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MAR 28 1980

Docket No. 50-272

Mr. F. P. Librizzi, General Manager
Electric Production
Production Department
Public Service Electric and Gas Company
80 Park Place, Room 7221
Newark, New Jersey 07101

Dear Mr. Librizzi:

We have completed our review of the proposed Salem emergency plan submitted with your letter dated January 25, 1980 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 and resubmitted.

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,

A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Enclosures:
As stated

cc: See next page

OFFICE	DOR:ORB#1	DOR:ORB#1				
SURNAME	WRoss:pm	ASchwencer				
DATE	03/28/80	03/28/80			8004140	039

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

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As stated

cc: See next page

Mr. F. P. Librizzi
Public Service Electric and Gas Company

cc: Mark J. Wetterhahn, Esquire
Conner, Moore and Corber
Suite 1050
1747 Pennsylvania Avenue, NW
Washington, D. C. 20006

Richard Fryling, Jr., Esquire
Assistant General Solicitor
Public Service Electric and Gas Company
80 Park Place
Newark, New Jersey 07101

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

Mr. Hank Midura, Manager
Salem Nuclear Generating Station
Public Service Electric and Gas Company
80 Park Place
Newark, New Jersey 07101

Mr. R. L. Mittl, General Manager
Licensing and Environment
Public Service Electric and Gas Company
80 Park Place
Newark, New Jersey 07101

Salem Free Library
112 West Broadway
Salem, New Jersey 08079

Leif J. Norrholm, Resident Inspector
Salem Nuclear Generating Station
U. S. Nuclear Regulatory Commission
Drawer I
Hancocks Bridge, New Jersey 08038

SALEM GENERATING STATION UNITS 1 & 2

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 Delaware State Police, the Lower Alloways Creek Township officials, the Salem County Sheriff and the local 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". For a general emergency, the potential delay in notifying the local authorities while awaiting a call back from the state is not acceptable with respect to the criteria for providing early warning and clear instructions to the populace within 15 minutes following notification from the facility operator.

3. Provide updated written agreements 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. Specify by the title the individual in your organization who will be responsible for assuring continuity of resources (technical, administrative, and material) for continuous emergency operations over a protracted period of time.

5. Your plan is unclear with respect to the progression of the Emergency Coordinator position following the initial assumption of that position by the senior shift member of the plant organization present. Your plan implies that the Emergency Coordinator will be replaced by an Emergency Duty Officer (EDO) and in turn the EDO will be replaced by a Recovery Manager. It is our position that an Emergency Coordinator will be present at all times during an emergency and shall have the authority and responsibility to immediately and unilaterally initiate any emergency actions, including recommendations for protection actions to authorities responsible for implementing offsite emergency measures. In addition to the above, revise your plan to:

a. Provide a line of succession for the Emergency Coordinator position in terms of specific title or position as well as the specific conditions for higher level utility officials assuming this function.

b. Identify the functional responsibilities assigned to the emergency coordinator and 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.

6. 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 from 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.

7. Identify and define by means of a block diagram the interfaces between and among the onsite functional areas of emergency activity, licensee headquarters support, local services support, and State and local

government response organizations. The above shall include the onsite technical support center, the operational support center, and the near-site emergency operations facility.

8. 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.

9. Specify the corporate management, administrative, and technical support personnel who will augment the plant staff as specified in Table B-1 of NUREG-0654, and in the following areas:

   a. logistics support for emergency personnel (e.g., transportation, temporary quarters, food and water, sanitary facilities in the field, and special equipment and supplies procurement)

   b. technical support for planning and reentry/recovery operations

   c. management level interface with governmental authorities

   d. release of information to news media during emergencies coordinated with governmental authorities.

10. Specify the supporting services to be provided by local firefighting organizations in accordance with the criteria specified in Section II.B.10 of NUREG-0654. A copy of the written agreement documenting the arrangements shall be appended to the plan.

11. 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

12. Provide for the dispatch of a representative to principal offsite governmental emergency operations centers.

13. Identify the expected response time associated with utilizing the services of the radiological laboratory in Maplewood, N.J.

14. 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. Ensure that the initiating conditions which will be used to declare a site emergency and general emergency

include situations having the potential for producing the site boundary dose rates specified in NUREG-0610.

15. 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.

16. Confirm the existence of a message authentication scheme when notifying offsite authorities of an emergency.

17. 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.

18. Expand the discussion of your communications systems to include the criteria specified in Section II.F.1 of NUREG-0654. Assure that your communications are consistent with the concept of operations described in Appendix 5 of NUREG-0654 covering the onsite technical support center, the operational support center, and the near-site emergency operations facility. Include your communications capability with the near-site Emergency Operations Facility (EOF) in Hancocks Bridge. Also describe your capability to communicate from the EOF,

as well as from onsite, to the State and local emergency operations centers in New Jersey and Delaware.

