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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

Public Service Electric and)
Gas Company)
(Hope Creek Generating Station)) Docket No. 50-354-OL

APPLICANTS' SECOND SET OF INTERROGATORIES
AND REQUEST FOR PRODUCTION OF DOCUMENTS
TO THE PUBLIC ADVOCATE

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, or any official, employee, or consultant thereof.

b. "Document" 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 intervenor, 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

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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," when referring to a proceeding before the Nuclear Regulatory Commission, means that the answer shall set forth the proceeding, applicant, docket number, relevant date, and any other descriptive information appropriate to the request.
- 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 principal 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.

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

Contention 1

Interrogatories

1. State whether water chemistry control, including the use of hydrogen, is asserted to be a necessary partial or full means to countermeasure or mitigate IGSCC. If so, identify and describe all plans and procedures which it is asserted are necessary for such water chemistry control to be utilized at the Hope Creek Generating Station. Identify and describe any documents providing a basis for your response.

2. Describe all necessary physical and procedural changes to the facility, including necessary instrumentation and its accuracy, which are asserted to be necessary to use

water chemistry control for this purpose. Identify and describe any documents providing a basis for your response.

3. Describe the chemical and physical parameters in the primary system that are asserted to be necessary to achieve control of IGSCC. Specify whether and how the levels of ionic species entering the primary coolant oxygen must be controlled, and whether and how it is asserted that the intrusion of impurities from the demineralizer must be limited. Identify and describe any documents providing a basis for your response.

4. Describe the use of water chemistry control or any plans for such use as a countermeasure or means to mitigate intergranular stress corrosion cracking at other boiling water reactors both in the United States and the remainder of the world, including for each facility:

- a. Facility name;
- b. Location;
- c. When constructed;
- d. Comparison of recirculation system piping configuration and material to that at Hope Creek;
- e. Critical water chemistry parameters which were sought to be controlled;
- f. Whether the use was experimental;
- g. Description of means and levels of chemical addition and measurement, including accuracy of instrumentation, and levels of critical

water chemistry and physical parameters actually measured;

- h. Date when such use of water chemistry control began;
- i. Length of time utilized to date and planned length of use or experiment;
- j. Any reported operating problems with system;
- k. Any reported detrimental effects on the facility or its operation;
- l. Conclusions whether preliminary or not, regarding evaluation of the water chemistry control and basis therefor;
- m. Means utilized to determine impact on IGSCC;
- n. Describe all nondestructive and destructive testing conducted since use of water chemistry control began and any results of such testing;
- o. Identify and describe any reports or documents discussing use or projected use in that facility.

5. If you are aware of any boiling water reactors that have decided not to utilize water chemistry control as a means to counter or mitigate IGSCC, identify the facility and describe the reasons why such decision was made. Identify any documents associated with or discussing such decision.

6. If it is asserted that additional procedures are necessary to mitigate IGSCC in the recirculation system by means of reducing the tensile residual stress level in heat affected zones piping, describe:

- a. Each instance in which induction heat stress improvement is asserted to be necessary for the specific weld in the recirculation system at the Hope Creek Generating Station;
- b. Identify each by weld number and the necessary requirements and codes which must be met;
- c. Each instance by which last pass heat sink welding is asserted to be necessary and the basis for such assertion.

Identify and describe any documents providing a basis for your response.

7. Identify all other boiling water reactors where such procedures were performed, including whether the procedures were performed for the recirculation system or for systems having the same material used in the recirculation system for Hope Creek. Discuss any inspection results or conclusions regarding such use. Identify any documents which discuss the use of such techniques at other boiling water reactors.

8. If it is asserted that the inspection techniques, methods, plans and procedures or timing of such inspection that have been or are planned to be utilized at the Hope

Creek Generating Station to detect IGSCC in the recirculation system are inadequate for their purpose, provide:

- a. A detailed description of the asserted deficiency;
- b. The basis for the assertion that such technique, interval, etc. is deficient;
- c. The weld or welds for which a deficiency is claimed;
- d. The planned frequency of the inspection which is asserted to be required;
- e. The substitute procedure, interval, etc. which is asserted to be necessary;
- f. The asserted reliability and sensitivity of such substitute technique method, plans, and procedure in measuring length and depth of pipe cracks and the basis therefor;
- g. The equipment which must be utilized, including its commercial availability;
- h. The personnel that must conduct the inspection, including a detailed discussion of their necessary training;
- i. The specific procedures to be followed and the means necessary to analyze the results of such inspections;
- j. Where such technique was utilized to inspect at other boiling water reactors;

