

## Energy Matters

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### [Simulated Oyster Creek Emergency Postponed Due to Real Disasters](#)

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**By Roger Witherspoon**

Operators of the Oyster Creek nuclear power plant have been granted a year's delay in their required emergency drill in South Jersey because their state emergency counterparts are still occupied with the aftermath of a summer hurricane and an early fall snowstorm.

Michael Pacilio, president of Exelon Nuclear, which operates the plant, was notified by the Nuclear Regulatory Commission that the exercise originally scheduled for Sept. 27, 2011 could be postponed until the end of June, 2012. By then, state and Ocean County emergency offices should be finished cleaning up after real disasters and able to concentrate on simulated safety efforts.

But the postponement raises questions about the legitimacy of emergency drills which are only conducted when conditions and personnel staffing are optimal. Emergency planning in New York City prior to the 9/11/01 attacks, in New Orleans prior to Hurricane Katrina, and at Fukushima Daiichi prior to the earthquake and tsunami all failed to take into account the impact of multiple emergencies either in proximity or simultaneously.



The nuclear emergency drills test the cooperation between plant officials and state and local emergency operators and their ability to evacuate thousands of people from regions threatened by spreading radiation. Federal law requires drills involving plant and community emergency organizations every two years at each of the nation's 104 commercial reactors. These are observed and graded by the Federal Emergency Management Agency. The NRC observes and grades separate drills of internal plant safety systems. Oyster Creek, which had its last monitored, public safety drill October 6, 2009, was required to hold a drill before the end of calendar 2011.

John Lamb, of the NRC's Office of Nuclear Reactor Regulation, noted in his letter to Pacilio that "Hurricane Irene passed through New Jersey on August 28, 2011, causing widespread damage and flooding in the surrounding area, and that the event required the response of the NJ State Office of Emergency Management, the Ocean County Office of Emergency Management, and the Division of State Police...

"New Jersey OEM has indicated that it is not feasible to reschedule the specific offsite functions that remain to be exercised prior to the end of calendar year 2011."

In granting the stay, the NRC noted that Oyster Creek personnel have not been idle, and portions of the emergency plan, encompassing a 10-mile zone around the nuclear plant, have been reviewed with local emergency organizations. Since the 2009 exercise, Lamb wrote, Oyster Creek "has conducted 16 training drills/ exercises/ demonstrations and 32 training sessions that have involved interface with State and local authorities.

"These drills and training sessions did not exercise all of the proposed rescheduled offsite functions, but they do support the licensee's assertion that it has a continuing level of engagement with the State and local authorities."

The 2009 exercise did not go smoothly. The Federal Emergency Management Agency (FEMA), which oversees the drills and grades them, gave Exelon a failing grade because during the simulated emergency, several municipalities were not notified of the release of radiation and the need to evacuate or shelter their residents. A remedial drill was held in January, 2010.

These types of drills were considered routine prior to the terrorist attacks in September, 2001. They are not, however, full scale drills: towns or neighborhoods are not evacuated the way public schools are totally emptied during their periodic fire drills. Instead, these "table top drills" use symbolic stand-ins which may not always be appropriate.



New York City's drills, for example, had one fireman go from his fire house to a specific location when the "emergency" sounded, and his presence represented the successful, complete relocation of several companies, their equipment and communications.

In fact, the post-9/11 study conducted for the city by McKinsey & Company, and the 2004 study conducted by the national 9/11 Commission found that when the World Trade Center was struck, fire companies acted on their own, with no coordination, and established multiple, rump, uncoordinated "command posts" downtown. There was no radio coordination between the police and fire departments – which was not an issue in the drills involving one lone policeman and one lone fireman. As a result, the police heard the order to evacuate the unstable towers but the firemen did not.

9/11-Commission member and former Secretary of the Navy John Lehman, Jr., excoriated former NYC Mayor Rudy Giuliani, Fire Commissioner Thomas Von Essen, and Police Chief Bernard Kerick in a public hearing in May, 2004, stating that their drills and resulting emergency plan "it's not worthy of the Boy Scouts, let alone this great city."

