PSE&G Public Service Electric and Gas Company

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Robert L. Mittl General Manager
Nuclear Assurance and Regulation

August 5, 1985

Director of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Bethesda, Maryland 20814

Attention: Mr. Walter Butler, Chief
Licensing Branch 2
Division of Licensing

Gentlemen:

HOPE CREEK GENERATING STATION
DOCKET NO. 50-354
FSAR COMMITMENT STATUS THROUGH JULY 1985

Public Service Electric and Gas Company presently plans to issue Amendment No. 12 to the Hope Creek Generating Station Final Safety Analysis Report by September 18, 1985. Accordingly, this letter is provided to document the status of Hope Creek Generating Station responses to FSAR commitments which were forecasted to be responded to by June and July 1985.

Attachment I is a tabulation of the Hope Creek Generating Station Final Safety Analysis Report commitments for June and July 1985, and the corresponding resolution for each commitment. Attachments II through VI provide responses to commitments forecasted to be responded to in June and July 1985.

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Should you have any questions in this regard, please contact us.

Very truly yours,

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Attachment I - Hope Creek Generating Station - FSAR Commitment Status through July 1985
Attachment II - Response to Question 100.6 (TMI III.D.3.3)
Attachment III - Response to Question 421.24
Attachment IV - Response to Question 471.7
Attachment V - Response to Question 630.7g
Attachment VI - Response to FSAR Section 9.3.2.3.2.b.1

C D. H. Wagner (w/attach)
USNRC Licensing Project Manager

A. R. Blough (w/attach)
USNRC Senior Resident Inspector

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FSAR Commitment Location	Commitment Resolution
FSAR COMMITMENTS FOR JUNE 1985	
1. FSAR Section 1.14.1.46.2	This commitment concerns formulating and implementing a training program for Station Blackout. A training program has been implemented at Hope Creek. This information will be incorporated into the HCGS FSAR.
2. FSAR Section 1.14.1.66.2	This commitment concerns providing an Emergency Operating Procedure for cold shutdown upon loss of power to Class 1E and Non-Class 1E I&C buses. This procedure is available for review. This information will be incorporated into the HCGS FSAR.
3. FSAR Table 13.1-4	This commitment concerns providing resumes for Sr. Radiation Protection Supervisor and Sr. Radiological Engineer. This information will be provided in September 1985.
4. Question/Response Appendix: Question 100.6 (TMI Item III.D.3.3.)	This commitment concerns providing a description of equipment, training, and procedures necessary to determine airborne radio-iodine concentration. This information has been provided in Amendment 11 to the HCGS FSAR and is response to HCGS SER Confirmatory Issue No. 35. Reference to this information is provided in Attachment II and will be included in Amendment 12 to the HCGS FSAR.
5. Question/Response Appendix: Question 220.10	This commitment concerns providing procedures for functional testing, channel checks, and calibration of seismic instrumentation. This information will be provided by September 1985.

FSAR Commitment Location	Commitment Resolution
6. Question/Response Appendix: Question 410.1	This commitment concerns providing a procedure to bring the reactor to a cold shutdown for plant flood conditions. This procedure is available for review. This information will be incorporated into the HCGS FSAR.
7. Question/Response Appendix: Question 410.87	This commitment concerns providing preventive maintenance procedures for Moisture Separator, Emergency Instrument Air Compressor and Instrument Air Filter changeout. These procedures are available for review. This information will be incorporated into the HCGS FSAR.
8. Question/Response Appendix: Question 421.13	This commitment concerns providing test results for isolation devices. This information, which regards HCGS SER Confirmatory Issue No. 17, will be provided by October 1985.
9. Question/Response Appendix: Question 421.24	This commitment concerns providing the HCGS Technical Specifications. This information has been submitted for NRC review (letter from R. L. Mittl, PSE&G, to A. Schwencer, NRC, dated January 17, 1985). This reference information is provided in Attachment III and will be included in Amendment 12 to the HCGS FSAR.
10. Question/Response Appendix: Question 471.7	(See TMI Item III. D.3.3. above) Reference to this information is provided in Attachment IV and will be included in Amendment 12 to the HCGS FSAR.
11. Question/Response Appendix: Question 630.7g	This commitment concerns providing procedures for replacement training (Hot Licenses) for NRC candidates.