- k. Whether such technique was used to inspect the recirculation system at such other boiling water reactors;
- l. Number of times technique has been utilized;
- m. Discussion of its sensitivity and accuracy in detecting IGSCC;
- n. Disadvantages and difficulties in implementing technique;
- o. Whether manual or automatic;
- p. Acceptance by NRC, codes and standards organizations of such technique or state of approval before such agencies;
- q. Necessary access requirements to weld to utilize such technique and whether the welds at Hope Creek have such access;
- r. Companies performing such inspection technique; and
- s. The reports that must be prepared following the inspection.
- t. Identify and describe any documents providing the basis for your response to items (a)-(s).

9. Describe any asserted deficiencies in the plans to minimize or eliminate variability in operating procedures in IGSCC detection for the recirculation system for Hope Creek. For each such asserted deficiency, identify the steps that are asserted to be necessary to correct such deficiency including any changes in:

- a. Equipment;
- b. Procedures;
- c. Training;
- d. Access;
- e. Analysis techniques

State whether such changes are now being utilized or are planned for utilization at any other boiling water reactor and identify whether it will be utilized for the recirculation system of such facility. Identify and describe any documents providing the basis for your response.

10. Describe any and all asserted deficiencies in plans designed to minimize or limit variability in equipment performance of IGSCC detection. Identify and describe any documents providing a basis for your response.

11. State whether it is asserted that the calibration block for ultrasonic testing must contain welds, and if so, what type of welds sizes and locations are asserted to be necessary and the basis for the assertion. Identify and describe any documents providing a basis for your response.

12. State whether it is asserted that 60 degree shear wave UT inspection must be performed on the recirculation system and the basis therefor. List other boiling water reactors where such technique has been utilized to fulfill inspection requirements, and describe the experience with the use of such technique, the advantages of such technique, the asserted increased sensitivity of such techniques, and any drawbacks and disadvantages of such techniques.

Identify and describe any documents providing a basis for your response.

13. State whether it is asserted that a skewed scan UT examination must be performed on recirculation system welds to detect defects oriented other than parallel or perpendicular to the welds. If so, describe:

- a. The experience in use of this technique at other boiling water reactors;
- b. The experience in use of this technique for the recirculation system at such reactors;
- c. The equipment which is capable of performing such analysis and its sensitivity in terms of crack detection;
- d. Training which is necessary to utilize this technique;
- e. Increased sensitivity over techniques that are being utilized;
- f. The access required for such technique;
- g. The method of analysis and evaluation of the results of the inspection;
- h. Whether manual or automatic;
- i. The status of such techniques as far as acceptance by NRC or codes and standard;
- j. Asserted necessary frequency of such inspections.

Identify and describe any documents providing a basis for your response.

14. State whether it is asserted that 50% DAC method of crack length sizing must be revised for use in the recirculation system of the Hope Creek Generating Station to require that end points of a flaw be determined by loss of signal amplitude to the background noise level. If so, give the basis for such assertion. Describe:

- a. The experience in use of this technique at other boiling water reactors;
- b. The experience in use of this technique for the recirculation system at such reactors;
- c. The equipment which is capable of performing such analysis and its sensitivity in terms of crack detection;
- d. Training which is necessary to utilize this technique;
- e. Increased sensitivity over techniques that are being utilized;
- f. The access required for such technique;
- g. The method of analysis and evaluation of the results of the inspection;
- h. Whether manual or automatic;
- i. The status of such techniques as far as acceptance by NRC or codes and standard;
- j. Asserted necessary frequency of such inspections.

Identify and describe any documents providing a basis for your response.

15. State whether it is asserted that there is any inadequacy in the planning, design or construction of Hope Creek regarding adequate access for UT weld inspection in pipe joint design and installation. If so, describe in full the asserted inadequacy and the basis therefor and all changes in design and installation that it is asserted must be made. Describe the UT technique that requires the asserted change, including its use in other boiling water reactors, the weld, the exact equipment involved, and why such equipment would be better at detecting IGSCC in the recirculation system than that proposed for use at Hope Creek. Identify and describe any documents providing a basis for your response.

