Accident at Deep Underground Test Project Dispersed Plutonium, Exposed Workers

Cleanup to Cost Over $2 Billion

In 1989, the renowned undersea explorer Jacque Cousteau said, "A common denominator in every single nuclear accident—a nuclear plant or on a nuclear submarine—is that before the specialists even know what has happened, they rush to the media saying, 'There's no danger to the public.' They do this before they themselves know what has happened because they are terrified that the public might react violently, either by panic or by revolt."

On Feb. 14, 2014 a barrel of plutonium-contaminated waste blew apart deep underground at the Waste Isolation Pilot Project (WIPP), near Carlsbad, New Mexico. The WIPP experiment was an attempt to discard some plutonium wastes left from 60 years of nuclear weapons production. The uncontrolled explosion spewed plutonium particles throughout the deep underground chambers and dispersed them up and down the 2,150-foot elevator and ventilation shafts, closing the dump site indefinitely. The *Los Angeles Times* reports that it will cost at least $2 billion to repair the damage and to attempt decontamination.

Ventilation shaft filtration systems failed to keep the contamination underground, and plutonium-laden dusts were pulled up the deep shafts by the huge ventilation fans on the surface contaminating at least 13 workers on site that day. A federal investigation found two dozen violations of safety procedures. Yet even 2.5 years later the government doesn't know why the barrel exploded. "And [$2 billion] does not include the complete replacement of the contaminated ventilation system or any future costs of operating the mine longer than originally planned," the *Times* reported.

At WIPP, Cousteau's 'common denominator' kicked in as usual. As the *LA Times* said: "When a drum containing radioactive waste blew up in an underground nuclear dump in New Mexico two years ago, the Energy Department [DOE] rushed to quell concerns in the Carlsbad desert community and quickly reported progress on resuming operations. The early federal statements gave no hint that the blast had caused massive long-term damage to the dump, a facility crucial to the nuclear weapons cleanup program that spans the nation…"

The DOE says the 13 workers doused with radioactive smoke and dust "were tested for *internal* radioactive contamination" (emphasis added) and that "initial fecal samples measured some radioactivity above normal background levels." A serious admission for the victims, because internal decontamination is not possible.

The DOE also says 140 workers were exposed to radiation the following day, and that "… 22 were notified that their exposure was below the 10 millirem level, which is about the same exposure a person would get from a chest X-ray."

This standard comparison of internal radiation exposure to X-rays (which deliver only an external dose) is deliberate and sophisticated disinformation. The nuclear industry and many government agencies often use this disinformative comparison, prompting readers to treat the exposure as trivial. Because X-rays only dose the target with external radiation, the difference is significant. Dr. Chris Busby of the Low Level Radiation Campaign (llrc.org) in Wales says it's the difference between sitting in front of a warm fire and popping a hot coal from the fire into your mouth.

WIPP's worker doses were *breathed-in* exposures, after which hot particles can lodge in tissue or bone and then for long periods of time bombard surrounding cells with deadly radiation.

All radiation exposures shorten our lives and even low doses have been shown to cause dozens of debilitating diseases and disorders short of death including nose bleeds, bleeding gums, joint pain, hair loss, liver disorders, elevated blood pressure, gastrointestinal problems, muscle pain, headaches, fatigue, skin rashes, respiratory problems, heart problems, miscarriages, stillbirths, infant mortality, birth abnormalities, and cancers.

The so-called Pilot Project at Carlsbad has been promoted as the answer for disposing of plutonium-tainted nuclear weapons waste, and it was "designed to last 10,000 years." But as Santa Monica, California activist Myla Reson reported, "The dump failed 9,985 years ahead of schedule."

And we're safer for it, Reson says, "because justification for approval of the dump relied on a fabricated site characterization and analysis" which made continued use of the dump potentially catastrophic—either through onsite explosions, long-term ground water contamination, or transportation disasters involving crashes en route to the dump. ***—John LaForge***

Plutonium-contaminated smoke and dust was blown throughout the entire Waste Isolation Pilot Project Feb. 14, 2014 when a barrel exploded, reaching the outside and contaminating at least 22 workers.

Groups File Lawsuit for Injunction to Keep Liquid Radioactive Waste Shipments Off Highways

At least 150 truckloads of extremely dangerous liquid radioactive waste are slated to drive through Canadian and US communities and across major waterway crossings, from Chalk River, Ontario, in Canada to the Savannah River Site, in South Carolina.

Seven nonprofit organizations challenged these unprecedented, high-risk shipments in federal court in Washington, DC Aug. 15, requesting preliminary and permanent injunctions to prevent the import and transport which violates US federal environmental, atomic energy and administrative procedure laws.

The coalition lawsuit charges that the Department of Energy (DOE) and National Nuclear Security Administration (NNSA) failed to provide a thorough public process as required under the National Environmental Policy Act (NEPA) to fully analyze the hazards of shipping liquid highly radioactive waste on roads. An Environmental Impact Statement must be prepared and made available for other federal agencies and citizens to review and comment on, including a discussion of alternative ways to deal with the nuclear waste.

Experts from the international coalition testify that the shipments are unwarranted, ill-advised and entirely unnecessary. Allowing highly radioactive liquid wastes from Canada to be shipped through communities and over major waterways in Canada and the United States, without the deliberative NEPA procedures, would set a dangerous precedent, and it would also intensify pressure on South Carolina to become an international nuclear sacrifice area.

US Rep. Brian Higgins, D-NY, has said that the proposed shipments raise significant homeland security questions. The US House of Representatives unanimously passed Higgins-sponsored legislation requiring a NEPA Environmental Impact Statement for the proposal.