FSAR Commitment Location	Commitment Resolution
11. Question/Response Appendix: Question 630.7g (Cont'd)	Information is provided in Attachment V and will be included in Amendment 12 to the HCGS FSAR.
12. Supplemental Request for Additional Information Appendix: SRAI (6)	This commitment concerns implementing an emergency procedure and a training program for Station Blackout events. An abnormal procedure and a training program for these events have been implemented at Hope Creek. This information will be incorporated into the HCGS FSAR.
FSAR COMMITMENTS FOR JULY 1985	
13. FSAR Section 1.14.1.27.2	This commitment concerns demonstrating adequate core cooling is maintained with LPCI diversion. This information has been provided in Amendment 10 to the HCGS FSAR and is response to HCGS SER Confirmatory Issue No. 14.
14. FSAR Section 1.14.1.108.2	This commitment concerns assuring that the ECCS analysis considers fuel cladding swelling and rupture. This information has been provided in Amendment 10 to the HCGS FSAR and is response to HCGS SER Confirmatory Issue No. 14.
15. FSAR Section 12.3.4.2.2	This commitment concerns providing locations of portable air monitors within the Hope Creek station. This information was submitted to NRC in letter from R. L. Mittl, PSE&G, to W. Butler, NRC, dated July 1, 1985, as response to HCGS SER Confirmatory Issue No. 32. This information will be included in Amendment 12 to the HCGS FSAR.

FSAR Commitment Location	Commitment Resolution
16. FSAR Section 12.5.2.2	This commitment concerns providing onsite calibration capability details for instruments and equipment. This information was submitted to NRC in letter from R. L. Mittl, PSE&G, to W. Butler, NRC, dated July 1, 1985, as response to HCGS SER Confirmatory Issue No. 34. This information will be included in Amendment 12 to the HCGS FSAR.
17. FSAR Table 15.6-7	This commitment concerns providing an ECCS analysis events list for a steam line break. This information has been provided in Amendment 10 to the HCGS FSAR.
18. Question/Response Appendix: Question 230.8	This commitment concerns providing seismic information. This information has been provided in Amendment 8 to the HCGS FSAR.
19. Question/Response Appendix: Question 410.87	This commitment concerns providing periodic testing procedures for the instrument air system. These procedures are available for review. This information will be incorporated into the HCGS FSAR.
20. Question/Response Appendix: Question 440.0	This commitment concerns providing a plant-specific LOCA analysis. This information has been provided in Amendment 10 to the HCGS FSAR.
21. Question/Response Appendix: Question 440.27	This commitment concerns providing references for model changes regarding the HCGS ECCS analysis. This information has been provided in Amendment 10 to the HCGS FSAR.

FSAR Commitment Location	Commitment Resolution
22. Question/Response Appendix: Question 440.28	This commitment concerns providing the LOCA analysis. This information has been provided in Amendment 10 to the HCGS FSAR.
23. Question/Response Appendix: Question 630.11	This commitment concerns conducting an NRC instructor certification examination using the HCGS simulator. This examination has been conducted and the NRC has reviewed the capabilities of the HCGS simulator. This information will be incorporated into the HCGS FSAR.

