UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JUN 3 1980

The Honorable John L. Behan
New York Assembly
Albany, New York 12248

Dear Mr. Behan:

Your letter of January 23, 1980 to the Nuclear Regulatory Commission, P. O. Box B, Rocky Point, New York, has been referred to me for response. I trust that the following information may be helpful to you in understanding the NRC approach to emergency planning around nuclear power plants.

The NRC Commissioners have recently endorsed an NRC-EPA task force report, NUREG-0396, which is the planning basis for the development of State and local radiological emergency response plans in support of light water nuclear power plants. This report recommends that planning for protective measures should be made out to a distance of 10 miles from an operating nuclear power plant for what is called the plume exposure pathway. The plume exposure pathway describes the mechanism by which an effluent plume is directed downwind from a source and then becomes available for direct plume exposure or for inhalation.

It is unlikely that actions to protect the public from direct exposure would be required outside 10 miles even for most accidents in which the reactor core melted. New York City is well outside this distance. It is possible that sheltering (staying inside) could be required in New York City for worst case core melt accidents. A 50 mile zone is also defined in NUREG-0396 within which plans for the ingestion pathway (i.e., the transmission of radioactive materials through milk and other foodstuffs) should be made.

A further key element in upgrading emergency plans is the concept of emergency action levels. We have defined a number of parameters in terms of observable indications in the control room which will require immediate notification to local authorities. For example, the loss of two of the three fission product barriers would require declaration of a general emergency and immediate notification to local and State authorities. This loss of two of the three fission product barriers would be defined in observable indications on control room instrumentation such as high pressure and temperature in containment as well as high radiation levels in containment. The goal in upgrading emergency plans to these criteria is to ensure that the general public in the environs of the plant will have early warning and clear instruction of what to do in the event of a potentially serious accident at a nuclear power plant.

The NRC policy, which is the basis for the proposed regulation, is that before any reactor now under construction, including Shoreham, receives a license to operate it must be demonstrated by written plans and by an exercise that all the provisions in the regulations can and will be implemented. Transportation routes will be considered in the plans. The exact configuration of the Emergency Planning Zones for the Shoreham plant will be determined during our review. We understand that the State will not grant the utility's application for nuclear units at the Jamesport site.

Sincerely,

Original Signed by
H. R. Denton

Harold R. Denton, Director
Office of Nuclear Reactor Regulation