16. Identify all employees of PSE&G and its contractors and subcontractors who have performed baseline UT inspections during the construction stage of the Hope Creek Generating Station who are asserted to have inadequate qualifications, education, or experience to perform their functions or to perform such functions over the life of the Hope Creek Generating Station. State the exact deficiency and the basis for the assertion and the manner in which such alleged deficiency became known. Identify and describe any documents providing a basis for your response.

17. State whether it is asserted that passing the EPPI/NDE one week training course on IGSCC must be a job requirement for Hope Creek operators doing UT examinations on the recirculation system considering their other

training. State the basis for such assertion. State whether there is any regulation or code requirement for your assertion. Identify and describe any documents providing a basis for your response.

18. If it asserted that the requirements of IEB 83-02 and 83-03 have not been complied with at Hope Creek, describe in detail the ways in which they have not and the basis for such assertion. Identify and describe any documents providing a basis for your response.

19. State whether it is asserted that the crack tip defraction sizing approach is necessary for crack detection for the recirculation system of Hope Creek. If so, describe the approach, the methods of analysis and evaluation required, its asserted accuracy and the frequency at which such inspections should be made. State whether such technique is utilized at other boiling water reactors. If so, identify the reactor and whether such technique was utilized on the recirculation system, and the results of such use in terms of ability to detect IGSCC. Identify and describe any documents providing a basis for your response.

20. State whether it is asserted that automated UT data collection by mechanical scanners cannot be utilized at Hope Creek Generating Station. If so, state the reasons why it cannot be utilized. If such technique may be used if certain restrictions or limitations are observed, discuss all such restrictions or limitations and state the basis for

your conclusions. Identify and describe any documents providing a basis for your response.

21. If it is asserted that automated UT data techniques cannot be used at Hope Creek Generating Station for inspection of the recirculation system, describe the deficiency in the techniques and equipments that lead to this conclusion and the basis therefor. If there are restrictions or limitations on use of automated UT data techniques that are asserted to be necessary, describe in detail such restrictions or limitations and the basis therefor. Identify and describe any documents providing a basis for your response.

22. If it is asserted that an automatic UT data interpretation system or systems cannot be utilized at the Hope Creek Generating Station for inspection of the recirculation system, describe the deficiencies in equipment, procedures and interpretation algorithm which are asserted to be deficient and the basis for such assertion. If there are restrictions or limitations that are asserted to be necessary, describe in detail such restrictions or limitations and the basis therefor. Identify and describe any documents providing a basis for your response.

23. Specify the flaw detection probability and characterization accuracy which it is asserted is necessary at Hope Creek for inspection of the recirculation system. State the basis for your response and whether it is based upon any regulatory or code requirement. List other boiling

water reactors for which such standards are utilized. Identify and describe any documents providing a basis for your response.

24. State whether it is asserted that it is necessary to meet the minimum requirements developed by the Ad Hoc Committee for Development of Qualification Requirements for Nuclear Utility Examination Personnel in September 1983 (NUR/MR/1A). If so, state the basis for such assertion and the manner in which the qualification requirements utilized at the Hope Creek Generating Station fail to comply with these minimum requirements. List other boiling water reactors which meet such requirements and the basis for the response. Identify and describe any documents providing a basis for your response.

25. State whether you assert that it is necessary to meet the procedure and personnel qualification requirements code case being developed by the ASME Section XI Working Group on Nondestructive Examination. If so, state the basis therefor and the asserted deficiencies in the procedure and personnel requirements presently being utilized at Hope Creek. Identify and describe any documents providing a basis for your response.

26. State whether you assert that it is necessary to meet the requirements of the latest version of Code Case N-335. State the basis therefor and any basis in NRC or code requirements. State the differences between the

requirements of such Code Case and those being implemented at Hope Creek.

