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NUCLEAR ENERGY AGENCY
RADIOACTIVE WASTE MANAGEMENT COMMITTEE

**PROPOSAL TO SET UP AN EXPERT GROUP ON INTEGRATED MANAGEMENT OF
ACCIDENT-ORIENTED RADIOACTIVE WASTE UNDER THE OECD/NEA RWMC**

This document supports Item 17d of the provisional agenda of the 47th session of the RWMC, to be held 26-27 March 2014.

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MINISTRY OF ECONOMY, TRADE AND INDUSTRY, JAPAN

PROPOSAL TO SET UP AN EXPERT GROUP ON
INTEGRATED MANAGEMENT OF ACCIDENT-ORIENTED RADIOACTIVE WASTE UNDER THE
OECD/NEA RWMC

1. Background

Radioactive waste generated by the Fukushima Daiichi nuclear accident has different properties than waste generated by nuclear power plants operating under normal conditions. It is an important task to prepare a strategic plan for characterization, categorization, long-term storage, processing and disposal, taking into account both technological and institutional aspects. Furthermore, it is also necessary to develop an integrated management concept considering a future end state of the Fukushima Daiichi site in the planning strategy, which shows how to process this unique kind of radioactive waste in view of final disposal.

In order to accomplish this task, it is indispensable to take into account international experience on managing legacy and accident waste. At the same time, knowledge and experience gained from the efforts to address the challenges for the management of the Fukushima Daiichi radioactive waste should be shared with the international community. We believe that the OECD/NEA RWMC is the most appropriate forum for this. Thus, we propose to establish a framework under this committee, namely an expert group on the integrated management of accident-oriented radioactive waste. The expert group is expected to produce valuable insights on the management of accident-oriented radioactive wastes for OECD/NEA members.

2. Objective

The objective of the proposed expert group under the OECD/NEA RWMC is:

- To internationally share information related to,
- To discuss issues and challenges related to, and
- To identify future international collaboration options, such as a joint R&D program, on the integrated management of accident-oriented radioactive waste, mostly generated by the Fukushima Daiichi accident.

Waste management activities are based on waste characteristics. However, due to the vast amount and complexity of the waste as well as the difficult access to onsite waste and the limited number of samplings and measurements, it is necessary to scientifically and statistically optimize the characterization effort following a sensible strategy. Consideration of the categorization of radioactive waste based on characterization is also significant for waste management. As the first step, the expert group will focus on

the “methodology of characterization and categorization” of accident-oriented radioactive waste for the coming two years. The expected output of the expert group during this period is to discuss key questions and to summarize those discussions in a short report. Possible further discussion items and a proposed schedule are shown in the appendix.

3. Activities

- Expert group meeting (annual basis proposed)
- International workshop

4. Members

Members of the expert group will be nominated from NEA member countries as their representatives, as well as from NEA partner countries with the experience to manage and treat radioactive waste after an accident.

5. Schedule for the first two years

- RWMC meeting : 26-27 March 2014
- 1st expert group meeting: Early July 2014
 - Site visit (Fukushima Daiichi)
 - Discussion on scope of work, such as:
 - ✓ Selection of target radionuclides
 - ✓ Statistical methods
 - ✓ Inventory estimation methodology
 - ✓ Basic consideration of categorization, etc.
 - Work schedule and role assignments,
- 1st international workshop: Winter 2014 or later
- 2nd expert group meeting: Summer or Fall 2015
- Report to RWMC: Spring 2016

6. Contact

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APPENDIX
Possible Discussion Items among International Experts
(Tentative)

Near-term (2014-16)

- Methodology of characterization and categorization
 - ✓ Selection of target radionuclides
 - ✓ Statistical methods
 - ✓ Inventory estimation methodology
 - ✓ Basic consideration of categorization, etc.

Mid-term (until 2017) in case of an extension of the mandate

- Methodology of categorization based on characterization
 - ✓ Development of inventory estimation methodology including applicability of statistical approach, etc.
- Technology options for long-term storage
 - ✓ Criteria of long-term storage
 - ✓ Evaluation of risk for storage and processing, etc.
- Options for processing and conditioning technologies
 - ✓ Effectiveness of decontamination, volume reduction and recycle.

Long-term (after 2017) in case of an extension of the mandate

- Update on technology options for processing and conditioning
- Disposal concept and safety assessment
- Consideration of technical and regulation tasks with a view to define policy of accident-oriented radioactive waste processing and disposal