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Baltimore Gas and Electric Company
Calvert Cliffs Nuclear Power Plant
1650 Calvert Cliffs Parkway
Lusby, Maryland 20657
410 495-4455



July 16, 1999

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
Response to License Renewal Safety Evaluation Report – Review Comments

- REFERENCES:**
- (a) Letter from Mr. D. B. Matthews (NRC) to Mr. C. H. Cruse (BGE), dated March 21, 1999, "Calvert Cliffs Nuclear Power Plant, Units 1 and 2, License Renewal Safety Evaluation Report"
 - (b) Letter from Mr. W. D. Lanning (NRC) to Mr. C. H. Cruse (BGE), dated March 26, 1999, "NRC Inspection Report Nos. 50-317/99-02 and 50-318/99-02"
 - (c) Letter from Mr. C. H. Cruse (BGE) to NRC Document Control Desk, dated July 2, 1999, "Response to License Renewal Safety Evaluation Report"
 - (d) Letter from Mr. C. H. Cruse (BGE) to NRC Document Control Desk, dated February 4, 1999, "Changes to the Application for License Renewal"
 - (e) Letter from Mr. C. H. Cruse (BGE) to NRC Document Control Desk, dated April 2, 1999, "First Annual Amendment to Application for License Renewal"

Reference (a) forwarded the Safety Evaluation Report (SER) for Baltimore Gas and Electric Company's (BGE's) application for the renewal of the operating license for Calvert Cliffs Nuclear Power Plant Units 1 and 2, and requested that BGE review the SER, verify its accuracy, and provide comments and responses to the open and confirmatory items.

Reference (c) provided responses to the open items and confirmatory items. Included herein, Attachment (1) provides comments based on the accuracy verification. The response to Open Item 3.4.3.2.1-1 in Reference (c) indicated that BGE was considering additional non-destructive examinations (NDEs) for a modification being implemented over the next several years. Regarding that situation, the following additional information is provided:

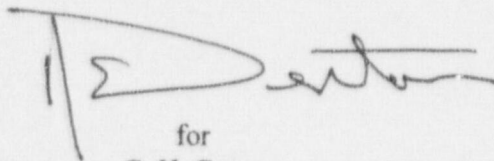
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NRC Distribution Code A036D

The heat traced Chemical and Volume Control System (CVCS) piping is low energy piping (design rating of boric acid pump discharge piping is 125 psig/250°F) and any stress corrosion cracking (SCC) failure is very unlikely to challenge system functionality. Baltimore Gas and Electric Company has not experienced any further failures in the CVCS small bore piping attributable to chloride SCC in the subsequent eight years since the original failure. Continued undetected leakage required to create the aqueous environment needed for chloride SCC is not credible. In light of our operating experience subsequent to the original failure, no benefit is gained by any NDE of the CVCS piping system. The heat tracing replacement project, which is removing the old adhesive to the degree reasonably achievable by mechanical means, will continue. Any further indication of SCC in the CVCS will be investigated in accordance with the Calvert Cliffs Corrective Actions Program.

Should you have questions regarding this matter, we will be pleased to discuss them with you.

Very truly yours,



for

C. H. Cruse

Vice President - Nuclear Energy

STATE OF MARYLAND :
: TO WIT:
CITY OF BALTIMORE :

I, Robert E. Denton, being duly sworn, state that I am Executive Vice President, Generation, Baltimore Gas and Electric Company (BGE), and that I am duly authorized to execute and file this response on behalf of BGE. To the best of my knowledge and belief, the statements contained in this document are true and correct. To the extent that these statements are not based on my personal knowledge, they are based upon information provided by other BGE employees and/or consultants. Such information has been reviewed in accordance with company practice and I believe it to be reliable.



Subscribed and sworn before me, a Notary Public in and for the State of Maryland and County/City of Harford County, this 16 day of July, 1999.

