

Document Preparation Profile (DPP) Version 3 dated 25.07.2013

1. IDENTIFICATION

| | |
|--------------------------------------|--|
| Document Category | Safety Guides |
| Working ID: | DS477 |
| Proposed Title: | The Management System for the Predisposal and Disposal of Radioactive Waste |
| Proposed Action: | <p>To combine and supersede the following Safety Guides;</p> <ul style="list-style-type: none"> • “The Management System for the Processing, Handling and Storage of Radioactive Waste”, 2008, Safety Guide, IAEA No. GS-G-3.3 • “The Management System for the Disposal of Radioactive Waste”, 2008, Safety Guide, IAEA No. GS-G-3.4 |
| Review Committee(s) or Group: | <u>WASSC</u>, NUSSC, RASSC, TRANSSC, NSGC (interface document) |
| Technical Officer(s): | Y. Kumano, NSRW |

2. BACKGROUND

The ROADMAP on the Long-Term Structure of Safety Standards (May 2008) points out that the Safety Standards should be user-friendly with a view to facilitating the use of the Safety Standards by Member States.

In order to meet this, the following goal has been clarified to guide work on Safety Guides;

To have a manageable number of standards by:

- Limiting the number of Safety Guides in the thematic areas to those of a generic nature;
- Developing Safety Guides in the facility specific areas that cover the whole lifetime of the facility (site evaluation, design, commissioning, operation and decommissioning);
- Identifying among the facility specific guides those that may be applicable to several types of facilities so as to avoid the establishment of guides addressing the same topical issue for different types of facilities/activities;
- Including, wherever possible, additional topics as part of the revision of existing Safety Guides, rather than by developing new Safety Guides.

Requirement 6 of GSR Part 5 (Safety Requirements on Predisposal Management of Radioactive Waste) states that “Interdependences among all steps in the predisposal management of radioactive waste, as well as the impact of the anticipated disposal option, shall be appropriately taken into account.” ”Owing to the interdependences among the various steps in the predisposal management of radioactive waste, all activities from the generation of radioactive waste up to its disposal, including its processing, are to be seen as parts of a larger entity, and the management elements of each step have to be selected so as to be compatible with those of the other steps.” In addition, Requirement 7 of GSR Part 5 states that “Management systems shall be applied for all steps and elements of the predisposal management of radioactive waste”.

Currently, there are two IAEA Safety Guides on the management system for waste management:

- GS-G-3.3 on the Management System for the Processing, Handling and Storage of Radioactive Waste
- GS-G-3.4 on the Management System for the Disposal of Radioactive Waste.

These two Safety Guides provide recommendations on the management systems for predisposal and disposal of radioactive waste to meet the requirements established in the Management System for Facilities and Activities, GS-R-3.

Recently, the revision of GS-R-3 was initiated. This revision (DS456), which will reinforce safety, ensures a better alignment with the Safety Fundamentals, SF-1, and takes into account the feedback from Member States' application, will be published as a new General Safety Requirement, GSR Part 2 (Leadership and Management for safety).

In order to keep consistency with the corresponding Safety Requirements, and in agreement with the outcomes of the 29th meeting of the WASSC it is proposed to review and combine GS-G-3.3 and GS-G-3.4 into a Safety Guide on The Management System for Predisposal and Disposal of Radioactive Waste.

3. JUSTIFICATION FOR THE PRODUCTION OF THE DOCUMENT

The revision of GS-G-3.3 and GS-G-3.4 is in line with the revision process of related safety requirement, GS-R-3. The proposal to review and combine two existing guidance documents into one single document is in line with the discussion and agreement at the WASSC 29th meeting. It is also consistent with the concept of the ROADMAP on the Long-Term Structure of Safety Standards to pursue user-friendliness by maintaining a manageable number of Safety Standards.

4. OBJECTIVE AND SCOPE

The objective of this Safety Guide is to provide updated guidance on developing and implementing management systems for both predisposal and disposal of radioactive waste. The management systems considered in this Safety Guide is intended to be applied to the processing (i.e. pretreatment, treatment, and conditioning), handling, storage, and also to the lifecycle of radioactive waste disposal facilities .

The Safety Guide is intended to be used by regulatory bodies, organizations that are directly involved in the waste management activities, and the suppliers of the waste.

It is important that the development of the Safety Guide will be carried out in parallel to the establishment of GSR Part 2. As well, the new Safety Guide will provide recommendations to meet the safety requirements on management systems given in GSR Part 5 and SSR-5.

5. PLACE IN THE OVERALL STRUCTURE OF THE RELEVANT SERIES AND INTERFACES WITH EXISTING AND/OR PLANNED PUBLICATIONS

The proposed Safety Guide will be developed as a part of the IAEA Safety Standards Series. The guide will derive its principles from SF-1. Due account will be given to existing Safety Requirements, in particular GSR Part 5, SSR-5, and GSR Part 2 that is under development. As applicable, it will also be coordinated with the development and revision of other relevant IAEA Safety Standards and guidance under development.

