June 16, 2006

The Honorable Dianne Feinstein
United States Senate
Washington, D.C. 20510

Dear Senator Feinstein:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to the concerns raised in your letter of April 27, 2006, regarding the transport of radiological materials across the Nation's borders. The NRC bases its security and control program for radioactive materials on the principle of allocating attention and resources proportionate to the risk for malevolent use of the sources. Background information on the NRC program for regulating radioactive sources is included in the Enclosure.

In accordance with Section 651 of the Energy Policy Act of 2005, in July 2005 the NRC issued revised import/export regulations consistent with the provisions of the International Atomic Energy Agency (IAEA) Code of Conduct, making the U.S. the first country to do so. These new regulations, which became effective in December 2005, strengthen the import/export regime for radioactive sources.

The NRC, in cooperation with the U.S. Departments of Energy (DOE), Homeland Security (DHS), Transportation, Commerce, and Defense, as well as the Environmental Protection Agency, Federal Bureau of Investigation, and NRC Agreement States, is developing a National Source Tracking System to track risk-significant radioactive sources. In accordance with Section 651 of the Energy Policy Act, the regulations that establish the tracking system will be published as a final rule in August 2006. Until this system becomes operational in 2007, the NRC will continue to maintain an accurate interim database of risk-significant radioactive sources licensed by both the NRC and the Agreement States. In addition, the NRC, in coordination with the Agreement States, has placed all licensees who possess risk-significant radioactive sources under additional security or control requirements. These security and control measures require that licensees confirm the identity of entities that seek to purchase radioactive materials. The NRC and the Agreement States have made great strides in strengthening the security and access control provisions of the regulatory framework.

You specifically mention the U.S. Government Accountability Office's (GAO's) actions in transporting a small amount of radioactive material across our borders at certain locations. The GAO investigation concluded that the amount of radioactive material transported by GAO was sufficient to construct a radiological dispersal device, or "dirty bomb," after consulting with an outside expert. While the material obtained by GAO could be used as part of a bomb, it would only contain an insignificant amount of radioactive material. The Commission strongly disagrees that the material could be used for "weapons of mass disruption," as stated in the report, due to the very low radiological activity of the sources. The GAO finding is inconsistent with the considerable work done by NRC, in partnership with DOE, IAEA, and other parties, to determine appropriate thresholds for radionuclides that pose health and safety or security risks.

The type and quantity of sources used in the GAO investigation are classified as low IAEA Category 5, which is the least significant of the five categories defined in the Code of Conduct. These sources are several orders of magnitude from being risk-significant.

The GAO expressed concern that its personnel were able to purchase three low Category 5 sources by ordering them from a commercial supplier over the telephone for delivery to a Washington, D.C. address without an NRC license and without the supplier exercising due diligence to determine that the buyer had a legitimate use for the material. The three sources ordered by GAO are in the class of material that is exempt from licensing (another example is smoke detectors). Radioactive sources such as these can be purchased by the general public, contain a very small amount of radioactive material, and are exempt from NRC or Agreement State licensing because of the minimal risk they pose from a safety and security perspective. Additional information on radioactive material licensing is presented in the Enclosure.

GAO also expressed concern about the possibility of accumulating larger amounts of material by making multiple purchases from different suppliers. The NRC does not consider it credible that a sufficient number of exempt quantities (e.g., the sources found in smoke detectors) would be purchased to scavenge the sources to accumulate a risk-significant quantity of material. Additionally, the transfer of byproduct material under specific or general licenses requires licensees to verify that the transferee's license authorizes the receipt of the type, form, and quantity of byproduct material to be transferred. The NRC has required some manufacturer and distributor licensees, through security orders, to exercise their responsibility to verify, at a minimum, the legitimacy of an unfamiliar purchasing company. NRC plans to issue an Information Notice in the summer of 2006 to alert licensees of the due diligence that needs to be exercised should they receive an order for material from an entity with which they have previously not done business.

The NRC has instituted additional measures to enhance the regulatory program for the safety and security of the use of radioactive sources by its licensees, as well as those regulated by the Agreement States. As noted above, with regard to risk-significant sources, the NRC has focused its efforts to provide additional security on radioactive material that could be used by a terrorist for malevolent purposes by implementing tracking of sources of concern and imposing additional controls by Order or other legally binding instrument, as well as requiring a specific license for import and export of risk-significant sources. The Commission believes that the issuance of these Orders has significantly reduced, and will continue to reduce, the likelihood of an event involving the malevolent use of risk-significant sources.

