

Document Preparation Profile (DPP)

1. IDENTIFICATION

Document Category **General Safety Requirements**

Working ID: **DS457**

Proposed Title: **Preparedness and Response for a Nuclear or Radiological Emergency**

Proposed Action: **Revision of a document**

**Preparedness and Response for a Nuclear or Radiological Emergency,
2002, GS-R-2**

Review Committee(s) or Group: **RASSC, TRANSSC, WASSC and NUSSC**

Technical Officer(s): **E.Buglova (IEC), C. Nogueira de Oliveira (NSNS)**

2. BACKGROUND/RATIONALE

In 2002 the IAEA's Board of Governors approved a Safety Requirements publication Preparedness and Response for a Nuclear or Radiological Emergency (GS-R-2), jointly sponsored by seven international organizations. The requirements were built on experience from response to actual emergencies which gave them specific value. After the publication the requirements were applied by authorities at the national level by means of adopting legislation, establishing regulations and assigning responsibilities.

The requirements have proven to be useful as a safety standard for emergency preparedness and response. Member States have used GS-R-2 as a primary reference for developing or enhancing national capabilities to respond to radiation emergencies since it was published.

The time now seems ripe to revise GS-R-2 as Part 7 of General Safety Requirements of the IAEA Safety Standards Series. The revised requirements, if complied with, will continue to ensure an adequate level of emergency preparedness and will improve the efficiency of not only national but also international preparedness for radiation emergency response.

3. OBJECTIVE

The objectives of revision of **GS-R-2** are:

- To take into account the feedback obtained from Member States implementing/applying the requirements;
- To take into account lessons identified in response to recent emergencies and especially response to Fukushima nuclear emergency;
- To consider relationship/coordination among safety and security authorities;
- To develop requirements for international preparedness and response;
- To consider new aspects in the ICRP recommendations; and
- To bring up-to-date references and citations and to improve its internal consistency.

4. JUSTIFICATION

The revision of the Safety Requirements on Preparedness and Response for a Nuclear or Radiological Emergency is justified as the existing Requirements were developed during the period 1996-2002 and major changes have occurred since then in the area of emergency preparedness and response including strategy of emergency response and criteria for use in preparedness and response for a nuclear or radiological emergency.

The 2007 Recommendations of the International Commission on Radiological Protection also lead to the updating and revision of all the relevant safety standards on preparedness and response to emergency exposure situation. Currently the new overall structure of the IAEA Safety Standards Series is developed and Safety Requirements on Preparedness and Response for a Nuclear or Radiological Emergency have to be revised as a Part 7 of General Safety Requirements of the IAEA.

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

This is a Part 7 of General Safety Requirements which is included in the document “Long Term Structure of the IAEA Safety Standards and Current Status” (2011) paralleling the proposed other parts(Part 1 - Part 6) of General Safety Requirements of the IAEA.

This Part 7 of General Safety Requirements will be:

- a) developed in co-sponsorship with FAO, ILO, OECD/NEA, PAHO OCHA, WHO and possibly other relevant international organizations is regarded as very important and is being actively sought. While the involvement of other organizations will make the production process more complex, the resulting document should benefit from the improved status, and be of more use to Member States and international organizations participating in Joint Radiation Emergency Management Plan of the International Organizations.
- b) developed with general support of this revision has been given by the Competent Authorities identified under the Early Notification and Assistance Conventions.

While RASSC will co-ordinate the document preparation, WASSC, NUSSC and TRANSSC should participate since emergency preparedness and response issues are cross-cutting.

Part 7 of General Safety Requirements will supersede the following Safety Requirements;

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL LABOUR ORGANIZATION, OECD NUCLEAR ENERGY AGENCY, PAN AMERICAN HEALTH ORGANIZATION, UNITED NATIONS OFFICE FOR THE CO-ORDINATION OF HUMANITARIAN AFFAIRS, WORLD HEALTH ORGANIZATION, Preparedness and Response to a Nuclear or Radiological Emergency, Safety Standards Series No. GS-R-2, IAEA, Vienna (2002).

