



April 6, 2004

U. S. Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: Document Control Desk

SUBJECT: Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 & 2; Docket Nos. 50-317 & 50-318
Additional Information Concerning the License Amendment Request: Extension
of Diesel Generator Required Action Completion Time (TAC Nos. MB8976 and
MB8977)

REFERENCES:

- (a) Letter from Mr. P. E. Katz (CCNPP) to Document Control Desk (NRC), dated May 12, 2003, License Amendment Request: Extension of Diesel Generator Required Action Completion Time
- (b) Letter from Mr. K. J. Nietmann (CCNPP) to Document Control Desk (NRC), dated February 23, 2004, Response to Request for Additional Information Concerning the License Amendment Request: Extension of Diesel Generator Required Action Completion Time (TAC Nos. MB8976 and MB8977)

In our letter dated May 12, 2003 (Reference a), we requested a License Amendment that would extend several Required Action Completion Times for inoperable diesel generators. During a pre-implementation review, we determined that the original marked-up Technical Specification Insert 4 does not accurately reflect the discussion in Reference (a). Changes to the original marked-up Insert 4 are necessary so that it reflects and supports the extension of the diesel generator Required Action Completion Times requested in Reference (a) as modified by Reference (b). Specifically, Insert 4 should have included an additional statement that allowed the Control Room Emergency Ventilation System, Control Room Emergency Temperature System, and H₂ Analyzer to be declared inoperable after 72 hours. This change will support the discussion found on page 6 of Attachment 1 of Reference (a). Attachment (1) contains the revised Insert 4. Attachment (2) contains new final pages that reflect the revised Insert 4.

This information does not change the conclusions of the No Significant Hazards Consideration Determination or the Environmental Impact Review provided in Reference (a).

A001

ATTACHMENT (1)

MARKED-UP TECHNICAL SPECIFICATION PAGE

Insert 4

INSERT 4

CONDITION	REQUIRED ACTION	COMPLETION TIME
F. Required Action and associated Completion Time of Required Action E.1 not met.	F.1.1 Restore both LCO 3.8.1.b DGs and other unit's DG to OPERABLE status and 0C DG to available status. <u>OR</u> F.1.2 Restore DG to OPERABLE status. <u>OR</u> F.1.3 Declare CREVS, CRETS, and H₂ Analyzer supported by the inoperable DG inoperable.	72 hours

ATTACHMENT (2)

FINAL TECHNICAL SPECIFICATION PAGES

Section 3.8.1

3.8 ELECTRICAL POWER SYSTEMS

3.8.1 AC Sources-Operating

LCO 3.8.1 The following AC electrical sources shall be OPERABLE:

- a. Two qualified circuits between the offsite transmission network and the onsite Class 1E AC Electrical Power Distribution System;
- b. Two diesel generators (DGs) each capable of supplying one train of the onsite Class 1E AC Electrical Power Distribution System; and
- c. One qualified circuit between the offsite transmission network and the other unit's onsite Class 1E AC electrical power distribution subsystems needed to supply power to the Control Room Emergency Ventilation System (CREVS), Control Room Emergency Temperature System (CRETS), and H₂ Analyzer and one DG from the other unit capable of supplying power to the CREVS, CRETS, and H₂ Analyzer.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. One required LCO 3.8.1.a offsite circuit inoperable.</p>	<p>A.1 Perform SR 3.8.1.1 or SR 3.8.1.2 for required OPERABLE offsite circuits.</p>	<p>1 hour <u>AND</u> Once per 8 hours thereafter</p>
	<p><u>AND</u> A.2 Declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable.</p>	<p>24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s)</p>
	<p><u>AND</u> A.3 Restore required offsite circuit to OPERABLE status.</p>	<p>72 hours <u>AND</u> 17 days from discovery of failure to meet LCO 3.8.1.a or LCO 3.8.1.b</p>

