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Robert L. Mittl General Manager
Nuclear Assurance and Regulation

January 15, 1985

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

Attention: Mr. Albert Schwencer, Chief
Licensing Branch 2
Division of Licensing

Gentlemen:

HOPE CREEK GENERATING STATION
DOCKET NO. 50-354
FSAR COMMITMENT STATUS THROUGH DECEMBER 1984

Public Service Electric and Gas Company plans to issue Amendment No. 9 to the Hope Creek Generating Station Final Safety Analysis Report by February 15, 1985. This letter is provided to document the status of Hope Creek Generating Station responses to NRC requests for additional information which were forecasted to be responded to by December 1984.

Attachment I is a tabulation of the Hope Creek Generating Station Final Safety Analysis Report commitments for December 1984, and the corresponding resolution for each commitment. Attachments II through VIII provide responses to commitments forecasted to be responded to in December 1984, which will be included in Amendment No. 9 or 10.

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

Very truly yours,

Attachment I - Hope Creek Generating Station - FSAR Commitment Status through December 1984
Attachment II - Response to FSAR Table 13.1-4
Attachment III - Response to TMI Item II.K.3.30
Attachment IV - Response to Question 210.1
Attachment V - Response to Question 210.2
Attachment VI - Response to Question 210.21
Attachment VII - Response to Question 480.4
Attachment VIII - Response to Question 430.33

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

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

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ATTACHMENT I
HOPE CREEK GENERATING STATION
FSAR COMMITMENT STATUS THROUGH DECEMBER 1984

FSAR Commitment Location	Commitment Resolution
1. FSAR Table 13.1-4	This commitment concerns providing resumes for Senior Radiation Protection Supervisor and Senior Radiation Engineer. This information will be provided in June 1985. This revised commitment date, provided in Attachment II, will be included in Amendment 9 to the HCGS FSAR.
2. Question/Response Appendix: Question 100.6	Re: TMI Item I.D.1; This commitment concerns providing a detailed control room review to verify human factors considerations. This information has been provided in letter; R. L. Mittl (PSE&G) to A. Schwencer (NRC), dated August 14, 1984.
	Re: TMI Item II.K.3.27; This commitment concerns establishing a common reference point for instruments measuring water level in the reactor vessel. This information will be provided in January 1985.
	Re: TMI Item II.K.3.30; This commitment concerns resolving any NRC concerns with the GE small-break-model prior to the initiation of the HCGS - specific ECCS analysis. Resolution has been provided by GE as stated in the HCGS SER, Section 15.9.3 (II.K.3.30). The information deleted in Attachment III will be deleted in Amendment 9 to the HCGS FSAR.
3. Question/Response Appendix: Question 210.1	This commitment concerns providing revised FSAR Figure 3.6-34 to reflect the final stress report data. This information will be provided in April 1985. This revised commitment date, provided in Attachment IV, will be included in Amendment 10 to the HCGS FSAR.

FSAR Commitment Location	Commitment Resolution
4. Question/Response Appendix: Question 210.2	This commitment concerns providing information labelled "later" in FSAR Tables 3.9-5d, 5g, and 5s. This information will be provided June 1985. This revised commitment date, provided in Attachment V, will be included in Amendment 9 to the HCGS FSAR.
5. Question/Response Appendix: Question 210.21	This commitment concerns providing revised FSAR tables and figures in Section 3.6 to reflect the final stress report data. This information will be provided April 1985. This revised commitment date, provided in Attachment VI, will be included in Amendment 10 to the HCGS FSAR.
6. Question/Response Appendix: Question 210.24	This commitment concerns providing revised FSAR tables and figures in Section 3.6 to reflect the final stress report data. This information will be provided in April 1985.
7. Question/Response Appendix: Question 421.42	This commitment concerns providing an analysis of power to vital instruments and controls. This information has been provided in Amendment 8 to the HCGS FSAR.
8. Question/Response Appendix: Question 421.51	This commitment concerns providing an analysis of power and sensing line failures. This information has been provided in Amendment 8 to the HCGS FSAR.
9. Question/Response Appendix: Question 421.52	This commitment concerns providing and analysis of a HELB on non-safety controls. This information has been provided in Amendment 8 to the HCGS FSAR.