This Safety Guide will interface with the following IAEA Safety Standards and related international conventions and internationally recognized standards:

1. Fundamental Safety Principles, Safety Standards Series No. SF-1, IAEA, Vienna (2006);

2. Predisposal Management of Radioactive Waste, Safety Standards Series No. GSR Part 5, IAEA, Vienna (2009);
3. Disposal of Radioactive Waste, Safety Standards Series No. SSR-5, IAEA, Vienna (2011);
4. Regulations for the Safe Transport of Radioactive Material 2012 Edition, Safety Standards Series No. SSR-6, IAEA, Vienna (2012)
5. Storage of Radioactive Waste, Safety Standards Series No. WS-G-6.1, IAEA, Vienna (2006);
6. Storage of Spent Fuel, Safety Standards Series No. SSG-15, IAEA, Vienna (2012);
7. The Safety Case and Safety Assessment for the Predisposal Management of Radioactive Waste, Safety Standards Series No. GSG-3, IAEA, Vienna (2013);
8. The Safety Case and Safety Assessment for the Disposal of Radioactive Waste, Safety Standards Series No. SSG-23, IAEA, Vienna (2012);
9. Geological Disposal Facilities for Radioactive Waste, Safety Standards Series No. SSG-14, IAEA, Vienna (2011);
10. The Management System for the Safe Transport of Radioactive Material, Safety Standards Series No. TS-G-1.4, IAEA, Vienna (2008).
11. Application of the Management System for Facilities and Activities, Safety Standards Series No. GS-G-3.1, IAEA, Vienna (2006).

The Safety Guide will interface with the following documents under development:

12. Leadership and Management for Safety, General Safety Requirements No. GSR Part 2 (DS456);
13. Governmental, Legal and Regulatory Framework for Safety, General Safety Requirements No. GSR Part 1 Rev. 1 (DS462);
14. Predisposal Management of Radioactive Waste from Fuel Cycle Facilities (DS447);
15. Predisposal Management of Radioactive Waste from Reactors (DS448);
16. Predisposal Management of Waste from the Use of Radioactive Materials in Medicine, Industry, Agriculture, Research and Education (DS454).
17. Near Surface Disposal Facilities for Radioactive Waste (DS356)
18. Monitoring and Surveillance of Radioactive Waste Disposal Facilities (DS357)
19. Regulatory control of radioactive releases to the environment from facilities and activities (DS442)
20. Management of Radioactive Residues from Mining, Mineral Processing, and other NORM related Activities (DS459)
21. Advisory Material for the IAEA Regulations for the Safe Transport of Radioactive Material (DS425)

The guide will supersede following Safety Guides;

- “The Management System for the Processing, Handling and Storage of Radioactive Waste”, GS-G-3.3
- “The Management System for the Disposal of Radioactive Waste”, GS-G-3.4

6. OVERVIEW

The Safety Guide will follow the structure of GSR Part 2, Leadership and Management for Safety. Related Requirements in GSR Part 2 should be referred as they appear in this new Safety Guide so that readers can easily understand the continuity with the Safety Requirements. The Safety Guide should take care of interrelationship between the predisposal and disposal phases.

A provisional table of contents of the proposed Safety Guide is attached. Note that the attached provisional table of contents might be revised taking into account the new structure of the GSR Part 2.

7. PRODUCTION SCHEDULE: Provisional schedule for preparation of the document, outlining realistic expected dates for:

| | |
|--|----------------------|
| | A* |
| STEP 1: Preparing a DPP | DONE |
| STEP 2: Approval of DPP by the Coordination Committee | DONE |
| STEP 3: Approval of DPP by the relevant review Committees | Q3 2013 |
| STEP 4: Approval of DPP by the CSS | Q4 2013 |
| STEP 5: Preparing the draft | Q4 2013 - Q4 2014 |
| STEP 6: Approval of draft by the Coordination Committee | Q1 2015 |
| STEP 7: Approval by the relevant review Committees for submission to Member States for comments | Q3 2015 |
| STEP 8: Soliciting comments by Member States | Q1 2016 |
| STEP 9: Addressing comments by Member States | Q2 2016 |
| STEP 10: Approval of the revised draft by the Coordination Committee Review in NS-SSCS | Q3 2016 |
| STEP 11: Approval by the relevant review Committees | Q4 2016 |
| STEP 12: Endorsement by the CSS | Q1 2017 |
| STEP 13: Establishment by the Publications Committee and/or Board of Governors (for SF and SR only)) | Q2 2017 |
| STEP 14: Target publication date | Q1 2018 |

8. RESOURCES

Staff: 25 staff weeks

Consultants: 18 consultant weeks

ATTACHMENT

Proposal for the content of the draft Safety Guide on “The Management System for the Predisposal and Disposal of Radioactive Waste”

1. INTRODUCTION
 - Background
 - Objective
 - Scope
 - Structure
2. RESPONSIBILITY FOR SAFETY
3. LEADERSHIP FOR SAFETY
4. MANAGEMENT FOR SAFETY
 - Integrated management system
 - Graded approach
 - Goals, strategies, plans and objectives
 - Resources
 - Documentation
 - Measurement, assessment, evaluation and improvement
 - Interested Parties
 - Management of Suppliers
5. SAFETY CULTURE
 - Continuous improvement of safety culture
 - Assessment of safety culture and leadership for safety

APPENDIX I: SPECIFIC ASPECTS ON MANAGEMENT SYSTEM FOR THE PROCESSING, HANDLING AND STORAGE OF RADIOACTIVE WASTE

APPENDIX II: SPECIFIC ASPECTS ON MANAGEMENT SYSTEM FOR THE DISPOSAL OF RADIOACTIVE WASTE