July 10, 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: Joseph D. Anderson, Security Interface Team Leader ***/RA/***
Licensing and Regulatory Affairs Branch
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 Standards Organization (ISO) / Technical Committee 85 (Nuclear Energy) Meeting on the adoption of a formal Emergency Preparedness (EP) Working Group is enclosed. ISO has identified a need for a high level "all hazards" standard on EP as a result of multiple natural disasters around the world and the responses to these disasters. 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. ISO/TC 85 Subcommittee 6 Agenda

CONTACT: Joseph D. Anderson, NSIR/DPR
301-415-4114

NRC FOREIGN TRIP REPORT

Subject: Participation in the biennial meeting of the International Organization for Standardization (ISO) / Technical Committee (TC) 85, "Nuclear Energy," to consider an ad hoc working group (WG) on "Emergency Preparedness and Security" as part of Sub-Committee (SC) 6, "Reactor Technology."

Dates of Travel and Countries/Organizations Visited: 18 June – 22 June 2006 in Ottawa, Ontario (Canada)

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Office of Nuclear Security and Incident Response

Sensitivity: Not sensitive

Background/Purpose: While EP standards for nuclear power plants have been published by the International Atomic Energy Institute (IAEA) and the American National Standards Institute (ANSI), no international "all hazard" standard currently exists for emergency preparedness. Recent large-scale disasters ranging from tsunamis and hurricanes to earthquakes and terrorism have underscored the importance of consensus guidance and international coordination in emergency readiness, response, and recovery efforts.

In April 2006, an International Workshop on Emergency Preparedness, sponsored by the ISO, was held in Florence, Italy[1], and recommendations were made for the development of international standards for "all hazards" emergency management and operations continuity. The purpose of the workshop was to reach an International Workshop Agreement (IWA) to be published by ISO, which is anticipated to evolve into an ISO standard.

During the 2004 ISO/TC 85 Meeting in Buenos Aires, Argentina, the technical committee voiced support for the creation of a formal working group under SC-6 to evaluate the need for international standards on emergency preparedness and security. However, the formal proposal submitted to ISO participating members failed to be approved, based on the justification provided. As such, an ad hoc working group on emergency preparedness was placed on the agenda for the June 2006 ISO/TC 85 Meeting, as part of SC-6 activities, to further discuss and develop consensus on the need for ISO to issue international emergency preparedness standards dealing with nuclear energy.

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[1] Refer to Foreign Travel Trip Report prepared by Patricia A. Milligan, dated May 17, 2006 (ADAMS Accession No. ML061310488)

Abstract – Summary of Pertinent Points/Issues: As part of the ad hoc working group session on "Emergency Preparedness and Security," the U.S. delegation facilitated discussions, entitled "Harmonization of International Standards," which included a review of the April 2006 International Workshop on Emergency Preparedness. Discussions centered around the role of ISO and IAEA for the development and issuance of international standards related to nuclear power plants, and the "market-driven" need for ISO to support the development of international standards in the areas of emergency preparedness and security.

Based on SC-6 discussions, ISO/TC 85 agreed that non-technical and management standards should be considered upon request of ISO/TC 223, "Societal Security" or IAEA if specific nuclear needs are identified. The need to establish a liaison with ISO/TC 223 was identified to ensure adoption of an "all hazards" approach.

Discussion: The ISO/TC 85 conference was well attended and a large number of countries were represented. Delegates from six participating countries, and South Korea and China, attended the SC-6 ad hoc working group session on "Emergency Preparedness and Security." However, delegates present represented their specific SC-6 (reactor technology) areas of expertise, with no delegates, other than myself, having a detailed background in emergency preparedness. No specific reactor security expertise was present at the SC-6 ad hoc working group session.

IAEA has issued or is planning to issue the documents listed below, titled standards, for emergency preparedness at nuclear power plants. However, these IAEA documents are not official international standards endorsed by ISO participating members.

- GS-R-2, "Preparedness and Response for a Nuclear Radiological Emergency" (2002)
- GS-G-2.1, "Arrangements for Preparedness for a Nuclear Radiological Emergency" (proposed for 3rd Quarter 2006)
- 109, "Intervention Criteria in a Nuclear Radiation Emergency" (1994)
- DS-44, "Criteria for Use in Planning Response to Nuclear and Radiological Emergencies" (proposed for 2nd Quarter 2008)

The U.S. delegation proposed the implementation of an ISO/IAEA memorandum of understanding to clarify organizational roles for the issuing of international standards. Various delegates voiced a concern that developing standards involving government agencies or public response was not within ISO/TC 85 scope, but rather more appropriate for IAEA development.

The U.S. delegation proposed the updating of existing ANSI standards on emergency preparedness for nuclear power plants[2] and issuing these by ISO as international standards. Various delegations again indicated a reluctance to duplicating IAEA documents, but rather encouraged establishing a formal SC-6 liaison with IAEA, as currently used by other ISO/TC 85 sub-committees, to complement IAEA activities.

The April 2006 International Workshop on Emergency Preparedness recommended development on international standards for emergency management and operations continuity. The ad hoc SC-6 working group identified the need to engage ISO/TC 223 to obtain further clarification regarding applicability to nuclear energy (ISO/TC 85) standards versus version of an "all hazards" approach.

