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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of)
)
Public Service Electric and) Docket No. 50-354
Gas Company, et al.)
)
(Hope Creek Generating)
Station))

INTERVENOR'S THIRD SET OF INTERROGATORIES
AND REQUEST FOR PRODUCTION OF DOCUMENTS
TO APPLICANTS

Pursuant to the Rules of Practice of the Nuclear Regulatory Commission ("NRC"), 10 C.F.R. §2.740(b), and the Atomic Safety and Licensing Board's Special Prehearing Conference Order (December 21, 1983) and Order of December 24, 1984, the Public Advocate of the State of New Jersey ("Intervenor" or "Public Advocate") hereby propounds the following interrogatories to Public Service Electric and Gas Company, et al. ("Applicants") to be answered fully in writing, under oath, in accordance with the definitions and instructions below.

Additionally, pursuant to 10 C.F.R. §2.741, the Public Advocate requests that Applicants produce for inspection and copying (or provide copies of) those documents designated by applicants in their respective answers below and those requested by Intervenor in his request for production of documents.

These interrogatories and request for production of documents are in four parts as follows: I - Pipe Cracks Interrogatories; II - Pipe Cracks Request for Documents; III - Management Competence Interrogatories; and IV - Management Competence Request for Documents.

Definitions and Instructions

1. For each interrogatory, please state the full name, business address, and title or position of each person providing information for the answer to the interrogatory.

2. The following definitions shall apply:

- a. "Intervenor" shall refer to the Public Advocate of the State of New Jersey.
- b. "Document" or "writing" shall mean any written, printed, typed, or other graphic matter of any kind or nature, and all mechanical and electronic sound recordings or transcripts thereof, in the possession, custody, or control of applicants, or its officials, employees, or agents; it shall also mean all copies or drafts of documents by whatsoever means made.
- c. "Date" shall mean the exact day, month, and year, if ascertainable, or, if not ascertainable, the best approximation (including the event's relationship to other events in the relevant context of the interrogatory).
- d. "NRC" or "Commission" shall mean either the Atomic Energy Commission or the Nuclear Regulatory Commission, as appropriate, including its regulatory staff and adjudicatory boards, as indicated by the context of the interrogatory.
- e. "Specify", "identify", "list", and "describe", when referring to an action, decision, step, document, meeting or visit, means that the answer shall set forth all relevant dates and the names and titles of all individuals involved.

- f. "Specify" or "identify," when referring to an individual, corporation, or other entity, means that the answer shall set forth the name, present or last known business address, and, if a corporation or other entity, its principle place of business or, if an individual, his or her title or titles and employer. Once an individual, corporation, or other entity has been identified in answer to an interrogatory, it shall be sufficient thereafter when identifying that individual, corporation or other entity to state merely his, her, or its name.
- g. "Basis" shall mean any document (as defined in 2(b) above), analysis, study, reference, or source upon which intervenor relies for any assertion in the contentions or which will be referred to or used in cross-examination of Applicants' witnesses.
- h. "Applicants," "P.S.E.&G.," "You" or "Your" shall refer to Public Service Electric & Gas Company, et al., applicants in this proceeding, or any official, employee, contractor, sub-contractor or consultant thereof.

3. These interrogatories request all knowledge and information in applicants' possession and/or knowledge and information in the possession of applicants' agents, representatives, consultants, and, unless privileged, attorneys.

4. In your answer, repeat each interrogatory set forth herein and then set forth an answer thereto separately and fully. As to any interrogatory, section or subsection of said interrogatory that you refuse to answer or which is objected to for any reasons, separately state the grounds for

any such refusal. Where a complete answer to a particular interrogatory, section or subsection of said interrogatory is not possible, such interrogatory, section or subsection of said interrogatory should be answered to the extent possible and a statement made indicating the reason for the partial answer.

5. Identify any documents used as the basis for the answer to each interrogatory.

6. If the answer to any interrogatory is based upon a calculation, describe (a) the calculation, (b) identify any documents setting forth such calculation, (c) identify the person who performed each calculation, (d) when it was performed, (e) each parameter used in such calculation, each value assigned to the parameters, and the source of your data, (f) the results of each calculation, and (g) how each calculation provides a basis for the answers.

7. If the answer to any interrogatory is based upon conversations, consultations, correspondence or any other type of communications with one or more individuals (a) identify each such individual by name and address, (b) state the educational and professional background of each such individual, (c) describe the information received from such individual and its relation to your direct answer, (d) identify each writing or record related to each such conversation, consultation, correspondence or other communication with such individual.

