International Cooperation on Regulatory Supervision of Legacies Arising from Nuclear Accidents

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Managing Accident Consequences after the Emergency Phase

- Arrangements for continuation or removal of any intervention measures introduced
- Application of additional intervention measures
- Arrangements for remediation of contaminated areas
- Management of radioactive waste arising from remediation work

Similar situation with contaminated sites arising after accidental spills and leaks from stores for radioactive material

Significant role for regulators in managing these complex legacy situations

Challenges
for Integrated Safety Supervision

Management at legacy sites involves:

- identify the hazards
- operations to make existing hazardous situations safe
- manage routine releases of liquid and gaseous effluents during remediation
- treatment, transport and storage of radioactive waste
- consideration of potential accidents during operations
- major activities include
  - facility decommissioning and remediation
  - contaminated land management
  - development of waste treatment storage and disposal facilities
  - identify any post-remediation requirements such as institutional controls and records management

There are many health safety and environment issues, each presenting priorities to be addressed

Types of Nuclear Legacy

Need for Regulatory Cooperation

- *"International cooperation and support from IAEA needs to include regulatory supervision of decommissioning and license termination so as to avoid the creation of new legacy sites.*

- *Regulatory experience from countries that are already meeting nuclear legacy site challenges can support this international effort.*

- *Regulatory authorities from countries exercising supervision over existing nuclear legacy sites are encouraged to share and gain advantage from international cooperation activities on this issue."*

Conclusions from IAEA Conference on Effective Regulatory Systems, Cape town, December 2009

International Working Forum for Regulatory Supervision of Legacy Sites (RSLS)

To promote high standards of regulatory supervision for the management of legacy sites, consistent with the IAEA Safety Standards and good international practices, by:

- collection and collation of information on legacy sites and historical experience of their regulatory supervision
- sharing of information on legacy site remediation plans, and the role of regulatory supervision in planning remediation
- generation of mutual support through presentation and discussion of how regulatory supervision can be made effective and efficient

Working Groups of RSLS

WG1: Enhancing the Regulatory Infrastructure. To review the experience of regulators in planning legacy management and regulatory supervision of legacies and make recommendations for enhancement of the regulatory infrastructure.

WG2: Safety Assessment Methods and Environmental Impact Assessment. Application of methods for safety assessments and environmental impact assessments required to support management of legacy sites.

WG3: Professional Development for Regulators. Professional development and training needs of regulatory staff for supervision of legacy sites.

Results from all WG to be published via a TECDOC, already in planning.

Special Issues for Supervision in Post-Emergency Phase of Accidents

Interim Basic Safety Standards, para 1.21

"The transition from an emergency exposure situation to an existing exposure situation may occur progressively over time; and some exposures due to natural sources may have some characteristics of both planned exposure situations and existing exposure situations."

Hence, how to manage the selection of appropriate reference levels and constraints

Complex set of attributes to address: safety, security, human and environmental health protection not just from radiation exposure

Wide range of stakeholder interests: for example, future land use of a formerly contaminated site after remediation

More Information

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