Status of Waste Management Projects related to the Application of Safety Standards

Item W 5.1

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Many of our international projects have come or are close to an end

Turn over in the unit – transition period

Make a point of where we are for the different projects, what is planned
IAEA activities related to the SC for RWM

Activity content

VSLW
very short lived waste
(decay storage)

HLW
high level waste
(deep geologic disposal)

ILW
intermediate level waste
(intermediate depth disposal)

LLW
low level waste
(near surface disposal)

VLLW
very low level waste
(landfill disposal)

EW
exempt waste
(exemption / clearance)

half-life
Objective
To provide guidance to Member States on waste management planning as a part of the overall emergency preparedness that needs to be established for a nuclear or radiological emergency.

Activities (2012 – 2015)
7 consultancy meetings: 5 in the IAEA, 1 in Ukraine, 1 in Japan (reported to WASSC at 34th and 38th Meetings)

Outcomes
- The guidance “Management of Large Volumes of Radioactive Waste Arising in Nuclear or Radiological Emergencies” has been developed as an IAEA TECDOC and is now under iteration process with the Publication Committee.
- Web-page is expected to be developed by September 2016.

The developed guidance is one of the series of companion reports prepared by the IAEA to support Member States’ efforts to improve nuclear or radiological emergency preparedness.
LARGE AMOUNT OF WASTE

Management of Large Volumes of Waste Arising from a Nuclear or Radiological Emergency

- **Environmental Remediation** After a Nuclear or Radiological Accident: Approaches, Techniques, Tools and Equipment
- **Predisposal Management** of Radioactive Waste in the Aftermath of a Severe Nuclear Accident: Challenges, Issues and Lessons Learned
- **Disposal** of Large Volumes of Waste Arising from a Nuclear or Radiological Accident
- **Decommissioning and Remediation** After a Nuclear Accident
- **Decommissioning** After a Nuclear Accident: Approaches, Techniques, Tools and Equipment
CRAFT

**Objective**
To develop and apply SADRWMS methodology (GSG-3 ) & SAFRAN Tool
Illustrative examples to complement GSG-3.

**Activities (2011 – 2014)**
- 1st Plenary Meeting May 2011
- 2nd Plenary Meeting June 2012
- 3rd Plenary Meeting June 2013
- Final Plenary Meeting October 2014

**Outcomes**
- Results presented at the WASSC 38th Meeting in November 2014
- Draft WG Reports have been finalized and will be compiled into one Technical Document at CS from 4 to 8 July for presentation to the Publication Committee for final approval in 2016

**Follow-up**
The 1st TM of the follow-up project on different stages of life cycle with focus on storage facilities, treatment facilities and historical sites is planned for the next year.
Joint DPC WG

**Objective**
To provide an IAEA document containing recommendations and guidance on the structure and contents of an Integrated Safety Case for a dual purpose storage and transport cask.

**WG activities (2011 – 2015)**
- Three Technical meetings to develop technical report and information exchange
- International Workshop (May 2014)
- Consultancy meeting (November 2015)

**Outcomes**
- Recommendations on revision of Safety Standards (SSG-15 & GSR Part 6) reported to WASSC / TRANSSC
- Publication of the Technical Document
  - Draft TECDOC has been developed and presented to the Publication Committee.
  - Minutes and detailed comments obtained, considered and discussed.
  - Draft TECDOC is under final improvement to be submitted to the Publication Committee in 2016 ASAP.

**Follow-up**
TM to launch the follow-up project to develop an approach for implementing SA & SC in order to define generic test conditions for DPC is scheduled for November 2016.
Objective
- Safety assessment and safety case development
- Use of the safety case in the decision making process during the lifetime of a near surface disposal facility

Activities (2009 – 2015)
NSARS / ISAM / ASAM => PRISM / PRISMA
Technical and consultancy meetings

Outcomes
The final report of the PRISM and PRISMA projects was developed, submitted to the Publication Committee and will be published as a TECDOC.
Objective
To work towards harmonization of approaches to demonstrating the safety of geological disposal, with a special emphasis on the expectations of the regulatory authorities engaged in the licensing process with respect to the development of the safety case.

Activities (2009 – 2015)
GEOSAF: 3 Plenary Meetings in 2009-2011
GEOSAF II: 4 Plenary Meetings in 2012-2015

Outcomes
Three documents drafted:
- Main report to be published as a TECDOC
  *latest draft is available on the web site, was submitted to the Publication Committee and is now under finalization by the project Chairs to be submitted for approval in a few months.*
- Report of the Task Group on Operational Safety (companion report)
  *final draft is available on the GEOSAF II web site*
- Project report to be published on the GEOSAF II web site in 2016
**Objectives**
- To discuss specific safety issues that need to be taken into account in the development of an ILW disposal facility
- To develop a document

**Activities (2013 – 2016)**
- TM in 2013 to discuss common issues
- TM in 2014 to review draft Safety Report
- TM in 2016 to finalize draft report

**Outcomes**
The final draft “Disposal of Intermediate Level Radioactive Waste” is under preparation for submission to the Publication Committee and is intended to be published as a Safety Report in 2016 – early 2017.
**Objective**
To develop a report and leaflet that include:
- role of human intrusion in context of the safety case
- methodology or process to consider IHI

**Activities (2012 – 2014)**
1\textsuperscript{st} Plenary Meeting in 2012
2\textsuperscript{nd} Plenary Meeting in 2014

**Outcomes**
Project report is developed as a TECDOC and is planned to be submitted to the Publication Committee by September 2016.

**Follow-up**
HIDRA Phase II focusing on the role of assessments of IHI for decision making throughout life cycle of the safety case was launched at the 1\textsuperscript{st} Plenary in January 2016.
Thank you!