40th Meeting of the Radiation Safety Standards Committee
41st Meeting of the Waste Safety Standards Committee

21 – 22 June 2016

Agenda Item RW3.1

Draft Safety Guide on Arrangements for the Termination of a Nuclear or Radiological Emergency (DS474)

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Background

Safety Requirements No. GSR Part 7 (2015)

- **Requirement 18:** Termination of an emergency (transition from an emergency exposure situation to an existing exposure situation or to a planned exposure situation)
Background (cont.)

Safety Requirements No. GSR Part 3 (2011)

- Section IV: Emergency exposure situation
- Requirement 46: Transition from an emergency exposure situation to an existing exposure situation
• **Safety Guide DS474 is intended:**

  – To provide guidance and recommendations in relation to respective Safety Requirements contained in GSR Part 7 and GSR Part 3
  – To addresses the goal of emergency response (para. 3.2 of GSR Part 7):

    “To prepare, to the extent practicable, for the resumption of normal social and economic activity.”
Objective

To provide guidance and recommendations to Member States on developing arrangements at the preparedness stage to respond to a nuclear or radiological emergency in relation to the transition to either an existing exposure situation, or to a planned exposure situation, as appropriate, and the termination of the emergency.

- Including objective and prerequisites for the termination of the emergency
Scope

• Any nuclear or radiological emergency irrespective of the cause
History

- Document Preparation Profile (DPP) prepared
  1Q 2013
- DPP approved by review Committees
  3Q/4Q 2013
- DPP approved by Commission on Safety Standards
  November 2013
- Drafting
  2014 – 2015
- First internal review
  1Q 2016
Activities taken

• 6 Consultancy Meetings (2014 – 2015)
  – 3 – 7 February 2014
  – 30 June – 4 July 2014
  – 15 – 19 December 2014
  – 09 – 13 March 2015

• Technical Meeting
  – 16 – 20 November 2015, Vienna
Ad-hoc Working Group on DS474

• Established in **November 2014**
  – To increase the involvement of international organizations
  – Under the framework of Inter-Agency Committee on Radiological and Nuclear Emergencies (IACRNE)
  – Comprises of representatives of 7 international organizations

• Consultations with relevant international organizations (throughout 2015)
Internal consultations

- Throughout the drafting process (2014-2015) with colleagues working in relevant areas such as:
  - Remediation
  - Radiation protection
  - Radioactive waste management
  - ...
International Conference on Global EPR

• 19 – 23 October 2015, Vienna

• President’s Summary:
  – Recommendation 5: Developing international guidance for the transition phase

“During the Conference, it was recognized that there is a need for a holistic approach when implementing a protection strategy. Challenges and issues were raised regarding the lack of guidance for the termination of a nuclear or radiological emergency and the transitioning to recovery, including remediation.

I recommend that, to address this issue, the IAEA continue to develop guidance on the termination of a nuclear or radiological emergency and the transition to recovery, which should include guidance for adapting and lifting of protective actions.”
RASSC Comments

• Total of **22 comments** received by Romania and WANO

• Resolutions:
  – **9** Comments were accepted (as proposed or with modification)
  – **13** Comments were rejected
RASSC Comments (cont.)

• Table of resolutions of comments and updated draft made available early May

• To be shared:
  – Only few relevant comments with focus on those comments/aspects that were rejected
Most comments rejected due to...

- Changes to wording in the requirements contained in GSR Part 3 and GSR Part 7 when referred
- Proposed additions in a few paragraphs as the issue proposed is covered in the next paragraphs of the text
Delay the discussion on DS474

- ICRP revises publications 109 and 111, so discussion on DS474 should be delayed until ICRP finalizes these revisions

- **Response:**
  - ICRP 109 and 111 and their revisions will be based on ICRP 103 that is not subject to revision
  - DS474 considers ICRP 103 recommendations
  - Close cooperation with ICRP established and maintained during DS474 development and consistency in approaches was confirmed at the Technical Meeting in November 2015
Duration of the transition phase

• Duration of the transition phase should be expanded to ‘years’ for large scale emergencies as the clean-up and remediation (as seen in the past) can extend for many years

• **Response:**
  – Clean-up and remediation should not be completed to terminate the emergency
  – Clean-up and remediation will extend in the longer term within the framework of an existing exposure situation
  – DS468 addresses these aspects consistently with DS474
Delete recommendations on timeframes to terminate the emergency

• Timeframes to terminate the emergency are based on model calculations. In reality, they will considerably differ, thus they are of limited benefit.

• **Response:**
  – Recommended timeframes derive from studies of past emergencies and national experiences
  – Important for planning purposes (e.g. for allocation of resources and responsibilities and for planning the work and various activities)
Delete reference to public self-help actions

• Delete para. 4.31 referring to public self-help actions as they could give impression that authorities are unable to cope with the situation

• Response:
  – Aim of these actions is clarified in the paragraph to avoid any misinterpretation that they are intended to substitute those actions expected to be decided by authorities
  – Important lesson from past emergencies
Non-cancer effects in monitoring programmes

• Delete sentence that ‘the inclusion of non-cancer health effects in monitoring programme should be carefully considered.’

• Response:
  – Developed by respective medical community with relevant experience and in cooperation with WHO
  – Basis documented (includes the UNSCEAR report of 2006)
WASSC Comments

• Total of 28 comments received by South Africa

• Resolutions:
  – 9 Comments were accepted (as proposed or with modification)
  – 19 Comments were rejected
WASSC Comments (cont.)

• Table of resolutions of comments and updated draft made available early May

• To be shared:
  – Only few relevant comments with focus on those comments/aspects that were rejected
Most comments rejected because…

• Proposed changes (primarily editorial) are not in line with SPESS C guidance for drafters and Style Manual for IAEA publications

• Proposed terminology is not in line with the terminology of IAEA Safety Standards Series and the Safety Glossary

• Proposed changes in the structure/contents are not in line with approved DPP

• Combining of paragraphs on various topics without any change in the meaning
Develop standalone strategy document

• Protection strategy is important section and should be considered as a standalone document;
• Protection of emergency workers and helpers to be part/combined with the strategy document.

• **Response:**
  – Both sections provide important guidance on the transition phase in line with GSR Part 7 and approved DPP
  – EPR Series publication on Protection Strategy is under development to cover overall emergency
Expected action

• Approval for submission to Member States and relevant international organizations for soliciting comments