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# Nuclear Plant Safety Rules Inadequate, Group Says

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ROCKVILLE, Md. — Nuclear safety rules in the United States do not adequately weigh the risk that a single event would knock out electricity from both the grid and from emergency generators, as an earthquake and tsunami recently did at a nuclear plant in Japan, officials of the [Nuclear Regulatory Commission](#) said Wednesday.

A task force created after the accident at the nuclear plant, Fukushima Daiichi, delivered an oral progress report on Wednesday to the five-member commission. In that session, commission officials said they had learned that some of the safety equipment installed at American nuclear plants over the years, including hardware added after the Sept. 11, 2001, terrorist attacks, is not maintained or inspected as diligently as the original components are.

A crucial reason for the extensive damage to the Fukushima plant's reactors was the loss of electricity needed to run water pumps and to reposition valves. The American nuclear industry has argued in recent months that its reactors are better prepared to cope with that kind of emergency.

But Charlie Miller, the chairman of the task force, said that studies by safety experts in the United States had analyzed the risk of losing electricity from the grid or from on-site emergency generators, but not both at the same time.

Steven P. Kraft, an executive of the [Nuclear Energy Institute](#), the industry's trade association, speaking after the meeting said that in the past it was "not considered credible" that a single event could knock out both supplies. In view of recent events, he said, it is time to prepare for the possibility of an extended blackout.

One of the commissioners, George E. Apostolakis, pointed out that existing safety analyses also assume that electricity will be restored within four or eight hours after a power cutoff, but that blackouts on the grid often last far longer. "Why do we still assume things that are now, in retrospect, unrealistic?" he asked.

The task force, appointed in April, is supposed to complete its investigation in August but is periodically updating the commission. In another finding, it warned that emergency vents that had been added to American reactors to protect against a hydrogen explosion after an accident might not function, just as [they proved inoperable](#) in Fukushima.

“It may be a challenge to open the vent path in a scenario like the Fukushima accident,” said Mr. Miller, who said that the types of valves used, and their accessibility in the event that they had to be operated manually, needed further evaluation.

Another challenge is that the commission’s inspectors have not been trained to evaluate the condition of a variety of hardware or review procedures that were adopted as extra precautions after the Sept. 11 attacks. “We do not have the same kind of regulatory oversight on those enhancements,” said R. William Borchardt, the commission’s executive director for operations.

The commission’s staff, which has been struggling to obtain as much information as possible about the Fukushima reactors, has revised its view of the condition of a pool of spent fuel at the plant’s Unit 4 reactor, Mr. Borchardt said Wednesday.

An assumption that that pool was dry or nearly dry, raising the possibility of a massive release of radioactive materials, led the United States ambassador to Japan to recommend that Americans stay 50 miles away from the plant. The Japanese authorities had ordered the evacuation of people within about 12 miles of the plant.

“It’s unlikely that the pool ever went completely dry,” Mr. Borchardt told the commissioners. “The staff welcomes this as very good news, as it’s one indication that the event may not have been as serious as previously believed for Unit 4.” He said the conclusion was based on a recent video of the pool.

The commission has never explained why its chairman, Gregory B. Jaczko, said that the pool was empty or nearly empty. But since the March 11 accident at Fukushima, the plant’s owner, Tokyo Electric Power Company, has reported a variety of instrument readings that later came into question.

Mr. Borchardt also said that in Units 1, 2, and 3 at Fukushima, “The cores, to some degree, are ex-vessel,” meaning that the uranium fuel had melted and leaked out of the reactor vessels.