27. State whether it is asserted that the Hope Creek Generating Station must utilize an acoustic detection system. If so describe:

- a. The equipment, procedures, analysis and evaluation techniques which are asserted to be necessary;
- b. Training of personnel to utilize such technique;
- c. Commercial availability of equipment to implement such technique;
- d. Commercial availability of technique for analysis and evaluation of results;
- e. The asserted accuracy and sensitivity of such system in terms of leak detection from the recirculation system and the basis for such response;
- f. Disadvantages of use of such system;
- g. Whether it can replace any leak detection system currently proposed for Hope Creek;
- h. The reliability of such technique in leak detection;
- i. If this technique has been utilized at other boiling water reactors in the U.S. or elsewhere, either experimentally or operationally:

1. Identify the facility and location;
2. Describe the system utilized;
3. Describe fully the period of utilization;
4. Describe the results of any evaluation of the system;
5. Describe any controlled experimental use of the system;
6. Discuss any problems with operation of the system including reliability and errors;
7. Identify any documents which discuss this system.
8. Describe each and every instance where such leak detection system has detected or failed to detect any leak, describing the size of the leak and the estimated time of leakage prior to detection.

Identify and describe any documents providing a basis for your response.

28. If it is asserted that the Hope Creek Generating Station must utilize a moisture sensitive tape leak detection system, describe the system that is asserted should be utilized and identify where and how it should be used for leakage detection from the recirculation system and the basis for your response, including:

- a. The equipment, procedures, analysis and evaluation techniques which are asserted to be necessary;
- b. Training of personnel to utilize such technique;
- c. Commercial availability of equipment to implement such technique;
- d. Commercial availability of technique for analysis and evaluation of results;
- e. The asserted accuracy and sensitivity of such system in terms of leak detection from the recirculation system and the basis for such value;
- f. Disadvantages of use of such system;
- g. Whether it is intended to replace any leak detection system currently proposed for Hope Creek;
- h. The reliability of such technique in leak detection;
- i. If this technique has been utilized at other boiling water reactors in the U.S. or elsewhere, either experimentally or operationally:
 1. Identify the facility and location;
 2. Describe the system utilized;
 3. Describe fully the period of utilization;

4. Describe the results of any evaluation of the system;
5. Describe any controlled experimental use of the system;
6. Discuss any problems with operation of the system including reliability and errors;
7. Identify any documents which discuss this system.
8. Describe each and every instance where such leak detection system has detected or failed to detect any leak, describing the size of the leak and the estimated time of leakage prior to detection.

Identify and describe any documents providing a basis for your response.

29. State whether the sump pump monitoring system and other methods for leak detection as described in Hope Creek Generating Station FSAR and proposed technical specifications are asserted to be inadequate to detect pipe cracks and leaks of the recirculation system. If so, describe each and every deficiency that exists in such system and its operation and the basis for each such assertion, including its surveillance and limits on unidentified leakage. Identify and describe any documents providing a basis for your response.

30. Provide the flaw evaluation criteria for IGSCC which you assert to be applicable to the Hope Creek Generating Station recirculation system and the basis for such criteria. Identify and describe any documents providing a basis for your response.

31. Specify what length and depth of cracking you assert should be accepted for continued operation without repair for each part of the recirculation system for the Hope Creek Generating Station. Provide your basis for such criteria. Identify and describe any documents providing a basis for your response.

32. If it is asserted that operation should not be continued without repair where crack length exceeds 25% of pipe circumference, provide the basis for such assertion. State whether such criteria is in use at other boiling water reactors. If not, state what criteria is utilized at other boiling water reactors. Identify and describe any documents providing a basis for your response.

33. With regard to each document identified in Intervenor's Supplemental Response to Applicants' Preliminary and First Set of Interrogatories and Requests for Production of Documents (January 4, 1985) at item 3, identify by chapter, section and page of each document the manner in which each listed document specifically supports your contention that the Applicants have failed to demonstrate that they can prevent and mitigate IGSCC of the recirculation system in accordance with 10 C.F.R. Part 50, Appendix A, Criterion 30.

34. List and identify each instance in which intergranular stress corrosion cracking has been identified in recirculation or other piping located at other boiling water reactors which has utilized corrosion resistant cladding as does Hope Creek. If so, describe such instance including:

- a. The facility and location;
- b. The materials utilized;
- c. Differences in design between that facility and Hope Creek;
- d. Differences in configurations in the recirculation system;
- e. Differences in construction techniques;
- f. Differences in preservice inspections;
- g. Differences in planned inservice inspections;

Identify and describe any documents providing a basis for your response.

35. Provide an estimate of and all data on the likelihood of the incidence of IGSCC in recirculation piping at all boiling water reactors, including Hope Creek, after the application of IGSCC remedies applied in accordance with NUREG 0313 and 0313 Rev. 1. Provide the basis for the estimate. Identify and describe any documents providing a basis for your response.

