



Autoridad Reguladora Nuclear

DEPENDIENTE DE LA PRESIDENCIA DE LA NACION

SADRWDMS Project 5° Plenary Meeting

Regulatory Review Working Group

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REGULATORY FRAMEWORK

- 1. General Regulatory Requirements**
- 2. End Point and Criteria**
- 3. Exemptions (Deregulations)**



REGULATORY FRAMEWORK

Laws, regulations, standards and guides based on:

- **Radiological Protection Philosophy; and**
- **Radiological Principles**



REGULATORY FRAMEWORK

- 1. Laws; Conventions and Codes**
- 2. Basic Safety Standards**
- 3. Specific Safety Standards**
- 4. Regulatory Guides**



LAWS and CONVENTIONS

National Laws and Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management

National Policy and RWM Strategy



BASIC SAFETY STANDARD

**Radioprotection concepts and definitions
associated with protection of workers,
members of public and
the environment**

- **SF-1 – Fundamental Safety Principles**
- **BSS 115 – International Basic Safety Standard for Protection against Ionizing Radiation and for the Safety of Radiation Sources**



SPECIFIC SAFETY STANDARDS

....are used as basis for the development of:

- **Radioprotection Manual**
- **Operation Manual**
- **Maintenance Manual**
- **Emergency Preparedness Plan**
- **Management System Manual**
- **Personal Qualification and Training Plan**
- **Record Keeping System**



SPECIFIC SAFETY STANDARDS

- GS-R-1 – Legal and Governmental Infrastructure for Nuclear, Radiation, Radioactive Waste and Transport Safety;**
- GS-R-2 – Preparedness and Response for a Nuclear or Radiological Emergency;**
- GS-R-3 – The Management System for Facilities and Activities**
- TS-R-1 – Regulations for the Safe Transport of Radioactive Material;**



REGULATORY GUIDES

- **Radioactive waste management**
- **Licence process**
- **Staff qualification**
- **Site selection**
- **Safety Systems Design**
- **Operational:**
 - Preoperational**
 - Operational**
 - Post Operational (Decommissioning)**
- **Environmental Protection (Effluents)**
- **Advice for specific radiological calculations (Doses)**



REGULATORY GUIDES

- WS-G-2.5 – Predisposal Management of Low and Intermediate Level Radioactive Waste**
- WS-G-2.7 – Management of Waste from the Use of Radioactive Material in Medicine, Industry, Agriculture, Research and Education**
- RS-G-1.7 – Application of the Concepts of Exclusion, Exemption and Clearance**
- WS-G2.3 – Regulatory Control of Radioactive Discharges to the environment**



END POINT and CRITERIA

From the regulatory point of view, the following end points and criteria were identified:

- **Dose**
- **Risk**
- **Dose Constraint**

Alternative End Points: Radionuclides concentrations

The end points should be properly determinate and properly associated with safety indicators



EXEMPTION

EXEMPTION CRITERIA

A practice may be exempted provided that:

- (a) the effective dose expected to be incurred by any member of the public is of the order of $10 \mu\text{Sv}$ or less in a year; and**
- (b) either the collective effective dose committed by one year is no more than about 1 man.Sv.**



EXEMPTION LEVELS

Generic exemption levels expressed as total activity of a given nuclide present on a material or the activity concentration are given in:

- **BSS N° 115, Table I-I for less than 1 Ton); and**
- **RS-G-1.7 for more than 1 Ton**



CONCLUSION

- **Taking into account the ALARA principle and the Graded Approach concept it is presented the regulatory framework suggested for a SA developed using the ZAFRAN tool**
- **In relation to “A guide for Regulators” a Draft of Chapter 7 of DS -284 was developed.**

This document will serve as guide for elaboration of the Regulatory Review Guide for SAFRAN



Thank you for your attention !!



Autoridad Reguladora de Energía

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