On February 5, 2014, a salt haul truck in the underground of the Waste Isolation Pilot Plant (WIPP) in New Mexico caught fire. Nine days later, in an unrelated incident, an exothermic chemical reaction in a waste drum caused it to breach, spreading radioactive contamination through the underground. Trace amounts of transuranic elements were also released into the outside environment.

In the three years following those events, personnel with the Department of Energy and its contactor, Nuclear Waste Partnership (NWP), worked tirelessly to bring the facility back into working condition. With no amount of hyperbole, Phillip Breidenbach, NWP president and project manager, called it a “heroic effort.” In addition to having to complete recovery work in a contaminated environment, workers had to operate in an underground with reduced ventilation. This presented its own challenges, as the DOE had to balance efforts to maintain the mine’s stability with cleanup and recovery work.

The contributions of the New Mexico Environment Department also should not be overlooked. While acting as the regulatory authority over WIPP, the department did not take an adversarial role, but worked with the DOE in the shared vision that the reopening of the repository was in the best interest of both the country and the state.

The hard work paid off, and on January 9, the only deep geologic repository for defense-related nuclear waste was officially reopened for receiving waste (see Headlines, p. 6). Things will not, however, be like they were before. As Todd Shrader, manager of the DOE’s Carlsbad Field Office, put it, WIPP now has a “new normal.” The underground, after all, remains a contaminated site, and it will be years before ventilation is fully restored, which means that the amount of work that can be done underground will continue to be limited.

It will also take the some time for the DOE to get through the backlog of waste still waiting on-site for emplacement before it can begin accepting new shipments from waste-producing sites. It will be a slow process. Workers are currently completing two to three waste emplacements each week, and the DOE doesn’t expect to ramp up to five shipments a week until sometime this spring, when off-site shipments are expected to resume.

A new aboveground interim storage facility the DOE is hoping to construct on the site should help improve the efficiency with which waste is processed. The DOE is currently seeking permits to construct the new storage facility, which has been reported to have a $2-billion price tag. If built, the storage facility will add 65,280 cubic feet of transuranic waste storage capacity to the WIPP facility, enhancing the DOE’s ability to manage waste.

There are a number of lessons to be learned from the events at WIPP, including how a repository can best recover from a radiological incident. After a three-year hiatus, however, it is clear that one of the foremost lessons is just how important WIPP’s role is to the cleanup of the nation’s legacy waste, and to the future of nuclear in general. Sometimes, you don’t realize just what you have until it’s gone.—Tim Gregoire, Editor