8. In accordance with 10 C.F.R. §2.740(e) and the Licensing Board's Order of December 21, 1983, these interrogatories are continuing in nature and require prompt supplemental answers should applicants obtain or identify supplemental information or documents.

I. PIPE CRACKS INTERROGATORIES

1. List and identify each instance in which intergranular stress corrosion cracking (IGSCC) has been identified in recirculation piping located at the Hope Creek generating station site. For each such instance, state (a) the date of detection; (b) the type and dimension of piping involved; (c) the system of which it is a part; (d) the size of the crack, including its depth and length; (e) the technique and method of detection; (f) your determination of the cause of the crack; (g) all treatment the cracked piping received following discovery of the crack; and (h) the ultimate disposition of the piping involved, including whether that specific piece of piping is currently in use at the Hope Creek generating station.

2. For each instance of IGSCC identified in response to interrogatory I. 1, state whether the NRC was informed in any way of the occurrence. If so, identify all writings related to the NRC's notification. If not, explain why the NRC was not notified.

3. State the length of time each piece of recirculation piping was stored on Artificial Island prior to its installation in the Hope Creek generating station.

4. State whether exposure to weather conditions experienced at Artificial Island could cause cracking in the recirculation piping to be used at Hope Creek.

5. State whether all recirculation piping is inspected for cracking prior to installation at Hope Creek. If so, identify (a) the specific personnel responsible for that inspection; (b) the techniques and methods used; (c) the dates of the inspection for each piece of recirculation piping; (d) the length of time elapsed between the final inspection and installation; and (e) all reports or other writings produced as a result of such inspections. If not, explain why such inspections are not conducted.

6. State whether any pieces of recirculation piping were returned to vendors or otherwise rejected for having failed to meet PSE&G standards. If so, identify each such piece of piping, the system of which it was to be a part, and the reasons for its rejection.

7. State whether the Hope Creek generating station as currently designed is compatible with the application of hydrogen water chemistry. If not, list and identify all modifications or other measures that would be required at Hope Creek prior to the initiation of hydrogen water chemistry.

8. State whether hydrogen water chemistry was ever considered for use at Hope Creek. If so, state (a) the decision(s) reached after such consideration; (b) the grounds for each decision; (c) the individuals who made each decision; and (d) the date each decision was made.

9. Identify how water chemistry controls at Hope Creek will minimize IGSCC. Specify (1) how the levels of ionic species entering the primary coolant will be reduced; (2) whether and how oxygen levels will be controlled; and (3) whether and how you will tighten the controls and limits on intrusion of impurities from the demineralizers.

10. State whether you have considered replacement of all 304SS recirculation piping with IGSCC-resistant piping. If so, state (a) what decision(s) was made; (b) the ground for each decision; (c) the individuals who made each decision; and (d) the date of each decision.

11. State whether you have considered the likelihood of the incidence of IGSCC in recirculation piping at Hope Creek after the application of "IGSCC remedies applied in accordance with NUREG 0313 and 0313 rev. 1," as referred to in your responses to Interrogatories I. 2 and I. 3. If so, state your estimate of the incidence rate of IGSCC in recirculation piping over the life of the Hope Creek generating station.

12. State whether you have information regarding the incidence of IGSCC in other BWRs that have had IGSCC remedies applied to recirculation piping in accordance with NUREG 0313 and 0313 rev. 1. If so, state the average incidence rate of IGSCC in recirculation piping at such plants.

13. Identify each instance in which IGSCC has been identified in BWRs that have had IGSCC remedies applied in accordance with NUREG 0313 and 0313 rev. 1.

14. State the estimated frequency over the life of Hope Creek of IGSCC in field weld butt weld ends for which corrosion-resistant cladding (CRC) was utilized.

15. List and identify each brand, size, type and frequency of UT transducers provided by Southwest Research Institute (SWRI) as referred to in your response to interrogatory I. 7.
16. List and identify all "commercially available standard ultrasonic instruments" that will be utilized at Hope Creek, as referred to in your response to interrogatory I. 5.
17. Identify and describe each of the "classroom as well as practical training and competency tests" that are included in the SWRI training program referred to in your response to interrogatory I. 5. Specify how the SWRI course differs from the EPHI course, and list the standards for certification by SWRI.
18. State the total hours of (a) classroom training; (b) practical training; and (c) testing that will be included in the SWRI training program referred to above.
19. Describe the SWRI facilities which will be used "to certify all of the equipment normally used for an ISI" as referred to in your response to interrogatory I. 7. Specify (a) the location of these facilities; (b) the equipment to be used in the certification; (c) the personnel involved in the certification process; (d) the qualifications of each of these personnel; and (e) the specific steps by which this certification is performed.