19. Describe the provisions and frequency for testing your communications system.

20. 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.

21. Identify the principal points of contact in your organization and the physical locations for use by the news media during an emergency. Note the interface with the near-site emergency operations facility discussed in Section II.G.3.b and Appendix 5 of NUREG-0654. Designate a spokesperson who will have access to all necessary information and describe the arrangements for timely exchange of information among the designated spokespersons for each principal organization.

22. 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.

23. In accordance with NUREG-0610, provide for activation of the onsite technical support center, the operational support center, and the near-site emergency operations facility for all classes of emergencies more serious than the "unusual event" category.

24. Expand your discussion of the near-site emergency operations facility at Hancocks Bridge to include the functional role specified in Section II.H.2 and Appendix 5 of NUREG-0654. Also describe your provisions for an alternate offsite emergency operations facility in the event the principal one is not habitable.

25. Identify the staffing and time required to activate the near-site Emergency Operations Facility.

26. 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.

27. Describe your provisions for offsite dosimetry which conform to the NRC Radiological Assessment Branch Technical Position for the Environmental Radiological Monitoring Program.

28. 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.

29. Expand your description of the onsite Operational Support Center to include the capabilities and equipment specified in Section II.H.9 of NUREG-0654.

30. Provide for inspection, inventory, and 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.

31. Provide 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.

32. Describe in detail the assessment methods and techniques to be used for determining the following in a timely manner:

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

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

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

34. Confirm your capability to detect and measure radioiodine concentrations as low as 5 x 10E-08 μCi/cc under all weather field conditions. Interference from the presence of noble gas and background radiation shall not decrease the stated minimum detectable activity.

35. 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.

36. 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.

37. 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.

38. 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.

39. Confirm your capability to account for all individuals onsite at the time of the emergency and the names of missing individuals within 30 minutes.

40. Describe the provisions for the use of radioprotective drugs (e.g., individual thyroid protection) for onsite personnel.

41. 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.

42. 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.

43. 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 from 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.

44. 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.

45. 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 59 below.

46. 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.

47. Specify your action levels for determining the need for decontamination, and the means for decontaminating emergency personnel, supplies, instruments and equipment, and waste disposal.

48. Describe your capability for decontaminating relocated onsite personnel, including provisions for extra clothing and decontaminants suitable for the type of contamination expected.

49. 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 means by which decisions are reached to relax both onsite and offsite protective measures.

    b. The position/title, authority, and responsibilities of individuals who will fill key positions in the facility recovery organization.

    c. The means for informing members of the response organizations that a recovery operation is to be initiated, and of any changes in the organizational structure that may occur.

    d. The method for periodically estimating total population exposure.

50. 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.

51. Provide periodic drills which meet the criteria specified in Section II.N.2 of NUREG-0654 for each of the following:

a. Communication drill

b. Fire drill

c. Medical emergency drill

d. Radiological monitoring drill

e. Health physics drill

52. 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.

53. Identify the management controls that will be used to ensure that the corrective actions stemming from observer and participant comments are implemented.

54. Provide a detailed description of your training program for personnel who will implement radiological response plans. Your description shall include the specialized initial training and periodic retraining programs (including the scope, nature, and frequency) for each of the nine categories of personnel listed in Section II.0.4 in NUREG-0654. As appropriate to the category, the following shall be included in the program:

a. Training for members of the onsite emergency organization shall include drills in which each individual demonstrates ability to perform the assigned function.

b. Training for individuals expected to perform first aid shall include courses equivalent to Red Cross Multi-Media.

c. Training for hospital personnel, ambulance/rescue personnel, police and fire departments shall include the procedures for notification, basic radiation protection, and their expected roles.

d. Training for local services support personnel who may enter the site shall include site access procedures and the identity by position/title of the individual in your organization who will control their onsite activities.

55. Describe the training provided for, and/or the qualifications of, the personnel responsible for your emergency planning effort.

56. Identify by title the individual in your organization having the overall authority and responsibility for radiological emergency response planning.

57. Designate an Emergency Planning Coordinator having the responsibility for the development and updating of emergency plans and coordination of these plans with other response organizations.

58. Provide for the prompt distribution of plan revisions to all organizations and individuals having responsibility for its implementation.

59. 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.

60. 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.

61. Describe the provisions for an independent audit of your emergency preparedness program at least every two years. The audit shall include the emergency plan, its implementing procedures and practices, training, readiness testing, and equipment. Management controls shall be implemented for evaluation and correction of audit findings. The result of the audit shall be documented, reported to the appropriate organizational management, and retained for a period of five years.