Regarding GAO's counterfeiting of NRC documents, the NRC agrees with GAO that their ability to counterfeit an NRC document is a matter that we need to address, and we are working with Customs and Border Protection (CBP) in this regard. Nevertheless, it is important to note that the counterfeited NRC documents used by GAO in their border crossing investigations were not needed to document their authorization to import the sources because the very small amount of radioactive material being transported was covered under a general import license, and therefore did not require a specific import license.

To improve the ability of licensees and others, such as CBP, to determine whether documents authorizing the possession of materials are legitimate, the NRC is committed to working with CBP and other elements of DHS, as well as the Agreement States, to provide CBP easier access on a 24-hour-a-day basis to the information needed to confirm that shipments of risk-significant sources are legitimate. The new import licensing requirements for risk-significant sources should aid this effort. Currently, CBP can contact the NRC Operations Center or appropriate Agreement State to verify that the possession of the materials is legitimate.

In summary, the Commission is acting responsibly to protect the public from the risks of exposure to radioactive material by continually strengthening the system for security and control of sources. We have determined which radioactive materials could result in potentially significant injury to the public and have taken measures to ensure that they are safely and securely handled both here and abroad. We recognize the continuous need to analyze the safety and security systems in place and are improving our ability to analyze threats and mitigate them. Our approach is informed by the level of potential hazards to the public, recognizing the different levels of risk of different radioactive sources, and applying appropriate measures and resources.

Sincerely,

/RA/

Nils J. Diaz

Enclosure:
Overview of the NRC Program for
Regulating Radioactive Sources

Overview of the Nuclear Regulatory Commission Program for Regulating Radioactive Sources

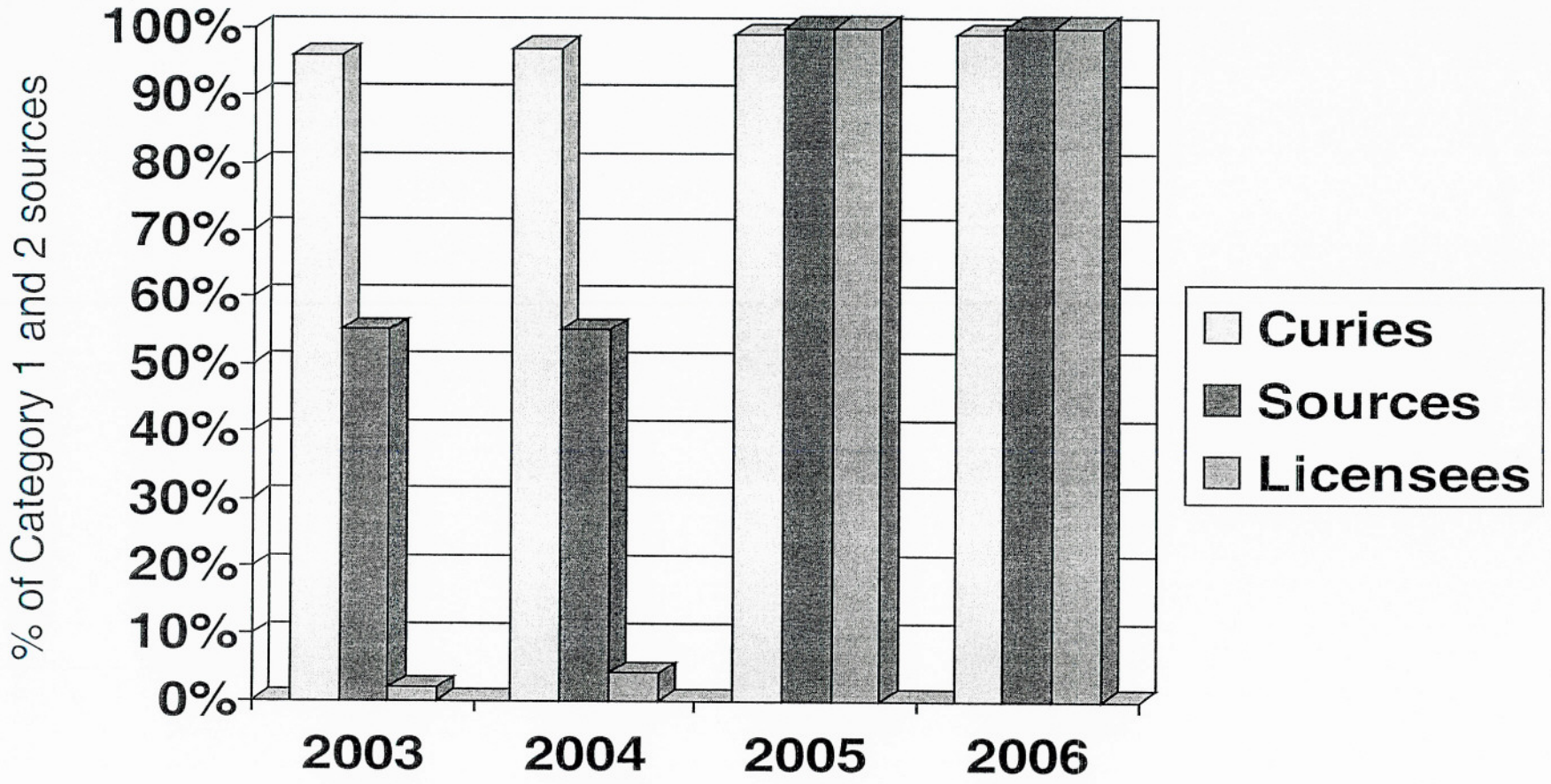
Licenses to possess and use radioactive materials are issued, and safety and security controls are applied, using a graded, risk-informed approach. Certain radioactive materials are exempt from possession and use licensing. Exempt quantities of radioactive materials are manufactured in accordance with a U.S. Nuclear Regulatory Commission (NRC) or Agreement State license. An Agreement State is a State that has signed an agreement with the NRC, as provided by the Atomic Energy Act, allowing the State to regulate specified non-Federal use of radioactive material within that State. Use of these materials is exempt from licensing due to the extremely small quantity of radioactive material contained (e.g., smoke detectors). General licenses for somewhat larger quantities of radioactive material are authorizations that do not require an application or issuance of a licensing document but, in some cases, do require an annual registration of sources with NRC. These generally licensed devices are designed and manufactured so that even in accident scenarios, there is no unacceptable risk to public health and safety. Specific licenses for even larger quantities of radioactive material contain specific conditions to ensure the safe use of the material and are issued as individual documents. The NRC administers approximately 4,350 specific radioactive materials licenses, and thirty-four Agreement States administer approximately 17,450 specific radioactive materials licenses.

