

FEB 09 1983

Docket Nos. 50-387/388

Mr. E. Nemethy  
R.D. 1 Box 176A  
Catawissa, PA 17820

Dear Mr. Nemethy:

Your letter to Commissioner Asselstine expressed five concerns relative to the Radiological Emergency Response Plan (RERP) for the communities around Pennsylvania Power and Light's Susquehanna Steam Electric Station. These concerns are within the purview of the Federal Emergency Management Agency (FEMA), Region III, and the Pennsylvania Emergency Management Agency (PEMA), rather than the Nuclear Regulatory Commission. By copy of this letter, your correspondence with us has been forwarded to the above mentioned agencies for their response.

With respect to your concerns relative to the selection of a 10 mile radius for the plume exposure pathway emergency planning zone and a 50 mile radius for the ingestion exposure pathway emergency planning zone, we provide the following comments. In general, the size of the plume exposure Emergency Planning Zone (EPZ) was based primarily on the following considerations:

- a. Projected radiation doses from design basis accidents would not exceed the Environmental Protection Agency (EPA) Protective Action Guide levels (projected doses at which protective actions for the public are recommended) outside the zone;
- b. Projected doses from most core melt sequences would not exceed Protective Action Guide levels outside the zone;
- c. For the worst core melt sequences, immediate life threatening doses would generally not occur outside the zone; and,
- d. Detailed planning within 10 miles would provide a substantial base for expansion of response efforts in the event that this proved necessary.

The size of the ingestion exposure EPZ which also includes the 10-mile radius plume exposure EPZ was selected because:

- a. The downwind range within which contamination levels may warrant action is limited to about 50 miles from a power plant because of wind shifts during the release and travel periods;

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- b. Iodine suspended in the atmosphere for long time periods may be converted to chemical forms which do not readily enter the ingestion pathway;
- c. The majority of any particulate material in a radioactive plume would have been deposited on the ground within about 50 miles from the facility; and
- d. The likelihood of exceeding ingestion pathway action levels at 50 miles is comparable to the likelihood of exceeding plume exposure pathway Protective Action Guide levels at 10 miles.

Further explanation would be available in NUREG-0396, EPA/1-78-016 "Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans for Support of Light Water Nuclear Power Plants" and NUREG-0654, FEMA-REP-1, Revision 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants."

We would also like to add that the methodology PEMA has developed for the communities near the Susquehanna plant, do not violate any of the regulations or guidelines established by the NRC. Should you have any questions concerning the onsite aspects of Susquehanna's Emergency Response Plan, please contact this office at (215) 337-5000.

Sincerely,

ORIGINAL SIGNED BY

*James M. Allan*  
Ronald C. Haynes  
Regional Administrator

Enclosures:

- 1. NUREG-0396
- 2. NUREG-0654

cc: (without enclosures)

John Brucker, Director, FEMA - Region III  
DeWitt Smith, Director, PEMA

Distribution: (without enclosures)

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PDR

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R. Haynes, RI

J. Allan, RI

T. Martin, RI

F. Brenneman, RI

R. Bellamy, RI

H. Crocker, RI

M. Mojta, RI

Region I Docket File

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