Joint Meeting of the 38th Nuclear Safety Standards Committee
37th Radiation Safety Standards Committee /
38th Waste Safety Standards Committee

26-27 November 2014

Agenda Item NRW 6.2

DS432: Draft Safety Guide: Radiation Protection of the Public and the Environment

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IAEA
International Atomic Energy Agency
Hierarchy of Safety Standards

- **Safety Fundamentals**
- **General Safety Requirements**
  - Applicable to all facilities and activities
- **Specific Safety Requirements**
  - Applicable to specified facilities or activities
- **General Safety Guides**
  - Applicable to all facilities and activities
- **Specific Safety Guides**
  - Applicable to specified facilities or activities
General Safety Requirements

- GSR Part 3: Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards

- GSR Part 7: Preparedness and Response for a Nuclear or Radiological Emergency

- GSR Part 1: Governmental, Legal and Regulatory Framework for Safety
## Structure for SG for public and environment

<table>
<thead>
<tr>
<th>Planned</th>
<th>Emergency</th>
<th>Existing</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS432 (radiation protection of the public and the environment)</td>
<td></td>
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<tr>
<td>DS401 (justification) DS458 (consumer products) DS442 (discharges) DS427 (environmental impact analysis)</td>
<td>GS-G-2.1 (arrangements for preparedness ..) GSG-2 (criteria for use ...)</td>
<td>DS421 (radon, building materials) DS468 (remediation)</td>
</tr>
</tbody>
</table>

Safety Guides for specific facilities and activities (NPP (NS-G-1.13, NS-G-2.7), RR (NS-G-4.6), medical uses (DS399), transport (TS-G-1.3) etc.)
Objective

- To clarify the principles of protection of members of the public and the environment against radiation exposure in planned, emergency and existing exposure situations, and to provide generic guidance on their application to governments, regulatory bodies, registrants and licensees, and organizations designated to deal with emergency exposure situations and existing exposure situations.
- This is a General Safety Guide.
- The guidance is intended to underpin the development of facility and activity specific Safety Guides and other relevant documents dealing with this area of protection to ensure a consistent approach.
Current structure of DS432

- Introduction
- Framework
  - Exposure situations
  - Radiation Protection Principles
    - Justification
    - Optimization
    - Dose Limits
  - Responsibilities
  - Graded Approach
- Radiation Protection of the Public
  - Planned
  - Emergency
  - Existing
- Protection of the Environment
- Appendix I
  - Framework for source related dose constraints and reference levels
Comments from Committee Members

- DS432 was posted on Committees web page on 1 Oct
- Comments received from:
  - Argentina: 10 comments
  - China WASSC: 1 comment
  - Germany RASSC and WASSC: 44 comments
  - Japan RASSC and WASSC: 31 comments
  - Sweden: 21 comments
  - USA: 2 comments
  - ENISS: 10 comments
  - WNA: 7 comments
- Total 126 comments
Comments from Committee Members

• Most of the comments are editorial, and are accepted.

• Some comments are seeking a change to text quoted from GSR Part 3, and so were not accepted.

• Some other comments relating to terms used in Section on Protection of Environment, require further review by Secretariat.

• Comment to delete Appendix 1 rejected as it is considered appropriate to include all of the information in the Table in the Safety Guide.
Comments from Committee Members

• Comment:

  • The document repeats requirements contained in GSR Part 3 and GSR Part 7, and contains little or no new additional guidance. The document needs to be further developed. (ENISS, Germany, USA)

• Response: It is usual approach to repeat requirements in a SG. The approach in DS432 is uneven: responsibilities and graded approach is essentially “cut and paste”, as this was considered all that was necessary. The application of the radiation protection principles contains guidance.
Comments from Committee Members

• Comments:

• Section 4 – Protection of the environment: No specific guidance is provided, but refers to an earlier concept of “if human is protected, nature is protected”, and to a second approach that is developed in DS427. This Section needs to be further developed.

• Response: DS432 briefly presents two approaches for protection of the environment based on GSR Part3 and ICRP. The detail is to be found in another Safety Guide (DS427). Assessment of plants and animals to be found in an Annex to DS427.
Comments from Committee Members

- **Comment:**
  - Delete Appendix 1: the contents are more than just public exposure (it also contains reference levels for occupational exposure and for comforters and carers). Such detailed information is deemed to be not appropriate for the intent of this document.

- **Response:** It is considered that the Appendix provides useful information and should be included in the Safety Guide.
• Request approval to submit to Member States for comment.