Based on recommendations from the ad hoc working group meeting, ISO/TC 85 agreed under Resolution 2006/12 that:

- Management (organizational) standards on emergency preparedness for or involving public authorities are within the scope of the IAEA, rather than ISO/TC 85.

- Non-technical and management standards for operators (industry) will be considered upon request of ISO/TC 223, "Societal Security" or IAEA if specific nuclear needs are identified. A liaison with ISO/TC 223 is needed to further identify the need for specific ISO standards. The U.S. delegation will propose a liaison officer.

- Specific standards on technical subjects (i.e., radiological modeling, dosimetry requirements) should be handled by the pertinent existing ISO/TC 85 sub-committees.

- There was a general consensus that a technical security standard may be needed. However, any requests for consideration of specific security standards would need to be submitted to public authorities for consideration at the proposal stage.

The ad hoc SC-6 working group on "Emergency Preparedness and Security," was disbanded at this time until further need, specific to nuclear energy, is identified based on input from ISO/TC 223 or IAEA.

ISO/TC 85 did approve the creation of the following two new SC-6 ad hoc working groups:

- Reactor Siting, Design, Operation, and Decommissioning (France lead), and
- Reactor Fuel facility Siting, Design, Operation, and Decommissioning (Canada lead).

These ad hoc groups have been charged with exploring the need for standards in these areas and reporting back to SC-6 within 6 months. Any future nuclear energy international standards for emergency preparedness and security would likely be included under one or both of these groups or as a separate WG under TC-85 itself.

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[2] ANSI standards have been withdrawn following the failure to review and update in accordance with ANSI guidelines.

Attendance at this conference was worthwhile in better understanding the role of the various ISO technical committees related to proposed international emergency preparedness standards. It is important that the NRC be aware of ongoing actions within the international preparedness community, as well as learn from the programs in-place in other countries.

Pending Actions/Planned Next Steps for NRC The staff will continue to follow ISO/TC 223 activities and the development of the ISO IWA on Emergency Preparedness and Operational Continuity.

Based on U.S. delegates present, the American Nuclear Society (ANS) still plans of updating existing ANSI standards on emergency preparedness. The proposed revision and re-issuance of ANSI EP standards needs to be evaluated by NRC based on the staffs on-going review of emergency preparedness regulations and guidance.

Points for Commission Consideration/Items of Interest The ISO TC 223 is part of the larger ISO Technical Board Strategic Advisory Group on Security.

ISO/TC 85 Subcommittee 6: Reactor Technology
Chairman:Wade J. Richards, USA
Secretary:Thomas J. Myers, USA
City of Ottawa – Ontario - CANADA
June 18 – June 23, 2006
Subcommittee 6 Agenda

Sunday, June 18

6:30 p.m. Technical Committee 85 Nuclear Energy Reception

Monday, June 19

9:00 - 9:30 TC 85 Welcome

10:00 – 2:00 SC 6 Plenary (with lunch break)

2:00 – 4:00 Harmonization of Standards (all registrants invited)

4:00 – 6:00 Emergency Preparedness (all registrants invited)

Tuesday, June 20

9:00 – 5:00 Discussion of SC 6 Topics (all registrants invited)

- Subcommittee Status
- Confirm Wednesday Working Groups' Schedule
- Current and Proposed Projects

Current Standards Development

WG 1	Decay Heat Power in Light-Water Nuclear Reactors
WG 2	Technical Specifications for Research Reactors
WG 3 (ad hoc)	Emergency Preparedness

Proposed Groups of Standards

WG 1

- Power Reactor Analyses and Operations
- Nuclear Data Sets for Reactor Design
- Reaction Rate Distributions & Reactivities
- Reload Startup Physics Tests for Pressurized Water Reactors
- Standard for Verification and Validation of Scientific and Engineering Computer Programs for the Nuclear Industry

Tuesday, June 20

9:00 – 5:00 Proposed Groups of Standards (continued)

WG 2

- Research Reactors, including Radiation Protection and Emergency Planning for Research Reactors

WG 3 (ad hoc)

- Emergency Preparedness for Nuclear Facilities

WG *

- Power Reactor and System Design
- Non-Reactor Facility Design and Operations
- Nuclear Facility Siting
- Fuel Cycle and Waste Management
- Other

Wednesday, June 21

9:00 – 12:00 Standards Development Breakout Sessions (all registrants invited)

WG 1	Current Draft Standard "Decay Heat Power in Light-Water Nuclear Reactors"
WG 2	Current Draft Standard "Technical Specifications for Research Reactors"
WG 3 (ad hoc)	Emergency Preparedness General Discussion

1:00 – 3:00 Standards Development Breakout Sessions (all registrants invited)

WG 1	Current Draft Standard "Decay Heat Power in Light-Water Nuclear Reactors"
WG 2	Current Draft Standard "Technical Specifications for Research Reactors"

3:00 – 5:00 SC 6 Close (all registrants invited)

6:30 p.m. TC 85 Banquet

Thursday, June 22

All Day	Technical Tours
9:00 - 12:00	MDS Nordion
9:00 - 12:00	Health Canada
9:00 - 12:00	National Research Council
9:30 - 5:00	Bubble Technology and AECL Chalk River Laboratories

Friday, June 23

9:00 - 12:00	TC 85 Nuclear Energy Plenary
1:00 –5:00	TC 85 Nuclear Energy Plenary

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SISP Review Complete by: Joseph D. Anderson

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