Legal, Institutional and Regulatory Infrastructure

name of presenter (e-mail)
training event title
dates
location, host organization, host country
The main sections deal with:

• Framework for Radioactive Waste Management
• Legislative arrangements
• The Regulatory Authority & the Regulatory Control System
• Responsibilities of implementers
• Other Infrastructure elements
Radioactive Waste Management Framework

Hierarchy of legal framework for safe radioactive waste management

- International conventions and agreements
- National Policy and Strategy on Radioactive Waste Management
- Primary Legislation (Law, Decree etc)
- Subordinate Legislation (Regulations)
- Guidance (Guides, Code of Practices, etc)
Introduction

Based on:

✓ GSR Part 1
“Governmental, Legal and Regulatory Framework for Safety” (2010), and
✓ GSR Part 5
✓ GSR part 3,
Radiation Protection and Safety of Radiation Sources. International BSS (2011)
Radioactive Waste Management Framework

- Nuclear facilities and sources of ionizing radiation need to be safely managed - potentially hazardous to human health and the environment
- A national framework that sets forth the requirements for radioactive waste management is necessary
- Safe management of radioactive waste relies on:
  - Developing relevant laws and regulations and establishing a regulatory body
  - Developing the necessary operational capability
  - Other infrastructure
Radioactive Waste Management Framework

**Policy**

Objectives and principles of radioactive waste management

**Strategies**

Implementation of policy

Establishment of radioactive waste management system

**System of RWM**

Legislative

Regulatory capability

Operational capability
Radioactive Waste Management Framework

Policy

• Member States in which radioactive waste exist shall have a national policy for the management of radioactive waste in accordance to the objectives and principles of radioactive waste management.

Strategies

• To implement national radioactive waste management policy must be in place.
• Are for ensuring that the components of a radioactive waste management system are established.
System of RWM

• Operational capability: facilities and operators

• Regulatory capability: legal framework and regulatory body

• Other infrastructure
Requirement 1: National policy and strategy for safety

The government shall establish a national policy and strategy for safety, the implementation of which shall be subject to a graded approach in accordance with national circumstances and with the radiation risks associated with facilities and activities, to achieve the fundamental safety objective and to apply the fundamental safety principles established in the Safety Fundamentals.
Legislative and Governmental Responsibilities

Requirement 2: National policy and strategy on radioactive waste management
The government shall ensure that a national policy and a strategy for radioactive waste management are established. The policy and strategy shall be

- appropriate for the nature and the amount of the radioactive waste in the State,
- indicate the regulatory control required, and
- shall consider relevant societal factors.
- be compatible with the fundamental safety principles and with international instruments,
- form the basis for decision making with respect to the management of radioactive waste.
Legislative and Governmental Responsibilities

Requirement 2: Establishment of a framework for safety

The government shall establish and maintain an appropriate governmental, legal and regulatory framework for safety within which responsibilities are clearly allocated.

1- ....

16- Responsibilities and obligations in respect of financial provision for the management of radioactive waste and of spent fuel, and for decommissioning of facilities and termination of activities;

17- The criteria for release from regulatory control;...

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Requirement 1: Legal and regulatory framework

The government shall provide for an appropriate
✓ national legal and regulatory framework within which radioactive waste management activities can be planned and safely carried out.
✓ allocation of responsibilities,
✓ securing of financial and other resources,
✓ provision of independent regulatory functions, and
✓ protection shall also be provided beyond national borders
Requirement 3: Establishment of a regulatory body

The government, through the legal system, shall establish and maintain a regulatory body, and shall confer on it the legal authority and provide it with the competence and the resources necessary to fulfil its statutory obligation for the regulatory control of facilities and activities.
Requirement 4: Independence of the regulatory body

The government shall ensure that the regulatory body is effectively independent in its safety related decision making and that it has functional separation from entities having responsibilities or interests that could unduly influence its decision making.
Requirement 5: Prime responsibility for safety

The government shall expressly assign the prime responsibility for safety to the person or organization responsible for a facility or an activity, and shall confer on the regulatory body the authority to require such persons or organizations to comply with stipulated regulatory requirements, as well as to demonstrate such compliance.