20. State whether the calibration reflectors in the calibration blocks to be used at Hope Creek will be located either in the weld or on both sides of the weld.

21. State whether the calibration blocks to be used at Hope Creek will have the same nominal microstructure as the piping being examined.

22. State how you will compensate for the sensitivity differences between notches and side-drilled holes when notches are used as calibration reflectors, as you indicated in your response to interrogatory I. 8.

23. State whether beam spread corrections will be made at Hope Creek as permitted by the ASME Code. If so, state whether flat calibration reflectors will be used for the corrections to crack and lack-of-fusion-type indications.

24. State whether the end points of a flaw will be determined at Hope Creek by loss of signal amplitude to the background noise level where the 50% DAC method of crack length sizing is utilized.

25. Identify the "clearance dimensions for welds requiring UT . . . furnished to Bechtel for their use in insuring that supports and other structures did not interfere with weld inspection," as referred to in your response to interrogatory I. 12.

26. Identify the "criteria for surface preparation, ID counterbore, and weld contour" provided by PSE&G to Bechtel for inclusion in their piping specifications, as referred to in your response to interrogatory I. 12.

27. State when you presently intend to perform baseline UT inspections on the Hope Creek recirculation piping system, as referred to in your response to interrogatory I. 13.

28. Identify the remote scanning equipment to be used at Hope Creek referred to in your response to interrogatory I. 17. Specify the manufacturers and model numbers of each such piece of equipment.

29. Identify how you will deviate from the minimum requirements developed by the Ad Hoc Committee for Development of Qualification Requirements for Nuclear Utility Examination Personnel, Document NUR-MR-1A, as referred to in interrogatory I. 22. For each such standard, identify whether you will meet it, exceed it, or fail to meet it.

30. State whether you have considered utilizing an acoustic leak detection system at Hope Creek. If so, explain the reasons why such a system will not be utilized.
31. State whether the Hope Creek generating station as currently designed is compatible with the introduction of an acoustic leak detection system. If not, list and identify all modifications or other measures that would be required at Hope Creek before such a system could be introduced.
32. State whether you have considered utilizing a moisture sensitive tape leak detection system at Hope Creek. If so, explain the reasons why such a system will not be utilized.
33. State whether the Hope Creek generating station as currently designed is compatible with the introduction of a moisture sensitive tape leak detection system. If not, list and identify all modifications and other measures that would be required at Hope Creek before such a system could be introduced.
34. State whether you have reviewed IE Information Notice No. 84-89. If so, list and identify all steps you have taken as a result.

35. State whether your PSI program will be revised to include volumetric examination of a representative sample of welds in the RHR, ECCS and CHR systems. If so, specify (a) your present intentions as to when your program will be thus revised; (b) which welds will be selected for the volumetric examination; and (c) how these welds will be examined.
36. State whether you will obtain a CRC test block with IGSCC for qualification of the new UT techniques to be utilized at Hope Creek. If so, specify how you will obtain this test block and estimate when it will be available.
37. Describe how the special pitch catch unit designed for the transducer developed by SWRI for PSE&G is able to alleviate the particular acoustic problems presented by the UT examination of CRC.

II. PIPE CRACKS REQUEST FOR DOCUMENTS

1. Provide copies of all contracts between PSE&G and Southwest Research Institute (SWRI).
2. Provide copies of all training materials and documents used in the SWRI training program referred to in your response to interrogatory I. 5.
3. Provide copies of SWRI-NDT-600-31 and SWRI-NDT-800-100.
4. Provide a copy of SNT-TC-1A.
5. Provide copies of all documents relating to the equipment certification program referred to in your response to interrogatory I. 7.
6. Provide copies of all documents related to the "access engineering program" referred to in your response to interrogatory I. 12.
7. Provide a copy of "status of IGSCC Depth Sizing", presented by Dr. Gary Dau to the BWR Owner's Group on October 5, 1984 as referred to in your response to interrogatory I. 5.

8. Provide copies of all documents related to the remote scanning equipment to be utilized at Hope Creek referred to in your response to interrogatory I. 17.
9. Provide copies of all documents related to the SWRI Standard Data Acquisition System referred to in your response to interrogatory I. 18.
10. Provide a copy of Dr. Gary Dau's October 16, 1984 presentation to the PVRC NDE Subcommittee, referred to in your response to interrogatory I. 20.
11. Provide a copy of NUR-MR-1A.
12. Provide copies of all documents related to the utilization of an acoustic leak detection system at Hope Creek.
13. Provide copies of all documents related to the utilization of a moisture sensitive tape leak detection system at Hope Creek.
14. Provide a copy of the Hope Creek Preservice Examination Plan.