NRC has considered the full range of radioactive materials within NRC and Agreement State regulatory jurisdiction and has implemented the U.S. Government's position regarding the IAEA Code of Conduct by applying additional controls to, and by maintaining a national registry or inventory of, the Category 1 and Category 2 sources. These sources were identified in the U.S. Department of Energy (DOE)/NRC joint study and in the International Atomic Energy Agency (IAEA) Code of Conduct because they present the greatest risk for potential use in a radiological dispersal device. NRC and the Agreement States have issued orders for enhanced security measures and increased controls to licensees with Category 1 and Category 2 materials. The attached charts and table illustrate the NRC's risk-informed approach to security of risk-significant sources. As indicated in these attachments, NRC took early action after the IAEA Code of Conduct was finalized in 2003 to place Category 1 and Category 2 sources under additional controls. The NRC has also developed an Interim Inventory to identify the NRC and Agreement State licensees with Category 1 and Category 2 sources and is developing a National Source Tracking System (NSTS) to more closely monitor these sources. Additionally, as part of the NSTS rulemaking, the Commission has directed the staff to develop a proposed rule to include Category 3 sources in the NSTS, and to complete expansion of the NSTS within three years. Finally, the NRC is evaluating its existing programs as they apply to sources below Category 2 quantities to identify areas where increased licensee accountability or access control requirements may be warranted.

Import or export of Category 1 and Category 2 radioactive material requires a specific import or export license from NRC before the sources are transported into or out of the country. Note that import and/or export licenses are separate and distinct from the possession and use licenses discussed above, and there is no exempt quantity threshold for imports and exports. Importers and exporters, or shippers, are not required to carry import or export licenses, or licenses for possession of radioactive sources with shipments; however, NRC now receives prior notification of imports of Category 1 and Category 2 radioactive material. NRC's NSTS, when implemented, will capture information on all Category 1 and Category 2 sources, including those being imported or exported. Imports and exports of sources below Category 2 are covered under a general license.

