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United States Senate
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
WASHINGTON, DC 20510–6175

July 8, 2011

The Honorable Gregory Jaczko
Chairman
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Chairman Jaczko:

A nuclear accident in Japan should not be automatically viewed as an indictment of U.S. institutional structures and nuclear safety requirements. Reconstructing a detailed sequence of events and the technological aspects of the Fukushima accident will take some time to be thoroughly examined and understood. However, I believe that a comparison of U.S. regulatory requirements with those in Japan is essential and can be accomplished in the near term. A regulatory comparison should not be an effort to criticize the Japanese regulatory framework. Rather it should be rooted in an acknowledgement that our regulatory systems and culture are fundamentally different, most notably with the establishment in the U.S. of an independent agency early in the industry's history whose sole focus is to regulate the safe use of nuclear materials.

A systematic and methodical regulatory comparison should determine if there are differences that either indicate necessary safety enhancements or provide added confidence that our nuclear safety regime appropriately reflects lessons learned from past accidents and provides adequate protection of public health and safety. The absence of such a review would diminish the credibility of any new regulatory requirements since there would be no clear basis for assessing whether the recommended changes accurately and adequately address actual problems highlighted by the Fukushima accident.

I am concerned that the Nuclear Regulatory Commission's efforts in this area are inadequate. The Commission's March 23 memo directing the staff to establish a task force fails to mention a comparison of US regulations with Japanese requirements. It appears it was not until June 8th that the staff was directed to make such an evaluation and that direction was limited to station blackouts and given a very low emphasis. Information is emerging from the International Atomic Energy Agency (IAEA), the Japanese Government, the media, and other sources that indicate differences may exist between US and Japanese regulatory institutions and requirements that are relevant and should be evaluated:

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a. The IAEA observed and the Japanese Government acknowledged that they underestimated the magnitude of a tsunami for which the Fukushima Daiichi plant was at risk. What method was used for that estimation and how does it compare to methods used by the NRC?

b. The NRC has strict design, maintenance, and testing requirements in place to ensure the operability of emergency diesel generators when needed. These requirements begin with locating multiple, redundant diesel generators, their fuel tanks, and electrical equipment within robust structures designed to withstand hurricanes, earthquakes, tornados, floods and other phenomena. Each generator is strictly maintained and required to be tested weekly or monthly to ensure it will get up to speed in less than 10 seconds when called on, resulting in a 97% reliability rate. How do these requirements compare with the Japanese requirements in place at the time of the Fukushima accident?

c. U.S. reactor operators are not only empowered but required to take all necessary actions to protect the public. In the wake of the Fukushima accident, there are several press articles about corporate and government officials influencing decision-making about plant operations during the emergency at Fukushima. How do these different approaches impact efforts to respond in an emergency situation?

d. The Three Mile Island accident raised awareness in the U.S. of the vital importance of operator training. As a result, the NRC, the Institute of Nuclear Power Operations, and the nuclear industry have invested heavily and continuously in operator training, including licensing by the NRC, rigorous standardized training programs, and site-specific simulators at every plant. How does the Japanese training regime compare and how might those differences impact how operators might respond in an emergency?

e. At the time of the Fukushima accident, did the Japanese have anything comparable to our nuclear industry's Severe Accident Management Guidelines?

These are a few areas, and there are surely others, where comparison and analysis need not wait until there is complete understanding of the technical details of the full event. I suggest you and your colleagues promptly work together to provide direction to the staff to develop a charter for a rapid-response study in these and other closely related areas with consideration given to specific design and beyond design basis requirements. I would ask that this comparison and analysis be accomplished with all deliberate speed.

Lastly, the NRC's Efficiency Principle of Good Regulation states: "Regulatory activities should be consistent with the degree of risk reduction they achieve." I hope this statement will inform your perspective as you proceed to consider any potential regulatory changes in response to the Fukushima accident.

Sincerely,

James M. Inhofe
Ranking Member
Committee on Environment and Public Works

CC: Cmsr. Kristine Svinicki
Cmsr. William Magwood
Cmsr. George Apostolakis
Cmsr. William Ostendorff