III. MANAGEMENT COMPETENCE INTERROGATORIES

1. Identify and describe the "specific short term and longer term actions to improve management practices" referred to in your response to interrogatory III. 3.

2. Describe in detail the "programs and procedures which stem from and comply with the Vice President Nuclear Procedures (VPNs) as a common base" as referred to in your response to interrogatory III. 9.

3. Describe in detail the "operating experience assessment program" referred to in your response to interrogatory III. 9.

4. Identify and describe in detail the "common Nuclear Department support groups" referred to in your response to interrogatory III. 9.

5. List and identify each of the "numerous changes" that have been made in the Hope Creek FSAR "as a result of internal programs and evaluations that have been conducted," as referred to in your response to interrogatory III. 10. For each such change to the FSAR, identify and describe the internal program or evaluation that resulted in the change.

6. Identify all documents in your possession relating to allegations or reports of records falsifications by Authorized Nuclear Inspectors (ANIs).

7. Identify all steps taken by PSE&G or Bechtel in response to the allegation of records falsification by a soils testing technician employed by GEO Construction Testing, Inc. as referred to in your response to interrogatory 12(f).

8. Identify and describe each of the criteria used in the PSE&G Management Personnel Performance Appraisal Program to "systematically and objectively appraise each individual's performance", as referred to in your response to interrogatory III. 13.

9. Identify and describe each of the incentives available for use in the PSE&G Management Personnel Performance Appraisal Program as referred to in your response to interrogatory III. 13.

10. List and identify each of the meetings between the CEO, Senior Vice President and Vice President-Nuclear dating after January 1, 1982, referred to in your response to interrogatory III. 15. For each, (a) state the date of the meeting; (b) list all persons in attendance; (c) identify the subject matter discussed; and (d) identify all minutes or other writings that were prepared as a result.

11. Describe the nature of the "readiness to respond" referred to in your response to interrogatory III. 15. Identify and describe (a) each of the potential 'responses' for which the CEO and Senior Vice President are 'ready'; and (b) each instance since January 1, 1982 in which the CEO and Senior Vice President have in fact responded within the meaning of your answer to this interrogatory.

12. Identify the status of your efforts to fill the position of Assistant Vice President-Nuclear Operations. Describe all steps you have taken to date and all steps you presently intend to take in the future to fill this position. Also, state how long this position has remained open.

13. Identify the status of your efforts to fill the position of Manager-Reliability and Assessment. Describe all steps you have taken to date and all steps you presently intend to take in the future to fill this position. Also state how long this position has remained open.

14. Identify and describe each of the "demands" that were previously "placed on the Vice President-Nuclear" that are no longer thus placed as a result of the implementation of the "Public Service Electric and Gas Company Plan for the Improvement of the Nuclear Department Operations" referred to in your response to interrogatory III. 19. Specify each change in job description or definition of job responsibilities that resulted from the implementation of this plan and estimate the resultant time savings per week for the Vice President-Nuclear.

15. Identify and describe each meeting between the Senior Vice President-Nuclear and Engineering, the CEO and the Vice President-Nuclear referred to in your response to Interrogatory III. 20. For each such meeting identify (a) the date it occurred; (b) all persons in attendance; (c) the subject matter discussed and all decisions reached; and (d) all minutes or other documents that were prepared thereafter.

16. Identify and describe each visit to Artificial Island by the CEO, the Senior Vice President-Nuclear and Engineering, the Vice Presidents and the General Managers involved in matrixed functions, and other corporate personnel as referred to in your response to Interrogatory III. 20. For each such visit, identify (a) the date it occurred; (b) the persons making the visit; (c) the specific purpose of the visit; (d) all facilities and activities observed; (e) all decisions, observations or conclusions resulting from the visit; and (f) all minutes, reports or other writings that were produced as a result of the visit.

17. Identify, define and describe the recently established "focal points for Corporate information requests" referred to in your response to Interrogatory III. 20. Identify when such focal points were established, their purpose and all the personnel involved.

18. Identify and describe how communications between "Corporate and Nuclear Department managers involved in the matrixed functions" has been "substantially increased," as referred to in your response to Interrogatory III. 20.

19. Identify and describe each "recurring deficienc[y]" identified by the formal trend analysis program established to monitor the construction of Hope Creek, as referred to in your response to Interrogatory III. 24. For each such recurring deficiency so identified, identify and describe all corrective action initiated as a result.

