Update on NEA Activities since last WASSC

Ms. Mari Gillogly
Radiological Protection and Radioactive Waste Management
OECD NEA

International Waste Safety Standards Committee (WASSC)
Annual Meeting, 20-23 June 2016
Content

1. Organisational changes
2. Selected Group activities
3. Recent Events
4. Upcoming Event
Content

1. Organisational changes
2. Selected Group activities
3. Recent Events
4. Upcoming Event
New Division: Human Aspects of Nuclear Safety

- Focuses on nuclear safety regarding safety culture, human and organizational factors, safety related public communication and stakeholder engagement

- Took over the secretarial support for the RWMC’s Forum of Stakeholder Confidence (FSC)
Content

1. Organisational changes
2. Selected Group activities
   1. Reporting of Inventories
   2. Fukushima Waste Management
   3. Safety Cases for Geological Disposal
   4. New and Upcoming Reports on Decommissioning
3. Recent Events
4. Upcoming Event
Inventorying and Reporting Management (EGIRM)

Objectives:

- To develop a method to enable national programme to present a waste inventory in a common scheme, allowing direct, straight-forward comparison;
- To be used as a tool in the joint NEA/IAEA “Status and Trends” Project for reporting waste inventories.

Status:

- Current phase focuses on SF and RW after reprocessing;
- Presented methodology & preliminary test results at IAEA WASSC-39 and Status & Trends Project meetings in June, 2015;
- 7 countries tested the proposed matrix + 2 countries reviewed and commented;
- Test results + review comments improved methodology
Advantages

- SF and RW inventories can be combined in one scheme;
- SF data divided by origin – NPPs and other reactors;
- Separately presents post-reprocessing RW;
- Inventory data presented through national management policies;
- Allows for data on SF/RW of countries without management policies;
- Allows for data on SF/RW recycled/reprocessed in other countries;
- Presents accepted disposal route for each kind of RW;
- Provides clearer picture of correlations between national data and IAEA classification (countries still use NEWMDB matrix to translate national RW classes to GSG-1 terms); **NOT ALTERNATIVE TO GSG-1**;
- Can also present other potential SF/RW management scenarios.
2nd Stage (EGIRM)

RWMC – 49 decisions:

• The RWMC approved the report publication, the mandate extension for period 2016-2018, and expanding the methodology to encompass all waste classes and disposal strategies.

• The EGIRM, EC and IAEA will keep open a continual and strong dialogue related to methodology concerns and potential duplications.
**Fukushima Waste Mgmt. & Decommissioning (EGFWMD)**

**Objectives:**

- To evaluate the management of post-accident waste, and focus on radiological characterization and categorization of post-accident waste and contaminated materials;
- To provide a strategic approach to the Japanese government to manage the complex characterization process of waste, including a sampling and analysis plan based on statistics, calculation methods and international knowledge.

**Status:**

- Initial report being finalised, based on existing knowledge in managing legacy waste, the available Fukushima experience, as well as the pertinent lessons learnt from Chernobyl, Three Mile Island, the Andreeva Site in Northwest Russia, and Windscale.
EGFWMD Workshop in Tokyo

- **Date:** 6 – 7 July 2016
- **Venue:** Iino Hall and Conference Center, Tokyo, Japan
- **Objective:**
  - To share the results of the NEA EGFWMD work with Japanese experts involved in waste management at Fukushima Daiichi;
  - To discuss the waste management and decommissioning issues addressed at Fukushima.
- **Organised by the NEA/EGFWMD, hosted by METI / IRID / JAEA**
- **Speakers:**
  - NEA EGFWMD members
  - Japanese experts involved in waste management at Fukushima Daiichi
Regulatory Review of Safety Cases for Geological Disposal of RW

Background:

- 2007 -- European Pilot Study (EPS) initiated to explore developing a common regulatory review approach of safety cases;
- 2012 -- Sustainable Network for Independent Technical Expertise (SITEX) Project was started to develop an independent technical expertise network;
- 2014 -- NEA Integration Group for the Safety Case (IGSC) to investigate enhanced communications of scientific safety evidence with non-technical stakeholders;
- Work accomplished under these joint efforts has achieved significant results in capacity building among various stakeholders in developing DGR;
- 2015 -- EPS, SITEX and IGSC jointly agreed to organize a seminar for up-to-date knowledge on regulatory reviews and technical communications in developing DGR for radioactive waste.
Regulatory Review of Safety Cases for Geological Disposal of RW

Objectives and aims:
- To share the EPS and SITEX developments in regulatory reviews, i.e. requirements, expectations, and experience in judging the adequacy of safety cases;
- To share knowledge gained in enhancing technical communications with civil society;
- To receive indications to developing future work in capacity building and trust among involved stakeholders.

Date & place (TBC):
New Reports in Decommissioning


• Builds on a previous NEA report in 2014 and was prepared by NEA’s Co-operative Programme on Decommissioning, addressing mainly technical and procedural issues of site remediation.

• Provides insight for decision makers, regulators, implementer and stakeholders involved in decommissioning, including a strategic approach on how to address long timescales involved in decommissioning and remediation

• Aims to help decision making on site end-states and interim stages

• Emphasises the optimisation of the remediation approach
Upcoming Reports in Decommissioning

• Decommissioning Cost Estimation Group:

• Task Group on Radiological Characterisation and Decommissioning:
  – Currently in print: An intermediary report with the evaluation of an international survey on “Radiological Characterisation from a waste and materials end-state perspective”.
  – Due early 2017: TGRCD final report “Strategies for Radiological Characterisation from a Material and Waste End-state Perspective”

• Task Group on Preparing for Decommissioning during Operation and after Final Shutdown:
  – Due early 2017: A report on Optimisation of the preparation for decommissioning of nuclear facilities
Content

1. Organisational changes
2. Selected Group activities
3. Recent Events
   1. Peer Review: Japan
   2. Challenges for the Regulators
   3. Lessons Learnt from WIPP incidents
4. Upcoming Events
Peer review of the Japanese Nationwide Site Screening Criteria

Background:

• In May 2015, the Government of Japan stipulated a new nationwide site screening step to promote their site selection process for a HLW DGR;

• METI requested that the NEA conduct a peer review of the site screening criteria developed based on existing geo-scientific data.