FSAR Commitment Location	Commitment Resolution
10. Question/Response Appendix: Question 480.4	This commitment concerns providing information regarding modifications to vacuum breakers on Mark I containments in compliance with NRC Generic Letter 83-08. This information has been provided in the response to Item 4 submitted in letter, R. L. Mitt.. (PSE&G) to A. Schwencer (NRC), dated January 7, 1985. The information provided in Attachment VII which references this response will be included in Amendment 10 to the HCGS FSAR.
11. Question/Response Appendix: Question 430.33	This commitment concerns providing the results of testing an inverter as isolation device. (Ref: DSER OI No. 259) This information will be provided in February 1985. This revised commitment date, provided in Attachment VIII, will be included in Amendment 10 to the HCGS FSAR.
12. DSER Open Item No. 262	This commitment concerns providing Radiological Effluent Technical Specifications (RETS). This information will be provided in February 1985.

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ATTACHMENT II

SENIOR RADIATION PROTECTION SUPERVISOR

Will be provided by ~~December 1984~~ June 1985

SENIOR RADIOLOGICAL ENGINEER

Will be provided by ~~December 1984~~
June 1985

ATTACHMENT III

performing the necessary work and submitted this information for staff review and approval.

Response (to II.K.3.30)

General Electric provided information concerning the NRC's small-break-model concerns in a meeting between GE and the NRC staff held on June 18, 1981 and subsequent documentation included in a letter from R.H. Bucholz (GE) to D.G. Eisenhut (NRC) dated June 26, 1981. Based on its review of this information, the NRC staff has prepared a draft safety evaluation report (SER) that concludes the test data, comparisons, and other information submitted by GE acceptably demonstrate that the existing GE small-break model is in compliance with 10 CFR 50, Appendix K and, therefore, no model changes are required. ~~Should the NRC management review of the draft SER raise any further concerns, they will be resolved prior to the initiation of the HCGS-specific ECCS analysis in late 1984.~~

- II.K.3.31 PLANT-SPECIFIC CALCULATIONS TO SHOW COMPLIANCE WITH 10 CFR 50.46

Position

Plant-specific calculations using NRC-approved models for small-break loss-of-coolant accidents as described in II.K.3 item 30 to show compliance with 10 CFR 50.46 should be submitted for NRC approval by all licensees.

Calculations to be submitted by January 1, 1983 or 1 year after staff approval of loss-of-coolant accident analysis models, whichever is later (required only if model changes have been made).

Response

Small-break LOCA calculations are described in Section 6.3.3.7, and the results are summarized in Table 6.3-4. The references in Section 6.3.6 describe the currently approved Appendix K methodology used. Compliance with 10 CFR 50.46 has been previously established by the NRC. No model changes are necessary (see response to item II.K.3.30).

ATTACHMENT IV

QUESTION 210.1 (SECTION 3.6)

Provide the date that the many tables and figures identified as "later" will be submitted.

RESPONSE

The following tables and figures are identified as later and will be provided according to the schedule indicated below:

Figure 3.6-34 ~~December 1984~~ April 1985

ATTACHMENT V

QUESTION 210.2 (SECTION 3.9)

Provide the data that the information identified as "later" in Tables 3.9-5d, 3.9-5q and 3.9-5s will be submitted.

RESPONSE

The allowable forces and moments on the equipment nozzle connection will be met. The actual values will be available in June 1985 ~~December 1984~~ after the piping as-built analysis/reconciliation effort is completed.