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>B. One LCO 3.8.1.b DG inoperable.</p>	<p>B.1 Verify both DGs on the other unit OPERABLE and OC DG available.</p>	<p>1 hour <u>AND</u> Once per 24 hours thereafter</p>
	<p><u>AND</u></p> <p>B.2 Perform SR 3.8.1.1 or SR 3.8.1.2 for the OPERABLE required offsite circuit(s).</p>	<p>1 hour <u>AND</u> Once per 8 hours thereafter</p>
	<p><u>AND</u></p> <p>B.3 Declare required feature(s) supported by the inoperable DG inoperable when its redundant required feature(s) is inoperable.</p>	<p>4 hours from discovery of Condition B concurrent with inoperability of redundant required feature(s)</p>
	<p><u>AND</u></p> <p>B.4.1 Determine OPERABLE DG(s) is not inoperable due to common cause failure.</p> <p><u>OR</u></p>	<p>24 hours</p>

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>B. (continued)</p>	<p>B.4.2 Perform SR 3.8.1.3 for OPERABLE DG(s).</p> <p><u>AND</u></p> <p>B.5 Restore DG to OPERABLE status.</p>	<p>24 hours</p> <p>14 days</p> <p><u>AND</u></p> <p>17 days from discovery of failure to meet LCO 3.8.1.a or LCO 3.8.1.b</p>
<p>C. Required Action and associated Completion Time of Required Action B.1 not met.</p>	<p>C.1.1 Restore both DGs on the other unit to OPERABLE status and OC DG to available status.</p> <p><u>OR</u></p> <p>C.1.2 Restore DG to OPERABLE status.</p>	<p>72 hours</p>

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>D. LCO 3.8.1.c offsite circuit inoperable.</p>	<p>----- NOTE ----- Enter applicable Conditions and Required Actions of LCO 3.8.9, "Distribution Systems-Operating," when Condition D is entered with no AC power source to a train. -----</p>	
	<p>D.1 Perform SR 3.8.1.1 or SR 3.8.1.2 for required OPERABLE offsite circuit(s).</p>	<p>1 hour <u>AND</u> Once per 8 hours thereafter</p>
	<p><u>AND</u> D.2 Declare, CREVS, CRETS, or H₂ Analyzer with no offsite power available inoperable when the redundant CREVS, CRETS, or H₂ Analyzer is inoperable.</p>	<p>24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s)</p>
	<p><u>AND</u> D.3 Declare CREVS, CRETS, and H₂ Analyzer supported by the inoperable offsite circuit inoperable.</p>	<p>72 hours</p>

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>E. LCO 3.8.1.c DG inoperable.</p>	<p>----- NOTE----- Enter applicable Conditions and Required Actions of LCO 3.8.9, "Distribution Systems-Operating," when Condition E is entered with no AC power source to a train. -----</p>	
	<p>E.1 Verify both LCO 3.8.1.b DGs OPERABLE, the other unit's DG OPERABLE and the OC DG available.</p>	<p>1 hour <u>AND</u> Once per 24 hours thereafter</p>
	<p><u>AND</u> E.2 Perform SR 3.8.1.1 or SR 3.8.1.2 for the OPERABLE required offsite circuit(s).</p>	<p>1 hour <u>AND</u> Once per 8 hours thereafter</p>
	<p><u>AND</u> E.3 Declare CREVS, CRETS, or H₂ Analyzer supported by the inoperable DG inoperable when the redundant CREVS, CRETS, or H₂ Analyzer is inoperable.</p> <p><u>AND</u></p>	<p>4 hours from discovery of Condition E concurrent with inoperability of redundant required feature(s)</p>

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. (continued)	<p>E.4.1 Determine OPERABLE DG(s) is not inoperable due to common cause failures.</p> <p><u>OR</u></p> <p>E.4.2 Perform SR 3.8.1.3 for OPERABLE DG(s).</p> <p><u>AND</u></p> <p>E.5 Declare CREVS, CRETS, and H₂ Analyzer supported by the inoperable DG inoperable.</p>	<p>24 hours</p> <p>24 hours</p> <p>14 days</p>
F. Required Action and associated Completion Time of Required Action E.1 not met.	<p>F.1.1 Restore both LCO 3.8.1.b DGs and other unit's DG to OPERABLE status and OC DG to available status.</p> <p><u>OR</u></p> <p>F.1.2 Restore DG to OPERABLE status.</p> <p><u>OR</u></p> <p>F.1.3 Declare CREVS, CRETS, and H₂ Analyzer supported by the inoperable DG inoperable.</p>	<p>72 hours</p>