20. Identify and describe each recurring problem identified by the Nonconformance Report trend analysis program performed by Bechtel Quality Assurance Engineers assigned to the Hope Creek jobsite, as referred to in your response to Interrogatory III. 24. For each such recurring problem, identify and describe all corrective action initiated as a result.

21. List and identify each "trend" identified as a result of all investigations of "potential trends" identified from the periodic reviews of the "trend analysis log" of all validated NCRs, as referred to in your response to Interrogatory III. 24. For each such trend, identify by date and describe all requests for corrective action issued as a result.

22. State whether you agree with the NRC's conclusion as stated in the 1984 Salem SALP that, during the assessment period of October 1, 1983 through August 31, 1984, PSE&G's "decision making was not at a level sufficient to ensure adequate management review." If you disagree, state the reasons why this conclusion is inaccurate. If you agree, explain why. Identify and describe all steps that you have taken or presently intend to take in the future in response to this conclusion by the NRC.

23. Identify and describe all steps that you have taken or presently intend to take in the future in response to the NRC's observation in the 1984 Salem SALP that you have "not been consistent" in your "efforts to assure quality and to maintain a good operating safety perspective," and that "it is not clear that this remains foremost when the licensee is responding to events that have removed, or have the potential for removing, the unit(s) from service."

24. Identify and describe all steps you have taken and all steps you presently intend to take in response to the NRC's observation in the 1984 Salem SALP report, dated October 15, 1984, that a "[l]ack of aggressive management involvement in resolving long standing problems . . . is clearly evident."

25. Identify and describe all steps you have taken and all steps you presently intend to take in response to the NRC's observation in the 1984 Salem SALP that "[l]ack of direct licensee supervisory and quality assurance involvement in many outage activities seems to have led to extensive rework."

26. Identify and describe all steps that have been taken or which you presently intend to take in the future in response to the NRC's statement at the Management Meeting held November-16, 1984 which "cautioned that the Action Plans were not necessarily the cure for all problems that may be identified."

27. State whether you agree with the NRC's observation at the November 16, 1984 Management Meeting that your then-current practice of authorizing "PSE&G licensing personnel to sign correspondence directed to the NRC" represents a "potential problem as it relates to the degree of [corporate] review given" to such submissions. If you agree, explain why. If you disagree, explain why.
28. Identify all PSE&G personnel who currently have authority to sign correspondence directed to the NRC of the nature referred to by the NRC at the November 16, 1984 Management Meeting. If licensing personnel currently have this authority, state whether you presently intend to withdraw this authority and when you intend to do so. If not, state the date when this authority was withdrawn. Also identify all memoranda and other documents relating to this issue.
29. Identify and describe all steps you have taken or that you presently intend to take in the future in response to the "attitude problem on the part of some staff" observed by the NRC in the 1983 Salem SALP, including their "lack of inquisitiveness or lack of personal accountability."
30. Identify and describe all steps you have taken or that you presently intend to take in the future in response to the need "to provide an integrated philosophy of operations and safety inquisitiveness" identified by the NRC in the 1983 Salem SALP. If any such steps have been taken, identify and describe the "integrated philosophy of operations and safety inquisitiveness" that has been provided by PSE&G's management.

31. Identify and describe all steps you have taken or presently intend to take in the future in response to the NRC's statement in the findings of the 1983 Hope Creek SALP that "training and activity planning and overview [were] areas which merit increased management attention to upgrade performance.'

32. Identify and describe all steps you have taken or presently intend to take in the future in response to the NRC's recommendation in the 1983 Hope Creek SALP that "your advance planning for the operations phase carefully assess BWR operating experience in your operating and corporate staffs."

33. Identify and describe all steps you have taken or presently intend to take in the future in response to the "concern" noted by the NRC in the 1983 Hope Creek SALP "for the ability of PSE&G to concurrently support Hope Creek licensing and give adequate attention to safe operation at Salem."

34. Identify and describe all steps you have taken or presently intend to take in the future in response to the "concern" noted by the NRC in the 1983 Hope Creek SALP "that the Hope Creek OL application did not reflect significant overall PSE&G management capability and performance changes made in response to the May 6, 1983 NRC Order addressing the Salem experience."