WITNESS my Hand and Notarial Seal:

Janice C. Hammerbacher
Notary Public

My Commission Expires: 12/29/02

July 16, 1999
Date

CHC/RCG/cim

Attachment (1): Comments from Accuracy Review of License Renewal Application Safety Evaluation Report

cc: R. S. Fleishman, Esquire
J. E. Silberg, Esquire
S. S. Bajwa, NRC
A. W. Dromerick, NRC
H. J. Miller, NRC

C. I. Grimes, NRC
D. L. Solorio, NRC
Resident Inspector, NRC
R. I. McLean, DNR
J. H. Walter, PSC

ATTACHMENT (1)

COMMENTS FROM ACCURACY REVIEW OF LICENSE RENEWAL APPLICATION
SAFETY EVALUATION REPORT

Baltimore Gas and Electric Company
Calvert Cliffs Nuclear Power Plant
July 16, 1999

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COMMENTS FROM ACCURACY REVIEW OF LICENSE RENEWAL APPLICATION
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Page	Paragraph	Comment	Recommended Revision
1-14	1st	Grammar - first sentence is a fragment and its meaning relating to the topic is unclear.	Revise the first sentence to create a complete sentence and to clarify its intent.
2-3	2.2.3, 2nd	BGE License Renewal Application (LRA) (Reference 1) Table 3-1 of Section 2.0 literally lists 106 systems (through System 111).	In second sentence replace "111 systems" with "106 systems."
2-4	2.2.3.1.1, 2nd	48 systems are within the scope of license renewal that contain supports, not 47. See Attachment (2) of Reference (2).	Replace "47" with "48" in the last sentence.
2-6	Table	One of the component support groups was left off of the table.	After "Metal spring isolators and fixed bases-OC" insert a new line containing "Metal spring isolators and fixed bases-IC"
2-19	2.2.3.4.2.2, 1st	This paragraph contains inconsistencies. The first sentence indicates that there were 39 device types within the scope of license renewal for the primary containment structure. The term "device types" is only applicable to the items in the primary containment system, as identified in BGE LRA Table 3.3A-2. Additionally, "44 component types" are identified at the bottom of SER page 2-19 as "subject to AMR."	<ol style="list-style-type: none"> 1. Revise the first sentence of the first paragraph under Section 2.2.3.4.2.2. to read, as follows: "45 component types are within the scope of license renewal. 37 are structural component types and are identified in Table 3.3A-1. The remaining 8 are system component types, 7 of which are identified in Table 3.3A-2 and the 8th is a limit switch." 2. In the second sentence, replace "device type" with "component types." 3. In the third sentence, delete "Of the three components." 4. Electrical control and power cabling is a not a device type associated with primary containment. Therefore, in the fourth sentence, recommend deleting the following phrase, "One device type." 5. Some of the containment system device types are not considered electrical/instrumentation components, e.g., fuel transfer tube bellows. Therefore, in the last sentence of this paragraph, replace "covering the three electrical/instrumentation device type components" with "covering electrical/instrumentation components."
2-24	2nd (2nd sentence)	Roof trusses in the Turbine Building are not within the scope of license renewal. See NRC meeting summary, page 17, on 2/16-2/18/99 meetings, dated 3/19/99.	Change the second sentence to read, "The applicant stated the roof trusses are not within the scope of license renewal."
2-28	1st bullet	Information in this bullet is not correct regarding the component support commodity. See page 3.3C-3 of Reference (1).	Recommend revising this bullet to read, as follows: "In the case of anchor bolts, there is overlap between the Component Supports Commodity Evaluation and the evaluation for the structural component. Evaluations for structural components considered the effects caused by the surrounding environment on the associated anchor bolts; however, the aging effects caused by the supported equipment, as well as the aging effects caused by the surrounding environment, are evaluated with the component supports."
2-30	2.2.3.7.2.1, 1st	Figure 3.3D-1 of Appendix A to the LRA identifies more than 8 structures within the scope of license renewal.	Recommend adding: "(9) Electrical ductwork for saltwater pumps, and (10) Turbine Building."

