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Nation's nuclear plants safe, officials say

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Security measures taken by states at nuclear power plants are adequate, according to the Nuclear Regulatory Commission.

NRC spokeswoman Rosetta Virgilio said several states activated Guard units but have since dismissed them.

"All power plants remain on high alert and the NRC continues to work closely with Homeland Security."

While a nuclear reactor is vulnerable to a hit by a commercial airliner, of greater concern is the less-protected spent fuel pools, where used rods of nuclear fuel that once powered the reactors are cooled and stored in pools of water.

Some industry watchdogs say even small planes, such as corporate jets, could penetrate the buildings that house many of these pools. Disturbing the water in the pool could cause the fuel rods to get too hot, starting a fire and causing a massive radiation leak.

The amount of radioactive material discharged by an accident in the pool of Connecticut's Millstone Unite 3, for instance, would be five times greater than the worst nuclear accident to date -- at the Chernobyl nuclear plant in the Ukraine in 1986 -- according to Gordon Thompson, executive director of the Institute for Resource and Security Studies.

Ukraine's Health Ministry says 125,000 people have died and 3.5 million people have become ill because of the accident.

NRC spokesman Ken Clark said it is difficult to say how much damage would be caused by a terrorist attack, for example, at the Oconee Nuclear Station, about 35 miles west of Greenville.

He said the spent fuel pools are covered in water underground, covered by several feet of concrete. The locations are spread around and not easily identifiable, he said.

"It would depend on what would happen and how much fuel was involved," Clark said. "The entire concept of design is to protect the public from exposure to radioactivity. That goes into a lot of detail."

A 1997 report by the NRC said the agency never required utilities to take into account a worst-case scenario involving a jetliner crash like the ones that occurred at the World Trade Center and Pentagon on Sept. 11, 2001.

"With the spent fuel, you could get a lethal dose in a matter of minutes," said Lou Zeller of the nuclear watchdog group Blue Ridge Environmental Defense League.

Clark said the fuel is stored in 18-ton canisters, one and a half stories high and half the size of a football field, and is stored 25 feet underground in 5-foot thick steel-reinforced concrete containers in heavy concrete pools.

Some 90 tons of spent fuel each year has been piling up at Oconee storage facilities since the mid-1970s, according to Duke Power officials.

The waste is expected to leave Oconee at the earliest in 2010, when a federal repository at Yucca Mountain in Nevada is expected to open. The Department of Energy has favored the Yucca Mountain site.

The NRC has notified power plants, warning of plans for a terrorist attack. President Bush in his State of the Union Address said U.S. troops discovered diagrams of nuclear power plants in Afghanistan. He did not identify the plants.

The NRC says the pools' security at nuclear power plants is being studied as part of a "top to bottom review" begun after Sept. 11.

"There is a threat and the agency is looking at it," Virgilio said.

Still, some members of Congress aren't convinced the NRC is doing enough.


"While the NRC and the nuclear power industry has been saying nothing short of 'it can't happen here,' we know all too well that the terrorists of al-Qaeda have contemplated and would carry out an attack on a nuclear facility," said Rep. Edward Markey, D-Mass.

While other states have beefed up security more than South Carolina, Gov. Jim Hodges believes an increase of security guards by utilities is adequate, and that there hasn't been a need to activate the National Guard.

"This is an issue the governor addressed early on," said Hodges spokeswoman Cortney Owings. "Security has not relaxed."

Some critics say states and the federal government have not done enough to prevent the crash of a commercial airliner at a nuclear plant, making them sitting ducks for terrorists.

Dan Salter of HGP Inc. in Greenville, who evaluates nuclear power plants for the industry, said the plants most vulnerable are ones that would cause the most damage, such as the Indian Point units near New York City, where fallout from a radiation release and any evacuation would affect a highly popular area.

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Other examples may include Fermi 2 outside Detroit, the Dresden units near Chicago, Turkey Point near Miami, the San Onofre units and Seabrook and Pilgrim near Boston, he said.

Plants vulnerable because of their remote locations include Oconee, Callaway in Missouri, Wolf Creek in Kansas and Vermont Yankee, Salter said.

He said security without terrorism is adequate, but it may be inadequate in a terrorist attack.

While National Guard units are on standby, none in South Carolina have been called to active duty.

Kansas Gov. Bill Graves activated the National Guard, which still has armed guardmen surrounding the Wolf Creek nuclear power plant north of Topeka.

The governor also closed off the lake that supplies water to the power plant because of concerns that boats could get too close to the intake valves, according to Graves spokesman Don Brown.

Arkansas Gov. Mike Huckabee activated the National Guard after Sept. 11 at the Arkansas One plant, according to spokesman Jim Harris. But it dismissed the Guard in December, he said.

In Georgia, armed state troopers were asked to patrol the outside of the Vogtle and Hatch power plants, according to Jim Shuler of the Georgia State Patrol.

The troopers were removed after Georgia Power beefed up its security staff, Shuler said.

North Carolina officials inspected the McGuire and Harris plants and were satisfied the security was fine, according to Renee Hoffman of the North Carolina Department of Crime Control and Public Safety.

"We've been in touch with the owners and our homeland security director is satisfied that everything is done to secure them. We feel security at the plants is adequate."

Phil Wieczynski, chief of emergency response in Florida, said that should an incident occur, the national military would be called in to assist.

"Florida has done a great deal to step up security," he said, adding that details cannot be released because they are sensitive.

Spokespersons from the governor's offices in New Hampshire, Maine and Michigan said security was adequate and that National Guard units were not needed.

Meanwhile, the Coast Guard has patrolled coastal waters, including near New Orleans for the Super Bowl, said spokesman Scott Whitney.

But the Coast Guard has not been asked to patrol nuclear power plants, he said.

The Federal Aviation Administration advises that planes stay away from power plants, dams, industrial complexes and oil refineries, according to spokesman William Shumann.

But there are no restrictions, he said.

While there were some restrictions after Sept. 11, "private flying is back to where it was prior to Sept. 11," Shumann said.

"This reinforces our commitment to getting America back to business while maintaining the highest standards of safety and security," said U.S. Transportation Secretary Norman Mineta.

Duke Power spokesman Tim Pettit said there has not been a need to ask for National Guard help at its plants, including Oconee.

"We are working closely with local, state and federal authorities to supplement existing resources," Pettit said.

But nuclear watchdog groups said they remain leery about protection at nuclear plants.

"The design as it stands now is only required to defend against a few attackers by land, water and air," said Tom Clements of the Nuclear Control Institute. "Can you defend like Sept. 11? The answer is no."

Dan Hirsch of Community to Bridge the Gap in Santa Cruz, Calif. said regulations are more than a quarter-century old and do not address attackers by air, boat or a large truck bomb.

"Reactors are not required to protect against enemies," Hirsch said. "That's pretty shocking. Not a single reactor in the country can fend off 19 attackers with suicidal intent and no advance warning."

Mary Olson of the Nuclear Information and Resource Service said she is concerned spent fuel ponds are more of a danger than reactors because the waste is more radioactive.

"I'd like to think we're OK, but on the other hand, there's so many questions," Olson said.

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