35. List and describe all NRC violations at the Salem or Hope Creek Generating Stations in 1983 and 1984. For each, include the date of the violation, the level of severity, and any penalty imposed.
36. Identify and describe all steps you have taken in response to the NRC's concern, expressed in the May 16, 1984 meeting, that "because of the changes occurring in the [Hope Creek] site organization, PSE&G's effort on site might be diluted," as referred to in the May 18, 1984 memorandum from A. C. Smith to C. W. Churchman, et al. Specify each change in your site organization referred to by the NRC and describe how it has effected or will effect PSE&G's effort on site.
37. Identify and describe all steps you have taken and which you presently intend to take to reduce personnel errors reportable as a Licensee Event Report. Explain why reportable LER personnel errors increased 7% from 1982 to 1983 while the total number of LERs in the same period decreased 42%.
38. State whether a system of tracking/trending using Incident Reports (IRs) instead of LERs has been instituted. If so, list all incident reports by Equipment Identification Industry Standard (EIIS) codes for all years for which data has been entered. Also, describe how personnel errors will be classified by the EIIS code.

39. State whether you have correlated "personnel error incidents with availability" as referred to in the minutes of the Nuclear Review Board (NRB) meeting of March 6, 1984. If so, describe the relationship so identified and all corrective actions you have taken or presently intend to take in the future as a result. Also identify all documents relating to this correlation.

40. List the total number of personnel errors identified in Salem Generating Station Licensee Event Reports (LERs) for each of the years 1980, 1981, 1982, 1983 and 1984. State whether the 1984 statistics can be correlated to the statistics from previous years. If not, correct the previous years' statistics to compensate for any changes in reporting requirements.

41. Identify and describe all audits of either Hope Creek or Salem staff performance. For each such audit, identify (a) the date it was performed; (b) all persons performing the audit and their job titles; (c) all persons audited and their job titles; (d) all deficiencies found; and (e) all reports and documents prepared as a result of the audit.

42. Identify and describe all steps you have taken in response to the Nuclear Review Board's "longstanding concerns with the DCR process," including the problems of "inadequate safety evaluations" and "tunnel vision" on the part of the engineering staff," as referred to in the June 5, 1984 meeting of the NRB.

43. Describe the causes of the event of October 14, 1984 at the Salem Generating Station, when By-Pass Breaker A and Reactor Trip Breaker B would not close after manual actuation during performance of I & C testing. Identify the date on which the console trip switch involved in this event had last been replaced, and the dates on which each item of equipment involved had undergone preventative maintenance.
44. Identify and describe each of the current "open items" of the Nuclear Review Board. For each, state (a) all steps that have been taken to close the open item; (b) each date the item was reviewed by the Board; (c) all steps that you presently intend to take in the future to close the item; and (d) the date by which you expect each such item to be closed.
45. Identify and describe what is meant by the "span of control" of the Nuclear Department's senior management, as referred to in your response to Interrogatory III. 27. Explain how the August 28, 1984 reorganization "better defined" this span of control.
46. List and identify the "periodic Nuclear Department management dialogue meetings" referred to in your response to Interrogatory III. 27. For each such meeting, identify (a) the date of the meeting; (b) the persons in attendance; (c) the subject matters discussed and any decisions reached; and (d) all writings produced as a result.
47. Identify the Organizational Development specialist referred to in your response to Interrogatory III. 27. State this individual's responsibilities within the Nuclear Department, and describe what, if anything, this specialist has done to correct the management-related deficiencies identified by the NRC.

48. List and identify each "team building" meeting between "departmental members at various levels" as referred to in your response to Interrogatory III. 27. For each identify (a) the date of the meeting; (b) all persons in attendance; (c) the subject matter of the meeting and any decisions reached; and (d) all documents produced as a result.
49. List and describe all "recurring failures or problems" identified as a result of the "[t]rend analysis of periodic preventative maintenance, corrective maintenance and surveillance testing activities" referred to in your response to interrogatory III. 29. For each such failure or problem so identified, list and describe all corrective action taken as a result.
50. List and describe all the "[i]ndustry operating experience" that has been evaluated and found to be potentially applicable to Hope Creek, as referred to in your response to Interrogatory III. 29. State how each is or will be applicable to Hope Creek.
51. List and describe all "areas . . . regarding efforts to correct deficiencies" identified by the self-evaluative performance indicators referred to in your response to Interrogatory III. 32. For each, describe all steps you have taken or presently intend to take in the future to address it.
52. List and describe all "periodic management dialogue sessions" at Hope Creek as referred to in your response to Interrogatory III. 33. For each, identify (a) the date of the meeting; (b) all persons in

attendance; (c) the subject matter of the discussion; and (d) all documents produced as a result.

53. Describe how the Vice President-Nuclear "uses regularly scheduled management dialogue meeting [sic] to motivate and remind higher level management personnel to become more involved in station activities and to raise their expectations of acceptable response" as referred to in your response to Interrogatory III. 35.

