



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

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April 8, 1980

Docket No. 50-219

Mr. I. R. Finfrock, Jr.
Vice President - Generation
Jersey Central Power & Light Company
Madison Avenue at Punch Bowl Road
Morristown, New Jersey 07960

Dear Mr. Finfrock:

We have completed our review of the proposed Oyster Creek emergency plan submitted with your letter dated December 31, 1979 against the criteria set forth in NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants." The specific criteria which are not adequately covered in your plan are identified in the enclosure. We request that your proposed plan be revised accordingly.

Although the aforementioned plan was prepared prior to the publication of NUREG-0654, we want to emphasize that the NRC considers all of the elements specified therein as essential for an adequate radiological emergency plan.

Sincerely,

Dennis L. Ziemann

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

Enclosure: As stated

April 8, 1980

cc

G. F. Trowbridge, Esquire
Shaw, Pittman, Potts and Trowbridge
1800 M Street, N. W.
Washington, D. C. 20036

GPU Service Corporation
ATTN: Mr. E. G. Wallace
Licensing Manager
260 Cherry Hill Road
Parsippany, New Jersey 07054

Anthony Z. Roisman
Natural Resources Defense Council
917 15th Street, N. W.
Washington, D. C. 20006

Steven P. Russo, Esquire
248 Washington Street
P. O. Box 1060
Toms River, New Jersey 08753

Joseph W. Ferraro, Jr., Esquire
Deputy Attorney General
State of New Jersey
Department of Law and Public Safety
1100 Raymond Boulevard
Newark, New Jersey 07012

Ocean County Library
Brick Township Branch
401 Chambers Bridge Road
Brick Town, New Jersey 08723

Mayor
Lacey Township
P. O. Box 475
Forked River, New Jersey 08731

Commissioner
Department of Public Utilities
State of New Jersey
101 Commerce Street
Newark, New Jersey 07102

Gene Fisher
Bureau Chief
Bureau of Radiation Protection
380 Scotts Road
Trenton, New Jersey 08628

Mark L. First
Deputy Attorney General
State of New Jersey
Department of Law and Public Safety
Environmental Protection Section
36 West State Street
Trenton, New Jersey 08625

Joseph T. Carroll, Jr.
Plant Superintendent
Oyster Creek Nuclear Generating
Station
P. O. Box 388
Forked River, New Jersey 08731

Director, Technical Assessment
Division
Office of Radiation Programs
(AW-459)
U. S. Environmental Protection
Agency
Crystal Mall #2
Arlington, Virginia 20460

U. S. Environmental Protection
Agency
Region II Office
ATTN: EIS COORDINATOR
26 Federal Plaza
New York, New York 10007

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OYSTER CREEK NUCLEAR GENERATING STATION

EMERGENCY PLANNING

1. Provide a description and/or maps for both the plume exposure Emergency Planning Zone and the ingestion Emergency Planning Zone which clearly defines the specific geographical area encompassed by each zone.

2. As specified in NUREG-0654 and NUREG-0610, prompt notification is required to state and local authorities for each of the four emergency categories. Also for the "general emergency" class, prompt and direct notification is required to the offsite authorities responsible for implementing protective measures within the plume exposure Emergency Planning Zone. Although it is not totally clear in your plan, it appears that these authorities include the U.S. Coast Guard, the N.J. Marine Police, the local township officials, the Ocean County Sheriff and the Ocean County Civil Defense Director. Revise your plan to include a block diagram which illustrates these interrelationships. Also, incorporate provisions in your plan for prompt notification to these authorities for all classes of emergencies, and for direct notification in the event of a "general emergency."

3. Provide updated written agreement with the support organizations having an emergency response role within the Emergency Planning Zones. Include agreements with the authorities identified in item 2 above. All agreements should be current (i.e., within the last two years). They should identify the emergency measures to be provided and the mutually

acceptable criteria for their implementation, and specify the arrangements for exchange of information.

4. In your discussion of the functional responsibilities assigned to the emergency coordinator (emergency controller), specify which responsibilities may not be delegated to other elements of the emergency organization. Among the responsibilities which may not be delegated is the decision to notify and make recommendations to the authorities responsible for offsite emergency measures.
5. Specify the positions or title and qualifications to be met by the persons to be assigned to the functional areas of emergency activity. For emergency situations, specific assignments shall be made for all shifts and for plant staff members, both onsite and away for the site. These assignments shall cover the emergency functions in NUREG-0654, Table B-1 entitled "Minimum Staffing Requirements for Nuclear Power Plant Emergencies." The minimum capabilities and staffing on-shift and available within one-half hour following the declaration of the emergency class shall be as indicated in the aforementioned table.
6. In your block diagram showing the interfaces between and among the various elements of the emergency organization, include the operational support center, and the various local support services (fire, police, medical, ambulance).