Enclosure

NRC and Agreement State
Category 1 and 2 Sources Under Increased Security Controls



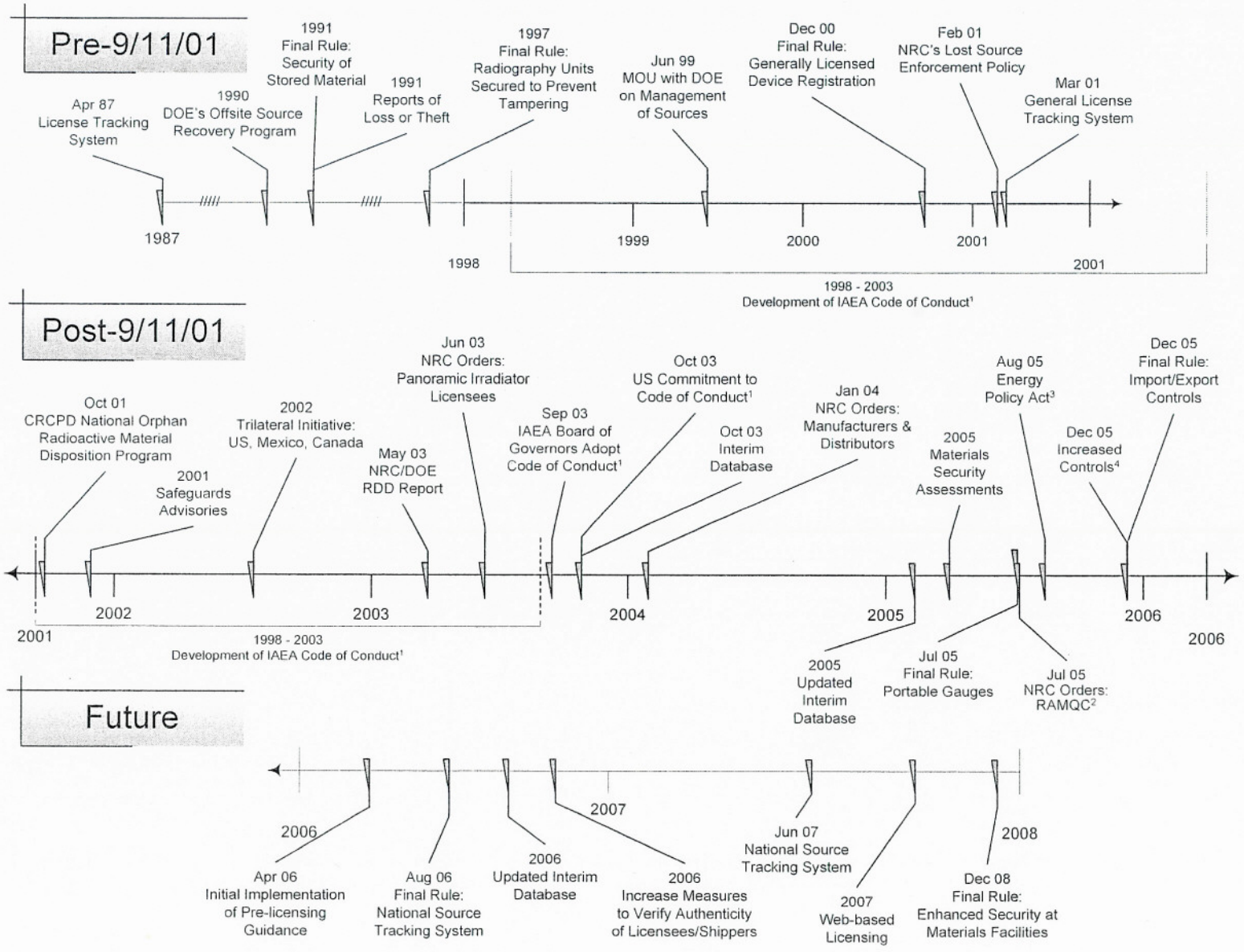
Attachment

NRC and Agreement State
Category 1 and 2 Sources Under Increased Security Controls

- Chart represents increased security controls since 9/11/01. Prior to 2001 sources where under regulatory control based on safety significance.
- Sources with the highest activity were the first to receive increased security controls after 9/11/01.
- Orders issued to licensees between 2003 and 2005 based on the risk-significance of sources
  - 2003: Irradiators
  - 2004: Manufacturers and Distributors
  - 2005: Groups 1-4 [except Radioisotope Thermoelectric Generators (RTGs)]
- Orders not sent for RTGs, which comprise ~1% of source activity and ~0.1% of sources since RTGs are under military control and protected by more stringent security requirements

Attachment

Timeline on Management and Control of Radioactive Sources



[1, 2, 3, 4] Superscripts noted on the timeline refer to Information Boxes in the attached.

