

April 15, 2011

Mr. Arnold Gundersen  
Fairewinds Associates, Inc.  
376 Appletree Point Road  
Burlington, VT 05408

Dear Mr. Gundersen:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your e-mail to Mr. Edwin Hackett and Mr. Joshua Batkin of the NRC staff, dated March 19, 2011, regarding your concern with the vulnerability of Mark I boiling-water reactors that credit containment accident pressure (CAP) in meeting the net positive suction head required to demonstrate that emergency core cooling systems can mitigate accidents as designed. Your concern is based on the recent events at the Fukushima reactor sites in Japan.

Let me begin by ensuring you that the NRC's ongoing monitoring of events in Japan and our review of all available information leads us to conclude that U.S. plants continue to operate safely. Regarding your specific concern, as you are aware, the NRC staff and the Advisory Committee on Reactor Safeguards have been discussing for some time the issue of crediting CAP in meeting the net positive suction head required to demonstrate that safety systems can mitigate accidents as designed. Unrelated to the events in Japan, on March 15, 2011 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML110740254), the Commission approved Option 1 of SECY-11-0014, "Use of Containment Accident Pressure in Analyzing Emergency Core Cooling System and Containment Heat Removal System Pump Performance in Postulated Accidents," dated January 31, 2011 (ADAMS Accession No. ML102590196), for addressing the CAP issue for operating reactor reviews. Option 1 outlines the staff's plan to resolve issues concerning the use of CAP in analyzing pump performance in emergency core cooling systems and containment heat removal systems during postulated accidents.

We expect that decisions on the NRC's domestic regulatory program based on lessons learned from the events in Japan will be made over the course of the next 6 to 9 months as the NRC staff implements the Commission's March 23, 2011, direction to establish a senior-level task force to conduct a methodical and systematic review of NRC processes and regulations to determine whether the agency should make additional improvements to our regulatory system. This activity will have both near-term and long-term components.

For the near-term effort, the task force is beginning a 90-day review to evaluate all of the currently available information from the Japanese events to identify immediate or near-term operational or regulatory issues potentially affecting the 104 operating reactors in the United States, including their spent fuel pools. Areas of investigation include the ability to protect against natural disasters; response to station blackouts; a review of severe accidents and spent fuel accident progression, radiological consequence analysis, and severe accident management issues. Over this 90-day period, the NRC staff will develop recommendations, as appropriate, for changes to inspection procedures and licensing review guidance, and will recommend whether generic communications, orders, or other regulatory requirements are necessary. This

90-day effort will include a 30-day “quick look report” to the Commission to provide a snapshot of the regulatory response and the condition of the U.S. reactor fleet based on information available at that time.

The task force’s long term review will begin when the NRC staff has sufficient technical information from the events in Japan; our goal is to start this review no later than the completion of the 90-day near-term report. The task force will evaluate all technical and policy issues related to the events to identify any additional potential research, generic issues, changes to the Reactor Oversight Process, rulemakings, and modifications to the regulatory framework that the NRC should pursue. The task force will submit a report with appropriate recommendations to the Commission within 6 months after the start of this evaluation. Both the 90-day and final reports will be made publicly available in accordance with normal Commission processes.

With those plans in place and underway, the NRC is also currently pursuing limited actions that appear to be prudent even though we do not yet have all the details necessary to fully assess the implications of the Japanese events on the U.S. reactor fleet. Specifically, the agency has started to enhance inspection activities through temporary instructions to our inspection staff, including the resident inspectors and the region-based inspectors in the NRC’s four regional offices, to look at licensees’ readiness to deal with both design-basis accidents and beyond-design-basis accidents. The NRC also issued an information notice to licensees to highlight aspects of the events in Japan and the kinds of activities in which the NRC believes they should engage to verify their readiness, such as verifying that their capabilities to mitigate conditions that result from severe accidents, including the loss of significant operational and safety systems, are in effect and operational. The NRC will take additional immediate appropriate actions as our understanding of the events in Japan becomes clearer.

Additional information on NRC actions in response to the events in Japan may be found on the NRC’s public webpage at the following link: <http://www.nrc.gov/japan/japan-info.html>.

Thank you for your interest in these matters.

Sincerely,

/RA by Allen G. Howe for/

Joseph G. Giitter, Director  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

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\*Previously concurred \*\*email

ADAMS Accession Nos. Package: ML110910427; Incoming: ML110820073; Response: ML110910434

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