

**Networks and Forums:
Linking national and bi-lateral cooperation
with
International Community**

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**5th Steering Committee Meeting
Global Nuclear Safety and Security Network**



NRPA and Russian Bi-Lateral Regulatory Cooperation

- State Atomic Energy Corporation (Rosatom)
- Directorate of State Supervision of Nuclear and Radiation Safety of the Ministry of Defense
- Federal Medical-Biological Agency (FMBA)
- Federal Environmental, Industrial and Nuclear Supervision Service of Russia (Rostekhnadzor)

Focus on:

- Clarification of roles and responsibilities of all involved organisations
- Integrated consideration of legacy issues to support coherent risk supervision
- Development of practical regulatory requirements and guidance relevant to the abnormal situations



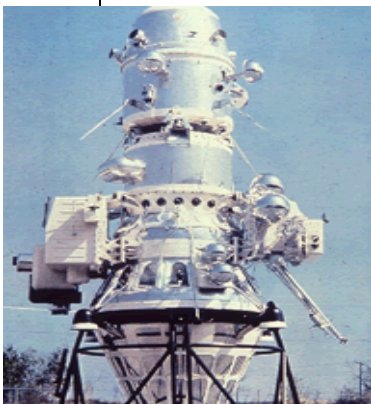
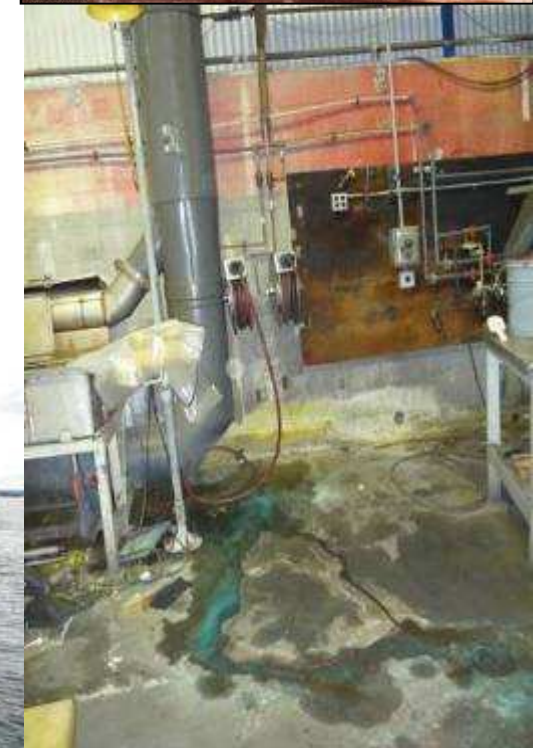
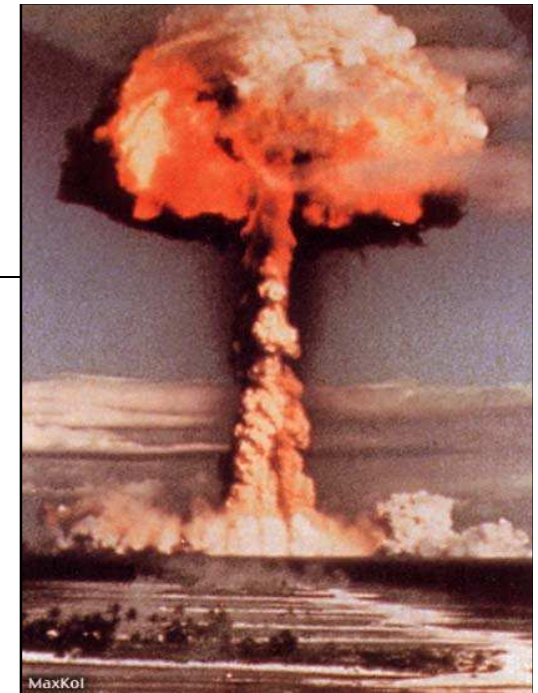
Extended to C Asia and Ukraine

- Russian Federation: from 1996 – present date
 - Rehabilitation of Sites of Temporary Storage (at Kola)
 - Decommissioning of RTGs
 - Areas affected by releases from Mayak PA
- Central Asia: from 2009 – present date
 - Kazakhstan
 - Kyrgyzstan
 - Tajikistan
 - Uzbekistan
- Ukraine started in 2013

Experience which could be useful in developing improved international recommendations and guidance

