

By Miguel Llanos
MSNBC

Feb. 12 — A terrorist attack on a nuclear power plant once seemed far-fetched, perhaps the plot for a Bruce Willis movie but certainly not a concern for federal regulators. All that has changed since maps of U.S. power plants were found in an al-Qaida hideout. An industry group said Tuesday that the government is expected to soon order nuclear power plants to tighten security. And a group of lawmakers has stepped up plans to push legislation to require plants to plan specifically for air attacks and better protect the most radioactive areas at the sites.





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January 31 — Former FBI investigator Clint Van Zandt discusses with MSNBC's Bob Kur the possible threats against U.S. nuclear power plants.

THE FEDERAL Nuclear Regulatory Commission is expected to soon notify power plant operators that they must upgrade security related to employees, training and physical barriers around plants, according to the Nuclear Energy Institute, the industry's main lobbying group.

"The nuclear energy industry continues to do everything we can to improve security preparedness at the nation's nuclear plants," said Ralph Beedle of the institute.

The commission had no immediate comment.

SENATE TURNS TO POWER SAFETY

Democrats, meanwhile, are trying to get Republican support for new legislation that would, most notably, create a federal security force run by the Nuclear Regulatory Commission.

The commission's chairman, Richard Meserve, adamantly opposes this. Testifying before Congress recently, Meserve said the security staffs at the nation's nuclear power plants are "well trained, well paid and have high retention rates."

The legislation also would require the NRC to update its worst-case scenarios for a terrorist attack — which are used for training drills — within 90 days and then update them every three years.

The NRC says the lawmakers are rushing things. The commission says it's already reviewing its terrorist scenarios and that the work will take until the end of the year to complete.

Until then, Meserve says, the commission has asked states to give security staff at nuclear power plants more leeway in the range of weapons they can use to protect their facilities.

But he's drawn a line on the use of anti-aircraft missiles. While France uses these to protect its plants, Meserve's says they are unnecessary in the United States because airport security has been tightened.

President Bush set the stage last month for scrutinizing security when he said that diagrams of American nuclear power plants found among documents left by fleeing al-Qaida terrorists in Afghanistan "confirmed our worst fears, and show us the true scope of the task ahead."

Next came news that the NRC had issued an internal alert that an airborne attack on a nuclear power plant or nuclear facility could be in the works.

CONCERNS OVER SCENARIO

For lawmakers weighing their options, there is no shortage of opinion on what to do — but also no consensus.

The biggest concerns center on the NRC's "design basis threat," which is used to set design standards for nuclear power plants. The current standards do not take into account a possible airstrike on a nuclear plant. In fact, the commission's worst-case scenario is an assault by several attackers armed with automatic weapons, explosives and incapacitating agents. They'd get help from one insider, use four-wheel-drive vehicles and enter with a vehicle bomb.

A day after Sept. 11, the NRC acknowledged this limitation, saying that plant designs "did not specifically contemplate attacks by aircraft such as Boeing 757s or 767s, and nuclear power plants were not designed to withstand such crashes."

The NRC has staged mock attacks as part of training drills, usually once every eight years at a given plant, but critics, including Dave Lochbaum, a former nuclear industry engineer now with the Union of Concerned Scientists, say those drills should be held much more often.

The NRC has suspended the drills altogether since Sept. 11, citing the existing alert. "We considered that it might be unsafe, it might be a distraction, to the on-site security force during this time of heightened security," says NRC spokeswoman Sue Gagner.

ATTENTION ON POOLS

Another area of concern is the on-site cooling pools at nuclear power plants, which together hold 40,000 tons of radioactive fuel used by reactors since the nation began using the plants to generate power.

These pools have a higher concentration of radioactivity than the reactors themselves, yet they are not considered terrorist targets.

"The most significant risks come from spent-fuel storage pools, which have nowhere near the level of protection as reactor cores," says Robert Alvarez, an Energy Department adviser during the Clinton administration and now an activist for tighter nuclear safeguards.

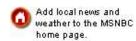
The pools are critical because by cooling the radioactive fuel, they prevent it from melting or exploding.

Industry critics fear that an explosion — say from a 757, a Cessna loaded with explosives or even a shoulder-fired missile — could damage the cooling controls or cause the water to drain from a pool, starting a fire and a radioactive release.

They say that a pool fire, if not checked in time, could be much more devastating than the worst nuclear disaster to date — the explosion that destroyed the core reactor at the Chernobyl nuclear power plant in 1986, killing an estimated 8,000 people through radiation illnesses and spewing radioactive debris into the environment.

Attack scenarios "must be expanded to include spent fuel," says Lochbaum.

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February 1 — Ed Lyman of the Nuclear Control Institute and Steve Floyd of the Nuclear Energy Institute square off over power plant vulnerability. Lyman begins with a response to how reactors are designed.

The nuclear industry's trade group defends the NRC's current practices, saying the buildings housing the fuel pools, typically 2,000 square feet in size, would be hard to see by someone attacking from the air. "The profile of used-fuel pools is more than 100 times less than that of a World Trade Center tower," says Steve Kerekes, press director at the Nuclear Energy Institute.

"Even in the event of a severe event causing the fuel pool to drain," he added, operators would have time to get water back into the pool.

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WHAT'S AHEAD

Congress, for its part, could soon weigh in on the debate.

Three Democratic Party heavyweights — Sens. Harry Reid of Nevada, Joseph Lieberman of Connecticut and Hillary Rodham Clinton of New York — sponsored the power plant safety legislation and might try to attach it as an amendment to an energy bill this week.

A congressional source, speaking on condition of anonymity, told MSNBC that the Democrats are trying to get Republican support, and that one area of compromise could be to drop the provision calling for a federal security force.

Notions on nuclear safety

Some ideas for protecting nuclear power plants:

- Union of Concerned Scientists: Include airstrike as a terrorist scenario, increase plant security, conduct mock attacks more often.
- Greenpeace: Begin process of shutting down all nuclear plants.
- Nuclear Energy Institute: Maintain existing high level security alert.
- Robert Alvarez, former Energy Dept. adviser:
 Transfer all spent fuel in pools to more secure dry casks.
- Peter Bradford, former Nuclear Regulatory
 Commission chief: Antiaircraft missiles at plants could take place of reenforcing structures.

If this course fails, the Senate Environment and Public Works Committee is expected to call a safety hearing within a few weeks. Its chairman, Sen. Jim Jeffords, I-Vt., is already on record demanding "greater oversight and involvement" of nuclear power plant security.

BLAMING THE VICTIM?

In the debate over security, Meserve has lashed out a nuclear power critics for adopting a "blame the victim" mentality. "The problem is not the terrorists' targets, but the terrorists themselves," he told reporters recently. "It is they who need to be eliminated, not the creations of a modern industrial society."

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• Click here to bookmark Environment News Peter Bradford, a former NRC commissioner, sees it a bit differently. He worries that Meserve's statements to date "don't show much rigor" in response to Sept. 11 — a date that Bradford has described as a defining moment where "the unforeseeable event of one decade becomes the nightmare of the next."

For Alvarez, hindsight offers a lesson. Like NRC officials and others, he figured terrorism was so remote that it didn't have to be factored in when he headed the U.S. Energy

Department's emergency planning office. "We never believed something like this (Sept. 11) would happen ... but I seriously regret I wasn't thinking about these things when I was in a position to do something about it."

The basics of nuclear waste

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