

At IAEA meeting, nuclear power newcomer and operating Member States discuss funding for waste management and decommissioning

One of the prerequisites for the sustainability of nuclear power programmes is timely and effective management of the spent fuel and radioactive waste that result from the operation and decommissioning of nuclear power plants. Estimating the related liabilities and securing funds to meet these are both subject to considerable uncertainty: they are processes that need to be managed regularly over the very long timeframes involved. The main issues — from funding schemes to technical risk assessment in support of waste management and the decommissioning of nuclear facilities — were discussed at a recent IAEA Technical Meeting.

Representing 21 nuclear power operating and embarking countries, 34 experts attended the IAEA's first Technical Meeting on Funding for Waste Management and Decommissioning, which took place in Vienna from 9 to 12 July 2018.

The participants shared their perspectives on ways of addressing costing and funding issues related to waste management and decommissioning and presented country-specific examples and case studies.

“To ensure that governments, regulatory bodies and owner/operators establish adequate and reliable policies and funding schemes, the IAEA recommends the elaboration of robust plans at an early stage so that the funds are available when the time comes to decommission or to manage waste,” said Dohee Hahn, Director of the IAEA's Division of Nuclear Power, in his address to the participants.

The meeting chairperson, Chantal Spinoy from Electrabel, Belgium, noted the importance of stakeholder involvement in the whole process: “Engaging relevant stakeholders with shared responsibilities is crucial when taking long-term decisions related to financial liabilities: it is the only way to make sure that sufficient funds are

available to cover the future costs of decommissioning and final disposal of radioactive waste,” she said. “This is challenging because of the significant uncertainty around costs in the decades to come.”

Discussions at the meeting focused on three major areas: (1) basic principles of funding schemes and identifying sources of risk and risk mitigation approaches; (2) cost estimation for spent fuel and radioactive waste management and for the decommissioning of nuclear facilities; and (3) dealing with risks and uncertainties in the management of spent fuel and radioactive waste.

Estimating the costs associated with projects and activities related to the decommissioning of a nuclear power plant and the disposal of spent fuel, as well as identifying the relevant cost drivers and ways to pay for these costs, were major topics explored. Representatives of countries with operating nuclear power plants and with direct experience in developing and implementing policies to fund waste management and decommissioning presented their perspectives, challenges and lessons learned through case studies.

As far as funding schemes are concerned, the meeting allowed experienced countries to share their best practices for risk mitigation when developing financial plans for such long term projects.

“The meeting has clearly highlighted the importance of basing funding schemes on the ‘polluter pays’ principle,” said Richard Ström of the Swedish Radiation Safety Authority. “In this regard, Sweden emphasizes such risk mitigation strategies as establishing a separate fund to cover expected costs, continuously recalculating the fees involved, and providing guarantees for fees that have not yet been paid, as well as to account for unexpected cost overruns.”

In addition, the meeting provided a platform for nuclear newcomers to learn from the experience of established nuclear countries with regard to decommissioning policies and strategies, which should stand them in good stead as they begin to develop their own cost estimation approaches, identify funds and make provisions for future decommissioning activities.

Given that Ghana is currently in the initial phase of its nuclear power project and is drawing up a comprehensive report on the subject, Festus Brew Quansah, a financial analyst at the Ghana Atomic Energy Commission, emphasized that attending the meeting had been both timely and important.

“The country experiences shared were very insightful and will help Ghana's nuclear energy programme implementing organization to contextualize a programme for funding waste management and future decommissioning,” he said.

“In particular, obtaining up-to-date information on the need for clear policy direction, appropriate funding schemes, a strong institutional framework to execute the programme and a clear regulatory mechanism to ensure sufficient funds for the programme has been very important for us,” he added. “I can go back to Ghana with new ideas to share with my team and government.”

— *By Jennet Orayeva*