



Federal Emergency Management Agency

Region II
26 Federal Plaza, Room 1337
New York, NY 10278-0002

JUN 10 1994

Colonel Carl A. Williams, State Director
Office of Emergency Management
State of New Jersey
Department of Law and Public Safety
Division of State Police
P.O. Box 7068
West Trenton, New Jersey 08628-0068

Dear Colonel Williams:

During the May 24, 1994, Artificial Island Radiological Emergency Preparedness (REP) Exercise, one Deficiency was identified under REP Objective 7, Plume Dose Projection, at the Emergency Operations Facility (EOF). This Deficiency pertains specifically to the New Jersey Bureau of Nuclear Engineering (NJBNE) at the EOF for failure to (1) adequately consider utility Protective Action Recommendations (PAR) in providing New Jersey State decision-makers with appropriate PARs to protect the public health and safety and, (2) make projected dose estimates on a timely basis.

The procedures used at the EOF resulted in the issuance of a PAR that was not sufficiently protective of public health. NJBNE staff uses a "decision tree" (SOP-305) to make PAR recommendations that are subject to various interpretations at each "branch". Implied in this procedure is the requirement, under certain conditions, that emissions into the environment must occur before the projected dose is estimated for comparison with the Protective Action Guides (PAG) and there is indication of need for protective actions.

One of the more important considerations for protection of the public is the evaluation of the potential for future loss of containment. Should the potential indicate that PAGs may be exceeded, evacuation is indicated even though emissions have not yet begun. The Environmental Protection Agency's "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents" (EPA 400-R-92-001, October 1991) is consistent with this position. The NJBNE procedure is not consistent with this position since it requires emissions to the environment before the projected dose is estimated. Therefore, the procedure does not provide sufficient public health protection, since it is not consistent with EPA 400, due to the failure to give sufficient weight to the potential loss of containment leading to exceeding the PAGs in advance of the actual emission of radionuclides into the environment.

9406270124 940616
PDR ADOCK 05000272
F PDR

Enclosure

Given that the Plant was in General Emergency status and the fact that the Utility was in a better position to evaluate the potential for significant releases into the environment, the PAR recommended by the NJBNE staff was not appropriate.

The Utility declared the General Emergency at 2000 and issued its first PAR at 2007 for Evacuation of the N, NNE, and NE Sectors, 0 to 5 miles, and Shelter all others 0 to 5 miles.

The Utility issued its second PAR at 2045 for Evacuation of all Sectors 0 to 5 miles; Evacuation of the N, NNE, and NE Sectors 5 to 10 miles, and Shelter all remaining Sectors 5 to 10 miles.

The NJBNE staff did not agree with these Utility PARs, issuing a PAR for Sheltering 0 to 5 miles at 2027. This PAR remained until 2141, when the NJBNE staff issued a PAR for Evacuation of all Sectors, 0 to 5 miles, approximately one hour after the release began at 2045. Specifically, the first dose projections were completed at 2140, approximately one hour after the release began at 2045. Once an emission of radionuclides into the environment begins, an aggressive effort should be made to accumulate all necessary information to make an accurate dose assessment. This information was available from the Utility as dose projections made by Utility staff at 2103 indicated, but the NJBNE staff did not make the necessary effort to retrieve this information and, as a result, the NJBNE/EOE dose projection was not timely.

Based on the preceding information, the Federal Emergency Management Agency (FEMA) has determined this to be a Deficiency. Because of the potential impact of a Deficiency on the protection of the public health and safety, it should be corrected within 120 days from the date of this letter through appropriate remedial actions, including remedial exercises, drills, or other actions.

Please coordinate with this office the date and time of the pertinent remedial actions and identity of the involved State and county participants within 30 days from the date of this letter.

If there are any questions, please contact Stanley McIntosh, RAC Chairman, at 212-225-7204.

Sincerely,

Dr. Rita Meyninger

Dr. Rita Meyninger
Regional Director