



HEALTH PHYSICS SOCIETY

Specialists in Radiation Safety

September 18, 2012

Commissioner William D. Magwood
U.S. Nuclear Regulatory Commission
Mailstop O-16G4
Washington, DC 20555-0001

Dear Commissioner Magwood,

After listening to the archived audio of the public meeting on September 11, 2012, I would like to offer a more complete answer to your question to me about whether we have the right emergency-planning zones, or, as some have suggested, do we need larger ones, or do we need smarter emergency-planning zones that take into account factors such as local terrain and meteorology?

First, I believe that the planning basis of 10 miles for the emergency phase was not contradicted by the consequences of the radioactive releases from Fukushima, and hence, I would not advocate for a larger radius. Instead, I fully agree with your concept of envisioning smarter emergency planning zones that are justified by the local real-world factors, such as terrain and meteorology. In looking at the existing plants in the United States, we can project factors that could vary:

- Some plants are located in coastal locations with their associated specific weather patterns, while others are sited inland on rivers, and experience the effects of river valleys and the like.
- As in Japan, the terrain may affect the location of the population, and population's spatial density, i.e., some plants were built in flat terrains versus more complex topology.

Encompassing these types of local factors and others will make response plans "smarter" and thus, optimize the planning process.

A Level-3 Probabilistic Risk Assessment is a valuable tool and its use should be considered in evaluating and improving the process of planning. Even though such analyses are complex and time-consuming, in the shorter term, existing information already is available for us to identify opportunities to better the planning process on a local basis.

On behalf of the Society, thank you for the opportunity to participate in the public meeting. Please call on us again whenever our scientific expertise can assist the work of the Commission.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen V. Musolino". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Stephen V. Musolino, Ph.D.,
Certified Health Physicist

cc: Chairman Macfarlane
Commissioner Apostolakis
Commissioner Ostendorff
Commissioner Svinicki
Armin Ansari, President
Richard Vetter, Government Liaison
Brett Burk, Executive Secretary