated material from nuclear power facility operations in Italy. The contaminated material include: metals, graphite, dry activity material (for example, wood, paper, and plastic), liquids (for example, aqueous and organic-based fluids), and ion exchange resins. After characterization in Italy, the contaminated materials would be inspected, sorted and processed at EnergySolutions' facilities in and licensed by the State of Tennessee, for recycling and beneficial reuse. The applicant estimates that, after the processing in Tennessee, approximately 1,600 tons of material would be sent for disposal at EnergySolutions' Clive, Utah disposal facility, which is licensed by the State of Utah. According to the application, no hazardous or mixed waste would be imported, and EnergySolutions would review and approve the content of each prospective shipment from Italy to the U.S. to ensure compliance with its domestic materials possession limits.

EnergySolutions also requested a radioactive waste export license that would allow it to return any nonconforming materials, that is, material received under its import license and identified at the processing facility in Tennessee that does not meet the waste acceptance criteria for the Clive, Utah disposal facility, to the generator in Italy for appropriate disposition in accordance with Italian requirements.

The NRC solicited views from the states of Tennessee and Utah, the Southeast Compact Commission and Northwest Interstate Compact, and the Executive Branch (through the Department of State). The regulatory authorities in both Tennessee and Utah have informed the NRC that the material can safely go to the EnergySolutions facilities in their respective states. The Southeast Compact Commission expressed no objection to this application. The Executive Branch expressed no objection to the application and provided the NRC with the Italian Government views that the application is consistent with the Joint Convention obligations.

The NRC also offered members of the public the opportunity to submit comments or request a hearing on this application. The Commission received requests for hearing from the State of Utah as well as a consortium of public interest groups and an environmental group, and over 2,900 comments on the application.

On May 8, 2008, members of the Northwest Interstate Compact unanimously adopted a resolution stating that the existing compact procedures do not address the import of foreign waste, and that such waste would need Compact approval before disposal at the EnergySolutions facility in Utah. The Northwest Compact notified the NRC by letter on May 15, 2008, that "should it choose to issue the import license, it is doing so with the

understanding there is no facility within the Northwest Compact region that is authorized to legally accept this waste for disposal."

Prior to the Compact's resolution, EnergySolutions filed a lawsuit in Federal district court against the Northwest Compact challenging the compact's authority over the proposed import. By order dated October 6, 2008, the Commission held in abeyance the proceedings pertaining to EnergySolutions' application for a license to import low-level radioactive waste from Italy for ultimate disposal at EnergySolutions' disposal facility in Clive, Utah (as well as the accompanying application for a license to export low-level radioactive waste back to Italy). In its abeyance order, the Commission stated that, "until the dispute over the authority of the Northwest Compact is resolved or EnergySolutions outlines an alternative plan for disposal of the imported [low-level radioactive waste]," it will not be clear whether "an appropriate facility has agreed to accept the waste for management or disposal," a key criterion under the NRC's regulations for issuance of a radioactive waste import license. The Commission concluded that "devot[ing] further adjudicatory (and NRC Staff) resources to this proceeding now" would "be inefficient" and, accordingly, held further proceedings on EnergySolutions' license applications in abeyance until further notice, directing EnergySolutions to provide the Commission with status reports every six months "until there is a judicial resolution of the pending lawsuit or the jurisdictional dispute is otherwise resolved."

On May 15, 2009, the federal district court in Utah issued an order finding that the Northwest Compact has no authority to restrict the flow of low-level radioactive waste generated outside the compact region to EnergySolutions' facility in Clive, Utah, because that facility was not established by the Northwest Compact, nor is it run by the Compact. The Commission thereafter sought the views of the potential parties to the proceeding

on EnergySolutions' applications regarding how it should proceed in light of the court's decision. EnergySolutions expressed the view that Commission review of its license application should continue in light of the District Court's decision. In their responses to the Commission's order, Utah and the Northwest Compact gave notice that they, along with another party to the federal court lawsuit, the Rocky Mountain Low-Level Radioactive Waste Management Board, planned to appeal the Utah district court's decision to the Court of Appeals for the 10th Circuit. The State of Utah, the Northwest Compact, and the Rocky Mountain Low-Level Radioactive Waste Compact filed timely appeals of the district court's decision to the 10th Circuit Court of Appeals. Eight low-level radioactive waste compacts and the Council of State Governments are supporting the appeal, either as parties or as *amici curiae*. The parties completed briefing on September 28, 2009, and await the court's scheduling of oral argument.

At the present time, the proceedings on EnergySolutions waste import/export applications remain in abeyance, as the NRC continues to receive status reports every six months and monitors pertinent developments.