ATTACHMENT VI

QUESTION 210.21 (SECTION 3.6.2)

In order to assure the pipe break criteria have been properly implemented, the Standard Review Plan requires the review of sketches showing the postulated rupture locations and of summaries of the data developed to select postulated break locations including, for each point, the calculated stress intensity, the calculated cumulative usage factor, and the calculated primary plus secondary stress range. The required sketches and tables have not been provided at this time. Provide a schedule for submission of these data.

RESPONSE

Figures and tables of Section 3.6 pertaining to the development and selection of pipe break locations have been revised to incorporate the preliminary stress information. Based upon the final stress reports, the above noted sketches and tables will be updated to final status by ~~December 1984.~~
April 1985

ATTACHMENT VII

QUESTION 480.4 (SECTION 6.2.1)

Satisfactory performance of the wetwell to drywell vacuum breakers during the pool swell, condensation oscillation and chugging phases of a LOCA for MARK I plants should be demonstrated.

Provide your plans to resolve these concerns. In addition, we have reviewed the GE generic submittal (GE Letter #MFN-094-82 dated July 2, 1982) on vacuum breaker actuation and have concluded it is acceptable. Therefore, if you can verify the applicability of this generic submittal to your plant, the concern associated with pool swell will be satisfied.

RESPONSE

GE Letter #MFN-094-82 dated July 2, 1982 is applicable to HCGS's suppression pool-to-drywell vacuum breaker design.

These vacuum breakers ~~will be~~ have been modified in accordance with the recommendations from the Mark I BWR owners' group. ~~Per~~ NRC Generic Letter 83-08, Modifications of Vacuum Breakers on Mark I Containments, requires that a plant unique calculation that forms the bases for the vacuum breaker modification ~~will~~ be submitted to the NRC for review. ~~by December 1984~~.

The Hope Creek Plant Unique Analysis Report (PUAR) was submitted for NRC review by a PSE&G letter dated February 10, 1984. A discussion of the torus-to-drywell vacuum breakers is included in the PUAR. Details of the plant unique calculation and the vacuum breaker modifications have been included in ~~our~~ the response to ~~your~~ the staff's request for additional information on the Hope Creek PUAR (Letter from A. Schwencer (USNRC) to R.L. Mittl (PSE&G) dated November 16, 1984).

This response was submitted to the staff by letter from R.L. Mittl (PSE&G) to A. Schwencer (USNRC), dated January 8, 1985.

ATTACHMENT VIII

October 3, 1984. The test report and any associated analysis of the test results will be submitted in ~~December 1984.~~ February 1985

An analysis has been performed to support the values used for the acceptance criteria for voltages. This analysis shows that the voltages specified will not cause misoperation or loss of any electrical equipment connected to the supply buses.

The results of this analysis for the ac systems are stated in Section 8.3.1.2.1 and the calculated results are shown in Table 8.3-11. The results of the dc analysis are contained in Section 8.3.2. These results indicate that the 125 volt dc system has an acceptable operating capability with battery voltage variations of 35 volts (140 volts dc to 105 volts dc). The test acceptance criterion limits the bus voltage variation to 105-135 volts.

In addition, the acceptance values for the test currents are well below the level that would cause the infeed breakers to the UPS supply buses to trip. These values are as follows:

Circuit	Acceptance Current	Infeed breaker Setting
Normal 480 VAC Supply	0-55 amperes continuous with a maximum peak not to exceed 132 amperes and no value above 55 amperes shall persist for longer than 10 mS	600 amperes pick-up
Back-up 480 VAC Supply	0-78 amperes continuous with a maximum peak not to exceed 500 amperes and no value above 78 amperes shall persist for longer than 10 mS	600 amperes Pick-up
Alternate 125 VAC Supply	The bus voltage variation of 105-135 volts will hold for the following cases: (1) With the UPS energized but without load the input current should not exceed 56 amperes (2) With the UPS input current at 56 amperes the input current should not exceed the range of 0-56 amperes	2000 ampere fuse