This Part 7 of General Safety Requirements will interface with the following International conventions and Safety Standards

1. INTERNATIONAL ATOMIC ENERGY AGENCY, Convention on Early Notification of a Nuclear Accident and Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, Legal Series No. 14, IAEA, Vienna (1987).
2. EUROPEAN ATOMIC ENERGY COMMUNITY, FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL LABOUR ORGANIZATION, INTERNATIONAL MARITIME ORGANIZATION, OECD NUCLEAR ENERGY AGENCY, PAN AMERICAN HEALTH ORGANIZATION, UNITED NATIONS ENVIRONMENT PROGRAMME, WORLD HEALTH ORGANIZATION, Fundamental Safety Principles, Safety Standards Series No. SF-1, IAEA, Vienna (2006).
3. INTERNATIONAL ATOMIC ENERGY AGENCY, Governmental, Legal and Regulatory Framework for Safety, General Safety Requirements, GSR Part 1 (2010).
4. INTERNATIONAL ATOMIC ENERGY AGENCY, Safety Assessment for Facilities and Activities General Safety Requirements, GSR Part 4 (2009).

5. FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL LABOUR ORGANIZATION, PAN AMERICAN HEALTH ORGANIZATION, UNITED NATIONS OFFICE FOR THE CO-ORDINATION OF HUMANITARIAN AFFAIRS, WORLD HEALTH ORGANIZATION, Arrangements for Preparedness for a Nuclear or Radiological Emergency, Safety Standard Series No. GS-G-2.1, IAEA, Vienna (2007).
6. FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL LABOUR ORGANIZATION, PAN AMERICAN HEALTH ORGANIZATION, WORLD HEALTH ORGANIZATION, Criteria for Use in Preparedness and Response for a Nuclear or Radiological Emergency, Safety Standard Series No. GSG-2, IAEA, Vienna (2011).
7. INTERNATIONAL ATOMIC ENERGY AGENCY, Planning and Preparing for Emergency Response to Transport Accidents Involving Radioactive Material, Safety Standard Series No. TS-G-1.2 (ST-3), IAEA, Vienna (2002).
8. INTERNATIONAL ATOMIC ENERGY AGENCY, Remediation process for areas affected by past activities and accidents, Safety Standard Series No. WS-G-3.1, IAEA, Vienna (2007)

The following draft standards also interface with the proposed Part 7 of General Safety Requirements:

9. International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources (Revised BSS – In preparation), DS379.

This Part 7 of General Safety Requirements will interface with the following Security recommendations

10. INTERNATIONAL ATOMIC ENERGY AGENCY, Nuclear Security Culture, Nuclear Security Series No. 7, IAEA, Vienna, 2008
11. INTERNATIONAL ATOMIC ENERGY AGENCY, EUROPEAN POLICE OFFICE, INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL CIVIL AVIATION ORGANIZATION, INTERNATIONAL CRIMINAL POLICE ORGANIZATION–INTERPOL, UNITED NATIONS INTERREGIONAL CRIME AND JUSTICE RESEARCH INSTITUTE, UNITED NATIONS OFFICE ON DRUGS AND CRIME AND WORLD CUSTOMS ORGANIZATION, Nuclear Security Recommendations on Nuclear and Other Radioactive Material out of Regulatory Control, Nuclear Security Series No.15, IAEA, Vienna, 2011.

The following recommendations of the ICRP also interface with the proposed Part 7 of General Safety Requirements;

12. INTERNATIONAL COMMISSION ON RADIOLOGICAL PROTECTION, Assessing Dose of the Representative Person for the Purpose of Radiation Protection of the Public and The Optimisation of Radiological Protection: Broadening the Process, ICRP Publication 101. Ann ICRP Vol. 36 No. 3, Elsevier (2006).
13. INTERNATIONAL COMMISSION ON RADIOLOGICAL PROTECTION, The 2007 Recommendations of the International Commission on Radiological Protection, ICRP Publication 103, Ann. ICRP 37 (2–4), Elsevier (2007).
14. INTERNATIONAL COMMISSION ON RADIOLOGICAL PROTECTION, Application of the Commission's Recommendations for the Protection of People in Emergency Exposure Situations, ICRP Publication 109, Ann. ICRP 39 (1), Elsevier (2009).