*The prime responsibility for safety of radioactive waste management activities is assigned to the waste generators and operators*
Legislative and Governmental Responsibilities

Requirement 6: Compliance with regulations and responsibility for safety

The government shall stipulate that compliance with regulations and requirements established or adopted by the regulatory body does not relieve the person or organization responsible for a facility or an activity of its prime responsibility for safety.

Not having an authorization would not exonerate the person or organization responsible for the facility or activity from the responsibility for safety.
 Requirement 10: Provision for the decommissioning of facilities and the management of radioactive waste and of spent fuel (I)

The government shall make provision for the safe decommissioning of facilities, the safe management and disposal of radioactive waste arising from facilities and activities, and the safe management of spent fuel.

Decommissioning of facilities and the safe management and disposal of radioactive waste shall constitute essential elements of the governmental policy and the corresponding strategy over the lifetime of facilities and radioactive sources and for the duration of activities.
Requirement 10: Provision for the decommissioning of facilities and the management of radioactive waste and of spent fuel (II)

Appropriate financial provision shall be made for:
✓ Decommissioning of facilities;
✓ Management of radioactive waste, including its storage and disposal;
✓ Management of disused radioactive sources and radiation generators;
✓ Management of spent fuel.
Legislative and Governmental Responsibilities

Requirement 14: International obligations and arrangements for international cooperation

The government shall fulfil its respective international obligations, shall participate in the relevant international arrangements, including international peer reviews, and shall promote international cooperation to enhance safety globally.
Responsibilities of the Regulatory Body (1)

There are 21 Safety Requirements (16 – 36) related to the responsibilities of the Regulatory Body in the GSR- Part 1, all of them related to radioactive waste.

16. Organizational structure of the regulatory body and allocation of resources
17. Effective independence
18. Staffing and competence
19. The management system
20. Liaison with advisory bodies and support organizations
21. Liaison between the regulatory body and authorized parties
22. Stability and consistency of regulatory control
There are 21 Safety Requirements (16 – 36) related to the responsibilities of the Regulatory Body in the GSR- Part 1, all of them related to radioactive waste.

23. Authorization of facilities and activities
24. Demonstration of safety for the authorization
25. Review and assessment of information relevant to safety
26. Graded approach to review and assessment
27. Inspection of facilities and activities
28. Types of inspection of facilities and activities
29. Graded approach to inspections of facilities and activities
There are 21 Safety Requirements (16 – 36) related to the responsibilities of the Regulatory Body in the GSR-Part 1, all of them related to radioactive waste.

30. Establishment of enforcement policy
31. Requiring of corrective action by authorized parties
32. Regulations and guides
33. Review of regulations and guides
34. Promotion of regulations and guides
35. Safety related records
36. Communication and consultation with interested parties
Responsibilities of the Regulatory Body

Requirement 3: Responsibilities of the regulatory body

The regulatory body shall:

✓ establish the requirements for the development of radioactive waste management facilities and activities

✓ set out procedures for meeting the requirements for the various stages of the licensing process

✓ review and assess the safety case and the environmental impact assessment for radioactive waste management facilities and activities, as prepared by the operator both prior to authorization and periodically during operation,
Responsibilities of the Regulatory Body

Requirement 3: Responsibilities of the regulatory body
The regulatory body shall:

✓ provide for the issuing, amending, suspension or revoking of licences, subject to any necessary conditions,

✓ carry out activities to verify that the operator meets these conditions,

✓ take enforcement actions as necessary in the event of deviations from, or non-compliance with, requirements and conditions.
Requirement 29: Responsibilities of the government and the regulatory body specific to public exposure