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Page	Paragraph	Comment	Recommended Revision
2-30	2.2.3.7.2.1, 2nd	The last sentence requires clarification since pumps are not covered in the structural evaluations.	Recommend revising the last sentence to read, as follows: "The Auxiliary Building houses the Service Water System pumps, and the Intake Structure houses the saltwater pumps. The Auxiliary Building and the Intake Structure are covered in Sections 3.3E and 3.3C of Appendix A to the LRA."
2-36	2.2.3.8.2.2, 3rd	BGE LRA Table 3.3E-2 identifies structural component types requiring aging management review (AMR) for the Auxiliary Building and the SR Diesel Generator Building structures. This Table contains 37 line items, yet the discussion in the LRA (page 3.3E-7) refers to 46 component types. The NRC staff requested clarification, which is provided below. Table 3.3E-2 grouped certain similar component types together for presentation purposes, e.g., roof framing and roof trusses. Therefore, it is appropriate to equate the number of line items to the number of structural component types. It should be noted that subsequent to the preparation of BGE LRA Chapter 3.3E, BGE identified the following additional seven structural component types for the Auxiliary Building adjacent rooms: Under the category of structural steel add "Lintels (Function 1, 5)" Under the category of architectural items add "Partitions and Ceilings (Function 5, 7)" Under unique components "Hose Rack for Hydrovac (Function 5)" "SBO EDG Ductbank Supports (Function 5)" "Main Steam Valve Room Stacks (Function 2)" "Atmospheric Dump Pipe Enclosures (Function 2)" "Cask Restraint in SFP (Function 1)"	Based on this, it is recommended that the SER identify the applicant identified 44 structural component types requiring AMR, 37 from the Table 3.3E-2, and 7 additional items identified here.
2-69	3rd	Last sentence reads: "Of the 42 components, The applicant classified the following 27 as having only active functions and, therefore, not requiring an AMR." There are only 26 components listed. The "position switch" device type was omitted.	Add position switch.
2-73	1st	Seventh sentence reads: "Of the other two interfaces, one is at a makeup line to the head tank whose failure cannot affect any intended function . . ." This information is clarified in BGE's 11/2/98 response to Request for Additional Information (RAI) Question No. 5.3.1.	Reword to read: "Of the other two interfaces, one is the Demineralized Water System makeup line to the head tank . . ."
2-94	3rd	"Consist" should be considered. "Propertied" should be "properties."	Correct as noted.
2-97	1st	An additional function has been added by the Errata of Reference (3).	Add a new bullet: "For fire protection – To provide vital auxiliary power for components used to ensure safe shutdown in the event of a postulated severe fire."
2-99	2.2.3.19.2.1, 1st	Last sentence in paragraph may be deleted since the fire protection (FP) function is now considered. See comment for page 2-97.	Delete the sentence.

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2-109	2 nd	Last sentence reads, "On the basis of its review, the staff found no omissions." This statement contradicts Inspection Report Nos. 50-317/99-02 and 50-318/99-02, page 6, first paragraph, second sentence which reads; "Exclusion of the dike, flooring and foundation from the scope of the rule is . . . not consistent with the rule." BGE has now included these structures within the scope of license renewal.	Clarify as appropriate.
2-116	1 st	Third sentence reads; ". . . and the EDG room through . . ."	Change to read; ". . . and the Fan Equipment Room through . . ."
2-116	1 st	Last sentence reads; ". . . and provided with outside air as the cooling medium . . ."	Change to read; "The main steam pipe tunnel between the MSIV Room and the Turbine Building is cooled by fans that force air from the Turbine Building into the main steam pipe tunnel."
2-116	3 rd	Last sentence reads; "The saltwater system provides cooling to the cooling unit."	Change to read; "The saltwater is circulated through the air cooling coils to remove heat."
2-124	9 th bullet	Typographic - "Pressure" is not a component.	It appears that this entry should be "Pressure Indicating Alarm."
2-130	5 th	Typographic - line 1 says, "Regarding the diesel generator HVAC system, . . ."	Replace with, "Regarding the diesel generator buildings' HVAC system, . . ."
2-174	3 rd	Clarity - As written, sentence is incorrect.	Replace with: "Cables are excluded from the scope of license renewal if they meet any of the following conditions."
2-179	1 st	Staff left open the generic categorization of fuses for future resolution. This information is now available. The following pages of the SER are known to also contain relevant references to fuses: Chapter 2 - 45, 46, 48, 63, 68, 69, 73, 79, 80, 87, 91, 97, 101, 115, 119, 124, 125, 129, 132, 136, 147, 149, 154, 155, 159, 160, 164, 168, 170. Please note that most of the pages contain multiple entries.	Incorporate information from Reference (4) that indicates fuses do not require AMR. Review the remainder of the SER for applicability.
2-182	1 st	Consistency - the acronym "NSSS" is used incorrectly to represent the nuclear steam supply sampling system. NSSS (Nuclear Steam Supply System) is correctly defined in Appendix C.	Move "(NSSS)" to before "sampling" at line 5, delete "NSSS" at line 6 and insert "The system's."
3-1	3 rd	The last sentence states "Therefore, the staff did not evaluate the applicant's AMR for such components that perform their intended function with moving parts or with a change in configuration or properties because these components are not subject to AMR pursuant to 10 CFR 54.21(a)(1)(i)." However, various programs (in this case the local leak rate testing (LLRT)) are credited only for valve internals and appear to be evaluated by the staff in subsequent sections of the SER.	Delete references to programs credited only to manage aging for components that perform their intended function with moving parts or with a change in configuration or properties. The following locations should be revised: Page 3-26, carryover, delete the last sentence regarding valve internals. Page 3-26, first paragraph, delete the last three sentences regarding wear. Page 3-26, second paragraph, delete the last three sentences regarding wear. Page 3-27, carryover, delete the second last sentence regarding LLRT, and reference to LLRT in the last sentence. Page 3-27, first paragraph, delete all reference to LLRTs, i.e., delete third, eighth, tenth, eleventh, and twelfth sentences. Page 3-27, second paragraph, delete second and third sentences and