36. Identify each instance in which IGSCC has been identified in boiling water reactors that have IGSCC remedies in accordance with NUREG-0313 and 0313 Rev. 1.

Identify and describe any documents providing a basis for your response.

37. State the estimated frequency in all boiling water reactors of IGSCC in field weld butt weld ends from which corrosion resistant cladding was utilized. Identify and describe any documents providing a basis for your response.

38. State whether you assert that beam spread corrections must be made at Hope Creek. If so, state the methodology that must be utilized and whether flat calibration reflectors should be used for the corrections to crack and lack of fusion type indications. Identify and describe any documents providing a basis for your response.

Request for Production of Documents

39. Provide copies of any drafts, markups, chapters, or parts of NUREG-0313, rev. 2 and NUREG-1061, vol. 2, 4, and 5 in your possession.

Contention 2

Interrogatories

40. In July 1981, PSE&G decided to provide more centralized management and control for the operation, maintenance, and servicing of its nuclear plants at Artificial Island. Do you disagree with this decision? If so, describe in detail any basis for disagreement with this action.

41. Do you disagree with the decision to locate this single centralized nuclear management structure at

Artificial Island? If so, describe in detail any basis for disagreement with this decision.

42. In September 1983, PSE&G initiated an in-depth analysis of Vice President - Nuclear. As a result of this analysis, PSE&G determined that two additional management positions would be created--Assistant Vice President - Nuclear Operations Support and Assistant Vice President - Nuclear Operations. Do you disagree with the decision to create two additional management positions? If so, describe the reasons for your disagreement in detail.

43. Do you disagree with PSE&G's decision that the General Managers of Quality Assurance and Nuclear Safety Review will continue to report directly to the Vice President - Nuclear? If so, describe the reasons for your disagreement in detail.

44. PSE&G employs a "senior management team" whereby the Vice President, two Assistant Vice Presidents, and the General Managers of Quality Assurance and Nuclear Safety Review meet at the beginning of each work day to review the operating status of the plants and to discuss any immediate interface/coordination concerns. Do you disagree with this approach? If so, describe the reasons for your disagreement in detail.

45. On a weekly basis, the senior management team meets to address more long-range program development and problem-solving concerns which require a cross-Department perspective. Do you disagree with this approach as

promoting sound and efficient management? If so, describe the reasons for your disagreement in detail. Identify and describe any documents providing a basis for your response.

46. Do you assert that PSE&G's staffing levels, technical expertise, personnel qualifications, or corporate organization do not conform to NUREG-0731? If so, describe the bases for this assertion in detail. Specify the page and paragraph of NUREG-0731 with which Intervenor asserts PSE&G does not comply. Identify and describe any documents providing a basis for your response.

47. Do you assert that PSE&G's training program will not ensure that Nuclear Department personnel have the requisite technical qualifications to operate safely HCGS? If so, describe the bases for this assertion in detail. Identify and describe any documents providing a basis for your response.

48. In July 1983, PSE&G established the Hope Creek Transition Management Steering Committee which developed a plan for the effective management of the Hope Creek transition. Do you disagree with this approach as promoting sound and efficient management? If so, describe the reasons for your disagreement in detail. Specify those parts of the Transition Plan (and the pages on which these parts are found) Intervenor asserts to be inadequate. Describe in detail the changes Intervenor asserts must be made in this Plan to assure safe operation of the Hope Creek facility.

Identify and describe any documents providing a basis for your response.

49. The Hope Creek Transition Plan contains a Functions Transfer Schedule which lists the activities that would be transferred from E&CD or NARD to the Nuclear Department. Do you allege that this schedule is deficient? If so, describe in detail each deficiency and the basis therefor. Identify and describe any documents providing a basis for your response.

50. As the status of the project approaches completion and start-up commences, a number of support functions will be transferred to the site with the expanded site organization providing increased support for site start-up, operations, and configuration control. Do you disagree with this approach as promoting sound and efficient management? If so, describe in detail any disagreement and the basis therefor. Identify and describe any documents providing a basis for your response.

51. In April 1983, the Data and Records Turnover ("DART") Team was established to effect the turnover of all the records, documents, and data necessary for the efficient and safe operation of HCGS. Do you allege that there are deficiencies in PSE&G's document turnover program? If so, describe in detail any deficiency and the basis therefor. Identify and describe any documents providing a basis for your response.

