Waste Safety Standards Committee
39th Meeting
29 -30 June 2015
Agenda item W.1.5
Report from the 38th WASSC meeting

G. Williams, WASSC Chair
G. Siraky, WES-NSRW
Significant issues at this 38th meeting of WASSC were:

- joint sessions with RASSC and NUSSC;
- opportunity to discuss collectively the suite of Safety Guides on protection of the public and the environment as a whole pack;
- discussion and approval in joint sessions of 5 SGs and one DPP led by WASSC, in support of BSS, GSR Part 5, GSR Part 6 and NS-R-5;
- other SS documents reviewed 1 SSR, 2 SGs, 2 DPPs;
- 7 Feedback Reports from the Secretariat; 4 from WASSC members and 2 from IOs.
Documents approved (1/2)

- One Draft Safety Requirement document approved for submission to MS for comment:
  - DS476, “Safety of Research Reactors” (N/R/W)

- Four Draft Safety Guides approved for submission to MS for comment:
  - DS432, “Radiation Protection of the Public and the Environment” (N/R/W)
  - DS427, “A general framework for prospective radiological environmental impact assessment and protection of the public” (N/R/W)
  - DS442, “Regulatory Control of Radioactive Discharges to the Environment” (Revision of WS-G-2.3) (N/R/W)
  - DS452, “ Decommissioning of Nuclear Power Plants, Research Reactors and Other Nuclear Fuel Cycle facilities” (revision & consolidation of WS-G-2.1 and WS-G-2.4) (N/R/W)
Documents approved (2/2)

- Three Draft Safety Guides approved for submission to CSS:
  - DS453, “Occupational Radiation Protection” (N/R/W)
  - DS448, “Predisposal Management of Radioactive Waste from Nuclear Reactors” (N/R/W)

- Three DPPs approved for submission to CSS
  - DS489, “Storage of Spent Nuclear Fuel” (revision of SSG-15) (N/W)
  - DS491, “Deterministic Safety Analysis for Nuclear Power Plants” (revision of SSG-2) (N/R/W)
  - DS492, “Human factors engineering in NPPs” (N/W)
Approval of Safety Standards


- DS427 was jointly developed with Member States and UNEP.
- Discussed together with safety guides dealing with protection of the public and the environment (DS432 and DS442). The Committees agreed that the suite of three documents should proceed simultaneously to MS.
- Improvements were agreed with committees to clarify the scope; to ensure consistency in numerical values and concepts with other SS; & to increase simplicity and clarity in the sections on potential exposures and flora and fauna.
- Assessment of protection of flora and fauna and associated numerical criteria were agreed to be moved to an Annex.
- SSC members raised issues with the differences in safety assessments for small and large facilities; preliminary vs detailed assessments; selection of the representative person; & application of a graded approach.

**Action:** Clearance by Chairs of WASSC, RASSC and NUSSC prior to submission to Member States **COMPLETED by 2 March**

Deadline for comments: **20 July 2015**
Approval of Safety Standards

Draft Safety Guide: “Regulatory control of radioactive discharges to the environment” (Revision of WS-G-2.3)

- DS442 was jointly developed with Member States and UNEP.
- Discussed together with the other safety guides dealing with protection of the public and the environment (DS427 and DS432).
- Technical issues discussed included: contribution of tritium and C-14 to the effective committed dose; the definition and use of dose constraints in relation to optimization; use of the concept of representative person; releases during decommissioning; new authorization for discharges during decommissioning; discharges from NORM facilities; and other editorial matters noting that U-mines and disposal facilities are excluded from the scope.
- SSC members discussed the concept of dose constraints and different options for numerical values considering the different cases of multiple installation sites; NPPs, NIs and M&M facilities.

**Action:** Clearance by Chairs of WASSC, RASSC and NUSSC prior to submission to Member States **COMPLETED by 2 March**

Deadline for comments: **20 July 2015**
Approval of Safety Standards

Draft Safety Guide: “Predisposal management of radioactive waste from nuclear fuel cycle facilities” DS447

• Part of the programme to revise thematic SGs and convert them to facility-specific SGs.
• The possibility of combining DS447 with DS448 was dismissed as each document covers a specific topic and need as expressed by the MSs.
• Scope of the SG: focused on the predisposal management of RW from NFCFs, including RW generated from uranium conversion (natural and irradiated), uranium enrichment (centrifuge), uranium/mixed oxide fuel fabrication, spent fuel reprocessing, and centralized RW management facilities.
• Technical issues discussed included: waste without a disposal route; SNF encapsulation plants; terminology and consistency with other SSs.

