

July 22, 2011

Representative Edward J. Markey
United States House of Representatives
Washington, D.C. 20515

Dear Congressman Markey:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your May 9, 2011, letter to President Barack Obama regarding implementation of the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (the Act). Your particular interest was the provision regarding distribution of potassium iodide (KI) to populations living in the zone extending an additional 10 miles beyond the existing 10-mile emergency planning zone (EPZ) near nuclear power plants.

The Act included a waiver of the KI distribution requirement in Section 127(f) if the President determines that there exists “an alternative and more effective prophylaxis or preventive measures for adverse thyroid conditions that may result from the release of radionuclides from nuclear power plants.” On January 22, 2008, the Director of the White House Office of Science and Technology Policy, acting on behalf of the President, invoked the waiver based on his determination that avoidance of exposure through evaluating the potentially affected population and banning of contaminated food represented a more effective preventive measure.

NRC analyses indicate that, in the event of an emergency at a nuclear power plant that causes a release of radioactive materials in excess of routine low-level effluents, people within the 10-mile EPZ would be at the greatest risk for exposure to these materials. The risks to these people would arise from direct exposure and immersion in a plume, inhalation and ingestion of radioactive materials, and radioactive materials deposited on the ground. The objectives of predetermined protective actions within the 10-mile EPZ, which include sheltering, evacuation, and, where appropriate, the use of potassium iodide, are to mitigate these risks in the event of an emergency. The extensive planning for the 10-mile EPZ is flexible enough to allow for expansion beyond this distance, should the need arise.

The population at greater distances from the plant may be at risk of exposure to radioactive materials by way of ingestion of these materials. Because of this, predetermined protective actions also are in place for the 50-mile ingestion exposure pathway EPZ. These protective actions include interdiction of contaminated milk, food, and water as well as protective measures for livestock. These types of restrictions were imposed by the Japanese authorities on certain food products during the Fukushima event, as well as on water consumption when elevated levels of radioactive iodine were detected. Because radioactive iodine exposure is predominantly through ingestion, the food and water restrictions imposed by the Japanese authorities were intended to prevent radioactive iodine uptake and subsequent exposure to the thyroid gland.

- 2 -

Following the March 11 earthquake and tsunami in Japan, and the resulting damage to the Fukushima Daiichi nuclear power station, the NRC has undertaken an analysis of lessons learned that will have both near-term and longer-term components. The near-term task force report was recently completed and made publicly available. In the area of emergency preparedness, the report makes both near-term recommendations and proposals for longer-term review. The Commission will be considering the task force's specific recommendations in the coming weeks.

I appreciate hearing your views on 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

Identical letters sent to:

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Representative C. W. Bill Young
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Representative Nita M. Lowey
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Representative Gus Bilirakis
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