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# 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 high level waste, 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 high level waste, decommissioning, remediation and environmental releases through peer reviews and advisory services, and to assist their adherence to, and facilitating implementation of, the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management. 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 continued developing guidance on conducting Integrated Regulatory Review Service (IRRS) and Integrated Review Service for Radioactive Waste and Spent Fuel Management, Decommissioning and Remediation (ARTEMIS) missions in a back-to-back manner. This guidance supports Member States to plan in a coordinated manner and to implement IRRS and ARTEMIS missions sequentially, noting that the utilization of flexibility and adaptability in the services will not compromise their respective integrity and effectiveness. This guidance has been developed by an Agency task force and was shared with the European Nuclear Safety Regulators Group in November 2021. To date, six countries have invited such missions. The feedback collected from these missions will be used to improve and finalize the guidance.

The Agency held a series of virtual national workshops on IRRS missions and self-assessments based on the Self-Assessment of Regulatory Infrastructure for Safety (SARIS) methodology and the new on-line version of SARIS (eSARIS).

## Assessment and Management of Environmental Releases

The Agency held a virtual Technical Meeting of the International Working Forum on Regulatory Supervision of Legacy Sites on the Identification and Prioritization of Sites for Remediation in November 2021. As a result, in December 2021, the Agency organized a virtual Joint Regional Workshop of the International Working Forum on Regulatory Supervision of Legacy Sites and the Coordination Group for Uranium Legacy Sites on Licensing for Remediation Projects, to support Central Asian Member States in the development of effective and efficient regulatory supervision of legacy sites.



Visit by the Agency review team to the Fukushima Daiichi nuclear power plant in November 2021. (Photograph courtesy of Tokyo Electric Power Company.)

There has been increased international attention regarding the handling of Advanced Liquid Processing System (ALPS) treated water at the Fukushima Daiichi nuclear power plant. In response to a request from Japan, the Agency has formed a task force to conduct a review that will assess the Government of Japan's plan to discharge ALPS treated water against Agency safety standards. The review started in September 2021.

## Decommissioning and Remediation Safety

The Agency held two virtual Technical Meetings of the International Project on Completion of Decommissioning, in June and October 2021, to continue the collaboration and information exchange between Member States on the definition of end states and the completion of decommissioning. The Agency also held two virtual Technical Meetings of the International Project on Decommissioning of Small Facilities, in May and November 2021, to provide a platform for collaborative work and the exchange of experiences and lessons learned related to the decommissioning of small medical, industrial and research facilities.

The Agency held a virtual Technical Meeting on Decommissioning Planning for Uranium Production Facilities in December 2021. The Agency also held the Third Technical Meeting of the International Project on Decommissioning of Small Facilities virtually in May 2021.

## Joint Convention

The Agency held a virtual workshop in March 2021 to provide technical assistance to Pakistan in adhering to the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.