January 26, 2006

MEMORANDUM TO: Roy P. Zimmerman, Director
Office of Nuclear Security and Incident Response

THRU: Eric J. Leeds, Director
Division of Preparedness and Response
Office of Nuclear Security and Incident Response

FROM: Patricia A. Milligan, Sr. Advisor for Emergency Preparedness
Emergency Preparedness Directorate ***/RA/***
Division of Preparedness and Response
Office of Nuclear Security and Incident Response

SUBJECT: FOREIGN TRAVEL TRIP REPORT

A summary of staff participation at the International Conference on: Monitoring Assessments and Uncertainties for Nuclear and Radiological Response is enclosed. This is a periodic meeting of the international community of Emergency Preparedness and Response professionals. The meeting was cosponsored by the Department of Energy. Representatives from a large number countries attended, including participants from Cuba. The report is recommended for distribution to the Commission as it may be of interest. There are no issues that require Commission attention.

Enclosures:
1. Trip Report
2. Attendee List
3. Meeting Agenda

CONTACT: Patricia A. Milligan, NSIR/DPR/EPD
301-415-2223

NRC FOREIGN TRIP REPORT

Subject International Conference on: Monitoring Assessments and Uncertainties for Nuclear and Radiological Response

Dates of Travel and Countries/Organizations Visited November 21-25, 2005, Rio de Janerio, Brazil

Author, Title, and Agency Affiliation Patricia A. Milligan, Senior Advisor for Emergency Preparedness, Emergency Preparedness Directorate, Office of Nuclear Security and Incident Response

Sensitivity Not applicable

Background/Purpose I attended an international conference on Monitoring, Assessments and Uncertainties for Nuclear and Radiological Emergency Response. In addition, I presented a discussion on current Nuclear Regulatory Commission (NRC) initiatives regarding Emergency Preparedness in the post 9/11 world (specifically NRC Bulletin 05-002) as well as learn what others in the international community are doing to meet the post 9/11 challenges in emergency preparedness.

Abstract: Summary of Pertinent Points/Issues There were many presentations of considerable interest to NRC. Updated information on health effects from Chernobyl and Goiania, psycho-social aspects of emergency planning and response, lessons learned in communicating with media during and after the sinking of the Russian submarine, Kursk, synergism in emergency preparedness for terrorist attacks and nuclear accidents, radioactive source tracking and the Argentine “Amber Alert” system implemented for lost sources were among the many topics discussed that were of great interest to the staff. The Department of Energy led a discussion on emergency preparedness and response. Unfortunately, the information in their presentation was not current; there was no discussion of the National Response Plan or the updated Federal Emergency Management Agency (FEMA) exercise evaluation methodology and only very limited discussion on lessons learned from exercises such as TOPOFF. Attendance at this conference was very worthwhile and participation in international emergency preparedness and response conferences should be continued. The international community has implemented innovative ideas from which we can learn.

Discussion The conference was well attended and a large number of countries were represented. Several presentations were of particular interest and the abstracts of those presentations are enclosed to this report

> Radioactive source tracking is of considerable interest in the international community. The Goiania experience provided stimulus to many countries to develop emergency plans for lost sources to ensure that another “Goiania” does not occur. In particular, the Argentine Nuclear Regulatory Authority has developed a communications/notification system for lost sources. Specifically, if a source of a certain size or larger, is lost, an

ENCLOSURE

immediate and repeated public notification is made by radio, television and newspaper to alert the public to the lost source; how to identify it and the potential hazards associated with improper handling of the source. Additionally, hospitals are directly notified so that symptoms of acute radiation syndrome are not mis-diagnosed. This will insure appropriate medical treatment as well as aid authorities in locating the lost source. The licensee is responsible for the notifications and follow-up.

The regulatory authority is responsible for ensuring that such notifications are made according to regulations. This system has been implemented for two lost source events. Both sources were located within 24 +/- hours with no health impacts to the public.

Environmental monitoring of radionuclides in the Arctic and Sub-Arctic was presented by students and faculty from University of Alaska. The challenges to sensitive radiation monitoring equipment posed by the environment were discussed as well as the equipment used and the results of the monitoring. I discussed the monitoring project, the curriculum, as well as the outplacement of the University of Alaska graduates. There was not an awareness of the NRC as a potential employer for these very capable and talented graduates.

Sheltering as a protective action was discussed by many participants. Of particular interest was the French presentation of cessation of sheltering after an event based upon radiological consequence assessment and environmental measurements. The primary focus from this presentation was the lack of absolute values or limits and the emphasis placed upon a range of dose/contamination values. Such a range allows response officials and the public to tailor actions appropriate to the community. Incorporation of community considerations ensures greater willing participation by the public.