3.123 When a source within a practice could cause public exposure in a country other than the country where the source is located, the regulatory body shall:

- ensure that the assessment of the radiological impact includes those impacts outside the country, to the extent possible,
- establish commensurate requirements for control of discharges and
- arrange with the affected country the means for exchange of information and consultations, as appropriate.
Responsibilities of the Operator (1)

Requirement 4: Operators shall be responsible for:

✓ The safety of predisposal radioactive waste management facilities or activities

✓ Carry out safety assessments and shall develop a safety case, and

✓ Ensure that the necessary activities for siting, design, construction, commissioning, operation, shutdown and decommissioning are carried out in compliance with legal and regulatory requirements.
Responsibilities of the Operator (2)

Requirement 4: Operators shall be responsible for:

✓ Demonstration of environmental protection by means of an assessment of environmental impacts;
✓ Derivation of operational limits, conditions and controls, including waste acceptance criteria, 
✓ Preparation and implementation of appropriate operating procedures, including monitoring; 
✓ Application of good engineering practice;
Responsibilities of the Operator (3)

Requirement 4: Operators shall be responsible for:

✓ Ensuring that staff are trained, qualified and competent, and, where applicable, licensed by the regulatory body;
✓ Establishment and implementation of a management system;
✓ Maintenance of records and reporting as required by the regulatory body;
✓ Establishment and maintenance of a mechanism to provide and ensure adequate financial resources to discharge its responsibilities;
Responsibilities of the Operator (4)

Requirement 4: Operators shall be responsible for:

- Development of an emergency preparedness and response plan; Consideration of non-radiological hazards and conventional health and safety issues;
- Establish and maintain a strong safety culture;
- Implementing measures to ensure an appropriate level of security;
- Implementing the overall strategy for the management of the waste that is generated.
Requirement 31: Radioactive waste and discharges

The relevant parties shall ensure that radioactive waste and discharges of radioactive material to the environment are managed in accordance with the authorization.

Note: and with the specific regulation in force
Requirement 31: Radioactive waste and discharges

3.131 Registrants, licensees and suppliers, as appropriate, shall:

a. Ensure that the activity and volume of any radioactive waste generated from the sources are kept to the minimum practicable, when optimizing protection and safety, and that the waste is managed in accordance with the requirements of these Standards and any other applicable IAEA standards, and in accordance with their authorization;

b. Ensure, if appropriate, separate processing of different types of radioactive waste where warranted by differences in factors such as radionuclide content, half-life, concentration, volume and physical and chemical properties, taking into account the available options for waste storage and disposal;

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Requirement 31: Radioactive waste and discharges

3.130 Registrants, licensees and suppliers, as appropriate, shall:

c. Ensure that radioactive waste predisposal and disposal activities are in accordance with applicable standards, and in accordance with their authorization;

Maintain an inventory of all radioactive waste (generated, discharged, stored, transferred or disposed).
Other infrastructure

- Infrastructure for Emergency Preparedness
- Infrastructure for Radioactive Waste Management
- Infrastructure for Intervention
- Infrastructure for Services
Infrastructure for Emergency Preparedness

The emergency arrangements shall ensure effective interface between the operator and the competent authorities and shall provide for the effective means of communication.
Infrastructure for Radioactive Waste Management

- Long term plans and policy for storage and disposal including waste from small users
- Research and development
- Inventory of existing and anticipated waste
- Secured funding for long term waste management
Other infrastructure

Infrastructure for Intervention

The regulatory body shall provide any necessary input to the intervention process
Government shall provide for, among other things, the following services:

- Training and education
- Dosimetry services
- Special emergency equipment
- Appropriate medical resources and
- International co-operation
Summary

- Legal, governmental and regulatory infrastructure is an essential basis for safe and long term management of RAW

- It requires clear responsibilities, requirements and criteria, as well as dialogue between parties

- Periodic review and updated required
Thank you!