52. The Transition Plan Steering Committee monitors progress relative to the Plan and meets at least monthly to review the implementation process, identify problems, and develop solutions for these problems. The Steering Committee meets with the Senior Vice President - Energy Supply and Engineering on a quarterly basis. Do you disagree with this approach as promoting sound and efficient management? If so, describe in detail the basis therefor. Identify and describe any documents providing a basis for your response.

53. You cite NRC Staff Request for Additional Information No. 630.1 as a basis for your contention. PSE&G's response to this request is in Amendment 1, HCGS FSAR (8/83), p. 630.1-1. Do you allege that this response is inadequate? If so, specify in detail the alleged inadequacies and the basis for the allegation. Identify and describe any documents providing a basis for your response.

54. You cite NRC Staff Request for Additional Information 630.2 as a basis for your contention. The response to this question is in Amendment 1, HCGS FSAR (8/83), p. 630.2-1. Do you allege that this response is inadequate? If so, specify in detail the alleged inadequacies and the bases for your response. Identify and describe any documents providing a basis for your response.

55. You cite NRC Staff Request for Additional Information 260.1 as a basis for your contention. The response to that question is in Amendment 1, HCGS FSAR (8/83), p. 260.1-1. Do you allege that this response is inadequate?

If so, specify in detail the alleged inadequacies and the basis of the allegation. Identify and describe any documents providing a basis for your response.

56. You cite the "Order Imposing Civil Monetary Penalties" (September 29, 1983) as a basis for your contention. Specify those portions of the Order which you allege support your contention.

57. You cite a letter of June 23, 1983 from Eisenhut to Mittl as a basis for your contention. Are you familiar with the letter of November 28, 1983 from Schwencer to Mittl that resolves the June 23, 1983 letter? Do you allege that the June 23, 1983 letter continues to provide a basis for your contention? If so, specify the remaining deficiencies and the basis for the assertion.

58. You cite the testimony of Dr. Stephen H. Hanauer submitted in a rate proceeding before the New Jersey Board of Public Utilities (In the Matter of the Motion of PSE&G to Reduce the Level of the LEAC, Docket No. 832-25 (December 1, 1983)) as a basis for your contention. Specify those portions of this testimony which you allege support your allegation that the technical qualifications management are inadequate to operate Hope Creek.

59. You cited NUREG-0995 as a basis for your contention. Specify those portions of this document which you allege support your allegation that the technical qualifications of PSE&G management are inadequate to operate Hope Creek.

60. In your response to Applicants' First Set of Interrogatories, you stated that you were doing an analysis of Chapter 13 of the HCGS FSAR. State the status of that analysis. If incomplete, state when you expect to complete it. Whether complete or not, provide the findings and conclusions reached in the analysis and describe in detail the basis for each finding or conclusion. Provide the completed analysis and any drafts thereof.

61. In your response to Applicants' First Set of Interrogatories, you stated that you were doing an analysis of the list of names provided by PSE&G of those who were involved in the Salem circuit breaker event. State the status of that analysis. If incomplete, state when you expect to complete it. Whether complete or not, provide the findings and conclusions reached in that analysis and describe in detail the basis for each finding or conclusion. Provide the completed analysis and any drafts thereof.

62. Specify each deficiency you allege exists in the "active involvement and explicit commitment of the entire corporation" to the safe operation of the Hope Creek facility (page 13 of Public Advocate's Response to Applicants' First Set of Interrogatories). Describe in detail and provide the basis therefor. Identify and describe any documents providing a basis for your response.

63. Specify each deficiency you allege exists in the PSE&G training program (page 14). Describe in detail and

provide the basis therefor. Identify and describe any documents providing a basis for your response.

64. Specify each deficiency you allege exists in PSE&G's "technical qualification in respect to its commitment to the safe management and operation of the Hope Creek Facility" (page 15). Describe each in detail and provide the basis therefor. Identify and describe any documents providing a basis for your response.

65. In its report, MAC identified eight areas needing more attention from PSE&G management. Do you allege that this list is incomplete? If so, specify those additional areas which you believe require additional PSE&G management attention and provide your basis for the assertion. Identify and describe any documents providing a basis for your response.

