We’ve got this

As this issue was in the final stages of production the ANS Decommissioning and Remote Systems meeting was being held in Pittsburgh, Pa. (July 31-August 4). During his keynote address to the conference, William Magwood, former Nuclear Regulatory Commission commissioner and current director-general of the Nuclear Energy Agency, noted that when looking at issues facing upcoming nuclear decontamination and decommissioning projects around the world, there is limited global experience in transitioning sites from a D&D to greenfield status. The problem, Magwood said, is not the lack of technologies and methodologies for undertaking D&D projects. Those are well understood, he said. The problem is the lack of successfully completed and documented projects from which to draw conclusions and lessons learned. That lack of experience is a factor in the difficulty in controlling cost and schedule estimates, Magwood added.

As D&D projects escalate, getting a site to greenfield will take a broad knowledge base.

A number of issues concerning the importance of international cooperation and developing best practices were subjects of discussion at the International Atomic Energy Agency’s May conference, “Advancing the Global Implementation of Decommissioning and Environmental Remediation Programs.” A report from that conference, including some of the lessons and strategies that it generated, can be found beginning on page 20. While recognizing the challenges of sharing information due to market competition, the conference speakers stressed the importance of creating opportunities for discussing, comparing, and finding common solutions to D&D tasks.

As for examples of completed projects, ZionSolutions is closing in on the home stretch of the decommissioning of the Zion nuclear power plant in Illinois. Most of the radiological hazard has been removed or secured at the site, and work is shifting to a purely demolition phase. Progress over just the past year can be seen in the photographs accompanying the article, “Zion: A Progress Report,” which starts on page 24. The lessons learned by ZionSolutions’ parent company, EnergySolutions, are certain to be implemented at other sites as more commercial plants are shut down.

During his address, Magwood also noted the complications caused by evolving circumstances and requirements in many countries facing D&D projects. While he was primarily referring to changing regulatory landscapes, he could just as easily have been talking about Brexit. What effect Britain’s recent vote to exit the European Union will have on new and end-of-life nuclear projects is yet to be seen, but already the new Prime Minister, Theresa May, has closed the United Kingdom’s Department of Energy and Climate Change, integrating it with the new Department for Business, Energy, and Industrial Strategy. In July, May also delayed a decision on the new-build project at Hinkley Point C.

Regardless of Brexit, the United Kingdom is continuing to make progress in cleaning up its legacy waste. As part of the decommissioning of the Sellafield nuclear site, the United Kingdom’s National Nuclear Laboratory, working with the U.S. waste management company Kurion, has commissioned a new in-container vitrification system (see page 28) that should reduce both the cost and volume of waste to be disposed of. Furthermore, Sellafield Ltd., the company responsible for decommissioning the site, is working with universities, labs, and private companies to research and develop new robotic and remote systems tools to handle some of the more risky D&D work at the site (see page 32).

Around the world, nuclear power plants and facilities are being shut down due to both age- and economic-related issues. In the United States, we recently have seen the closing of San Onofre and Crystal River-3 because of structural problems, and Kewaunee and Vermont Yankee because of skewed markets. We have the technologies to take down these plants, and every day we build the global knowledge base that will allow us to do so safely and cleanly, paving the way for a new generation of nuclear power. —Tim Gregoire, Editor