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>G. Two required LCO 3.8.1.a offsite circuits inoperable.</p> <p><u>OR</u></p> <p>One required LCO 3.8.1.a offsite circuit that provides power to the CREVS, CRETS, and H₂ Analyzer inoperable and the required LCO 3.8.1.c offsite circuit inoperable.</p>	<p>G.1 Declare required feature(s) inoperable when its redundant required feature(s) is inoperable.</p> <p><u>AND</u></p> <p>G.2 Restore one required offsite circuit to OPERABLE status.</p>	<p>12 hours from discovery of Condition G concurrent with inoperability of redundant required feature(s)</p> <p>24 hours</p>
<p>H. One required LCO 3.8.1.a offsite circuit inoperable.</p> <p><u>AND</u></p> <p>One LCO 3.8.1.b DG inoperable.</p>	<p>----- NOTE ----- Enter applicable Conditions and Required Actions of LCO 3.8.9, when Condition H is entered with no AC power source to any train. -----</p> <p>H.1 Restore required offsite circuit to OPERABLE status.</p> <p><u>OR</u></p> <p>H.2 Restore DG to OPERABLE status.</p>	<p>12 hours</p> <p>12 hours</p>

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>I. Two LCO 3.8.1.b DGs inoperable.</p> <p><u>OR</u></p> <p>LCO 3.8.1.b DG that provides power to the CREVS, CRETS, and H₂ Analyzer inoperable and LCO 3.8.1.c DG inoperable.</p>	<p>I.1 Restore one DG to OPERABLE status.</p>	<p>2 hours</p>
<p>J. Required Action and associated Completion Time of Condition A, C, F, G, H, or I not met.</p> <p><u>OR</u></p> <p>Required Action and associated Completion Time of Required Action B.2, B.3, B.4.1, B.4.2, or B.5 not met.</p> <p><u>OR</u></p> <p>Required Action and associated Completion Time of Required Action E.2, E.3, E.4.1, E.4.2, or E.5 not met.</p>	<p>J.1 Be in MODE 3.</p> <p><u>AND</u></p> <p>J.2 Be in MODE 5.</p>	<p>6 hours</p> <p>36 hours</p>

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
K. Three or more required LCO 3.8.1.a and LCO 3.8.1.b AC sources inoperable.	K.1 Enter LCO 3.0.3.	Immediately

SURVEILLANCE REQUIREMENTS

-----NOTE-----

SR 3.8.1.1 through SR 3.8.1.15 are only applicable to LCO 3.8.1.a and LCO 3.8.1.b AC sources. SR 3.8.1.16 is only applicable to LCO 3.8.1.c AC sources.

