

A world without WIPP

While an unfortunate blemish on an otherwise stellar 15-year safety record, the incidents at New Mexico's Waste Isolation Pilot Plant (WIPP) in February demonstrated that the deep geologic repository for transuranic (TRU) waste works, and works well. The salt truck fire on February 5, an isolated incident, caused no injuries beyond minor smoke inhalation. Workers were promptly evacuated from the mine and the fire contained. The radiological release nine days later, while much more significant, was likewise quickly contained when, after an air monitor sounded an alarm, exhaust ducts were closed and exhaust air from the mine was redirected through HEPA filters. Only trace amounts of americium and plutonium were released into the environment and the dose to the public and workers was well below background levels. It was a worst-case scenario that was, to the outside world, a nonevent.

Or so it should have been. Unfortunately but not surprisingly the accident is being manipulated by those opposed to nuclear energy in all its forms, who have leaped on it as an example of our technical inability to safely manage nuclear waste. It's a conclusion hardly based in reality, but then again, who needs reality when we have perception in which to stir fear, uncertainty, and doubt? The real tragedy of WIPP is that the nation's only TRU waste repository will be closed for many months, if not for years.

Of course, the closure of WIPP will have—and is having—a significant impact on the Department of Energy's efforts to clean up the country's legacy waste. Already the DOE has missed its goal of removing the remaining 7 percent of 3,706 cubic meters of TRU waste from Los Alamos National Laboratory—and at a time when the department was so close to the end zone. Without a dis-

The incidents at WIPP were neither an environmental nor a human catastrophe, but that isn't stopping opponents from turning it into a major incident.

posal path for their high-priority waste, Los Alamos and other DOE sites could pose a risk to the environment—the same environment those opposed to WIPP and Yucca Mountain claim to be protecting.

Likewise, before the accident, there had been talk about expanding the role of WIPP to accept Greater-Than-Class-C waste. As the DOE's Doug Tonkay pointed out at an Electric Power Research Institute meeting in June, the incidents at WIPP have stifled any such talk for the foreseeable future (see the full meeting report beginning on page 40). And it is clear that it's not just federal sites that are being negatively affected by the closing of WIPP. The Nuclear Regulatory Commission currently has 17 commercial nuclear power plants in various stages of decommissioning, and more are on the way. The closing of WIPP provides fresh ammunition for opponents of any repository, whether at WIPP, Yucca Mountain, or elsewhere. And so, used nuclear fuel and waste continue to sit where no one really wants to see it sit.

The question then becomes one of when does safe become “too safe?” When does the desire to keep one location incident-free put others in jeopardy? It is an interesting question, and one that is taken up in this issue by the authors of “Radioactive Futurology: Issues Associated with Regulatory Compliance Periods for Radioactive Waste Disposal,” starting on page 26. In the article, the authors explore the regulatory requirements for low-level radioactive waste disposal sites.

The rules that apply to WIPP, meanwhile, stand in sharp contrast to the less stringent regulations surrounding disposal methods of decades past. This is evident in the multiple sources of radiological contamination found in a New York City park, as explained by Carl Young in the feature starting on page 14. Then there are the DOE sites themselves, where expediency (we were trying to win wars after all, first World War II and then the Cold War) precluded strict controls. The result has been a legacy of groundwater contamination. Two of our cover features deal directly with this situation. First, beginning on page 18, we provide DOE highlights of actions the department is taking to remediate groundwater contamination at several of its sites. Second, the DOE's Office of Legacy Management details a snowmelt experiment conducted to help fill in the gaps of our understanding of how uranium is transported through soils and groundwater (page 24).

In responding to the release at WIPP, New Mexico Environment Department Secretary Ryan Flynn said, “One event is far too many.” Fair enough. But it would be a shame to throw out the lessons of WIPP—lessons that have showed us that radioactive waste can be safely contained in a geologic repository—because of an isolated, nonthreatening incident. In our steadfast effort to try to achieve zero incidents, we surely are setting ourselves up to fail. Just look at all the waste left sitting there with no place to go. Is that a solution?—*Tim Gregoire, Editor*