

Energy Matters

[Suit Seeks Review of Local Nuclear Waste Storage](#)

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By Roger Witherspoon

A federal court suit challenging the right of nuclear plant operators to store high level radioactive waste on site for 60 years or more was filed yesterday by the attorney generals of Vermont, New York, and Connecticut.

The suit, filed in the US Court of Appeals in Washington, DC., seeks to overturn a temporary storage rule adopted by the Nuclear Regulatory Commission Dec. 23, 2010. The NRC's order, formally known as the Waste Confidence Rule, doubled the amount of time spent nuclear fuel rods can be stored onsite from the previous limit of 30 years. And the NRC is currently considering doubling that limit again to 120 years after the plant has closed.

If the current rule stands, the spent fuel at the Oyster Creek Nuclear Generating Station for example, which is due to close in 10 years, could be kept onsite until at least 2070

and possibly until 2130. The Salem nuclear plants, whose operating licenses were extended 20 years and may be extended again, could conceivably have high level radioactive waste onsite till nearly the end of the next century. There is, of course, no way to know if the plant operators will still be in existence a century and a half from now to begin the process of cleaning up the site.



The suit charges that the NRC “acted arbitrarily, abused its discretion, and violated the National Environmental Policy Act (NEPA)... ” by not first developing a long term environmental analysis of the possible impact of thousands of tons of high level radioactive waste on the environment. And though the three attorney generals sought standing in federal court because of plants within their states, the suit applies to all 104 nuclear power plants around the nation and their long term, on site nuclear waste storage.

For its part, the NRC issued a statement yesterday that “We believe the Waste Confidence Rule has a solid legal foundation that is well explained in the Commission’s decision. The rule is in full accord with earlier court decisions interpreting the Commission’s obligations under NEPA.

“The NRC has carried out numerous studies on the safety of storing spent nuclear fuel at U.S. power reactor sites. These include a complete re-examination of spent fuel pool safety and security issues following the 9/11 attacks. The evaluations have supported that it is safe to store this material in either circulating-water spent fuel pools or dry casks for at least 60 years beyond a plant’s operational life.”

The issue stems from one of the most dangerous aspects of nuclear power operation – the possibility of a Chernobyl-like fuel fire spewing a continuous cloud of radioactive debris. The plants reactors contain about 100 tons of uranium, packaged in 12-foot-long fuel rods, and offload about a third of this “spent fuel” during refueling shut downs every 18 to 24 months. The spent fuel is a high level mix of radioactive material, including plutonium, uranium, cesium, and iodine.

Over the years, thousands of tons of spent fuel have been stored in 40-foot-deep pools, which have concrete walls about five to six feet thick, at each individual power plant. That does not make them invulnerable. An NRC study of spent fuel pool risk, released

in October, 2000, stated that “1 of 2 aircrafts is large enough to penetrate the 5-foot-thick reinforced concrete wall.... It is further estimated that 1 of 2 crashes damage the spent fuel pool enough to uncover the stored fuel.”

That would result in uncontrolled fission and a nuclear fuel fire, which would spread radiation and cause up to 25,000 deaths within a 500 mile radius, according to the NRC’s study. The U.S. Government was supposed to take charge of the nation’s spent fuel by 2010, but the planned repository at Yucca Mountain in Nevada has been stalled indefinitely. As a result, nuclear operators have been moving their oldest spent fuel into 100-ton dry casks, which sit on football-field sized pads in the open.

According to New York Attorney General Eric Schneiderman, the three attorneys general charged that the NRC violated federal laws “when it found ‘reasonable assurance’ that sufficient, licensed, off-site storage capacity will be available to dispose of nuclear power plant waste when necessary.”

Schneiderman’s office has been opposing the relicensing of the twin Indian Point nuclear reactors on the lower Hudson River. In a statement yesterday, he said “Whether you’re for or against re-licensing Indian Point, we can all agree on one thing: Before dumping radioactive waste at the site for at least 60 years after it’s closed, our communities deserve a thorough review of the environmental, public health, and safety risks such a move would present.

“This is not just a safety and environmental issue, but also one that could affect property values in Westchester, and I am committed to forcing the feds to take the hardest look possible at the risks of long-term, on-site storage, before they allow our communities to become blighted and our families, properties, and businesses threatened by radioactive waste dumps for generations to come.”

Robert Snook, Connecticut’s assistant attorney general, said “there have already been leaks of tritium from Connecticut Yankee into the water table. This state has long been concerned about defacto storage in these various active reactors and former reactors. Instead of one, scientifically studied, national nuclear repository, we have scores of them with no scientific study.

“Some are in highly populated areas with high water tables, and it is not a good place to store the waste indefinitely. I don’t want to be disrespectful of the experts at the NRC, but we do not believe there is sufficient record to show that these things are necessarily

safe for 60 years or more.

Members of the New Jersey Attorney General's office had early discussions with their counterparts about the upcoming suit, but declined to join on the state's behalf. New Jersey's nuclear operations are currently storing about 3,000 tons of high level nuclear waste. The agency did not respond to requests for comment.

But Vermont Attorney General William Sorrell, said New Jersey and other states could still file friend of the court briefs supporting the challenge as the case moves forward.

"All the attorneys general will be attending our spring meeting in a few weeks," Sorrell said, "and we will be discussing it at length at that time."



Sorrell's office is attempting to block the relicensing of Entergy's Vermont Yankee nuclear power plant, and has an ongoing criminal investigation against some of the company's executives who testified under oath to the State Legislature that there were no underground pipes at the plant carrying radioactive liquids. The assertions proved false.

He said the reason for Vermont's opposition to the existing NRC process is the agency's adoption of a single rule for all plant sites. "From an environmental concern," he explained, "the NRC should look at various factors to decide the appropriateness of on site storage. That would include considerations like the proximity to large urban areas, the proximity to flowing bodies of water, what is the condition of the bedrock underneath the facility, where is the water table, and so on.

"One size doesn't fit all. What might be prudent for short term storage on one site may make some sense for 60 years. But they are saying there is no fundamental difference between one nuclear power site and the next, and in that regard, we think the NRC just didn't do its homework."

In addition, said Sorrell, the lengthy delay takes pressure off of the U.S. government to fulfill its commitment to develop a permanent repository for the nation's high level nuclear waste. Considering that the NRC is looking to extend current operating licenses

another 40 years, and plant operators have 10 to 20 years after a shutdown before they have to begin a cleanup, the likelihood of the original operating company still being around is small.

“When you are talking in 100 and 200 year increments it is fundamentally mind boggling,” he said. “It is just going to end up being the taxpayers who are going to shoulder the financial costs of decommissioning for the various plants and shouldering the costs of the environmental cleanup.

“This is why people feel the NRC is way closer to the industry it is supposed to regulate than it is to protecting the welfare of the general public.”

The federal suit dovetails challenges to the NRC’s rule by the environmental groups Riverkeeper and Clearwater, who filed “contentions” in January with the agency’s Atomic Safety and Licensing Board asserting that Indian Point should not be relicensed without a full environmental study of the possible impact of its dry and wet storage on the local environment.

“There is no guarantee that at the end of 60 years there will be a safe national repository,” said Clearwater Environmental Director Manna Jo Greene. “And we don’t believe they have done a thorough job assessing the potential impacts of storing nuclear waste at nuclear reactors.”