54. List and identify all "persons from outside organizations" added to the NRB following the February 22 and 25, 1983 ATWS at Salem as referred to in your response to Interrogatory III. 39.

55. Identify the Safety Review Group member serving on the Station Operations Review Committee as referred to in your response to Interrogatory III. 39.

56. Identify and describe each of the opportunities for improvement" you believed existed in your QA program prior to the Salem events, as referred to in your response to Interrogatory III. 40. Identify all documents related to this issue.

57. Describe how development of the computerized safety tagging system will "reduce operator errors, improve safety, compliance to tech specs [sic] and decrease operator drudgery" as referred to in your response to Interrogatory III. 40.
58. Describe the "Feedback of Operating Experience Program which includes review of nine years of historical data" referred to in your response to Interrogatory III. 40.
59. Identify and describe all alleged problems identified by site personnel under the "Safe Team program" referred to in your response to Interrogatory III. 40.
60. Identify and describe each of the "formal presentations on various aspects of the operations" of the Nuclear Department made to the PSE&G Board of Directors since February 25, 1984, referred to in Mr. Sonn's April 20, 1984 presentation to the NRC. Identify all documents relating to such presentations.
61. Identify each occasion on which an outside member of the PSE&G Board of Directors visited Artificial Island. For each such visit, identify (a) the date of the visit; (b) all persons that participated in the visit, including both Board members and others; (c) the purpose of the visit; and (d) all documents produced as a result.

62. Identify each member of the Nuclear Oversight Committee that has resigned since October, 1983. Identify all documents that relate to these resignations.

63. List and identify all letters, memoranda or other documents received from or sent to any and all members of the Nuclear Oversight Committee.

64. Identify and describe how the "Licensing and Reliability organization is structured to provide a coordinated review, evaluation, and communication of outside lessons learned to appropriate personnel within each of the nuclear facilities." Identify all documents related to this process.

65. State whether PSE&G has "evaluate[d] the necessity to continue the [Nuclear Oversight] committee as part of the Company's nuclear safety review program," as stated in the NOC Charter. If so, state the result of this evaluation and identify all related documents.

66. State whether the "term" of the NOC has been extended beyond the one year minimum contained in the NOC Charter. Also, identify the end of the current term of the NOC, and list all presently scheduled future meetings.

67. Identify each instance in which PSE&G has requested an extension of time from the NRC within which to complete its obligations under the May 6, 1983 NRC Confirmatory Order. For each such instance, identify (a) the date of the request; (b) the obligation involved; (c) the reason for the request; (d) the NRC's response; and (e) all documents related to this request and the NRC's response.
68. State the total number of person/days you have estimated were required to complete all Action Plan Items in the PSE&G Plan for the Improvement of Nuclear Department Operations. List the percentage of this total that was scheduled to be applied and the percentage of this total that was actually applied by (a) June 30, 1983; (b) December 31, 1983; (c) June 30, 1984; and (d) December 31, 1984.
69. Identify all changes in expected completion dates for all Action Plan Items. For each, identify (a) the date of the change; (b) the reason for the change; and (c) all documents related to this change.
70. Identify by name and job title all persons assigned to complete tasks included in any Action Plan item. For each such person, also identify all non-Action Plan responsibilities assigned to that person.
71. State whether you have developed any plan concerning the tension between operational responsibilities and Action Plan responsibilities. If so, describe all such plans.

72. State whether the Nuclear Department has developed "a set of safety-related items which are measureable periodically and which can be employed to evaluate overall plant safety by comparison with past experience and prescribed goals" as recommended by the NOC at its December 13, 1984 meeting. If so, describe all such "safety-related items" and identify all documents relating to their development and implementation.
73. Identify each PSE&G employee currently assigned to or stationed at Hope Creek who was assigned to or stationed at Salem on February 22 or 25, 1983. For each such employee, identify (a) his or her current job title and responsibilities; (b) his or her job title and responsibilities on February 22 and 25, 1983; and (c) all job-related training he or she has received in the intervening period.
74. Identify each PSE&G employee currently assigned to or stationed at PSE&G's Nuclear Department Corporate Offices who was assigned to or stationed at the Salem generating station on February 22 or 25, 1983. For each, identify (a) his or her current job title and responsibilities; (b) his or her job title and responsibilities on February 22 and 25, 1983; and (c) any job-related training he or she has received in the intervening period.
75. Identify by name and job title all individuals who provided information for or participated in the drafting, editing or review of your responses to Intervenor's Second Set of Interrogatories and Request for Production of Documents.
76. Identify by name and job title all individuals who provided information for or participated in the drafting, editing or review of your responses to Intervenor's Third Set of Interrogatories and Request for Production of Documents.

