About Us Contact Us e-Edition App-Downloads Login



63°	
Clear	

S
\Box
Б
S
C
□.
Б
Ф

FEATURED

Plans to truck nuclear waste on the interstate sounding alarms

By John Finnerty

jfinnerty@cnhi.com Sep 18, 2016

HARRISBURG – Government plans to truck nuclear waste along the interstate in western Pennsylvania and five other states is akin to allowing a series of potential "mobile Chernobyls on steroids," said Kevin Kamps, radioactive waste watchdog for the group Beyond Nuclear.

Environmentalists are sounding alarms about the possible consequences, especially if a truck crashes, catches fire and causes the waste to escape its container.

Kamps likened the possibility to the 1986 disaster in the Ukraine that killed 30 people, injured hundreds more and contaminated huge swaths of land.

Beyond Nuclear and five other groups are suing the Department of Energy, hoping to halt the shipments until the government can study their impact.

In 2013, the department said a study isn't needed because earlier reports have already been done. But those studies focused on solid waste – not liquid – and environmentalists say this would be the first time liquid nuclear waste has been moved in North America.

"Transporting even solid, high-level radioactive waste – such as irradiated nuclear fuel from commercial atomic reactors – is already, itself, very high risk," Kamps said.

"Shipping liquid, highly radioactive waste is even higher risk," he said, noting the ease with which it could permeate the soil and water supply.

But independent experts said the environmental groups may be overstating the dangers – particularly with a comparison to Chernobyl.

"That's crazy talk," said Mark Trump, associate director for operations at the Penn State Breazeale Nuclear Reactor.

Trump said he doesn't know anything specifically about the planned shipments from Chalk River, Ontario, but he has experience dealing with nuclear materials in his job at the longest operating, licensed research reactor in the country.

Plans to truck nuclear waste on the interstate sounding alarms | News | tribdem.com

Containers holding the waste are designed to hold up in a crash, he said.

"As a scientist, I'm never going to say there's no risk," he said.

But, in the event of a truck accident, a diesel fuel explosion is a more immediate hazard than exposure to the nuclear cargo, he said.

Medical waste

The shipments would involve highly-enriched uranium from a facility that produced isotopes used for medical imaging scans. The plan is to move the waste from the Chalk River facility to an Energy Department plant in South Carolina.

It would be the first shipment of nuclear waste as part of the government's Global Threat Reduction Initiative, intended to wrest control of material that could be used in improvised devices, according to documents included in the environmental groups' lawsuit.

The plan involves placing 6,000 gallons of waste in casks that are housed inside 20-foot containers. Each truck would carry a single container, with about 60 gallons of waste.

The 1,100-mile route includes portions of Interstates 90 and 79 in western Pennsylvania, and on Interstates 79 and 77 through Charleston, West Virginia, on its way to the facility in South Carolina.

The government argues the odds of an accident are slim, Kamps said. But the history of nuclear power shows that things sometimes go wrong, with catastrophic results.

A tsunami caused by a March 2011 earthquake knocked out power, allowing reactors to overheat at the Fukushima Daiichi plant in Japan. The episode forced the evacuation of more than 100,000 people.

Kamps said the odds of that happening were about 1 in 1 quintillion.

"So you need to think about the consequences if there is an accident upwind of Pittsburgh," he said.

There have been lesser incidents involving nuclear material, as well.

In 2002, for example, two escaped convicts jumped onto a train carrying nuclear waste in North Carolina. They were just looking for a ride, but the episode demonstrates how a terrorist might be able to target nuclear waste as it crosses the countryside, he said.

Preparations

The government has taken steps to prepare first-responders if something does go wrong.

Documents in the case show the Energy Department conducted 106 training exercises involving more than 2,000 people. Those included more than two-dozen sessions with 349 students in Pennsylvania, as well as a table-top planning exercise that included another 110 participants.

One training session was held at the Greenwood Fire Department in Crawford County in October 2014, said Allen Clark, the county's emergency management director. About a dozen first-responders attended, he said.

If a truck carrying nuclear waste was involved in an accident, Clark said he doesn't believe it would automatically compel county officials to evacuate the area. He echoed Trump's point that containers are designed to withstand a crash.

"I'm more concerned about other hazardous materials" shipped on the interstate, he said, noting the scrutiny and security surrounding shipments of nuclear materials.

Mark Nicastre, a spokesman for Gov. Tom Wolf, said in a statement that Pennsylvania emergency managers participated in the table-top exercise, as well as a full-scale mock accident.

In addition they've met with other state, federal and industry officials about the shipments.

The state has an ongoing program to respond to incidents involving nuclear materials, said Nicastre, noting that he could not divulge particulars about the plan to ship material from Chalk River.

"We believe that emergency personnel in the commonwealth are more than capable of responding to any potential incident or problem," he said.

But environmental groups say the Energy Department doesn't need to move the waste in the first place.

In at least one similar situation, nuclear waste in Indonesia was diluted so that it no longer contained weapons-grade uranium, said Mary Olson, director of the southeast office of the Nuclear Information and Resource Service, another group involved in the lawsuit.

That waste was solidified and placed in storage, rather than moved back to the United States, she said.

"The same plan could be applied to the Chalk River waste," she said.

An Energy Department public affairs office didn't respond to a request for comment.

Opening the gates

A spokesman for the Nuclear Energy Institute, a trade group, noted there have been "thousands of shipments of high-level and low-level radioactive waste since 1964 – with no significant issues."

The group's spokesman declined to weigh in on the Chalk River controversy, saying its expertise is commercial power.

But nuclear materials now shipped along the interstate and via other channels is limited compared to what could be coming.

There has been little movement of waste from power plants in recent decades, with no place to store it.

Plans to create permanent nuclear waste storage in Yucca Mountain, Nevada, were derailed by opposition from environmental groups.

That's forced power plant operators to keep waste onsite, while awaiting word on a new plan.

The Nuclear Energy Institute estimates that Pennsylvania's nuclear power plants have 7,100 metric tons of used fuel in storage.

Only Illinois has more used nuclear waste warehoused at its power plants.

"The barriers to moving waste from U.S. reactor sites are many, but when that waste moves, it will take tens of thousands of containers on trucks and rail cars to do it," Olson said.

Some estimates suggest 50,000 truckloads will be needed to haul all of the waste now stored at power plants.

"So, the 150 trucks from Canada are significant. Any time this material is moved, it is significant," Olson said. "But the Chalk River shipments are still like Little League compared to moving the 40 years of waste accumulated at reactor sites.

"When those gates open," she said, "it will be a flood."

John Finnerty is based in Harrisburg and covers state government and politics. Follow him on Twitter @CNHIPA.

Tags

Tom Wolf Safety Warning Systems Pennsylvania **Department Of Energy** Radioactive Waste Scientist Mark Nicastre Mary Olson Fukushima Daiichi Plant Ontario Mark Trump Chernobyl Ukraine Pittsburgh West Virginia **Nuclear Energy Institute** Allen Clark **Kevin Kamps** U.s. Reactor Penn State Breazeale Nuclear Reactor **Chalk River Facility**

John Finnerty





