

April 6, 2011

Robert Astorino
Westchester County Executive
Michaelian Office Building
White Plains, NY 10601

Dear Mr. Astorino:

I am responding to your letter dated March 18, 2011, expressing your concern for the public health and safety of the citizens in the vicinity of Indian Point in light of the events in Japan. In particular you sought clarification regarding the comments made by the Nuclear Regulatory Commission's Chairman Gregory B. Jaczko to Congress on March 16, 2011, recommending the evacuation of U.S. citizens within 50 miles of the Fukushima Daiichi plant. I had the opportunity to discuss this situation, including any implications that it has for nuclear power plants in the United States, with you on Monday, March 21 via conference call.

As you know, in this country, we have a 10-mile radius emergency planning zone (EPZ) that is established around every power reactor within which state and local officials have detailed plans to protect public health and safety in the event of a radiological release. A 50-mile radius ingestion pathway for emergency planning is also established to protect individuals from radiological material that could be ingested and concentrated in the food chain. The 10-mile EPZ was established in the late 1970s based on research showing the most significant impacts of an accident would be expected in the immediate vicinity of a plant and therefore any initial protective actions, such as evacuations or sheltering in place, should be focused there. Put another way, the projected radiation levels would not be expected to exceed Environmental Protection Agency (EPA) protective action dose guidelines (i.e., 1 rem to the body or 5 rem to the thyroid) beyond 10 miles under postulated accident scenarios. Reviews of emergency preparedness in response to terrorist actions conducted following the events of September 11, 2001, validated the adequacy of this planning area. It should be noted that the size of the established EPZs are not limits, but rather provide for an emergency planning framework that would allow expansion or contraction of response efforts based on actual and projected radiological conditions.

During a radiological event, the NRC, amongst other organizations, would be performing dose calculations using radiation dose projection models that analyze release paths from power reactors as well as take into account meteorological conditions to project radiation doses. While the NRC's role is not to make a protective action recommendation to the applicable State or county governments, we independently assess dose projections and would confer with appropriate State and county governments on our assessment results.

The decision to recommend a 50-mile radius evacuation of U.S. citizens near the Fukushima Daiichi site in Japan was based upon an initial set of limited information on the conditions at that six-unit power reactor facility. Specifically, there were preliminary indications of reactor fuel damage at three of these reactors and severely degraded conditions in at least two of the spent fuel pools at the six-unit facility. The advisory was based on calculations performed by NRC experts that indicated that releases from these reactors could possibly exceed the above noted

EPA protective action dose guidelines. This advisory was a prudent, conservative recommendation by the NRC and was not based on the specific radiological conditions that existed at that time, but rather was based on a conservative assessment of radiological conditions that could possibly exist given the limited information available.

In the event of a radiological emergency at a nuclear power plant in the United States, we would anticipate knowing substantially more information regarding the condition of the reactors, their containment structures, and the spent fuel pools, in part, because of the active presence of NRC resident inspectors. We would be able to make more precise recommendations regarding the appropriate protective actions needed to protect individuals in the vicinity of the facility.

The events at the Fukushima Daiichi site were unique in that the facility experienced one of the strongest earthquakes in recorded history, was struck by a large tsunami, and lost all onsite and offsite electricity necessary to power its nuclear safety equipment for more than 10 days. All U.S. nuclear power plants are built to withstand external environmental hazards, including earthquakes, tsunamis, and flooding. Even those plants that are located outside of areas with extensive seismic activity are designed for safety in the event of such a natural disaster. The NRC requires that safety-significant structures and systems be designed to take into account the most severe natural phenomena historically reported for the site and surrounding area – even very rare and extreme earthquakes, tsunamis, and flooding. Thus, the NRC is confident that the robust design of these plants makes it highly unlikely that a similar event could occur in the United States.

Going forward, the NRC will be promptly evaluating the lessons learned at Fukushima Daiichi as it applies to the safety of existing power reactors as well as the adequacy of emergency planning guidance and policy in the United States. This would include a review of radiation doses actually received at various distances from the facility, particularly those at and beyond the 20-kilometer (12-mile) evacuation zone established by the Japanese government around the Fukushima site. At this time, the agency considers our existing emergency preparedness framework and regulations to provide reasonable assurance of adequate protection of public health and safety in the event of a radiological emergency at a U.S. power reactor facility.

I look forward to any further discussion you would like to have regarding our mutual goal of protecting public health and safety of the citizens in the area surrounding Indian Point.

Sincerely,

/RA/

William M. Dean
Regional Administrator

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Sincerely,

/RA/

William M. Dean
Regional Administrator

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