

June 17, 2011

The Honorable Jim Webb
United States Senate
Washington, D.C. 20510

Dear Senator Webb:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your letter of April 15, 2011, requesting that the NRC provide you with information regarding the assumptions used in recommending a 50-mile evacuation for U.S. citizens following the Fukushima Daiichi nuclear facility events.

The 50-mile evacuation recommendation that the NRC made to the U.S. Ambassador in Japan was made in the interest of protecting the health and safety of U.S. citizens in Japan. We based our assessment on the conditions as we understood them at the time. Since communications with knowledgeable Japanese officials were limited and there was a large degree of uncertainty about plant conditions at the time, it was difficult to accurately assess the potential radiological hazard. The U.S. emergency preparedness framework provides for the expansion of emergency planning zones as conditions require. Acting in accordance with this framework, and with the best information available at the time, the NRC determined that evacuation out to 50 miles for U.S. citizens was a prudent course of action, and would be consistent with what we would do under similar circumstances in the United States, and we made that recommendation to the Ambassador and other U.S. Government agencies.

In order to determine the proper evacuation distance, the NRC staff performed a series of calculations using NRC's RASCAL computer code to assess possible offsite consequences. The computer models used meteorological model data appropriate for the Fukushima Daiichi vicinity. Source terms were based on hypothetical, but not unreasonable, estimates of fuel damage, containment, and other release conditions. These calculations demonstrated that the Environmental Protection Agency's (EPA's) Protective Action Guidelines could be exceeded at a distance of up to 50 miles from the Fukushima site, if a large-scale release occurred from the reactors or spent fuel pools.

Even though these recommendations were made during a time of uncertainty and rapidly changing conditions during the first few days of the accident, these recommendations have been borne out as appropriate. The Japanese government has significantly revised its estimate upward for the amount of radiation released from the plant in the first week of the disaster in its report to the International Atomic Energy Agency and implemented additional protective actions well beyond the initial 12 miles. The more reassuring recent assessment of the situation in the Unit 4 spent fuel pool is countered by the confirmation of significant core damage to Units 1, 2 and 3 and does not invalidate our earlier decision. We continue to assess the situation on a daily basis.

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Responses to your six specific information requests are enclosed. I hope that the information fully addresses your interest in this matter. If you have any questions, please contact me or Ms. Rebecca Schmidt, Director of the Office of Congressional Affairs, at (301) 415-1776.

Sincerely,

/RA/

Gregory B. Jaczko

Enclosure:
As stated