

WM2014 Conference Panel Report

PANEL SESSION 15: Worldwide Regulatory Challenges of Radioactive Legacy Sites – IAEA International Working Forum on Regulatory Supervision of Legacy Sites

Co-Chairs: *Malgorzata K. Sneve, Norwegian Radiation Protection Authority;*
Betsy Forinash, US EPA;

Panel Reporter: *Graham Smith, GMS Abingdon Ltd, UK*

Panelists:

1. **Russel Edge**, *Division of Radiation, Transport and Waste Safety, Department of Safety and Security, International Atomic Energy Agency, Vienna, Austria*
2. **Andrew Persinko**, *Deputy Director, Environmental Protection and Performance Assessment Directorate, Division of Waste Management and Environmental Protection, US NRC*
3. **Iikhom Mirsaidov**, *Nuclear and Radiation Safety Agency of the Republic of Tajikistan*
4. **David Shafer**, *Acting Director, Office of Site Operations, Office of Legacy Management, US DOE*

This panel provided an opportunity to share information about activities within the IAEA's International Working Forum on Regulatory Supervision of Legacy Sites (RSLs) programs on regulatory development specific to legacy situations, assessment of compliance, and training requirements and provisions. The panel opened with introductory remarks from Mrs. Sneve, who noted the complex range of issues to be addressed in regulation of legacy sites, and that, while the RSLs has initially focused on uranium legacies, the scope of RSLs covers all kinds of nuclear legacies.

Summary of Presentations

Russel Edge: Two Important IAEA Initiatives on Legacy Sites. Mr. Edge began his presentation by describing the special challenges associated with legacy sites and the aims and objectives of the RSLs, which has been in operation since 2010. The RSLs aims: to address specific situations at real sites and support to regulatory authorities at those sites; to assist in deriving practical interpretation of generic radiation protection guidance to nuclear legacies; to identify good practice in stakeholder engagement and enhancement of safety culture, and to provide better understanding of the regulatory supervision process. Mr. Edge then described the Coordination Group for Uranium Legacy Sites (CGULS). CGULS has been set up to support coordination of international projects on remediation activities linked to uranium legacies, by providing a forum for information exchange and provision of technical advice and field support. The objectives of this coordination are to maximize synergies, optimize the use of resources and avoid duplication of effort. The CGULS geographical focus is central Asia.

Andrew Persinko: Enhancing the Regulatory Infrastructure. Mr. Persinko, the Chairman of RSLs, introduced the objectives of RSLs as information exchange on regulatory supervision of the full range of legacy sites. Its activities are supported through 3 working groups, addressing the enhancement of regulatory infrastructure; safety assessment methods; and professional development for regulators. In addition, workshops and technical visits are made within the

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program, including in 2014 site visits in Canada and a workshop in Moscow. An IAEA technical document is in preparation to describe the work.

Ilkhom Mirsaidov: International Support to Regulatory Challenges in Managing Uranium Legacies: Mr. Mirsaidov began by describing the history of uranium mining and milling operations in Tajikistan and went on to illustrate a wide range of different regulatory challenges. He noted the difficulties of planning remediation work without a normative basis. However, this had been developed in a regulatory cooperation project with the Norwegian Radiation Protection Authority. In addition, a regulatory Threat Assessment had been carried out, identifying significant challenges ranging from inventory improvement to the kinds of training needs identified earlier by Mr. Persinko. The assessment had allowed for the development of a priority list of legal documents, within the normative basis. Some of these have been completed, some are still in development. Priority sites for remediation include Degmay (with the purpose of dust prevention and reduction of radon exhalation from its surface) and former uranium industry sites in Istiklol (water purification and determination of control zones). Further work is planned with support from the NRPA, and also from the European Union and from the IAEA.

David Shaffer: DOE Office of Legacy Management: Contributions to and Benefits from its International Collaborations. Mr. Shaffer summarized the mission of the Office of Legacy Management (OLM) as: Ensuring that sites that have undergone regulatory closure continue to protect public health and the environment in perpetuity; Preservation of records for sites and preserving institutional knowledge; and Promoting beneficial reuse of sites that are compatible with the risks that remain at sites. The OLM is actively engaged in a range of international activities. These include participation in the IAEA's RSLs, particularly support the Working Group on Environmental Impact Assessments, Safety Assessments; the Nuclear Energy Agency program on "Records, Knowledge, and Memory across Generations"; and sharing experience on a bi-lateral basis with many other countries and organizations, working with WISMUT and others to establish a center for data information and records management relevant to legacy management. Mr. Shaffer noted that US experience in remediation at large sites such as that at Rocky Flats, Colorado, could be of interest in Japan for remediation of areas affected by the accident at Fukushima Daiichi. He also noted that OLM in turn received value from cooperation activities, for example, in responding to a 2013 National Defense Authorization Act requirement for DOE to prepare a report on the location, status, risks and hazards, and costs to reclaim or remediate abandoned mines that provided U for "defense purposes". Experience working with indigenous populations is a particular aspect.

Questions and Answers:

In discussion it was noted that there is no officially recognized definition of a legacy, but Member States participating in the RSLs have developed an open and inclusive working definition, "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."