

<http://www.zcommunications.org/indian-point-by-john-raymond>



Z Magazine Vol. 24, No.6, June 2011

## **Indian Point**

### **A Catastrophe Waiting to Happen**

By John Raymond

More vocal on the issue than previous officeholders, New York Governor Andrew Cuomo has again called for shutting down Entergy Corporation's 2 trouble plagued Indian Point nuclear reactors that operate on a site 30 miles north of New York City. His call came in the wake of the nuclear catastrophe in Japan and was made the day after a report ranked Indian Point the U.S. nuclear plant most at risk from an earthquake disaster.

As the state's Attorney General in 2007, Cuomo called Indian Point "a catastrophe waiting to happen" and set in motion the state's current challenge to the re-licensing of the 40-year-old plant by the Nuclear Regulatory Commission. Entergy's operating licenses are up for renewal and a hearing on its application for a 20-year extension is expected to be held sometime this fall, possibly as early as September.

"You wouldn't be human if you didn't ask yourself if what happened in Japan, could happen here, and it could," said Paul Gallay, executive director of Riverkeeper, an environmental watchdog organization based in Ossining, New York. Riverkeeper is one of the groups challenging the license renewal. It joined with New York two years ago in support of Cuomo's petition to the NRC to include the issues of earthquake risk and evacuation planning in license renewal proceedings. The NRC rejected the request.

Nevertheless, the nuclear catastrophe in Japan has forced federal attention on both issues and raised others. Gallay suggests that Indian Point's extension may not get the same rubber stamp that every renewal application has gotten up to now. Still,

the NRC has never rejected one and 62 of the country's 104 reactors have been relicensed.

Entergy has fared well. In Vermont, the state legislature voted last year to reject an extension for the company's 39-year-old Vermont Yankee Nuclear Plant, with its long, corrupt safety history that includes an ongoing investigation into tritium leaks from a network of underground pipes. The NRC voted 4-0 to approve the Vermont plant for another 20 years. The vote came one day before the beginning of Japan's crisis. Vermont Yankee uses the same General Electric Mark 1 boiling water reactors with above-ground spent waste storage pools as the reactors at the Fukushima Daiichi plant.

Critical safety defaults at Indian Point are highlighted in two new independent reports that reviewed safety issues at nuclear plants. In its report, "Unacceptable Risk: Two Decades of 'Close Calls,' Leaks and Other Problems at U.S. Nuclear Reactors," the U.S. Public Interest Research Group analyzed plant safety records and found that at least one out of every four of all U.S. reactors has leaked tritium. At Indian Point, the report cites a leak, originally discovered in 2005, from a spent fuel pool located only 400 feet from the Hudson River, of the radioactive poisons, tritium, and strontium. Test wells closer to the plant showed strontium levels that exceeded 25 times the safe drinking water standard.

*The NRC and Nuclear Power Plant Safety in 2010: A Brighter Spotlight Needed* by David Lochbaum, director of the Nuclear Safety Project at the Union of Concerned Scientists, cites the NRC's "dismissal" of a longstanding leak in the liner of an earthquake safety device putting people living around Indian Point "at elevated and undue risk." The leak (2 to 20 gallons per minute) has been ongoing at least since 1993, the report said, noting that "the plant owner has not yet delivered on repeated promises" to fix it.

"Indian Point has an extraordinary number of safety problems," Gallay said. "You've got corroded pipes, some of which are buried and can't be inspected, two transformer fires in the last four years, substandard insulation around the cables that carry power to the reactors, and leaking spent fuel pools too tightly packed with too much spent fuel.... The NRC dismisses our safety concerns and it gives out exemptions as if they were candy," he continued, citing a story in the *New York Daily News* ("Indian Point's gotten a free pass on safety regulations over last decade, feds delay evacuation plan," 3/27/11). The story quoted an NRC spokesperson saying the number of exemptions granted to Entergy is "so high that 'it's not feasible for me to recount the history of all of them.'" The exemptions involve regulations related to fire safety, storage of spent fuel, and systems

designed to prevent meltdown. They include: reduced inspection requirements for the spent fuel pool which is leaking radioactive material, changes in safeguards for the transfer of spent fuel, and curtailed inspections for a rusting reactor dome.

"Indian Point is a clear and present danger to my community and it shouldn't be here," said Marilyn Elie, co-founder of the Westchester Citizens Awareness Network (WESTCAN) and a longtime activist with the Indian Point Safe Energy Coalition (IPSEC). Among her concerns are the risks posed by spent fuel pools. "The NRC has said that water with radioactive isotopes is going into the Hudson River and the leak from the spent fuel pool at Unit I is the source of this."

## **The Issue of Spent Fuel Storage**

The crisis at the Fukushima Daiichi nuclear power plant, where spent fuel pools have caught fire releasing massive amounts of radiation, has brought the issue of spent fuel storage at U.S. plants into sharp focus. In testimony on March 30 before a Senate panel, Lochbaum said that "tens of thousands of tons" of irradiated fuel sits in spent fuel pools" in U.S. nuclear plants "with almost no protection." The pools "are often housed in buildings with a sheet metal siding like that in a Sears storage shed."

