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March 17, 2011

With U.S. Nuclear Plants Under Scrutiny, Too, a Report Raises Safety Concerns

By **TOM ZELLER Jr.**

With Japan's nuclear industry facing intense scrutiny after the devastating earthquake and tsunami, critics of nuclear power in the United States are increasingly shining a spotlight on American regulators and power companies.

On Thursday, the [Union of Concerned Scientists](#), an environmental and nuclear watchdog group based in Cambridge, Mass., accused the federal [Nuclear Regulatory Commission](#) in a [report](#) of allowing companies that operate plants to ignore, or delay repairs to, leaky pipes, electrical malfunctions and other problems that could escalate into something more serious.

"It's like the spinning wheels on a slot machine," David Lochbaum, the author of the report and the director of the organization's nuclear safety program, said in a prepared statement. "One ingredient showing up causes a puddle on the floor. Two ingredients yield a near miss. All three ingredients showing up can cause nuclear disaster."

The report echoes more general concerns raised on Wednesday [in Congressional hearings](#), when the chairman of the Nuclear Regulatory Commission, Gregory Jaczko, fielded questions from lawmakers about the age of the nation's nuclear plants and whether safety and oversight procedures needed to be revisited.

David McIntyre, a spokesman for the commission, said the fact that the organization had reports of problems to scrutinize suggested that the regulatory system was working.

"We have resident inspectors stationed full time at each plant," Mr. McIntyre said, "and if they say our inspectors are catching these things then that says they're doing their job."

The report by the [Union of Concerned Scientists](#) examined 14 instances in 2010 in which significant problems at nuclear power facilities set off special inspections by federal regulators — incidents characterized by the regulators as "near misses." Reports on such incidents are made available publicly by the regulatory commission.

Twelve of the events involved lingering safety problems, among them leaky roofs and floods near safety equipment, faulty pumps, rusty pipes, fires and inadvertent shutdowns. Two others involved compromises in plant security, though details on those were not made public.

Special inspections are typically done when a problem increases the possibility of nuclear core damage by a factor of at least 10. But the report's authors said operators should be catching and repairing those problems long before the commission orders a special inspection.

The 14 special inspections involved plants in 12 states and nine corporate owners, including large players like Exelon, Duke Energy, and Pacific Gas & Electric. Progress Energy, a utility operating five nuclear facilities in the Carolinas and Florida, was singled out as being particularly problematic, with four of its plants being among the 14 that required special inspections.

In one instance described in the report, a high-voltage power cable at Progress Energy's Robinson Nuclear Power Plant, near Hartsville, S.C., failed, causing a fire. "Hours after the fire had been put out, workers re-energized the cable that had started it all," Mr. Lochbaum said. "It was still failed, and ignited a second fire."

Responding to the report, Mike Hughes, a spokesman for Progress Energy, said: "We have the highest safety standards for our nuclear plants and our employees, and we work continuously to improve safety. We remain focused on addressing each of the events last year that led to special inspections.

Questions of risk and emergency preparedness at nuclear power plants have gained new prominence globally as people watch the operators at the crippled Fukushima Daiichi nuclear power plant in Japan fight to stave off a full-scale nuclear meltdown. Nuclear regulators and Obama administration officials have said that they are watching the situation in Japan closely and that they will harvest any lessons as they become clear.

But in a conference call in which he discussed Thursday's report, Edwin Lyman, a senior scientist with the Union of Concerns Scientists, argued that one such lesson was already at hand: the need for a wider evacuation zone around American nuclear plants.

Mr. Lyman criticized a recommendation on Wednesday by the Nuclear Regulatory Commission that Americans in Japan remain at least 50 miles away from the Fukushima Daiichi plant, which Mr. Jaczko, the commission chairman, said was leaking radiation at rates far higher than Japanese government officials had suggested.

Mr. Lyman suggested that the commission was being hypocritical: the official evacuation zone surrounding nuclear power plants in the United States is only 10 miles, although critics have long urged that it be increased.

The agency “should not be using different standards for Americans abroad than it does at home,” Mr. Lyman said.

Citing plants like the [Indian Point](#) nuclear plant, about 35 miles north of New York City, Mr. Lyman, a physicist and member of the [Institute of Nuclear Materials Management](#), called it “utterly unrealistic” to expect that a parallel evacuation could be undertaken should a disaster like the earthquake or tsunami in Japan occur in the United States.

But Mr. McIntyre, the regulatory commission spokesman, said the agency continued to believe that a 10-mile evacuation zone — required as part of the emergency protection plant at every nuclear facility in the United States — was adequate for what would be an “anticipated event.” In Japan, he emphasized, “you have a multiple-worst-case scenario.”

Mr. McIntyre also noted that the standard evacuation zone for American nuclear plants was backed up by a “50-mile ingestion zone,” in which potential radiation contamination of food supplies is planned for. He said the 10-mile evacuation zone could be expanded as circumstances warranted.

“However, once this is over,” Mr. McIntyre said, “we’re going to be evaluating everything for lessons that can be learned, and I would be very surprised if this wasn’t one of the things that we look at.”