
Radioactive Waste Management and Environmental Safety

Objective

To support Member States in improving the safety of radioactive waste and spent fuel management, including geologic repositories for HLW, decommissioning, remediation and environmental releases, through the development of safety standards and providing for their application. To support Member States in improving the safety of radioactive waste and spent fuel management, including geologic repositories for HLW, decommissioning, remediation and environmental releases through peer reviews and advisory services. To support Member States in capacity building through education and training, and encouraging the exchange of information and experience.

Radioactive Waste and Spent Fuel Management

The Agency conducted five Integrated Review Service for Radioactive Waste and Spent Fuel Management, Decommissioning and Remediation (ARTEMIS) missions — to Brazil, Bulgaria, France, Italy and Luxembourg— as well as the first combined Integrated Regulatory Review Service (IRRS)–ARTEMIS mission — to Spain.

The Agency continued to implement the International Project on Demonstration of the Operational and Long-Term Safety of Geological Disposal Facilities for Radioactive Waste (GEOSAF Part III). A Technical Meeting of the Working Groups for GEOSAF Part III took place in Vienna in April, with 18 participants from 11 Member States. The Second Plenary Meeting for GEOSAF III took place in Vienna in June, involving 25 participants from 15 Member States. These activities focused on decision making following monitoring of geological disposal facilities and on the interaction between regulators and operators during the licensing of such facilities.

Assessment and Management of Environmental Releases

The Agency held the third Technical Meeting of the second phase of the Modelling and Data for Radiological Impact Assessments (MODARIA II) programme in Vienna in October, attended by approximately 150 participants from 47 Member States. The programme builds experience in the assessment of radiation doses from radionuclides released to or present in the environment.

Decommissioning and Remediation Safety

In June, the Agency held the first Technical Meeting on the International Project on Decommissioning of Small Facilities. The three year project, with 41 participants from

33 Member States, will support the development of national infrastructure for planning and decommissioning of small medical, industrial and research facilities, and the application of relevant safety standards.

Thirty-six participants from 27 Member States took part in the Agency's launch of the Regulatory Forum for Safety of Uranium Production and NORM (REGSUN) in June. REGSUN promotes the development of regulatory capacity to ensure safe and sustainable management of naturally occurring radioactive material residues and residues from uranium production, inter alia, by the application of a graded approach to regulation. REGSUN will also provide strategic direction for future Agency work.

In September, the Agency held the first Technical Meeting on the International Project on Completion of Decommissioning. The project, with 40 participants from 29 Member States, will provide a systematic overview of practical experience worldwide in defining decommissioning end states, in demonstrating compliance with end state criteria, and in defining and implementing any needed measures and controls after the end of decommissioning. Information gathered in this project will be used in the revision of the Safety Guide *Release of Sites from Regulatory Control on Termination of Practices* (IAEA Safety Standards Series No. WS-G-5.1).

The Agency published the *Strategic Master Plan for Environmental Remediation of Uranium Legacy Sites in Central Asia* in English in May and in Russian in September. The plan was presented at a side event entitled 'Uranium Legacy Sites – The Environmental Remediation Programme in Central Asia' hosted by the European Union in the framework of the Sixth Review Meeting of the Contracting Parties to the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, and at side events at the 62nd regular session of the Agency's General Conference and the 73rd session of the United Nations General Assembly in September. International support for the Central Asian countries in remediating their uranium production legacy sites is coordinated by the Coordination Group for Uranium Legacy Sites (CGULS), which comprises the Agency, the Commonwealth of Independent States, the European Commission and the European Bank for Reconstruction and Development.

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Joint Convention

The Sixth Review Meeting of the Contracting Parties to the Joint Convention, held in Vienna from 21 May to 1 June, was attended by more than 850 delegates from 69 Contracting Parties (Fig. 1). The meeting was also attended by 4 observers (Lebanon and the Philippines as Signatory States of the Joint Convention, the Islamic Republic of Iran and the Nuclear Energy Agency of the Organisation for Economic Co-operation and Development). The Contracting Parties reviewed national reports in country groups and identified good progress in many areas of safety of spent fuel and radioactive waste management. At the plenary, the Contracting Parties adopted a number of proposals to improve the effectiveness of the peer review process, addressing the submission and the content of the national reports and the submission of proposals to be considered at review meetings.

The Contracting Parties also decided by consensus to hold an Extraordinary Meeting prior to the Organizational Meeting for the Seventh Review Meeting of the Contracting Parties, with a view to discussing possible ways to improve procedural mechanisms of the Joint Convention. The summary report was published on the Agency's web site.

The Agency held a Regional Workshop to Promote the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management for Member States from the Asia and the Pacific region in Jakarta in October.

In 2018, Mexico, Paraguay, Serbia and Thailand became Contracting Parties to the Joint Convention, bringing the total number of Contracting Parties to 80.



FIG. 1. Opening of the plenary session of the Sixth Review Meeting of the Contracting Parties to the Joint Convention, held at the Agency's Headquarters in Vienna.