Objectives:

• To assess the sufficiency & credibility of the site screening criteria, their application in the site selection process, and overall the siting process as compared to international best practices.
Japanese Nationwide Site Screening Criteria

Peer Review and Results:

• An International Review Team (IRT) consisting of 4 technical experts (volcanology, structural geology, sedimentary geology and national siting) and 2 NEA staff completed the review following detailed discussions and URL visit in late May 2016;

• Overall, the IRT concluded that the nationwide scientific screening process is in accordance with international practices, but areas of improvement remain;

• Final report will be published in late August 2016.
RWMC/RF Workshop: “Challenges to the regulators in siting and licensing of construction and operations of waste repositories”

- **Purpose**: revealed challenges faced by regulators in various phases, i.e. siting, pre-licensing & licensing, construction, operation and closure

- **When and where**: Helsinki, Sept 8-9, 2015;

  - Over 70 participants from 19 countries

  - Regulators, implementers, technical support organizations, and policy makers
RWMC/RF Workshop: Main conclusions

• Many challenges exist, but many successes have been gained.

• Progress in siting and licensing the construction and operation of disposal facilities

• Continued Advancement in the General Regulatory Principles
  – Independent Regulator
  – Regulatory Framework (Requirements, Guides)

• Communication is fundamental
  – International Benchmarking and Cooperation
  – Stakeholder Engagement
WIPP Seminar

- **Objective**: to discuss effective means to foster safety culture and management elements for continuous safety enhancement;

- **When and where**: March 31, 2016, one day seminar, Paris and WebEx ~80 participants, 17 countries

- **5 speakers** from DoE HQ, Carlsbad Field Office, EPA, & CEMRC, presented:
  - WIPP recovery status;
  - Key findings of the accident investigation;
  - Radiological event forensics analysis;
  - EPA’s response to the radiological release and 2014-2016 actions;
  - The role of independent monitoring; and
  - Communications lessons learned.
Main lessons learned

• Both incidents were preventable, continuous successful operation (as long as 15 yrs at WIPP) can give way to complacency;

• Safety culture is a group behaviour, a collective responsibility. Everyone in an organization is responsible for safety although management must demonstrate their commitment and lead by example;

• In addition to management commitment, workers need to understand their work objectives, i.e. communications and continuous training are important;

• WIPP incidents showed problems crept in over time, a questioning attitude to challenge problem situations may prevent accidents;

• In emergency communications, provide correct information early and often, maintain open / transparent public communication, social media can be effective;

• Ensure regulators are notified and kept fully informed and monitor reactions to information.
Content

1. Organisational changes
2. Selected Group activities
3. Recent Events
4. Upcoming Events
   1. Operational Safety
   2. Financing of Decommissioning
   3. ICGR 2016
Joint NEA/IAEA Workshop on Operational Safety of DGR

- **Purpose**: to disseminate key findings of the NEA Expert Group on Operational Safety (EGOS) and IAEA GEOSAF I & II

- **Draft programme developed**: 5 main sessions + small group discussions:
  
  i. NEA & IAEA activities on operational safety of DGR
  
  ii. technical design focusing on fire risk management, on-site transportation and emplacement of RW
  
  iii. lessons learned relevant to DGR or underground operations
  
  iv. repository planning & development – conventional requirements, monitoring and operational capabilities, and safety case communications
  
  v. radiological protection

- **When and where**: June 29 – July 1, in Paris, OECD Conference Centre

- *Open to only NEA & IAEA members by invitation, anticipate < 100 participants*
International Conference on Financing of Decommissioning

**Purpose:** to provide participants with a good picture of the variety of financing systems in place in OECD countries; discuss the remaining challenges expected and how these are being addressed; indicate where further international efforts could be focused; and discuss the implications of (potentially underfunded or uncertain) decommissioning liabilities also from an investors perspective (company share value, investments in the sector, etc).

**When and where:**
- 20 – 21 September 2016, Stockholm
- Co-organised by Swedish SSM and OECD NEA
December 6-9, 2016

OECD Conference Centre, 2 rue André Pascal, 75016 Paris

www.ICGR2016.org
Programme

Continued Engagement and Safe Implementation of Geological Repositories

- Opening Session
- Session 1: National Geological Disposal projects
  - Status of national geological projects; Panel debate on progress achieved
- Session 2: Cigéo, the French Geological Disposal (Panel)
- Session 3: Dialogue between Stakeholders in Carrying Out a Geological Repository Project
  - Role and involvement of various stakeholders, from siting to licensing
  - Panel discussion on the relations between stakeholders during the development of geological repository projects
- Session 4: The Added Value of International Cooperation for the Safe Implementation of Geological Repository Projects
- Sessions 5 & 6: Stocktaking, Summary and Closing
Logistics and Additional Information

• Conference capacity: 300
• Registration fee: 285€
• Registration open June 1st: [www.ICGR2016.org](http://www.ICGR2016.org)
• Exhibits: 5 booths + bring your materials
• Interpretation: French-English
• Dinner: Musée des Arts Forains
• Visits to the Andra sites on Friday, 9 December