

Energy Matters

[Feds Rate Region's Nuclear Fleet "Safe" But Japanese Problems Fuel Skepticism](#)

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#Fukushima



By Roger Witherspoon

All six nuclear reactors in the New York/ New Jersey metropolitan area are operating “in a manner that preserved public health and safety” and therefore will receive the minimal oversight during the coming year, the Nuclear Regulatory Commission declared in its annual assessment.

In separate reviews, the NRC concluded that New Jersey’s Hope Creek, Oyster Creek, and twin Salem Generating Station plants and the two Indian Point plants on the Hudson River just south of West Point “met all cornerstone objectives.” Those assessments put all of the region’s nuclear energy sites among the top echelon of safely operated plants among the 104 reactors in the nation’s nuclear fleet.

But the assessment comes amid growing challenges by civic groups, state, and federal agencies to the operation of some of these plants and the NRC’s reactor oversight process. In addition, the ongoing, metastasizing nuclear disaster in Japan affecting six, American-made, nuclear reactor complexes has raised doubts about the assurances of

safety from the industry and regulators that such a catastrophe could not happen here.

“The NRC has already relicensed 62 of the nation’s 104 reactors,” said David Lochbaum, nuclear safety engineer with the Union of Concerned Scientists during one of the daily briefings on the implications of the meltdowns in the Fukushima nuclear complex. “And because of that, it is very difficult for the NRC to impose new standards because they have already approved more than half the plants in the United States and that inertia pretty much makes them stay the course.



“Otherwise, there is an indication that they may have been wrong in the past. The agency hates, more than anything in the world, to suggest that it might have been wrong in the past. So they would rather continue down the wrong path than admit that they were on the wrong path in the first place.”

In the wake of the terrorist attacks in September, 2001, the NRC began a review of safety systems and security issues which might protect critical plant operations in the event of an assault or natural disaster. But the recommendations were not produced until 2003, and these were voluntary. Rather than spend the money to upgrade, the recommendations were widely ignored, and the NRC turned them in to formal rules in 2009. These improvements included requirements for spare backup diesel generators and batteries to provide power in the event of a station blackout.

But according to the NRC, 62 nuclear plant operators applied for, and received exemptions to the regulations so they did not have to spend the money – including all six regional nuclear power plants. And even if spare generators and batteries are available, the spent fuel pools are only designed to run off power from the grid – they cannot use the spares.

That is of particular concern because the spent fuel pools hold more radioactive material than the operating reactors and, if the water drains, would produce more radioactive fallout. In addition, the spent fuel pools in pressurized water reactors such

as Indian Point are in warehouse-type structures rather than concrete containment buildings.

The Pinocchio Effect

When informed at a press conference that officials from Entergy are claiming that the backup systems at Indian Point would prevent their spent fuel pools from overheating Lochbaum retorted: “Have you ever seen the movie Pinocchio? Because that’s a bald-faced lie. They should know better than to say that because it happened at Indian Point in August, 1999. They had a problem that caused them to be disconnected from the electrical grid. The batteries lasted for seven hours, and then they were depleted.

“Since lightning already struck at Indian Point, it seems a little bit foolhardy for people to claim it will never happen again. And the NRC fined them \$210,000 for bad maintenance. I doubt that they could have forgotten such a bad event in their history so quickly.”



In the wake of the Japanese drama, assurances that the plant’s operation and the NRC’s Reactor Oversight Process are effective have been questioned – especially in New Jersey where the twin, General Electric, boiling water reactors at Salem are identical to those melting down in the Fukushima nuclear complex. In New Jersey, questions have been raised from the State House to the court house.

Governor Christie appointed a Nuclear Review Task Force last week to assess the operations and emergency plans for the four reactors based in the state. The Task Force is comprised of the heads of the State Police, State Office of Homeland Security, State Board of Public Utilities, and Department of Environmental Protection. They will be assisted by the plant operators, but will have no input from nuclear critics or watchdog groups.