Action: submission to CSS
Approval of Safety Standards

Draft Safety Guide: “Predisposal management of radioactive waste from nuclear Reactors” DS448

• Part of the programme to revise thematic SGs and convert them to facility-specific SGs.

• The possibility of combining DS447 with DS448 was dismissed as each document covers a specific topic and need as expressed by the MSs.

• Scope of the SG: to include NPPs and RR; while many (general, step/lifecycle) safety provisions would be applicable to other types of reactors, the scope of the SG was not intended to address transportable reactors (e.g. ships, icebreakers, submarines, etc.).

• Technical issues discussed included: categorization of spent ion exchange resins as both solid and liquid RW; management of disused sealed sources; consideration of SNF as waste; terminology and consistency with other SSs.

**Action:** submission to CSS
Approval of Safety Standards


- The structure of the SG follows the structure of GSR Part 6.
- Challenges while developing: guidance to different types of facilities FCF, RR and NPPs; single facilities and large-scale multi-facilities; different decommissioning strategies; criticality concerns for some NFCF; different types and extent of contamination in and around facilities; aspects of decommissioning after an accident.
- Change in title from “Decommissioning of Nuclear Installations” to “Decommissioning of Nuclear Power Plants, Research Reactors and Other Nuclear Fuel Cycle facilities” to reflect better the scope of the document.
- Addition of a paragraph to the scope to specify the types of nuclear facilities that are included in the scope.
- Technical issues discussed included: management systems for decommissioning, and decommissioning following an accident

**Action:** submission to MS for comment – Deadline: 30 April 2015
DPP for a Draft Safety Guide: “Storage of Spent Nuclear Fuel” DS489 (Revision of SSG-15)

- The revision by amendment to incorporate the result of the gap analyses on the SSs based on the feedback from the Fukushima Daiichi Accident.
- The current scope of SSG-15 will be kept.
- The revision by amendment will focus on: Fukushima lessons, strengthening accident management and multiple initiating events.
- Comments accepted to add: more detailed information on affected paragraphs in the FAR; addition of references: changes to add clarification or consistency.
- Discussion on technical details
- The objectives of the document were adjusted after discussion with the SSCs.

**Action:** submission to CSS for approval
Other topics –

Feedback reports from the Secretariat on:

- DS468, draft SG on Remediation process for areas with residual radioactive material (Revision of WS-G-3.1)
- DS459, draft SG on Management of Radioactive Residues from Mining, Mineral Processing, and other NORM related Activities
- DS456, draft SR on Leadership and Management for Safety
- Draft TECDOC on Management of Large Volumes of Radioactive Waste Arising from Nuclear or Radiological Emergencies
- Russian Federation proposals
- ARTEMIS – Integrated Review Service for RW and SFM, decommissioning and remediation programs
- IAEA Fukushima Report - progress
Other topics –

Feedback reports from the WASSC members on implementation of IAEA Safety Standards:

- Egypt
- Belgium
- Finland
- Italy

Reports from the WASSC observers from International Organizations:

- ISO
- EURATOM
Nuclear Security Series Documents cleared

Two draft security Implementing Guides and a DPP were ‘cleared’ to proceed to the next step in their development.

- **NST020** *Sustaining a Nuclear Security Regime* (Implementing Guide)
- **NST041** *Preventive and Protective Measures against Insider Threats* (Implementing Guide)
- **NST051** DPP Security during the Lifetime of a Nuclear Facility.
WASSC38 conclusions

Notable outcomes of the 38th meeting of WASSC were:

• One SR approved for submission to MS, four SGs to MS for comments, three SGs to CSS and three DPPs approved.

• First opportunity to discuss SF management matters - specifically SF responsibility transference - between WASSC and NUSSC members at the time of discussing DS489.

• The three related safety guides dealing with protection of the public and the environment were approved to go simultaneously to MS for approval. The goal of compatibility amongst the suite of three related guides was achieved in discussions between the three committees.
Thank You