

January 10, 2003

Dr. George M. Hornberger, Chairman
Advisory Committee on Nuclear Waste
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: ORPHAN SOURCES

Dear Dr. Hornberger:

Thank you for your letter of October 17, 2002, to Chairman Meserve on behalf of the Advisory Committee on Nuclear Waste which included recommendations regarding orphan sources. In response, I am providing information of how these and broader source control issues are being addressed by the staff.

In a meeting in June 2002, the Department of Energy's (DOE's) Secretary Abraham and Chairman Meserve agreed to convene an Interagency Working Group on Radiological Dispersal Devices. The Working Group has focused on four areas: (1) the relative hazards of radiological materials, (2) the feasibility of developing an enhanced database framework for tracking sources of importance, (3) the technological methods for tagging and monitoring sources while in storage and transit, and (4) actions for facilitating the securing and final disposition of unsecured, excess, and unwanted sources. We expect to forward a draft report to the Secretary and Commission by November 29, 2002. The recommendations you propose mesh closely with the Working Group efforts.

Specifically, your first recommendation regarding identifying risks associated with sources was assessed as part of the first area noted above. The Working Group relied on an analysis by Sandia National Laboratories which broadly evaluated radioisotopes using a systematic approach considering dose impacts and attractiveness to a terrorist (includes quantity and accessibility). This analysis identified materials of relative concern by grouping them into high, medium, low, and very low categories.

Your second recommendation, consideration of geopositioning technologies to facilitate source tracking, is encompassed by the scope undertaken as part of area (3) noted above. Such technology to track tag identifiers attached to the source or its container has been developed and is in limited use in commercial and DOE applications. Geopositioning technologies are best suited for large shipments to and from manufacturers or distributors over extended distances. These, and other applicable technologies to enhance tagging and monitoring of sources, will be addressed in the Working Group's final report.

In regard to your third recommendation, the Working Group also evaluated the feasibility of a tracking system and the associated requirements needed to be in place to effect such a system as part of item (2) above. Currently, we require specific nuclear material licensees to maintain accountability of sources and to undergo periodic inspection of both inventories and

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procedures. However, these licensees are currently not required to register specific sources with the NRC. The NRC does track the devices distributed to general licensees and requires that those with certain sources register with the NRC annually. A recommendation is expected to be made in the Working Group's report to develop an improved tracking system.

Thank you for your insights. We are confident that the Working Group's final report will provide information for Commission consideration in the areas identified in your recommendations.

Sincerely,

/RA/

William D. Travers
Executive Director
for Operations

cc: Chairman Meserve
Commissioner Diaz
Commissioner Dicus
Commissioner McGaffigan
Commissioner Merrifield
SECY

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*See previous concurrence

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