National Waste Disposal Capacity and Foreign Waste

I would now like to turn to questions regarding disposal capacity for low-level waste in the United States. In the short-term, the NRC has not identified any capacity issues with regard to Class A waste disposal at EnergySolutions' Clive, Utah facility. We note that according to a report issued by the General Accounting Office in 2004, under current conditions there appears to be ample available disposal capacity for the foreseeable future for Class A low-level radioactive waste, particularly at the EnergySolutions facility in Utah, which accepts waste from other regions. The present EnergySolutions import

application, as well as all other import applications to date, involves only Class A waste for disposal in the United States.

The disposal capacity for Class B, C, and greater-than-Class-C waste is limited and in short supply, in part because the States have not developed new sites under the Low-Level Radioactive Waste Policy Act, and the decisions of two Low-Level Waste Compacts to bar out-of-compact waste disposal in their regional facilities. The availability of storage capacity for Class B and C waste has not arisen in the context of the import of low-level radioactive waste.

The agency, as a regulator, has the authority to address future domestic disposal capacity if there were public health and safety or common defense and security concerns. There do no appear to be any such concerns currently with Class A material. In reviewing waste import applications, the NRC focuses on whether there is an appropriate facility that has agreed to accept the waste for management or disposal. In making its determination, the NRC obtains the views of the affected low-level waste compacts and States and the Executive Branch. The pure policy question of whether as a general matter foreign waste should be permitted to take up space in U.S. disposal facilities is a foreign commerce issue which is best addressed by Congress in conjunction with the Departments of State and Energy. Accordingly, the NRC takes no position on H.R. 515.

Conclusion

The Atomic Energy Act authorizes the import of radioactive material only if domestic health and safety and common defense and security criteria are satisfied. Overall, the

Act does not distinguish between domestic and foreign waste. The NRC's role in evaluating a low-level waste import application is a regulatory one, limited to ensuring that the proposed import can be accomplished safely and securely in accordance with all applicable legal requirements.

Again, I appreciate the opportunity to testify today and look forward to answering any questions that the Subcommittee may have.

U.S.NRC

United States Nuclear Regulatory Commission

Protecting People and the Environment

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The maximum volume authorized for importation was normalized based on volume using a conversion factor of 40lb/ft^3. These tables should not be relied on as an official agency record. The official files for each license are located in NRC's Agencywide Documents Access and Management System (ADAMS) accessible through the NRC's public web site.

Import License Number	Maximum Volume Authorized for Importation (ft^3)	Action	Countries	Disposal site	Issue date	Expiration date
IW002	66	Waste returned after processing	Germany		07/03/96	12/31/06
IW004	826,750	Waste returned after processing	Canada		04/24/98	12/31/08
IW006	3,885	Disposal after processing*	Taiwan	US Ecology, Hanford, WA	09/08/98	12/31/00
IW008	6,000	US Origin- Disposal after processing*	Ukraine		08/25/00	08/31/04
IW009	66	Disposal after processing*	Germany	US Ecology , Hanford, WA & EnergySolutions, Clive, UT	10/16/03	12/31/10
IW010	1,375	Disposal after processing*	UK	Waste Control Specialists, Andrews County, Texas	11/8/00	06/30/03
IW012	10,417	Waste returned after processing	Canada		03/22/01	03/31/10
IW016	2,080 per shipment	Disposal after treatment and processing*	Mexico	EnergySolutions, Clive, UT	11/01/06	12/31/09
IW017	300,000	Waste returned after processing	Canada	Some disposed as domestic waste	10/10/06	06/30/11
IW018	30	US Origin- Disposal after processing*	France		12/14/07	12/31/09
IW019	5,000 per shipment	Waste returned after processing	Canada		04/19/07	03/31/10
IW021	10,875	US Origin- Disposal after processing*	Canada		06/13/07	06/30/13
IW022	275,000	Waste returned after processing	Canada		09/25/07	08/30/12
IW024	7	US Origin- Disposal after processing*	France		05/11/09	12/31/09

* The actual quantity of waste disposed is unknown, but it should run between 10% to less than 1% of the volume imported.

Pending Applications	Maximum Volume that would be Authorized for Importation (ft^3)	Action	Countries	Disposal site
IW023	1,000,000	80,000 might be disposed	Italy	EnergySolutions, Clive, UT
IW025	24,960	500 might be disposed	Brazil	EnergySolutions, Clive, UT
IW026	187,200	3,744 might be disposed	Mexico	EnergySolutions, Clive, UT