Attachment

Information Boxes

BOX 1: IAEA Code of Conduct

- Achieve and maintain a high level of safety and security of radioactive sources
- Prevent unauthorized access or damage to, and loss, theft or unauthorized transfer of, radioactive sources, so as to reduce the likelihood of accidental harmful exposure to such sources or the malicious use of such sources to cause harm to individuals, society, or the environment
- Mitigate or minimize the radiological consequences of any accident or malicious act involving a radioactive source

Two general principles of the Code of Conduct are member states should:

- Establish a national register of radioactive sources
- Take appropriate steps to ensure that the import/export of sources is consistent with the provisions of the Code of Conduct

BOX 2: NRC Orders -- Radioactive Materials Quantities of Concern (RAMQC)

Additional security measures include:

- Licensee verification
- Background investigations
- Preplanning and coordination
- Notifications
- Communications
- Drivers and accompanying individuals
- Procedures, training, and control of information

BOX 3: Energy Policy Act of 2005

The Energy Policy Act requires NRC to:

- Issue regulations restricting the import, export, and sale or transfer of radiation sources
- Issue regulations establishing a mandatory tracking system for radiation sources
- Arrange with the National Academy of Sciences to conduct a study of industrial, research, and commercial uses for radiation sources
- Establish an interagency Task Force on Radiation Source Protection and Security
- Assume regulatory authority over certain naturally occurring radioactive materials
- Conduct fingerprinting and criminal history checks for persons licensed in activity subject to NRC regulation
- Ensure that materials covered by NRC-designated classes of import or export licenses are accompanied by a shipping manifest and that individuals accompanying or receiving the transfer are subject to background checks

BOX 4: Increased Controls

- Control access to risk-significant sources and limit access to only approved individuals
- Monitor and immediately detect, assess, and respond to unauthorized access
- Ensure the safe handling, use, and control of licensed material in transportation for domestic highway and rail shipments
- For portable devices, have two independent physical controls that form tangible barriers to secure unauthorized removal; for mobile devices moved outside a facility, have two independent physical controls that form tangible barriers to secure the material from unauthorized removal ; and for mobile devices moved inside a facility, have an independent physical control that forms a tangible barrier to secure the material from unauthorized movement or removal
- Retain documentation for three years
- Protect sensitive information that describes the physical protection of the risk-significant sources from unauthorized disclosure

Attachment

Categories of Cesium-137 Sources Defined in the International Atomic Energy Agency (IAEA) Code of Conduct on the Safety and Security of Radioactive Sources

IAEA Category	Threshold Quantities of Cesium-137 (curies)	Examples of Use
Category 1	2,700.0	Food Irradiators
Category 2 [1]	27.0	Brachytherapy (medical)
Category 3	2.7	Well logging
Category 4	0.027	Moisture gauges
Category 5	< 0.027	
Examples of NRC regulatory limits within Category 5:		
Quantity above which NRC's general license tracking system applies to generally-licensed devices containing cesium-137	$ 0.010	Thickness gauges
Exempt quantity	0.00001 [2]	One radiation detector check source purchased by GAO (GAO used 15 such sources during its border investigation)[3]

[1] Import of sources containing cesium-137 (or any of 15 other radionuclides) in Category 1 or 2 quantities requires a specific import license.

[2] This is a quantity below which persons are exempt from NRC licensing requirements. It is 2,700,000 times less than the Category 2 threshold for risk-significant sources, above which NRC has issued Orders for enhanced safety and security of radioactive sources, and for which NRC is developing a National Source Tracking System to track risk-significant sources, as recommended by the IAEA Code of Conduct. However, many devices containing cesium-137 sources above this 0.00001 curie threshold are generally licensed pursuant to 10 CFR 31.5(a). Generally licensed devices containing cesium-137 sources above 0.01 curies are subject to annual registration under NRC's general license tracking system (10 CFR 31.5(b)(13)).

[3] GAO holds a specific license from NRC to possess multiple sources that may each contain slightly more than an exempt quantity.

Attachment