Norm Cohen, head of the civic UNPLUG Salem group, said “There appears to have been no effort or thought in bringing in experts from outside of the state to provide an unbiased review of safety issues at our four aging and vulnerable nuclear plants. We also suggest that the panel hold public hearings at each nuclear site. If not, then this

panel will just be a waste of taxpayer dollars.”

Larry Ragonese, spokesman for New Jersey’s environmental agency, said the exclusion of critics in the task force did not mean that its work would be biased in favor of the nuclear industry.

“Of course the operators from PSEG and Exelon are going to have to participate,” Ragonese said. “It’s their plant. We don’t have carte blanche to go into their buildings. But we will have our emergency experts and the nuclear engineers on our staff involved.

“We are not going in there just to hear them tell us everything is fine. If you are foolish enough or pompous enough to think that you can’t learn lessons from what is happening in Japan then you are at fault. We are going out there with a complete open mind. We believe we have safeguards in place in case of an emergency, but we will take one more look.”

The US Court of Appeals in Philadelphia would like another look as well. The Court was hearing a suit filed by the New Jersey Environmental Federation challenging the NRC’s decision to grant a 20 year license renewal to the Oyster Creek Generating Station.

Federation Chair Janet Tauro said “We have been battling them for five years over the relicensing. It is a GE, boiling water reactor such as you see at Fukushima, and the dry well, the containment that surrounds the reactor, is severely corroded. We were troubled that that corrosion did not raise a red flag with the NRC. Exelon failed to prove that the dry well could last another 20 years.

“Keep in mind that there are over 700 metric tons of highly radioactive fuel rods in the spent fuel pool that sits right above it.”

They lost before the NRC, and took their case to federal court. Kevin Pflug of the Eastern Environmental Law Center, the Federation’s attorney, said the group argued that the NRC acted “capriciously” to throw out objections to the license or thoroughly examine the issue of metal fatigue in the containment surrounding the ageing reactor.

“It’s a high burden to show that they acted capriciously” Pflug said. “They normally defer to regulatory agencies.”

But in a surprise move the three-judge appellate court panel, on its own initiative, issued an order March 21 that the NRC “advise the Court what impact, if any, the

damages from the earthquake and tsunami at the Fukushima Daiichi Nuclear Power Station have on the propriety of granting the license renewal application for the Oyster Creek Generating Station.”

The agency has until April 4 to respond.

To the NRC, this is unnecessary. Their assessments of the safety of the six plants, made by the NRC’s Division of Reactor Projects, follows scores of individual, special inspections held during the year at each facility to check everything from the management of radioactive waste and ageing infrastructure to the ability of plant operators to analyze the root causes of mishaps and shut downs. The plants were all rated “green” in the agency’s color coded assessment process, which was put into place a decade ago and replaced the adversarial regulatory system characterized by monetary fines for different levels of infractions.

Lochbaum, who was part of a panel appointed in 1999 by the NRC to evaluate the pilot for the current Reactor Oversight Program prior to its formal adoption, released a 10-year retrospective of the program just after the troubles began in Japan. Lochbaum found that a lack of resources is hampering the effectiveness of the oversight process.

In each region of the country, he said, the NRC only had enough staff to devote full attention to one or two troubled reactor sites, while the majority stay on the “Licensee Response” list, in which there is minimal oversight.

“Limits on NRC inspection resources may play a role in deciding when plants are moved to and from the Licensee Response column,” wrote Lochbaum. “When new problem plants emerge with problems that cannot be ignored, previously trouble-plagued plants may be suddenly cured and removed from the list of plants that require heightened NRC involvement.

“And when trouble-plagued plants improve and move into the Licensee Response column, freed-up NRC resources may allow the NRC to turn to other plants that were previously not on the list but whose problems the NRC can now address.”

That is a juggling act, said Lochbaum, which will not always serve the public well.