7. Describe the framework for long-term augmentation of your emergency organization. The Recovery Organization recommended by the Atomic Industrial Forum in their document "Nuclear Power Plant Emergency Response Plan" dated October 11, 1979, would provide an acceptable framework.
8. Describe your arrangements for support from the regional office of the Department of Energy including the following:
 - a. persons authorized to request RAP/IRAP assistance
 - b. arrangements made for using RAP/IRAP resources (teams and equipment)
 - c. identification of the available RAP/IRAP resources relied upon
9. Provide for the dispatch of a representative to principal offsite governmental emergency operations centers.
10. Identify the radiological laboratories which can be used in an emergency, including their capabilities and expected response time.
11. Expand the conditions which will be used to declare each of the four categories of emergencies to include all of the example initiating conditions set forth in NUREG-0610 and all postulated accidents in the Final Safety Analysis Report.

12. Establish specific criteria including Emergency Action Levels, using the initiating conditions in NUREG-0610, for each of the four emergency classes. The Emergency Action Levels should be explicit in terms of parameter values, setpoint levels, duration of reading, equipment status indicators, etc. Ensure that the values are specified which correspond to the projected dose and dose rates identified in the list of initiating conditions.
13. Amend Table 3 to include notification to offsite authorities of an "unusual event."
14. Confirm the existence of a message authentication scheme when notifying offsite authorities of an emergency.
15. Provide a standard format for the initial and followup emergency messages which will be used when contacting offsite authorities. The message content should be based on the information requirements specified in Section II.E.3 and 4 of NUREG-0654.
16. Expand the discussion of your communications systems to include:
 - a. Provisions for communications with the local government emergency operations center from the near-site Emergency Operations Facility, as well as from onsite.

- b. Provision for communication with the field assessment teams from the near-site Emergency Operations Facility.
- c. Provisions for communication with the Operational Support Center from the control room, the technical support center, and the near-site Emergency Operations Facility.

Assure that your communications capability is consistent with the concept of operations described in Appendix 5 of NUREG-0654 for the various emergency support facilities.

- 17. Describe the provisions and frequency for testing your communications system.
- 18. Describe the means to be employed for periodic dissemination of information to the public regarding how they will be notified and what their actions should be in an emergency. This information shall include, but not necessarily limited to:
 - a. educational information on radiation
 - b. contact for additional information
 - c. respiratory protection

d. sheltering

e. evacuation routes

Your program to provide information to the public should meet the criteria specified in Section II.G.2 of NUREG-0654.

19. Describe your provisions for conducting an annual program to acquaint the news media with the emergency plans, information concerning radiation, and points of contact for release of public information in an emergency.
20. Clarify the functional roles of the onsite and offsite "Emergency Operations Centers" with respect to the role of the near-site Emergency Operations Facility specified in Section II.H.2 and Appendix 5 of NUREG-0654.
21. Identify the staffing and time required to activate the facilities having the functional role of the near-site Emergency Operations Facility described in NUREG-0654.
22. Expand your discussion and list of emergency facilities and equipment to identify all of the specific onsite monitoring systems (see Section II.H.5 of NUREG-0654) that are used to initiate emergency measures in accordance with NUREG-0610, as well as those to be used for continuing assessment throughout the course of an accident including post-accident sampling capability, radiation and effluent monitors, in-plant iodine

instrumentation, and containment radiation monitoring in accordance with NUREG-0578, as elaborated in the NRC letter to all power reactor licensees dated October 30, 1979.

23. Describe your provisions for offsite dosimetry which conform to the NRC Radiological Assessment Branch Technical Position for the Environmental Radiological Monitoring Program.
24. Provide a discussion of your facilities and capability to meet the meteorological criteria specified in Appendix 2 to NUREG-0654, including provisions for obtaining representative real-time meteorological information from other sources. Also describe the provisions for access to meteorological information from the near-site Emergency Operations Facility, the Technical Support Center, and an offsite NRC Center.
25. Expand your description of the onsite Operational Support Center to include the capabilities and equipment specified in Section II.H.9 of NUREG-0654.
26. In addition to your inspection and inventory of emergency equipment and supplies, provide for an operational check of your emergency equipment/instruments at least once each calendar quarter and after each use. Also include your commitment to stock sufficient reserves of instruments/equipment to replace those removed from service for calibration or repair, and that instrument calibration shall be in accordance with the manufacturer's recommendations.

27. Identify a central point for the receipt and analysis of all field monitoring data consistent with the role of the near-site Emergency Operations Facility as discussed in NUREG-0654.

28. Describe in detail the assessment methods and techniques to be used for determining the following in a timely manner:
 - a. The source term of releases of radioactive material within plant systems. An example is the relationship between the containment radiation monitor reading and the radioactive material available for release from containment. An acceptable approach is to provide plots showing the containment radiation monitor reading versus time following an accident for incidents involving 100% release of coolant activity, 100% release of gap activity, 1% release of fuel inventory, and 10% release of fuel inventory.

 - b. The magnitude of the release of radioactive materials based on plant system parameters and effluent monitors.

 - c. The relationship between the effluent monitor readings and onsite and offsite exposures and contamination for various meteorological conditions.

29. Describe the methodology to be used for determining release rates and projected doses if the instrumentation used for such assessment are offscale or inoperable.

