

Decommissioning and remediation: enhancing safety of the public and the environment

By Yukiya Amano

Nuclear science and technology have many beneficial peaceful uses, including the generation of energy and the production of radioisotopes for use in cancer treatment. All nuclear materials must be carefully disposed of when they, and the facilities housing them, come to the end of their useful lives.

For countries embarking on new nuclear power programmes, preliminary plans for the eventual decommissioning of reactors and the safe disposal of material such as spent nuclear fuel are now developed before the first brick is laid. Advance plans are also made for how this should be funded. However, this was not always the case: When many of the more than 400 nuclear power reactors operating in the world today were built, there was no such requirement. Many countries are now implementing or devising plans for decommissioning such facilities. The IAEA helps them to do so, bringing its international expertise and nearly six decades of experience to bear.

This issue of the *IAEA Bulletin* highlights good practices in action around the world. In Spain, the decommissioning of the country's first nuclear power plant is progressing on time and on budget (page 7), while in France's Limousin region, environmental remediation has transformed former uranium mining sites into recreational areas for the public (page 14). In Central Asia, the IAEA is helping governments to safely clean up an estimated one billion tonnes of contaminated waste left over from uranium mining (page 12).

Innovative technologies and trends in decommissioning and environmental remediation are also examined (page 22), and

readers are offered a glimpse into the life of a decommissioning manager (page 10). We explain the challenges of decommissioning research reactors, which — unlike nuclear power plants — are often located in urban areas (page 16).

Know-how

An essential component of planning for decommissioning and environmental remediation is knowledge sharing. Facility and site owners can build on the experience of counterparts in other countries to develop better and more comprehensive plans for the future. The IAEA serves as a platform for this cooperation. We also have an important role to play by providing safety standards and nuclear security guidance for decommissioning and the management of nuclear waste.

Countries and facility operators must always be prepared for the possibility of radioactive contamination as a result of a nuclear or radiological accident or an industrial mishap. Proper planning makes it possible to respond swiftly and effectively if an incident should occur and to minimize the harmful effects of contamination on people and the environment. Over the last five years, the IAEA has provided significant support to Japan in this area (page 8).

I hope that this edition of the *IAEA Bulletin* will increase awareness of these issues and that it will prove useful to participants in the IAEA International Conference on Advancing the Global Implementation of Decommissioning and Environmental Remediation Programmes to be held in Madrid from 23 to 27 May.



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— Yukiya Amano,
Director General, IAEA



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