Types of Nuclear Legacy

- Sites affected by major accidents
- Inadequate storage and disposal sites and facilities
- Uranium mining and milling facilities
- Nuclear power technology development centres
- Nuclear peaceful and weapons testing sites
- Nuclear weapons development centres



Legacy Definition - Suggestion

- For the purposes of RSLs - **a legacy site is a facility or area that has not completed remediation and is radioactively contaminated at a level which is of concern to regulatory bodies.**
- “The legacy of abnormal conditions still exists at many sites today. Abnormal conditions {defining the legacy} are taken to mean circumstances arising due to the previous absence of, or loss of, effective control of radioactive material, so that current standards for radiation and nuclear safety and security are not met, and they therefore attract the attention of regulatory authorities. Control measures may include physical containment, but also institutional measures, such as control of land use and security measures.”

Places of Global Nuclear Tests



(UNSCEAR-2000)

Global Uranium Mining and Milling Waste



(UNSCEAR-2000)



Multi-Dimensional Challenges

- Protection of workers
 - Protection of public
 - Protection of environment
 - Protection now and in the future
 - Preparedness for routine and accident situations
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- *A balanced approach to risk management is necessary to cover all pollution, securities and safety issues.*
 - *Social, cultural and economic factors also influence management decisions*
 - *Therefore, engagement of stakeholders is also important*

Regulatory Functions

- Nuclear safety
- Nuclear security
- Radiation protection of workers and public
- Radioactive management: treatment, storage, transport and disposal
- Environmental protection
- Contaminated land management
- Emergency preparedness and response

This requires ***a complete and integrated regulatory basis for legacy management, and yet:***

- *These regulatory functions are not usually found in just one national authority!*
- *Also, we have to consider both civilian and military sectors*

How to link to International Community?

IAEA's International Working Forum on Regulatory Supervision of Legacy Sites, set up to:

- promote effective and efficient regulatory supervision for the management of legacy sites,
- through the collection, collation and exchange of information on nuclear legacy sites, and
- generation of mutual support through presentation and discussion on how effective and efficient regulatory supervision can be implemented and maintained.

2009 – 2013: Focus on uranium mining and milling legacies. Document in preparation.

IAEA International Working Forum: RSLs Objectives

- To address specific situations at real sites and hence lend support to the regulatory authorities at those sites
- To assist in deriving practical interpretation of generic radiation protection guidance on nuclear legacy sites
- To identify good practices in stakeholder engagement with regulatory supervision and enhancement of safety culture as it applies to legacy sites
- Better understanding and application of different types of risks in the regulatory supervision process

Overall Goal:

To promote effective and efficient regulatory supervision of the management of legacy sites, consistent with the IAEA Fundamental Principles, Safety Standards and good international practices.

RSLs Working Groups

WG1: Enhancing Regulatory Infrastructure

- National strategies and plans
- Regulatory basis and regulatory infrastructure
- Lessons learned

WG2: Safety Assessment Methods and Environmental Impact

Assessment. Guidance on

- Methodological criteria for operators
- Methodological criteria for regulators
- Guidance on review methodology

WG2: Professional Development for Regulators

- Project management
- Technical competencies
- Inspection

Suggested Next Steps

- Continuing need for improved practical guidance on management and regulatory supervision of legacy sites
- Implement forum at higher level in IAEA so is not just waste safety
- Link across wider departmental interests, safety and security; and address emergencies, existing and planned situations, and transitions between them
- Use to inform standards and guidance development

NB IBSS says: *‘the three types of exposure situation are not always sufficient to determine unequivocally which type of exposure situation applies for particular circumstances.’*

This is important to address since it affects the selection of reference levels and constraints.

Network of Networks for Radioecology

Initiative of the International Union of Radioecology

Joins together radioecology expertise and links:

- Technical Forums: emergency preparedness, site remediation, waste management, etc
- Regional Forums: Europe, N ad S America, Asia etc
- Links radiation and chemical issues and expertise

Provides for information exchange both directions:

- What research is needed to answer critical questions?
- What new research has been done which needs to be communicated?

Future Recommendations

- Regulatory guidance and support focussing on challenges at nuclear legacy site
- Feedback to IAEA from bilateral cooperation, RSLs activities and other national forums to support improved international regulatory guidance on legacy supervision
- Recommendation on research requirements to support regulatory decision making on nuclear legacies, e.g. other IAEA, EU etc. programs and activities



Thank you for your attention!

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