FSAR COMMITMENTS PAST DUE AND REFORECASTED TO JULY 1985

24. FSAR Section 9.3.2.2.2.11	This commitment concerns providing procedures for disposal of lab samples. These procedures are available for review. This information will be incorporated into the HCGS FSAR.
25. FSAR Section 9.3.2.3.2.b.1	This commitment concerns providing a plant specific procedure to assess the extent of core damage based on radio nuclide concentrations and other parameters in fulfillment of HCGS SER Confirmatory Issue No. 31. This information is provided in Attachment VI and will be included in Amendment 12 to the HCGS FSAR.
26. Question/Response Appendix: Question 210.20	This commitment concerns providing the Feedwater Isolation Check Valve Analysis results. This information was submitted to the NRC in a letter from R. L. Mittl, PSE&G, to W. Butler, NRC, dated July 1, 1985, in response to HCGS SER Confirmatory Issue No. 1. This information will be included in Amendment 12 to the HCGS FSAR.

FSAR Commitment Location	Commitment Resolution
27. Question/Response Appendix: Question 210.21	This commitment concerns updating FSAR Section 3.6 tables and figures for final stress analysis results. This information is pending NRC acceptance of PSE&G's proposed pipe break location eliminations.
28. Question/Response Appendix: Question 210.24	(See Question 210.21 above.)
29. Question/Response Appendix: Question 281.14	This commitment concerns developing a program to monitor the Boral surveillance program at an operating plant. An agreement with the Monticello plant has been made. This information will be incorporated into the HCGS FSAR.
30. Question/Response Appendix:	This commitment concerns providing trip settings for the leak detection system. This information will be provided in August 1985.

ATTACHMENT II

Response

A description of the equipment, training, and procedures ~~will be~~ has been provided ~~by June 1, 1985.~~ in Section 12.5.3.

- III.D.3.4 CONTROL ROOM HABITABILITY

Position

In accordance with Item III.D.3.4, "Control Room Habitability", applicants shall assure that control room operators will be adequately protected against the effects of accidental release of toxic and radioactive gases and that the nuclear power plant can be safely operated or shut down under design basis accident conditions (GDC 19).

Clarification

(1) All applicants must make a submittal to us regardless of whether or not they met the criteria of the referenced Standard Review Plan sections. The new clarification specifies that applicants that meet the criteria of the Standard Review Plans should provide the basis for their conclusion that Section 6.4 of the Standard Review Plan requirements are met. Applicants may establish this basis by referencing past submittals to us and/or providing new or additional information to supplement past submittals.

(2) All applicants with control rooms that meet the criteria of the following sections of the Standard Review Plan:

2.2.1,2.2.2	Identification of Potential Hazards in Site Vicinity,
2.2.3	Evaluation of Potential Accidents, and
6.4	Habitability Systems

shall report their findings regarding the specific Standard Review Plan sections as explained below. The following documents should be used for guidance:

ATTACHMENT III

QUESTION 421.24 (SECTIONS 7.2, 7.3, 7.4, 7.5, 7.6, & 7.7)

Section 7.3.1.2 of the FSAR references Chapter 16 of the minimum number of sensors required to monitor safety-related variables. Chapter 16 of the FSAR has not yet been submitted by the applicant. For each monitored variable that provides an input to a safety-related system (i.e., reactor trip, engineered safety features, reactor core isolation cooling, recir. pump trip, control rod block) list the total number of channels provided and the minimum number of channels required to be operable that will be proposed in Chapter 16. Confirm that the single failure criterion can be satisfied for each case where the minimum number of operable channel requirements that will be proposed is less than the total number of channels provided.

RESPONSE

Chapter 16, "Technical Specifications," [redacted] in the format of NUREG-0123, [redacted] submitted [redacted] have been for NRC review (letter from R.L. Anderson, PSE&G, to A. Schwencer, NRC, dated January 17, 1985).

HCGS safety-related systems are designed to conform with the requirements of IEEE Standard 279-1971. Paragraph 4.11 specifically requires that "the system shall be designed to permit any one channel to be maintained, and when required, tested or calibrated during power operation without initiating a protective action at the systems level. During such operation the active parts of the system shall of themselves continue to meet the single failure criterion."