The liquid high-level nuclear waste in question is a corrosive acidic mixture of dozens of highly dangerous radioactive materials including cesium-137, strontium-90, iodine-129, plutonium-239, and weapons-grade uranium-235, left over from the production of medical isotopes at Chalk River, Ontario, northwest of Ottawa.

Although it was previously determined that this highly dangerous liquid waste would be solidified and stored in Canada, the DOE now plans to truck 6,000 gallons of the extremely radioactive waste, in liquid form, to the Savannah River Site, in exchange for $60 million from Canada.

"Liquid high-level nuclear waste is known to be among the most dangerous materials on the planet, as we have seen at the Savannah River Nuclear Weapons Site and the nuclear power and weapons reprocessing site at West Valley, New York. There is a good reason why no one has ever tried to move this stuff over public roads before," said Diane D'Arrigo of Nuclear Information & Resource Service.

"Our organization has fought against the needless and heedless transport of solid waste uranium fuel over public roads, rails, and waters," said Kevin Kamps, nuclear waste specialist at Beyond Nuclear. "The only thing worse than solid irradiated uranium is the liquid variety. It is a Mobile Chernobyl. It cannot be contained when spilled due to crash, fire, or deliberate attack," he said.

Dr. Gordon Edwards, president of the Canadian Coalition for Nuclear Responsibility, said, "Chalk River has been solidifying exactly the same kind of liquid waste for over 10 years already. In 2011 Chalk River promised to handle all this material on site... making the high-risk transport of this material over public roads completely unnecessary."

The lawsuit is being filed against the DOE and National Nuclear Security Administration on behalf of a number of organizations whose individual members live along likely transport routes who could suffer significantly in the event of an accident. ***—Beyond Nuclear, Nuclear Information & Resource Service, Canadian Coalition for Nuclear Responsibility, Savannah River Site Watch***

Consumer Group Says Virginia Reactor Being Built Unlawfully

Dominion Virginia Power, a section of the giant utility Dominion, is proceeding unlawfully with construction of its $19-billion-plus power reactor 80 miles from Washington, DC—called North Anna 3—and must get formal approval from the Virginia State Corporation Commission (SCC) before it can continue, according to a petition filed August 30th by the Virginia Citizens Consumer Council (VCCC), a nonprofit group based in Elliston, Va.

The group's "Petition for a Declaratory Judgment" says in part: "At an estimated total cost of at least $19.2 billion, North Anna 3 would be the most expensive power [reactor] ever built in the United States and could raise customers' rates by 26 percent or more, according to the Virginia Attorney General. While Dominion claims that North Anna 3 is needed for compliance with the federal Clean Power Plan, it would be far costlier than the low-carbon alternative of combined renewables, demand-side management, and efficiency … Dominion has not complied with Virginia law by failing to seek SCC approval before making expenditures on project development and beginning preliminary construction of North Anna 3."

VCCC President Irene Leech said in a statement: "This is a huge raid on the pocketbooks of Virginia consumers and businesses. Dominion has spent approximately $600 million on project development and preliminary construction of North Anna 3, but has not yet sought or obtained Virginia State Corporation Commission approval for those expenditures. This is not a lawful or prudent way for Dominion to proceed when ratepayers are going to end up footing the bill. We've already seen ratepayers in this state stuck with a tab for over $300 million for the North Anna 3 project and there is no guarantee a reactor will ever be built or a single electron of power will be generated."

In a formal declaration submitted in support of VCCC's petition, former Nuclear Regulatory Commission Commissioner Peter Bradford, who also served as chairman of state utility regulatory agencies in both New York and Maine and now is an adjunct professor at Vermont Law School, wrote: "The economic impact of North Anna 3 on Virginia will be immense. Dominion's construction cost estimate of $19.2 billion dollars (including financing costs) for the proposed 1,470 megawatt power reactor would be a commitment of about $2,400 for every citizen of Virginia, or $9,600 per family of four, and—of course—the impact is even greater because it is confined to Dominion customers."

"Abysmally wasteful and unnecessary"

On July 12, 2016, Dr. Mark Cooper, senior fellow for economic analysis, Institute for Energy and the Environment at Vermont Law School, also submitted formal comments on behalf of VCCC. Dr. Cooper calls the North Anna 3 project "abysmally wasteful and unnecessary," concluding that it would cost twice as much as solar to generate the same amount of energy, [and] fatten profits for shareholders by inflating Virginia ratepayer bills by up to 36 percent (reflecting $6-12 billion in unnecessary costs).

Dr. Cooper's analysis concluded: "North Anna 3 is unreasonable, unnecessary, inefficient and wasteful and should be removed from Dominion's Integrated Resource Plan. Dominion is incorrect in asserting that North Anna 3 is needed to satisfy the requirements of the (EPA) Clean Power Plan. To the contrary, a combination of renewables, demand-side management, and efficiency can not only provide equivalent capacity, but also the same level of excess capacity."

Dominion's corporate website says the company "is a safe, world-class nuclear operator, and as part of its strategy to ensure adequate, reliable electricity for the future, the company is taking steps toward constructing a third nuclear generating unit adjacent to its existing two nuclear units at its North Anna Power Station in Louisa Co., Va."

On August 23, 2011, the North Anna site was rocked by a 5.8-magnitude earthquake that shook Dominion's old reactors 1 & 2 twice as hard as they were built to handle. This unanticipated "violation" was the first of its kind in the country's 60-year-long history of nuclear power, and came six months after the catastrophic earthquake-tsunami-and-triple meltdown in Fukushima, Japan. The Virginia quake moved 25 of Dominion's outdoor waste casks—that hold highly radioactive, extremely hot waste fuel and weigh 115 tons each—up to 4.5 inches.

Not to put too fine a point on the issue, but the $19 billion Unit 3 is being built above an earthquake fault.

—Virginia Citizens Consumer Council