

February 16, 1994

Docket No. 52-001

Mr. Joseph Quirk
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San Jose, California 95125

Dear Mr. Quirk:

SUBJECT: ROUND FIVE OF STAFF FEEDBACK ON THE ADVANCED BOILING WATER REACTOR (ABWR) AMENDMENT 33 TO THE STANDARD SAFETY ANALYSIS REPORT (SSAR), AND TECHNICAL SPECIFICATIONS

I am providing the fifth round of staff comments on GE's SSAR Amendment 33. They include additional Electrical Engineering Branch comments and a markup of one technical specification page generated by the staff audit. If you have any questions on these comments please contact me on 301-504-1132.

(Original signed by)

Chester Poslusny, Project Manager
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Enclosure:
As stated

cc w/enclosure:
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Enclosure

Additional Electrical Engineering Comments on Amendment 33

54. (Provided with Independent Quality Group Comments)

58. Section 8.3.4.10 of SSAR Amendment 33 indicates that diesel generator qualification is the responsibility of the COL applicant. Sections 3.11 and 8.3.1.1.8.9 of SSAR Amendment 33 indicate that qualification of diesel generators is within GE's area of responsibility. The inconsistency between these sections should be corrected. Section 8.3.4.10 should be deleted.

59. Items 1 and 3 of section 14.2.12.1.45.1 of SSAR Amendment 33 use the terminology "normal and emergency loads". This terminology is not consistent with terminology used in chapter 8.0 of the SSAR. The terminology should be changed to required LOCA and/or LOPP loads or required loads.

60. Items 3 and 3(a) of Section 14.2.12.1.45.1 of SSAR Amendment 33 indicates that DC power supply systems consist of essential and nonessential equipment. The terminology "essential and nonessential" is not consistent with the terminology used in Chapter 8.0 of the SSAR. The terminology should be changed to "Class 1E or non Class 1E system", "safety related or non safety related system", or "Class 1E". In addition, the term "essential" used in Item 3(a) should be changed to "required".

61. Items (3) and (3)(e) of Section 14.2.12.1.45.1 of SSAR Amendment 33 indicates that the DC power supply systems include inverters and static transfer switches. Chapter 8.0 of the SSAR indicates that inverters and static transfer switches are part of the plant vital AC power supply system. The electrical system preoperational tests described in Section 14.2.12.1.45 of the SSAR should be revised to correct this inconsistency and to include preoperational test for the plant vital AC power supply system.

62. Item (1) of Section 14.2.12.1.45.3 uses the terminology "normal offsite power sources" to refer to loss of both the normal and alternate offsite power sources. The use of terminology between Chapter 8 and this section are inconsistent. The terminology "normal offsite power sources" should be replaced with "normal and alternate offsite power sources".

63. Section 14.2.12.1.45.3 of SSAR Amendment 33 uses the terminology "emergency diesel generator", "emergency electrical power", and "emergency load". The term "emergency" has not been used in Chapter 8 of the SSAR or in IEEE industry standards to describe electrical equipment and loads. The terms used to describe electrical equipment and loads should be consistent between chapter 8 and 14.

64. Sections 14.2.12.1.45.3 and 14.2.12.1.46 use the Acronym LOP for loss of offsite power. This Acronym has not been included in the ABWR SSAR list of Acronyms. In addition, LOP has not been used in Chapter 8.0 for the loss of

offsite power. The Acronym should be changed to loss of offsite preferred power (LOPP).

In addition the Acronyms DG, AC, DC, EDG (used on page 8.1-7 of the SSAR), UAT (used on page 8.1-7 of the SSAR), RAT (used on page 8.1-7 of the SSAR) have not been included in the ABWR SSAR Acronym list. Also in the ABWR list of Acronyms the acronym for VDC and VAC have been incorrectly defined.

65. Item (g) of Section 14.2.12.1.45.3 of SSAR Amendment 33 indicates that DG testing will be conducted as described in Regulatory Guide 1.108 and Item (1) of Section 14.2.12.1.45.3 of SSAR Amendment 33 indicates that acceptable DG reliability is described in Regulatory 1.108. In SSAR Amendment 33, the design was changed to indicate conformance with Regulatory Guide 1.9 revision 3 verses revision 2. Revision 3 of Regulatory Guide 1.9 incorporated and/or replaced the guidelines contained in Regulatory Guide 1.108. The reference to test and reliability described in Regulatory Guide 1.108 should be reviewed to verify that it is still valid for the ABWR design. Also if the reference to Regulatory Guide 1.108 is modified to Regulatory Guide 1.9 the description in the new Regulatory guide should be reviewed to verify that it remains valid for the ABWR design that has be evaluated and approved by the NRC.

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. Required Action and associated Completion Time of Condition A, B, C, or D not met in MODE 1, 2, or 3.	E.1 Be in MODE 3.	12 hours
	<u>AND</u> E.2 Be in MODE 4.	36 hours
F. Required Action and associated Completion Time of Condition A, B, C, or D not met for PCIV(s) required to be OPERABLE during movement of irradiated fuel assemblies in the secondary containment. <i>primary or</i>	F.1 -----NOTE----- LCO 3.0.3 is not applicable. ----- Suspend movement of irradiated fuel assemblies in primary and secondary containment.	Immediately
G. Required Action and associated Completion Time of Condition A, B, C, or D not met for PCIV(s) required to be OPERABLE during CORE ALTERATIONS.	G.1 Suspend CORE ALTERATIONS.	Immediately
H. Required Action and associated Completion Time of Condition A, B, C, or D not met for PCIV(s) required to be OPERABLE during MODE 4 or 5 or during operations with a potential for draining the reactor vessel (OPDRVs).	H.1 Initiate action to suspend OPDRVs.	Immediately
	<u>OR</u> H.2 Initiate action to restore valve(s) to OPERABLE status.	Immediately