Document Preparation Profile (DPP)

1. IDENTIFICATION

Document Category:	**Safety Guide**
Working ID:	**DS455**
Proposed Title:	**Establishing a National Radiation Safety Infrastructure**
Proposed Action:	**New document**
Review Committee(s):	**RASSC, WASSC, TRANSSC**
Technical Officer(s):	**Teodros Hailu, Ibrahim Shadad, Hazem Suman**

2. BACKGROUND/RATIONALE

IAEA safety standards set up requirements and provide guidance for establishing and implementing national safety infrastructure in the Member States to ensure adequate protection of people and the environment against the harmful effects of ionizing radiation. The national safety infrastructure includes: legal and regulatory framework, arrangements for education and training, arrangements for technical services and arrangement for addressing other societal concerns which extend beyond the legal responsibilities of the authorized parties.

A wide range of services is offered by the IAEA to assist Member States that have no nuclear industry, and do not plan to develop one in the foreseeable future, in applying the Standards and appraise their effectiveness. Notable experience on establishing national radiation safety infrastructure in accordance with IAEA safety standards was gained through the Technical Cooperation Model Project on upgrading radiation safety infrastructure (1994 - 2004) in which around 100 countries participated. In the Model Project approach, all thematic safety areas were considered collectively and integrated road maps were designed for each participating State to upgrade its national radiation safety infrastructure within the scope of the project. Since 2005, the Model Project has been superseded by parallel thematic safety areas programmes.

The experience gained from the Model Project and subsequent thematic safety areas projects has proven the benefit of an integrated roadmap for establishing or strengthening radiation safety infrastructure in accordance with the IAEA Safety Standards in particular in countries having poor or no such infrastructure. Due to the absence of such integrated roadmap guidance document, numerous Member States face difficulties finding the starting point for initiating the establishment of radiation safety infrastructure, and the way for applying the safety standards in an efficient and effective manner, and have reported these difficulties to the Secretariat, asking for further assistance..

It would be of great benefits for the Member States, as well as for the IAEA safety standards programme itself, to provide a guidance document that help Member States, in particular those with poor radiation safety infrastructure, in keeping an overview of all actions needed to establish or strengthen safety infrastructure, and in designing a specific roadmap that takes into consideration their specific national circumstances and ensure achieving that goal in an effective and efficient manner.

3. OBJECTIVE

The proposed safety guide will provide guidance on the application of IAEA safety standards for establishing or strengthening the national radiation safety infrastructure that provides a sound foundation for assurance of a sustainable high level of radiation safety in Countries that do not have, and do not plan to have a national nuclear power programme in the near future, but where radiation sources are used in medicine, industry and research.

The proposed safety guide will provide Member States in the early phases of establishing radiation safety infrastructure with a roadmap elaborating the activities to be progressively made towards building a sound infrastructure in accordance with the IAEA safety standards. Countries having already elements of radiation safety infrastructure in place will find advice in the proposed safety guide on analysing their status, identifying their needs and designing a roadmap to bring the existing infrastructure in compliance with IAEA safety standards.

The proposed safety guide is also intended to contribute to the early building of a strong leadership for safety and safety culture, to promote sustainability, and to emphasize the importance of continuous self-assessment by Member States developing their national radiation safety infrastructure.

4. JUSTIFICATION

Continuous evaluation of the radiation safety infrastructure in Member States with no national nuclear power programme reveals that many countries do not have yet adequate radiation safety infrastructure in place. In addition to several other countries, most of the countries that have recently joined the Agency lack such radiation safety infrastructure. In some other countries, elements of radiation safety infrastructure exist, but there is need for significant improvements.

It is often difficult for such countries to find the most efficient way for establishing or strengthening their national safety infrastructure in accordance with the IAEA safety standards and their national circumstances. In particular, it is often a challenge to establish an integrated approach that provides for a balanced build-up of the necessary elements of the national safety infrastructure in all areas, i.e. regulatory framework, occupational exposure, public exposure and emergency situations.

Thus a guidance document is needed which helps the countries in designing a specific roadmap for establishing or strengthening safety infrastructure in accordance with the Safety Standards in an effective and integrated manner, taking the specific national circumstances into full consideration.

Such document would also be very useful for the safety standards programme itself. By becoming an integral part of the set of Safety Standards, this guide will contribute to improving the inherent applicability of the safety standards.

Similar safety guide was established through DS424, which was welcomed by countries embarking upon nuclear power. The proposed guide intends to fill a similar gap in the radiation safety area, for countries that are not interested in developing such a nuclear power programme in the foreseeable future, but willing to use radiation technologies in all other possible fields.