30. Confirm your capability to detect and measure radioiodine concentrations as low as 5×10^{-8} $\mu\text{Ci/cc}$ under all weather field conditions. Interference from the presence of noble gas and background radiation shall not decrease the stated minimum detectable activity.
31. Describe your capability and resources for field monitoring within the plume exposure Emergency Planning Zone including the methods, equipment, and expertise to make rapid assessments of the actual or potential magnitude and locations of any radiological hazards through the liquid or gaseous pathways. Your description should address activation criteria, means of notification, field team composition, transportation, communication, monitoring equipment, and estimated deployment times.
32. Describe your means for relating the various measured parameters (e.g., contamination levels, water and air activity levels) to dose rates for key isotopes and gross radioactivity measurements. Also describe your provisions for estimating integrated dose from the projected and actual dose rates and for comparing these estimates with protective action guides.
33. Specify the time required to warn or advise onsite individuals not having emergency assignments who may be within the site boundary at the time of an accident.
34. Identify the evacuation routes and transportation for onsite individuals to some suitable offsite location, including alternatives for inclement

weather, high traffic density and specific radiological conditions. Also describe your provisions for radiological monitoring of people evacuated from the site, and provisions for decontamination at or near this offsite location.

35. Confirm your capability to account for all individuals onsite at the time of the emergency and the names of missing individuals within 30 minutes.
36. Describe the provisions for the use of radioprotective drugs (e.g., individual thyroid protection) for onsite personnel.
37. Revise your plan to explicitly provide for recommending protective actions to the appropriate state and local authorities. The recommendations shall be based on Emergency Action Levels corresponding to projected dose to the population-at risk in accordance with NUREG-0610 and the recommendations set forth in Table 5.1 of the EPA Manual of Protective Action Guides and Protective Actions for Nuclear Incidents (EPA-510/1-75-001). Such recommendations shall be made promptly and directly to the offsite authorities having the responsibility for implementing protective measures within the plume exposure Emergency Planning Zone.
38. Include as an appendix to your plan, the time estimates for evacuation within the plume exposure Emergency Planning Zone in accordance with Appendix 4 of NUREG-0654.

39. Provide the following as part of your planning interface with offsite authorities for the implementation of protective measures with respect to the plume exposure pathway:
- a. Maps showing evacuation routes, sectors, relocation centers in host areas, shelter areas, hospitals and other medical facilities.
 - b. Population distribution around the nuclear facility using the format specified in Table J-1 of NUREG-0654.
 - c. Means for notifying all segments of the transient and resident population within the plume exposure Emergency Planning Zone.
 - d. The bases for the choice of recommended protective actions for the plume exposure pathway during emergency conditions. This shall include expected local protection afforded in residential units for direct and inhalation exposure, as well as evacuation time estimates.
40. Expand your discussion of emergency personnel exposure to include guidelines consistent with the EPA Emergency Worker and Lifesaving Activity Protective Action Guides for the seven emergency activity categories specified in Section II.K.1 of NUREG-0654.
41. Describe your radiation protection program to be implemented during emergencies including the individuals, by position or title, who can

authorize emergency workers to receive doses in excess of 10 CFR Part 20 limits. Your description should confirm the existence of predetermined procedures for permitting onsite volunteers to receive radiation exposure in the course of carrying out lifesaving activities, including provisions for expeditious decision making. These procedures should be added to the listing specified in item 50 below.

42. Describe your provisions for round-the-clock capability to determine doses received by emergency personnel, including the provisions for distribution of dosimeters and maintaining dose records.
43. Specify your action levels for determining the need for decontamination, and the means for decontaminating emergency personnel, supplies, instruments and equipment, and waste disposal.
44. Describe your capability for decontaminating relocated onsite personnel, including provisions for extra clothing and decontaminants suitable for the type of contamination expected.
45. Expand your description of recovery operations to confirm that general plans are or will be developed for recovery and reentry including the following:
 - a. The position/title, authority, and responsibilities of individuals who will fill key positions in the facility recovery organization.

- b. The method for periodically estimating total population exposure.
46. Provide for an annual exercise which meets the criteria specified in Section II.N.1 of NUREG-0654, including periodic participation by Federal response organizations, mobilization of State and local personnel and resources, and a scheduled critique by Federal and State observers.
 47. Amend that section of your plan dealing with drills to include a radiological monitoring drill, a health physics drill, and revised communication drill which meet the criteria specified in Section II.N.2 of NUREG-0654.
 48. Provide a commitment that the scenarios used for your drills and exercises will contain, as a minimum, the six elements specified in Section II.N.3 of NUREG-0654.
 49. Describe the training provided for, and/or the qualifications of, the personnel responsible for your emergency planning effort.
 50. Provide an appendix to your plan which lists by title the procedures required to implement the plan. The listing shall include the section(s) of the plan to be implemented by each procedure.
 51. Provide an index for your emergency plan. If the format of NUREG-0654 is not used, also provide a cross-reference between your plan and each criteria in the NUREG document.