66. With regard to PSE&G's Action Plan for Improvement of Nuclear Department Operations, dated August 26, 1983, submitted by PSE&G in response to the NRC Order dated May 6, 1983 ("Action Plan"), do you allege that PSE&G has not fully resolved the management implications of the Salem events? If so, specify in detail the alleged deficiencies. Identify and describe any documents providing a basis for your response.

67. Do you allege that PSE&G must take steps in addition to those outlined in the Action Plan to achieve and maintain the requisite technical qualifications to operate safely the Hope Creek facility? If so, specify and describe

in detail those additional steps and the bases therefor. Identify and describe any documents providing a basis for your response.

68. Do you allege that there have not been significant changes in overall PSE&G management capability and performance since the May 6, 1983 Order? If so, specify those management changes which you allege are inadequate? Describe each in detail. Identify and describe any documents providing a basis for your response.

69. Do you disagree with the NRC's conclusion in the "Modification of May 6, 1983 Order," dated January 31, 1984 that PSE&G is making a diligent effort to complete the Managed Maintenance Program and that the program is working smoothly? If so, state your disagreement and the bases therefor. Identify and describe any documents providing a basis for your response.

70. Identify and describe the specific short-term and long-term actions to improve management practices Intervenor contends Applicants should undertake and the basis therefor. Identify and describe any documents providing a basis for your response.

71. Describe in detail the deficiencies Intervenor contends exist in the Vice President - Nuclear procedures and the basis therefor. Identify and describe any documents providing a basis for your response.

72. Identify and describe in detail the deficiencies Intervenor alleges exist in Applicants' Operating Experience

Assessment Program and provide the basis therefor. Identify and describe any documents providing a basis for your response.

73. Identify and describe in detail each "demand" placed on the Vice President - Nuclear that Intervenor alleges should be delegated to other employees and provide the basis therefor. Identify and describe any documents providing a basis for your response.

74. Specify each change in job description or definition of job responsibilities that Intervenor alleges should be made and provide the basis therefor. Identify and describe any documents providing a basis for your response.

75. Specify each change in PSE&G's site organization which Intervenor alleges is inadequate or insufficient. Identify and describe in detail all such changes Intervenor alleges should be made and the basis therefor. Identify and describe any documents providing a basis for your response.

76. Identify and describe in detail all self-evaluative performance indicators Intervenor alleges should be used by Applicants to correct deficiencies and the basis therefor. Identify and describe any documents providing a basis for your response.

77. Identify and describe in detail each deficiency Intervenor alleges exists in PSE&G's computerized safety tagging system and the basis therefor. Identify and describe any documents providing a basis for your response.

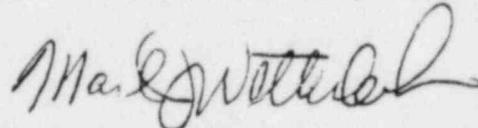
78. Identify and describe in detail each deficiency Intervenor alleges exists in PSE&G's Feedback of Operating Experience Program and the basis therefor. Identify and describe any documents providing a basis for your response.

79. Identify and describe in detail each deficiency Intervenor alleges exists in the PSE&G's Licensing and Reliability organizational structure and the basis therefor. Identify and describe any documents providing a basis for your response.

Request for Production of Documents

Please attach to your answer(s) to the interrogatories listed above a copy of all documents applicable to such answer(s), whether or not supportive of your position, or upon which you otherwise intend to rely in the presentation of your direct case or in examination of other witnesses. Alternatively, state that all such documents will be produced at a reasonable time and place to be agreed upon by the Applicants for inspection and copying.

CONNER & WETTERHAHN, P.C.



Mark J. Wetterhahn
Counsel for the Applicants

January 15, 1985

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

Public Service Electric and)
Gas Company)
(Hope Creek Generating) Docket No. 50-354-OL
Station))

CERTIFICATE OF SERVICE

I hereby certify that copies of "Applicants' Second Set of Interrogatories and Request for Production of Documents to the Public Advocate", dated January 15, 1985 in the captioned matter have been served upon the following by deposit in the United States mail on this 15th day of January, 1985:

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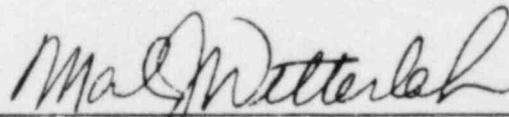
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