

What Could Go Wrong?

Deadly High-Level Radioactive Waste: Health and Safety Concerns About Storage and Disposal

Austin, TX – A nuclear expert, a medical doctor, and an attorney joined public interest advocates to address the health and safety risks of bringing the hottest of nuclear reactor waste, the spent nuclear fuel rods, to Waste Control Specialists' (WCS) dump in Andrews County, Texas or another Texas site. The legal issues involved were discussed as well.

Governor Perry and Speaker Straus are pushing consideration of importing dangerous radioactive waste for storage and possibly disposal in Texas, and the House Environmental Regulation Committee will hold a hearing on the issue in the near future.

The Interim Committee charge is to "study the rules, laws, and regulations pertaining to the disposal of high-level radioactive waste in Texas and determine the potential economic impact of permitting a facility in Texas," said Rep. Lon Burnam, of District 90, Ft. Worth. "Examining the risks of importing exceedingly dangerous high-level radioactive waste into Texas seems to have been left out, but is very important for protecting our health and safety."

"High level radioactive waste can be a major threat to health and well-being. Obviously the effects are dependent on the quantity, the strength of the radioactivity, and the length of exposure that occurs. As with many health threats, growing children and babies in the womb are particularly at risk and vulnerable," said Dr. Elliot Trester, of Texas Physicians for Social Responsibility. The effects of radioactivity can be immediate and have long term consequences as well. The fact that the nuclear components of spent fuel rods can last for centuries and still be lethal is particularly disturbing."

According to a new report by the Texas Commission on Environmental Quality, an unshielded person a meter away from high-level radioactive waste would receive a lethal dose and die within a week and the waste Legislators are considering bringing to Texas for is four times hotter than this in terms of radioactivity.

"Used nuclear fuel rods contain plutonium and uranium isotopes, many of which have long-half lives and remain dangerous for thousands of years or longer," said Dr. Arjun Makhijani, president of the Institute for Energy and Environmental Research. Reprocessing of this waste is expensive and not a viable solution. In general, the best approach for now is to move as much spent fuel as possible out of spent fuel pools and store it in dry casks on site. Moving spent fuel needlessly increases risks."

"Science, not politics, must come first. Extensive research is needed and the right combination of geologic setting, engineered barriers, and repository sealing and closure systems is crucial for long-term disposal and should be done before site selection starts. The standard setting process for the failed Yucca Mountain repository was poor. When the site didn't meet the proposed standard, a new standard was mandated, instead of a new site. Public health protection standards

should be set before site selection begins,” said Makhijani. An independent institution, apart from the Department of Energy, is needed if effective oversight is to be achieved.

“The nuclear industry and its numerous political and government apologists refused to listen to common sense for decades and continued to generate spent nuclear reactor fuel as though we had disposal all figured out. True to history, the industry targets areas for dumps that lack political clout, like West Texas, the next proposed nuclear sacrifice zone,” said attorney Robert Eye. For decades it was believed that much commercial nuclear power waste would be reprocessed and that a disposal site would become available for high-level radioactive waste. A long, expensive series of failures showed these assumptions to be false. The Nuclear Waste Policy Act of 1982 and amendment in 1987 made the federal government the regulator of spent nuclear fuel, with a repository to be developed by the DOE and licensed by the NRC.

Federal and private efforts to construct an interim storage site failed and Nevada fought efforts to make Yucca Mountain the nation’s geologic repository. Faulty science, and legal and political battles led to DOE spending nearly \$15 billion on the site, which hasn’t been constructed. Funding was halted in 2011.

The US Government disposes of high-level radioactive waste at the Waste Isolation Pilot Plant, near Carlsbad, New Mexico. The site had recently been considered as a possible location for high-level commercial waste, but it has closed following both an underground fire and an airborne release of plutonium. The site’s future is uncertain.

The NRC’s Waste Confidence Rule arose from their decision not to “continue to license reactors if it did not have reasonable confidence that the wastes can and will in due course be disposed of safely,” said Bob Eye. “This rule is used in reviewing new reactor licenses and license renewals. The timeframe for getting disposal capacity in place is slipping dramatically. Several states and environmental groups petitioned for review of the rule. The NRC halted licensing decisions until they complete a Generic Environmental Impact Statement (GEIS) and revise federal code, which is scheduled for completion by September 2014.” The rule change would allow spent nuclear fuel to be stored for 60 years after reactor shutdown.

Obama’s Blue Ribbon Commission said that a pilot interim storage facility could be in place by 2021, a larger storage facility by 2025, and a geologic repository by 2048. The Government Accountability Office says that several decades would be needed to transport of the spent nuclear fuel to a geologic repository and they anticipate that most US reactors closing by 2040.

“We don’t need or want this deadly, dangerous waste which every other state has rejected, or the risks it poses to our health and safety,” said Tom “Smitty” Smith, director of Public Citizen’s Texas Office. “The Blue Ribbon Commission said that high-level waste storage or disposal isn’t likely to happen without state and local support. Unfortunately, Governor Perry and some Texas Legislators actually think dumping this waste on Texans is a good idea. Our fear is that the Legislature will pass resolutions asking Congress to designate our state for the unnecessary storage or disposal of spent nuclear fuel. We will fight this horrible idea.”

“We don’t need our rivers and land poisoned by some of the deadliest contaminants on Earth. We don’t need children threatened by radiation poisoning, from leaks or transportation accidents. It’s time to stop producing these deadly materials and to prevent their importation,” said Karen Hadden, director of the SEED Coalition. “We should reduce threats from crowding in existing spent fuel pools, where critical reactions can occur and lead to nuclear meltdowns, by moving spent fuel into dry casks and storing it onsite.”

For more information: NukeFreeTexas – www.nukefreetexas.org

PSR: <http://www.psr.org/environment-and-health/environmental-health-policy-institute/radioactivity-and-health.html>

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