Medical responses to radiation emergencies were discussed extensively. Of particular note was a presentation by Dr. Buglvoa, of IAEA (formerly from Belarus) emphasizing the importance of not creating a “victim class” among the public. Experience after Chernobyl, as well as Goiania, has shown that such special treatment has negative impacts on the well being of the individuals rather than the hoped-for positive effect. It was found through study that there exists a sense of hopelessness among the victims for their own well-being and the well-being of their children. This is marked by such things as depression, unemployment, poor health, and etc.

There exists a universal concern regarding effective communications with the public and the media. A case study of the media and public relations efforts surrounding the sinking of the Russian submarine Kursk was presented. Lessons learned included the importance of timeliness of communications as a way to build trust. Of particular interest was the follow-up media survey conducted by the Norwegian government to learn what worked and what didn’t work in their media relations. The lessons learned were fairly straightforward; openness, responsiveness, availability of officials to media are important considerations. The survey tool was designed for this event with the focus that the media is a customer. As a result, the response of the media (national and international) was very high and this tool created further credibility with the national authority.

There was an afternoon session that focused on the impacts of the Goiania lost source accident. The population has been extensively studied for a number of potential long-term health effects including cancers. To date there have been no statistically significant increases in cancer that can be associated with the cesium-137 dispersed source.

There has been study on the psycho-social impact of this event and many lessons learned as a result. The overall conclusion is the importance of allowing people the opportunity to know that 1) they will be alright and 2) to get back to their normal lives as quickly as possible.

Special treatment of the population as "victims" seem to heighten depression and hopelessness, not only for themselves but for their children and grandchildren.

Department of Energy representative presented papers on "The Need to Exercise" and "Regional Collaboration in Emergency Preparedness." These presentations seemed to highlight the lack of communication between NRC and DOE in the area of emergency preparedness. In particular, the presentation that addressed regional collaboration had not considered the routine collaborations that occur between States with populations within the 10 and 50 mile EPZs. As a result, the presentation lacked timeliness and relevancy. I spoke with the DOE representatives to discuss NRC emergency preparedness for commercial nuclear reactors, focusing primarily on post-9/11 initiatives, but also discussed the NRC and DHS/FEMA relationship for off-site emergency preparedness and invited them to the NRC Regulatory Information Conference scheduled for March 2006.

Pending Actions/Planned Next Steps for NRC There are no pending actions for NRC.

Points for Commission Consideration/Items of Interest

There were many valuable discussions on emergency preparedness and response. Two areas were of particular interest. The first was the frank discussions of the psycho-social impacts on populations in emergency preparedness and response. Lessons learned from Goiania and Chernobyl highlight the importance of "the message" to impacted persons. Persons in the area of Goiania event, even if they were not directly contaminated themselves, developed a sense of helplessness about themselves and their future which was exacerbated by lack of appropriate information about the event and the consequences to their health and safety.

The second presentation of particular interest was made by the Argentinian representatives lost source alert system is of interest. The cooperative effort with the media to warn the public of the lost source and its potential dangers has directly prevented a "Goiania" style event in Argentina as well as assisted authorities to rapidly locate lost sources.

MEMORANDUM TO: Roy P. Zimmerman, Director
Office of Nuclear Security and Incident Response

THRU: Eric J. Leeds, Director
Division of Preparedness and Response
Office of Nuclear Security and Incident Response

FROM: Patricia A. Milligan, Sr. Advisor for Emergency Preparedness
Emergency Preparedness Directorate ***/RA/***
Division of Preparedness and Response
Office of Nuclear Security and Incident Response

SUBJECT: FOREIGN TRAVEL TRIP REPORT

A summary of staff participation at the International Conference on: Monitoring Assessments and Uncertainties for Nuclear and Radiological Response is enclosed. This is a periodic meeting of the international community of Emergency Preparedness and Response professionals. The meeting was cosponsored by the Department of Energy. Representatives from a large number countries attended, including participants from Cuba. The report is recommended for distribution to the Commission as it may be of interest. There are no issues that require Commission attention.

Enclosures:
1. Trip Report
2. Attendee List
3. Meeting Agenda

CONTACT: Patricia A. Milligan, NSIR/DPR/EPD
301-415-2223

DISTRIBUTION:

L. Reyes, EDO	T. Rothchild, OGC
W. Kane, EDO	E. Leeds, NSIR
W. Dean, EDO	N. Mamish, NSIR/EPD
J. Lee, OIP	R. Sullivan, NSIR/EPD
M. Weber, NSIR/OD	C. Harris, NSIR
M. Cohen, NSIR/PMDA	L. Silvious, NSIR/DNS

ADAMS Accession Number: Package ML060200099 Memo: ML060170319
Enclosure 2: ML060200083 Enclosure 3: ML060200353

OFFICE	NSIR/EPD	NSIR/EPD	NSIR
NAME	PMilligan	NMamish	ELeeds
DATE	01/17/06	01/25/06	01/26/06

OFFICIAL RECORD COPY