

## **Japan disaster puts spotlight on 4-decade-old Exelon-owned nuclear plant**

### **Campaign to shutter N.J. facility gets unexpected, tragic boost**

By Ameet Sachdev, Tribune Reporter

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For more than five years, a small group of environmentalists and nuclear critics has fought to shut down one of Exelon Corp.'s nuclear power plants.

The nearly 42-year-old Oyster Creek plant, America's oldest operating nuclear reactor, sits about 5 miles inland from a string of beaches on New Jersey's coastline, known as the Jersey Shore, that draws waves of tourists in the summer. The area around the plant, about 50 miles east of Philadelphia, is one of the fastest-growing regions in New Jersey.

Opponents say the plant shows signs of aging, making it a threat to public health and safety. They have raised specific concerns about the integrity of the steel containment structure that encloses the reactor, a critical line of defense in preventing the release of radioactive materials. After reviewing those concerns, federal nuclear regulators in 2009 allowed Chicago-based Exelon to operate the plant for another 20 years.

But that wasn't the end of the fight. The opponents appealed the U.S. Nuclear Regulatory Commission's decision to a federal court, while also scoring a small victory. In December, Exelon announced that it will shut down the plant by 2019, at least 10 years before its license expires, under an agreement with New Jersey environmental regulators that spares the company from having to build costly cooling towers at the facility.

That's still not soon enough for some. And now their campaign against Oyster Creek has received a boost from an unexpected, and unfortunate, incident.

Japan's nuclear disaster has revived the debate about nuclear safety in the U.S., and it appears that Oyster Creek could be ground zero for the discussion. The plant is one of 23 reactors operating in the U.S. that are similar in design and vintage to some of the crippled reactors in Japan. While Exelon maintains that the Oyster Creek unit remains safe, the company said it expects regulators to scrutinize the adequacy of the containment systems at Oyster Creek and its six other General Electric Mark 1 reactors. Four Exelon-owned Mark 1 reactors are in Illinois.

The company also faces safety questions from a federal appeals court in Philadelphia, which is hearing a legal challenge to the Oyster Creek license renewal. Last week the court ordered the NRC to address the propriety of relicensing Oyster Creek in a new context, that of a worst-case scenario like the one Japan experienced.

"I'm very gratified that the court is asking questions," said Richard Webster, a lawyer who represents the Oyster Creek opponents. "It goes to show that the court is taking nuclear safety very seriously."

Exelon said in a statement that it operates its plants according to the highest safety standards and that it is "proud of our world-class safety record at Oyster Creek and all of our plants."

Oyster Creek was built in 1969 by Jersey Central Power & Light Co. Exelon acquired a 50 percent stake in the plant when it

merged with Philadelphia-based utility Peco Energy Co. in 2000, and it bought full control in 2002.

In July 2005, Exelon filed an application with the NRC to extend Oyster Creek's license, a business decision that Exelon and other reactor owners have made in recent years rather than try to build costly new reactors. The original 40-year term of the license was selected based on economic and antitrust factors, not technical limitations, according to the NRC's website.

Six public-interest groups, including the Nuclear Information and Resource Service and the New Jersey Environmental Federation, jointly challenged Exelon's application. They argued that the company's testing and monitoring of the containment chamber were inadequate to ensure safety margins during the 20-year extension of the plant's life.

They had reason to be concerned. In the 1980s, the plant's operators discovered corrosion near the base of the 100-foot-tall shell, which is designed to contain radiation in the event of an accident. Water had leaked into the gap between the shell, which is shaped like an inverted light bulb, and its surrounding concrete shield. At the time, operators cleaned the shell and coated it with an epoxy sealant.

When Paul Gunter, of the Nuclear Information and Resource Service, approached Webster for legal help with the groups' petition in late 2005, Webster was skeptical. Webster is an environmental lawyer who also has a degree in physics from Oxford University in England and a master's degree in engineering hydrology.

"I told him that the only cases I lose are against the NRC," said Webster, who works for Public Justice, a national public-interest law firm. "But we went in with the limited goal to try and get Exelon to do some more monitoring."

In February 2006, the NRC allowed the public-interest groups to intervene in the relicensing proceeding, the first time the agency had granted a request from the public to participate in the review of license renewal, Webster said.

Two months later, Exelon proposed to do additional testing to measure the thickness of the shell at the region that had experienced corrosion, according to public documents. In June of that year, Exelon again proposed to enhance its testing, this time every four years, in an effort to dismiss the challenge.

But Exelon was not successful, and public hearings were held before the Atomic Safety and Licensing Board in September 2007 on the narrow issue of testing frequency. The panel found that Webster's petition lacked merit and that the testing frequency and other steps Exelon proposed to eliminate corrosion would be adequate, according to its December 2007 order.

However, one of the three administrative judges on the board separately wrote that further corrosion could not be ruled out and called for more analysis of the containment shell before the plant's 40th birthday. Exelon completed the analysis in 2008 and reported that the shell was in good condition, according to documents provided by the company.

The disagreement among the panel members gave Webster's clients a glimmer of hope, and they appealed the board's decision to the NRC. While their appeal was pending, an NRC inspection found puddles of water in the same region where water had previously leaked, a 6-inch rust stain on the shell and some blisters in the epoxy coating, according to public records.

Arguing that the inspection report was new information, Webster sought another hearing on the containment structure. The NRC denied his request in April 2009 and a few days later approved the extension of Oyster Creek's license.

One of the commissioners disagreed with his colleagues' handling of the inspection report.

Gregory Jaczko, who is now chairman of the NRC, wrote in April 2009 that the report called into question Exelon's ability to meet its promises to minimize or eliminate water leaks. He said he would have required Exelon to perform a thorough inspection in 2010 of a portion of the shell in order to get the Oyster Creek license extended.

The review of Oyster Creek's license took nearly four years. The typical relicensing takes about 2.5 years, according to the NRC. Even though he lost, Webster said the efforts of his clients have improved the safety at Oyster Creek and show the value of public input in the relicensing process. Yet the NRC puts up numerous roadblocks to prevent public involvement, he said. That's why Webster's clients have challenged Oyster Creek's relicensing in court.

An NRC spokesman said the agency's license renewal review is consistent with its commitment to transparency and openness.

"This application was put under the microscope at multiple levels," said spokesman Neil Sheehan.

Charles Pardee, chief operating officer of Exelon's generation unit, agreed that public involvement is vital, but he stopped short of endorsing Webster's view that the challenge improved safety.

"We did some additional examinations and additional analytical work to verify our conclusions that the shell was safe," Pardee said.

Exelon will have the opportunity to validate the plant's safety to the federal appeals court. The company's response is due by April 4. The NRC also must respond by that date.

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