IV. MANAGEMENT COMPETENCE REQUEST FOR DOCUMENTS

1. Provide copies of all documents relating to Audit Numbers S-83-12, S-84-1 and S-84-13 as referred to in your response to Interrogatory III. 23. 2

2. Provide copies of all documents referenced in your response to Interrogatory III. 3.

3. Provide a copy of the April 1983 report by Theodore Barry & Associates, referred to in your response to Interrogatory III. 5.

4. Provide copies of all documents relating to the "indepth analysis of the roles of the Vice President-Nuclear and his Direct reports" referred to in your response to Interrogatory III. 9.

5. Provide copies of all Nuclear Department Exit Interview Reports referred to in your response to Interrogatory III. 12 conducted after January 1, 1982.

6. Provide copies of all Nuclear Department Monthly Retention Analysis Reports referred to in your response to Interrogatory III. 12 dating from January 1, 1982.

7. Provide copies of all documents referenced in your response to Interrogatory III. 12(f).

8. Provide copies of all Nuclear Department Excessive Unavailability Reports, referred to in your response to Interrogatory III. 12, dating from January 1, 1982.

9. Provide copies of the Management Personnel Performance Appraisal Program - Corporate Personnel Practices Manual Section 12.1 and the Guide to Personnel Performance Appraisal Program, referred to in your response to Interrogatory III. 13.

10. Provide a copy of the Nuclear Department Policy Manual.

11. Provide copies of all documents referenced in your response to Interrogatory III. 16.
12. Provide copies of all analyses, reports or other documents in your possession prepared by securities analysts relating to PSE&G's Nuclear Department or its management of the operations of Salem or the management of the construction of Hope Creek.
13. Provide copies of all PSE&G Action Plan Sponsors Weekly Status Reports, PSE&G Action Plan Weekly Status Reports, and PSE&G Action Plan Monthly Status Reports, as referred to in your response to Interrogatory III. 17.
14. Provide a copy of the "PSE&G (partially complete) Action Plan Close-Out Document, Action Plan 2.5.3," referred to in your response to Interrogatory III. 17.
15. Provide a copy of VPN-LEP-03, referred to in your response to Interrogatory III. 22.

16. Provide copies of corrective action requests resulting from the identification of a trend as referred to in your response to Interrogatory III. 24.
17. Provide copies of all "documentation" of the corrective action process referred to in your response to Interrogatory III. 24.
18. Provide a copy of the Hope Creek Administrative Procedures, as referred to in your response to Interrogatory III. 26.
19. Provide a copy of the August 26, 1983 letter to the Director of Nuclear Regulation referred to in your response to Interrogatory III. 27.
20. Provide copies of all documents related to the "scram minimization program" referred to in your response to Interrogatory III. 29.
21. Provide a copy of the Hope Creek Transition Plan.

22. Provide copies of all documents referenced in your response to Interrogatory III. 31.

23. Provide copies of the "VPN procedures" referred to in your response to Interrogatory III. 32.

24. Provide copies of all documents relating to the "task force on capacity factor improvement" referred to in your response to Interrogatory III. 32.

25. Provide a copy of the letter dated March 18, 1983 from R.A. Uderitz to R.W. Starostecki on Docket No. 50-272.

26. Provide copies of all Minutes of the Nuclear Oversight Committee (NOC) dated after January 26, 1984.

27. Provide copies of all PSE&G responses to NOC minutes.

28. Provide copies of all NOC quarterly reports.

29. Provide copies of all PSE&G responses to NOC quarterly reports.

30. Provide copies of all NOC special reports.

31. Provide copies of all PSE&G responses to NOC special reports.

JOSEPH H. RODRIGUEZ
Public Advocate
State of New Jersey

By: Richard E. Shapiro / op
RICHARD E. SHAPIRO

By: Susan C. Remis
SUSAN C. REMIS

By: John P. Thurber
JOHN P. THURBER

Dated: January 4, 1985

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
PUBLIC SERVICE ELECTRIC AND) Docket No. 50-354-OL
GAS CO., et al.)
)
(Hope Creek Generating Station))
)

CERTIFICATE OF SERVICE

I hereby certify that copies of "Intervenor's Third Set of Interrogatories and Request for Production of Documents to Applicants," dated January 4, 1985 in the above-captioned matter have been served upon the following by deposit in the United States mail on this 4th day of January, 1985:

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RICHARD E. SHAPIRO

January 4, 1985