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.1 -----NOTE----- Only required to be performed when SMECO is being credited for an offsite source. -----</p> <p>Verify correct breaker alignment and indicated power availability for the 69 kV SMECO offsite circuit.</p>	<p>Once within 1 hour after substitution for a 500 kV offsite circuit</p> <p><u>AND</u></p> <p>8 hours thereafter</p>
<p>SR 3.8.1.2 Verify correct breaker alignment and indicated power availability for each required 500 kV offsite circuit.</p>	<p>7 days</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.3 ----- NOTES -----</p> <ol style="list-style-type: none"> 1. Performance of SR 3.8.1.9 satisfies this Surveillance Requirement. 2. All DG starts may be preceded by an engine prelube period and followed by a warmup period prior to loading. 3. A modified DG start involving idling and gradual acceleration to synchronous speed may be used for this Surveillance Requirement as recommended by the manufacturer. When modified start procedures are not used, the voltage and frequency tolerances of SR 3.8.1.9 must be met. <p>-----</p> <p>Verify each DG starts and achieves steady state voltage ≥ 4060 V and ≤ 4400 V, and frequency ≥ 58.8 Hz and ≤ 61.2 Hz.</p>	<p>31 days</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.4 ----- NOTES -----</p> <ol style="list-style-type: none"> 1. DG loadings may include gradual loading as recommended by the manufacturer. 2. Momentary transients below the load limit do not invalidate this test. 3. This Surveillance shall be conducted on only one DG at a time. 4. This Surveillance Requirement shall be preceded by and immediately follow without shutdown a successful performance of SR 3.8.1.3 or SR 3.8.1.9. <p>-----</p> <p>Verify each DG is synchronized and loaded, and operates for ≥ 60 minutes at a load ≥ 4000 kW for DG 1A and ≥ 2700 kW for DGs 1B, 2A, and 2B.</p>	<p>31 days</p>
<p>SR 3.8.1.5 Verify each day tank contains ≥ 325 gallons of fuel oil for DG 1A and ≥ 275 gallons of fuel oil for DGs 1B, 2A, and 2B.</p>	<p>31 days</p>
<p>SR 3.8.1.6 Check for and remove accumulated water from each day tank.</p>	<p>31 days</p>
<p>SR 3.8.1.7 Verify the fuel oil transfer system operates to automatically transfer fuel oil from storage tank[s] to the day tank.</p>	<p>31 days</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.1.8	Verify interval between each sequenced load block is within $\pm 10\%$ of design interval for the load sequencer.	31 days
SR 3.8.1.9	<p>-----NOTE----- All DG starts may be preceded by an engine prelube period. -----</p> <p>Verify each DG starts from standby condition and achieves, in ≤ 10 seconds, voltage > 4060 V and frequency > 58.8 Hz, and after steady state conditions are reached, maintains voltage ≥ 4060 V and ≤ 4400 V and frequency of > 58.8 Hz and ≤ 61.2 Hz.</p>	184 days
SR 3.8.1.10	Verify manual transfer of AC power sources from the normal offsite circuit to the alternate offsite circuit.	24 months
SR 3.8.1.11	<p>-----NOTE----- Momentary transients outside the load and power factor limits do not invalidate this test. -----</p> <p>Verify each DG, operating at a power factor of ≤ 0.85, operates for ≥ 60 minutes while loaded to ≥ 4000 kW for DG 1A and ≥ 3000 kW for DGs 1B, 2A, and 2B.</p>	24 months
SR 3.8.1.12	Verify each DG rejects a load ≥ 500 hp without tripping.	24 months

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.13 Verify that automatically bypassed DG trips are automatically bypassed on an actual or simulated required actuation signal.</p>	<p>24 months</p>
<p>SR 3.8.1.14 Verify each DG:</p> <ul style="list-style-type: none"> a. Synchronizes with offsite power source while loaded upon a simulated restoration of offsite power; b. Manually transfers loads to offsite power source; and c. Returns to ready-to-load operation. 	<p>24 months</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.15 -----NOTE----- All DG starts may be preceded by an engine prelube period. -----</p> <p>Verify on an actual or simulated loss of offsite power signal in conjunction with an actual or simulated Engineered Safety Feature actuation signal:</p> <ul style="list-style-type: none"> a. De-energization of emergency buses; b. Load shedding from emergency buses; c. DG auto-starts from standby condition and: <ul style="list-style-type: none"> 1. energizes permanently connected loads in ≤ 10 seconds, 2. energizes auto-connected emergency loads through load sequencer, 3. maintains steady state voltage ≥ 4060 V and ≤ 4400 V, 4. maintains steady state frequency of ≥ 58.8 Hz and ≤ 61.2 Hz, and 5. supplies permanently connected and auto-connected emergency loads for ≥ 5 minutes. 	<p>24 months</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.8.1.16 For the LCO 3.8.1.c AC electrical sources, SR 3.8.1.1, SR 3.8.1.2, SR 3.8.1.3, SR 3.8.1.5, SR 3.8.1.6, and SR 3.8.1.7 are required to be performed.	In accordance with applicable Surveillance Requirements