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

The proposed safety guide belongs under the general safety guide on “Establishing a National Safety Infrastructure” as foreseen in the long term structure of safety standards. It will have interfaces with all safety standards addressing radiation safety infrastructure, in particular the following:

- SF-1
- GSR Part 1
- BSS (or GSR Part 3 when established)
- GS-R-2
- GS-R-3
- WS-R-1
- WS-R-5
- TS-R-1
- GS-G-1.1
- GS-G-1.4
- GS-G-1.5
- GS-G-1.9
- DS424

The proposed Safety Guide will have also interfaces with the following IAEA documents:

- Code of Conduct on Safety and Security of Radioactive Sources
- Legal Series – Handbook of Nuclear Law

6. OVERVIEW

The safety guide will provide guidance on gradual application of safety standards towards the establishment of a radiation safety infrastructure. It is not intended to create new standards, but rather to provide advice on linking safety standards provisions together and applying them coherently.

The Guide will make a distinction between two phases: the early phase before promulgating a radiation safety law (hereafter called “pre-law phase”), and the phase after (the “post-law phase”). In the pre-law phase, the government has to designate a leading organization and to perform initial regulatory activities within the existing legal framework. In the pot-law phase, the regulatory body would have been established and the responsibilities for safety would have been clearly allocated. In certain areas of the national radiation safety infrastructure, activities may be started early in the pre-law phase and continued in the post-law phase.

The guide will provide advice on designing a roadmap for establishing radiation safety infrastructure from scratch. However, it will also provide advice for those countries, which have already certain elements of safety infrastructure in place, to analyse their needs and design a specific roadmap that fits for their circumstances.

Advice on taking national circumstances into account, the pace of developing infrastructure elements, a balanced approach that considers safety as whole, and sustainability will also be addressed in the proposed Guide. Experience gained through the Model project and subsequent safety related TC projects will be considered.

Outline of the proposed table of contents

1. Introduction
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   - 1.2. Objective
   - 1.3. Scope
   - 1.4. Structure

2. Pre-law Phase

   - 2.1. Actions taking place exclusively in the pre-law phase
     - 2.1.1. Preparatory actions by the government
     - 2.1.2. National policy and strategy
     - 2.1.3. Drafting radiation safety law
     - 2.1.4. Initial regulatory activities within existing governmental framework

   - 2.2. Actions which start in the Pre-law phase and continue in the post-law phase
     - 2.2.1. National coordination
     - 2.2.2. Building competence in safety
     - 2.2.3. Establishing technical services
     - 2.2.4. Emergency Preparedness and Response
     - 2.2.5. Radioactive Waste Management
     - 2.2.6. Interface with security
     - 2.2.7. International cooperation

3. Post-law phase

   - 3.1. Actions starting in the post-law phase
     - 3.1.1. Establishing regulatory framework
     - 3.1.2. Organizational structure and competence of RB
     - 3.1.3. Information dissemination
     - 3.1.4. Safety related records

   - 3.2. Actions continuing from the pre-law phase
     - 3.2.1. National coordination
     - 3.2.2. Building competence in safety
     - 3.2.3. Establishing technical services
     - 3.2.4. Emergency Preparedness and Response
     - 3.2.5. Radioactive Waste Management
     - 3.2.6. Interface with security
     - 3.2.7. International cooperation

4. Continuous improvement and ensuring effectiveness and sustainability of the national safety infrastructure.

5. References

7. PRODUCTION SCHEDULE:

STEP 1: Preparing a DPP	DONE
STEP 2: Approval of DPP by the Coordination Committee	April 2011
STEP 3: Approval of DPP by the Safety Standards Committees or the relevant group where appropriate	June 2011
STEP 4: Approval of DPP by the CSS	Q3/2011
STEP 5: Preparing the draft	End 2012
STEP 6: Approval of draft by the Coordination Committee	
STEP 7: Approval by the Safety Standards Committees for submission to Member States for comments or the relevant group where appropriate	Q1/2013
STEP 8: Soliciting comments by Member States	
STEP 9: Addressing comments by Member States	
STEP 10: Approval of the revised draft by the Coordination Committee Review in NS-SSCS	Q3/2013
STEP 11: Approval by the Safety Standards Committees for submission to the CSS or the relevant group where appropriate	Q4/2013
STEP 12: Endorsement by the CSS	Q1/2014
STEP 13: Establishment by the Publications Committee and/or Board of Governors (for SF and SR only))	N/A
STEP 14: Target publication date	Mid 2014

8. RESOURCES

2 TOs, 20% of their working time each
3 CS, one-week each, 4-6 experts each