[redacted] any discrepancies to this licensing commitment [redacted] will be corrected or satisfactory justification for the deviation will be provided to the NRC on a case by case basis.

Design drawings in the form of elementary diagrams, P&IDs, logic diagrams, instrument location drawings, and electrical drawings from which Chapter 16 information will be extracted, have been provided to the NRC under separate cover and are listed in Tables 1.7-1, 1.7-2, and 1.7-3.

ATTACHMENT IV

QUESTION 471.7 (SECTION 12.5.2)

Provide a schedule for submittal of your response to NUREG-0737, Item III.D.3.3, Improved Inplant Iodine Instrumentation Under Accident Conditions.

RESPONSE

Specific details on the equipment, procedures, and training for determining airborne iodine concentrations in the plant under accident conditions, to meet the intent of NUREG-0737, ~~Item III.D.3.3, will be provided by June 1, 1985.~~ has been provided in Section 12.5.3.

ATTACHMENT V

c. Applicable references for each of the segments outlined in the appendices are shown on the appropriate cover sheet of each appendix.

d. Training segments which include 10CFR Part 55 Section 21, 22 and 23 are identified in Appendix 13A, 13C, 13E, 13F and 13G.

e. The following segments of the training program are still under development:

Appendix I - Cold license operator in-plant training
Appendix J - Pre-license examination testing and training

f. A course description for segments i and j of the training program is contained in Appendices 13 I and 13 J, respectively. Appendix 13K provides a description of on-shift operating experience training.

g. Hot license training for NRC candidates will be conducted to augment the shift staffing allotment, allow for promotion or fill vacancies due to reassignment. This training will utilize a major portion of the existing cold license training program; however, certain areas may be waived based on an individual's prior experience and educational background. Procedures describing the content and administrative requirements ~~will be completed by June 1985~~.

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h. Appendix 13F has been revised to incorporate this response.

complete and ARE AVAILABLE FOR REVIEW. They ~~Will~~ be implemented and REPLACE PRESENT COLD LICENSE TRAINING PROCEDURES WHEN THE UNIT BEGINS POWER ASCENTION AFTER OPERATING LICENSE ISSUANCE

ATTACHMENT VI

However, NUREG 0737 Section II.B.3.1 requires that the PASS meet the following:

a. The licensee shall have the capability to promptly obtain reactor coolant samples and containment atmosphere samples. The combined time allotted for sampling and analysis should be 3 hours or less from the time a decision is made to take a sample.

The following is a conservative time sequence for sampling, transport, and analysis to demonstrate that samples can be obtained and analyzed within the specified 3-hour period:

1. Recirculate sample, install sample vial/or cartridge -- 15 min.

2. Operate sample station -- 15 min.

3. Transport sample to lab -- 20 min.

4. Analyze sample --- 30 min.

Sample points and sample gathering methods are discussed in Section 9.3.2.2.2.

b. The licensee shall establish an onsite radiological and chemical analysis capability to provide, within the 3-hour time frame established above, quantification of the following:

1. Certain radionuclides in the reactor coolant and containment atmosphere that may be indicators of the degree of core damage (e.g., noble gases; iodines and cesiums, and nonvolatile isotopes);

A generic procedure to assess the extent of core damage based on radionuclide concentrations and other parameters has been prepared by the BWR Owners Group (FSAR Section 1.8.1.97). A HCGS plant-specific procedure based on this methodology has been ~~will be~~ prepared ~~by April 1985.~~ and was submitted to the NRC in letter, R.L. Mittl, PSE&G, to W. Butler, NRC, dated June 24, 1985

2. Hydrogen levels in the containment atmosphere;

At greater than 15% power, the primary containment atmosphere is maintained under a nitrogen blanket. Hydrogen and oxygen concentrations are monitored by chemical analysis of gas samples drawn from various points in the drywell and torus. During post accident conditions, hydrogen and oxygen