

September 13, 2006

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

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

SUBJECT: PERIODIC UPDATE ON THE TECHNOLOGICAL  
DEVELOPMENTS CONCERNING THE NATIONAL SOURCE  
TRACKING SYSTEM

The Staff Requirements Memorandum for SECY-06-0080, dated May 25, 2006, included the following direction:

As part of its interagency activities, the staff should keep abreast of technological developments and the efforts of other federal agencies involved in tracking radioactive materials on the ability to provide for real time tracking of nationally tracked sources in the future. The staff should periodically update the Commission on this aspect of source tracking.

The Interagency Coordinating Committee (ICC) for the National Source Tracking System (NSTS) includes representatives of nine Federal agencies and a representative of the Agreement States, all with an interest in tracking of radioactive sources. The ICC includes the Department of Commerce, the Federal Bureau of Investigation, the Department of Defense, the Department of Energy, the Department of State, the Department of Transportation, the Environmental Protection Agency, and the Department of Homeland Security (including representatives of the Transportation Security Administration, the Chemical and Nuclear Preparedness Division, the Domestic Nuclear Detection Office, and Customs and Border Protection). Its charter includes the following three items related to efforts to improve the technology of tracking radioactive sources and to maintain knowledge of technology in use or under development in other organizations:

- Helping resolve issues, and achieving the outcomes and vision for enhanced tracking of sources, without imposing an excessive regulatory burden;
- Leveraging individual projects underway in the agencies; and
- Providing information on other related activities within their agency, within counterpart foreign regulatory bodies, and within relevant international organizations.

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The ICC has discussed these matters during its meetings and in separate communications. At the ICC's October 27, 2005, meeting, the Chairman of the ICC formed a separate Working Group (WG) on Vision of Technology to concentrate on technological developments of potential use for tracking of sources. The group includes representatives of 13 Federal organizations, with the possibility of adding several more.

The group's purpose is to foster the generation and exchange of ideas, by agency partners, in order to formulate a vision concerning the possibility of technologically enhancing a national system for the cost-effective and timely tracking of radioactive materials throughout their lifecycle. The WG reports periodically to the parent group, the ICC.

The WG has developed a vision statement concerning the ultimate goal of its work:

An integrated nationwide system of sensors, communications, databases, and (analysis and alerting) tools that would enable the U.S. Government to maintain current knowledge of the state of radioactive materials of concern (e.g., types, quantities, locations, security condition) in routine commerce within the United States throughout their lifecycle so as to help prevent the materials from being lost, stolen or diverted for possible use in radiological dispersion devices, radiological exposure devices, or for other malevolent purposes; and respond quickly and effectively should prevention fail.

The WG has made an effort to determine what relevant technologies are available or under development in the private sector, in particular by attending the third Annual Tracking Technology Conference hosted by the Department of Homeland Security, and by discussing with vendors some of the technologies presented there. The conference was convened on March 21-22, 2006, to increase awareness of tracking technology used by commercial manufacturers, shippers, and rail and motor carriers by hearing from technology users alongside and in addition to commercial tracking technology firms and integration companies. It involved 18 presentations over a period of 2 days. The technology WG and ICC are currently considering potential uses of the technologies presented.

In addition, several members of the ICC and WG are members of the Radiation Source Protection and Security Task Force. The WG reports to the Radiation Source Protection and Security Task Force as well as to the ICC. The task force report discussed several additional technologies that are being explored by various agencies, including the use of radio frequency identification, wireless communications systems, in-vehicle technologies, and personal identification systems. The task force recommended that the U.S. Government evaluate the feasibility of using new and existing technologies to detect and discourage the theft of risk-significant radioactive material during transport. As such, new technologies for source tracking will also be explored as part of the task force report follow up.

The WG will perform a survey to determine evolving information needs of the various Federal agency partners with respect to radioactive sources, while at the same time gathering information from agencies, vendors, and private sector providers and users of similar products and services. The WG has met four times for these purposes. Three general categories of needs were defined for the survey:

- Radioisotope Source Geolocation Tracking;
- Security Monitoring & Emergency Response; and
- National Database and Communications.

The WG plans to collect this information by December, 2006. Based on this information regarding the needs of technological developments, the WG will determine which needs are in the process of being satisfied and can be leveraged through current agency initiatives; which are candidates for integration; which can be met through commercial-off-the-shelf solutions; and which may need government research and development. The WG will prepare a summary of this information and recommendations for the ICC by April, 2007. The WG has discussed with other agencies existing programs with some relevance to source tracking.

The staff will provide updates to the Commission on this subject every six months or when there are significant developments.

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