

Radioactive Waste Management and Environmental Safety

Objective

To achieve harmonization in policies and standards governing waste safety and public and environmental protection, together with provisions for their application, including sound technologies and good practices.

Radioactive Waste and Spent Fuel Management

The Agency carried out the first Integrated Review Service for Radioactive Waste and Spent Fuel Management, Decommissioning and Remediation (ARTEMIS) mission to Italy in July (Fig. 1). It also conducted an ARTEMIS review of Poland's National Plan of Radioactive Waste and Spent Nuclear Fuel Management, in October.

The Agency continued to assist Member States actively pursuing borehole configurations as one option for disposal of disused sealed radioactive sources. It held an Interregional Workshop on Regulatory Review of the Post-Closure Safety of Disposal of Disused Sealed Radioactive Sources, in Buenos Aires, Argentina, in June, with 29 participants from 23 Member States, and issued a publication entitled *Generic Post-closure Safety Assessment for Disposal of Disused Sealed Radioactive Sources in Narrow Diameter Boreholes* (IAEA-TECDOC-1824), covering all the steps required in such an assessment.



FIG. 1. Members of the ARTEMIS team and staff of Italy's State-owned company SOGIN visit the Corsico nuclear power plant in northern Italy as part of the Agency's first ARTEMIS review.

The Agency helped Member States build capacity and strengthen radioactive waste management infrastructure through five hands-on training courses on the management of radioactive waste and disused sealed radioactive sources, held in the Asia and the Pacific region. In total, 116 participants were equipped with practical skills to solve problems related to categorization of waste, technical procedures for conditioning of waste, and predisposal considerations in their home countries (Fig. 2).



Fig. 2. Staff of Indonesia's National Nuclear Energy Agency (BATAN) receive hands-on training during an Agency course on management of radioactive waste and disused sealed radioactive sources. (Photograph courtesy of Suriantoro/BATAN.)

Assessment and Management of Environmental Releases

As part of the second phase of the Modelling and Data for Radiological Impact Assessments (MODARIA II) programme, the Agency held a Technical Meeting in Vienna, from 30 October to 3 November, that brought together 150 regulators, operators, modellers and radiation protection experts from technical support organizations in 47 Member States. The meeting participants shared their experiences in assessing radiation exposures of the public and of flora and fauna from radionuclides present in the environment as a result of accidents or authorized practices.

In February, the Agency published the final report of the *International Peer Review of the Environmental Impact Assessment Performed for the Licence Application of the Baltic-1 Nuclear Power Plant, Kaliningrad, Russian Federation*.

Decommissioning and Remediation Safety

As part of the International Project on Managing the Decommissioning and Remediation of Damaged Nuclear Facilities, the Agency organized an international workshop in Penrith, United Kingdom, in October. The meeting was attended by 40 experts from 21 Member States who visited the Sellafield site and provided input to a new Agency report that will address challenges related to decommissioning and remediation of legacy sites and severely damaged nuclear installations.

The Agency's Coordination Group for Uranium Legacy Sites (CGULS) continued to play a central role in coordinating the many organizations working toward sustainable remediation of uranium legacy sites in Central Asia. The annual meeting of CGULS, held in Almaty, Kazakhstan, in June, was attended by 37 representatives of 12 Member States and 6 international organizations. The Agency finalized the *Strategic Master Plan for Environmental Remediation of Uranium Legacy Sites in Central Asia*, providing a framework for remediation activities in the region. During the 61st regular session of the General Conference, parties collaborating on the development of the plan signed a Preface to the document, stating their support for a coordinated approach to remediation of the uranium legacy sites in Central Asia.

Joint Convention

The Third Extraordinary Meeting of the Contracting Parties to the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management was held in May, with the participation of 57 Contracting Parties. The Contracting Parties agreed to amend the Joint Convention Guidelines regarding the Review Process so that the Secretariat makes publicly available each National Report within 90 days after the Review Meeting, unless the Contracting Party concerned notifies the Secretariat otherwise. The Contracting Parties agreed to introduce 'Areas of Good Performance' on a trial basis at the Sixth Review Meeting of the Contracting Parties to the Joint Convention. This follows the approach used during the Seventh Review Meeting of Contracting Parties to the CNS.

The Organizational Meeting for the Sixth Review Meeting of the Contracting Parties to the Joint Convention, also held in May, was attended by 57 Contracting Parties. The Contracting Parties decided inter alia to organize two sequential topical sessions at the Sixth Review Meeting: one focusing on disused sealed sources and one addressing general safety issues, challenges and public acceptance aspects associated with the long term storage of higher level radioactive waste.

The Agency organized a side event during the 61st regular session of the General Conference to celebrate the 20th anniversary of the adoption of the Joint Convention. Representatives of five Contracting Parties shared experiences from past review meetings and highlighted the role of the Convention as the only legally binding international instrument to address the safe management of spent fuel and radioactive waste.

The Agency undertook activities to further encourage adherence to the Joint Convention and active participation in the peer review process, and to increase the effectiveness of the review process. In November, it held a Regional Workshop in Vienna to promote the Convention on Nuclear Safety and the Joint Convention in Latin American and Asian countries, and conducted a Regional Workshop for the Promotion of the Joint Convention in African Countries in Rabat, Morocco, in December.