Hospitals throughout the New Orleans area had held many drills simulating evacuation patients in an emergency. But these called for hospitals or nursing homes to disperse their patients among surrounding facilities. When the levees broke during Hurricane Katrina and the region was inundated, there was nowhere for some of the hospitals' and nursing home patients to go, with tragic drowning deaths resulting. None of the drills had envisioned the need for multiple evacuations.

More recently the same lack of foresight played out in Japan last spring. The six nuclear reactors at Fukushima Daiichi had backup diesel generators in case their external power lines were down. But these had two or three days' supply of fuel. It was assumed that extra fuel could always be delivered, and that with six nuclear plants at the site, a single stricken facility could always tap the resources of the others.



The nuclear complex was helpless when the roads were destroyed by the tsunami and earthquake and all the power plants were cut off. Hearings in Congress last spring on similarities between the Japanese and American plants' preparedness revealed that it has long been considered impossible for multiple nuclear plants on the same site – like Salem 1 and 2 and Hope Creek – to all have emergencies at the same time. During the past 40 years of commercial nuclear power in America there have been no drills simulating simultaneous nuclear plant meltdowns.

Neil Sheehan, spokesman for the NRC, said the Japanese experience of multiple calamities was not lost on the regulatory agencies planners.

“The point has been raised at the Commission of the need to add more realism to the exercises,” Sheehan said. “The Commissioners acknowledge the need to look at Japan for some lessons learned and decide if there is a need over the long term for planning changes that take those factors into account.”

Mary Goepfert, spokeswoman for the state Office of Emergency Management, said New Jersey officials are not sitting idly by and leaving testing up to federal regulators. “The NRC and FEMA require drills they review every other year,” Ms. Goepfert explained, “but in New Jersey we run an exercise every year and we do an evaluation to the same standards.

“With Hurricane Irene, the question was how many counties to evacuate. With Oyster Creek, the issue is north and south, or east and west – which way is the wind blowing and what communities might be in the path of radiation.”

Goepfert said the state has its own experts in the state bureau of Nuclear engineering as well as its own weather forecasting capabilities. “We are not just dependent on information from the plant or federal officials,” she said. “We look at what is the weather and how might it change; what are the conditions of the roads and what roads might not be usable. We will look at hazardous conditions where multiple failures can happen.”

Some independent experts state that while it is important to test how well emergency agencies could operate when their resources are stretched thin, it would be a mistake to hold an Oyster Creek emergency drill at this time.

“You drill to a plan,” said Kenneth Mallette, vice president for the Northeast Region of James Lee Witt Associates. “You don't just wing it and see what happens. The nuclear industry is taking a look at Fukushima and saying we are going to have to plan for these catastrophic events. And it comes down to staffing – the same people who do the day-to-day emergency issues at the county and local levels are doing double duty now because of actual events.

“So you would have to plan an exercise to ask what do we need when there is not optimum staffing and optimum conditions? You need plans for when we are short handed to learn how we can react when we have a hurricane and

a snowstorm and an accident at the power plant at the same time. In reality, these things could happen and you could be short handed, so how do you handle that as a state agency?"

Mallette, was chief of the emergency management bureau for the NJ State Police until his retirement in 2007, said there are residents of Passaic County who are still out of their homes due to flooding and infrastructure damage caused by Hurricane Irene last August. Correcting that problem is still a state priority. But even the best of plans can get surprised.

"What happens when you have a snow storm in October?" he asked. "If you look at risk analysis, nobody thought of snow in the middle of October, and we never thought of what wet snow would do when leaves were on the trees. We look at snow in the middle of winter when the leaves are gone.

"So planners are now going back and saying how do we deal with that? We in the public sector are often exercising to tell everybody how good we are – and that doesn't do anybody any good. In this case, there is a whole process in New Jersey behind the exercise program. The planning is a living process that is always changing and never stays the same because if it does stay the same, that plan would be doomed to failure.

"Emergency plans are living documents; it is not a stagnant process. You find the gaps and try to fill them and make sure you continue to do things correctly. There is no doubt that the state is going to do that when it comes to radiological planning for their nuclear power plants."