

PACIFIC RIM SPENT FUEL MANAGEMENT PARTNERSHIP WORKSHOP

Organized by the Nuclear Threat Initiative (NTI) and the Kyung Hee University (KHU)

12-14 August 2019

Ramada Plaza Hotel · Suwon, Republic of Korea

MEETING SUMMARY

Introduction and Objectives

Meeting organizers began with brief introductions, as well as a history/overview of the project, followed by expectations for the meeting. This meeting brought together two working groups – (1) Technical and Non-Technical Aspects of Siting, and (2) Long-Term Storage and Transportation – to discuss work plans that had been drafted by the working group co-chairs over the previous intersessional period, identify projects of highest multinational interest, and discuss pathways forward for working on those projects. Participants in each of the working groups represented regional governments, waste management organizations, academic institutions, and the broader nuclear waste management industry.

Working Group Discussions

Following the introductions and meeting overview, the group split up into the two working groups.

Technical and Non-Technical Aspects of Siting

Meeting participants shared updates and lessons learned and identified a number of themes that can be considered in building a common framework for safe, secure and socially acceptable long-term management of spent fuel. Topics discussed fit broadly under two main categories: The components of the management approach for the long-term management of spent fuel; and communicating safety. Specific topics and themes discussed included, but are not limited to the following:

- Need for clear and sound legislative framework
- Clear and transparent explanation of potential hazards
- Clear decision-making process
- Clear funding mechanisms
- Strong and independent regulator
- Strong and coherent efforts at trust-building with potentially affected communities
- Need to include communities early in the process
- Need to highlight safety attributes of containment and isolation of deep geological repositories

Participants agreed to continue discussions on the common themes identified during the meetings. The objective is to expand on each of the themes and begin assembling the components of a common framework for the safe, secure and socially acceptable long-term management of spent fuel.

Long-Term Monitored Storage and Transportation

Building from discussions at previous workshops, as well as a work plan developed in the previous intersessional period, this working group discussed a variety of topics relevant to the safe and secure storage and transportation of spent nuclear fuel and other high-level wastes. These topics were then boiled down to four categories for more in-depth work:

- True multipurpose (storage/transport/disposal) canisters for various disposal mediums
- Direct disposal of existing large cask systems used by several of the regional stakeholders
- Longer-term storage issues – i.e. storage canister stability and integrity over longer periods than are currently licensed for worldwide
- Building a better understanding of the conditions under which a spent fuel pool fire could occur

Other discussion topics included work being done in other international forums, as well as potential funding opportunities for identified projects with substantial multinational interest.

The participants were charged with socializing these potential topics within their respective governments, as well as identifying other national experts to join the working group. The working group will then complete necessary background research and information sharing in order to draft detailed proposals/concepts on the various projects in the intersessional period.

Knowledge Management

The final day of the meeting began with a discussion on knowledge management. Presentations were given on previous, current, and future efforts by key stakeholders to promote knowledge management, as well as potential ways for this partnership to adapt lessons learned and contribute to the broader success of knowledge transfer across generations. It was posited that successful knowledge management programs should:

- Provide a framework for organizations to establish a systematic process for organizing, sustaining, applying, sharing, and renewing all forms of knowledge to enhance organizational performance and create value
- Capture knowledge, to increase knowledge access within an organization, enhance knowledge environment, and manage knowledge as an asset
- Increase organizational efficiency for improved decision making

Different approaches for the Pacific Rim partnership to address knowledge management were discussed, including person to person, institution to institution, state to state, regional, and transnational approaches. Across each of these approaches, the Partnership could facilitate the exchange/sharing of material resources, and possibly even conducting joint seminars and creating education/training programs.

This discussion concluded with a broad set of questions for the Partners to consider, including:

- What is the aim of Pacific Rim regional knowledge management?
- What is the most needed information for effective knowledge management in this environment?
- Which approaches and tools are feasible or most effective for the Pacific Rim region?

The participants broadly agreed that knowledge management will continue to be a key theme across each of the working groups and will remain a key part of the discussion in the future.

Next Steps

The meeting concluded with full-group discussion of the intersessional tasks for the two operational working groups. Presentations were also given on the planned future working group on Underground Research Facility R+D, as well as the plans for future meetings.