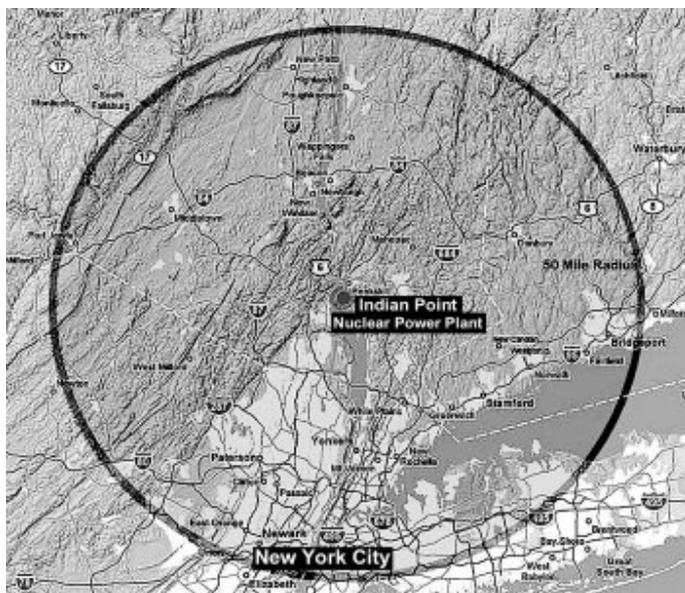
At Indian Point the spent fuel pools are in a "K-Mart type cinder block building covered by a metal roof," Gallay said, adding that the fuel rods "are packed too tightly and only a very small fraction of them have been moved into concrete dry cask storage."

Elie has also raised concern about the issue of low level releases of radioactive materials from Indian Point, allowable under federal permits for all nuclear plants. In a March 24 interview on Pacifica Radio, she noted that the plant "as part of its operation, emits low level regular and routine releases of radioactive isotopes. The NRC says it's below regulatory concern. Well, I prefer my air and water without any radioactive isotopes. I don't want to drink it, I don't want to breathe it."

The issue of low level emissions from Indian Point was addressed in testimony to the NRC submitted in 2009 in a response to the draft Environmental Impact Statement for the license renewal from Joseph Mangano, executive director of the Radiation and Public Health Project in Ocean City, New Jersey. He cited published research findings by RPHP that showed routine radioactive releases into the environment from Indian Point are among the highest of U.S. plants, and that child

cancer incidence in Westchester and Rockland counties is significantly above the U.S. rate.

His testimony included data on local thyroid cancer rates published by the U.S. Centers for Disease Control and Prevention showing that from 2001-2004, three of the counties around Indian Point—Rockland, Orange, and Putnam—had the first, second, and third highest thyroid cancer rates in the state. Noting that "thyroid cancer can be a red flag for harmful effects of radiation exposure," he said "no decision on license extension should be made until all historical health risks of Indian Point are studied using statistical evidence, and the public is fully informed."



Cuomo's renewed call for shutting down Indian Point followed publication of an NRC report that estimated the risk of core damage in U.S. reactors from an earthquake, based on U.S. Geological Survey data. It ranked Indian Point the most vulnerable plant. In 2008, a study published by scientists at Columbia University's Lamont-Doherty Earth Observatory disclosed that Indian Point sits at the intersection of two active fault lines and suggested a Magnitude 7.0 earthquake in the region was possible. While Entergy officials have made public statements claiming Indian Point could withstand an earthquake of any size magnitude that could hit the region, Elie and others have sought, unsuccessfully, to obtain and review documentation to support that contention.

"There is a design basis document for the plant that is not public information anymore," Elie said, noting that Indian Point was built in the 1960s when the standards for the physical construction and the design basis of the plant were based on science that goes back to the 1950s. "When this plant was built, you didn't have

the seismic analysis equipment that you have currently and, based on the rather primitive equipment they had, they assessed the size of a maximum earthquake at being low, which means one to three magnitude on the Richter scale," Gally said.

In the event of a nuclear disaster at Indian Point, there is no emergency evacuation plan that could handle 20 million people living within a 50-mile radius of the plant. Entergy's failure to provide an adequate emergency evacuation plan in the event of a disaster remains an issue which, along with seismic activity, Cuomo and environmental groups want to be addressed in the relicensing proceedings. "In Japan, the U.S. authorities advised Americans to evacuate from a 50-mile zone around the Fukushima plant. Indian Point is next to the densest population of any nuclear power plant in the country. Those of who live here deserve at least the same margin of safety," Elie said.

In late March, in testimony before the Senate Energy and Natural Resources Committee, NRC's Executive Director for Operations Bill Borchardt said the recommendation made to Americans in Japan was based on an NRC assessment of existing conditions there and that current emergency response procedures for U.S. plants, including evacuation plans, would be evaluated in the NRC safety reviews underway in response to Japan's nuclear crisis.

*John Raymond is a freelance writer based in New York City.*