6. OVERVIEW

Generally the structure of the revised document will follow the GS-R-2, which is proven to be useful for practical application and has tight links to the relevant IAEA documents in the area of emergency preparedness and response. In an introductory part the document will cover background information for emergency preparedness and response; applicable international instruments, as well as objectives and scope of the document.

The content of the document will be divided into Introduction and six main Chapters. Each chapter will provide a number of key requirements, supported by explanation and clarification.

Principles and objectives will cover goals of emergency preparedness and response; and generic preparedness and response strategy.

General requirements will cover issues related to identifying and specifying roles and responsibilities at national level. It will also contain the roles and responsibilities of the IAEA and other relevant international organizations in emergency preparedness and response.

Functional requirements and **requirements for infrastructure** will contain both requirements at the stages of preparedness and response. The response requirements must be met to achieve the practical goals of emergency response. In order to ensure that there is a capability to meet these response requirements, the requirements for preparedness apply as part of the planning and preparedness process.

Functional requirements will specify what standards 'shall be' met in carrying out the various response functions, including assessment of facility or source conditions; notification and activation; mitigation; urgent protective actions; public instructions; emergency workers protection; medical assistance; public information; longer-term protective actions and agricultural countermeasures; personal contamination and overexposure; psychological impact mitigation. **Requirements for infrastructure** will cover legal authority, organisational roles and responsibilities; response coordination; plans and procedures, logistics support; training, drills and exercises and quality assurance programme.

International Requirements will elaborate on the requirements for preparedness and response at international level based on international instruments/conventions. It will define the threshold for reporting events and ensure that malicious acts that have radiological consequences are reported to affected Member States and the Agency.

7. PROPOSED CONTENT:

This Part 7 of General Safety Requirements will have the following contents.

Preparedness and Response for a Nuclear or Radiological Emergency. General Safety Requirements Part 7.

1. INTRODUCTION
2. PRINCIPLES AND OBJECTIVES
3. GENERAL REQUIREMENTS
4. FUNCTIONAL REQUIREMENTS
5. REQUIREMENTS FOR INFRASTRUCTURE
6. REQUIREMENTS FOR INTERNATIONAL PREPAREDNESS AND RESPONSE
7. REFERENCES

ANNEXES

8. PRODUCTION SCHEDULE:

STEP 1: Preparing a DPP	DONE
STEP 2: Approval of DPP by the Coordination Committee	31/3/2011
STEP 3: Approval of DPP by the Safety Standards Committees or the relevant group where appropriate	IIQ 2011
STEP 4: Approval of DPP by the CSS	IVQ 2011
STEP 5: Preparing the draft	2011 - 2012
STEP 6: Approval of draft by the Coordination Committee	IQ 2012
STEP 7: Approval by the Safety Standards Committees for submission to Member States for comments or the relevant group where appropriate	IIQ 2012
STEP 8: Soliciting comments by Member States	IIIQ 2012
STEP 9: Addressing comments by Member States	IQ 2013
STEP 10: Approval of the revised draft by the Coordination Committee Review in NS-SSCS	IIQ 2013
STEP 11: Approval by the Safety Standards Committees for submission to the CSS or the relevant group where appropriate	IIQ 2013
STEP 12: Endorsement by the CSS	IVQ 2013
STEP 13: Establishment by the Publications Committee and/or Board of Governors	IVQ 2013
STEP 14: Target publication date	2014

9. RESOURCES

Estimated resources involved by the Secretariat:	120 person-weeks,
Estimated resources involved by the Member States:	6 consultancies, 2 technical meetings.