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			<p>the following portion of the fourth sentence, "... and to supplement the limited scope of its LLRT program, ..."</p> <p>Page 3-28, carryover, delete the last two sentences on wear.</p> <p>Page 3-28, third paragraph, delete the last two sentences on wear.</p> <p>Page 3-29, first paragraph, delete the first three sentences on wear and delete reference to the LLRT Program in the fifth and sixth sentences.</p> <p>Page 3-29, second paragraph, delete the last two sentences and reference to damper components in the third from the last sentence.</p> <p>Page 3-30, carryover, delete the last three sentences on wear.</p> <p>Page 3-30, first paragraph, delete the last three sentences and all reference to the LLRT.</p> <p>Page 3-32, first paragraph, delete the last two lines on valve seats.</p> <p>Page 3-91, fourth full paragraph, second sentence, delete "wear."</p> <p>Page 3-95, delete bullets 6, 7, and 9</p> <p>Page 3-96, first bullet, delete "wear"</p> <p>Page 3-100, heading of Section 3.4.3.1.1, delete "Wear and" and change "... from to, ..." to "... from ..." in the first sentence of that section</p> <p>Page 3-101, first paragraph, delete "wear" in the first sentence and "can cause wear at the disk/seat of check valves and MOVs from relative motion at tight fitting surfaces, and" from the second sentence</p> <p>Page 3-102, heading for Section 3.4.3.2.1, delete "Wear and"</p> <p>Page 3-104, last paragraph, delete "Surveillance Test Procedures (STP) STP-M-583-2 "pump and valve inservice testing (IST)," and STP-M-571F-1/2 "local leak rate test, Penetrations 19A, 19B, and"</p> <p>Page 3-105, delete the entire first paragraph.</p> <p>Page 3-111, delete third bullet.</p> <p>Page 3-112, delete seventh bullet.</p> <p>Page 3-128, delete paragraph 3.5.3.1.4.3.</p> <p>Page 3-132, first and third sets of bullets, delete the words "and damper."</p> <p>Page 3-132, second set of bullets, delete first bullet on wear of valves.</p> <p>Page 3-133, third paragraph, delete the words "disks and seats" in the second sentence and delete the fourth and fifth sentences entirely.</p> <p>Page 3-133, last paragraph, delete the first part of the second sentence regarding seals.</p> <p>Page 3-135, first bullet, delete the last two sentences.</p> <p>Page 3-135, delete entire discussion of existing programs, i.e., LLRT program and STPs.</p> <p>Page 3-135, last bullet, delete entire bullet on MPM04111.</p> <p>Page 3-136, second bullet, delete the words "and damper seals."</p> <p>Page 3-136, fourth bullet, delete all of (a).</p>

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3-2	1st, 2nd	The statements regarding the sections of the LRA where the Fatigue Monitoring Program (FMP) is discussed are missing Section 4.3 on reactor vessel internals.	Page 3-136, sixth bullet, delete entire bullet. Page 3-136, last bullet, delete all of (b). Page 3-138, second paragraph, delete the words "and damper" from the third sentence, delete the fifth sentence entirely, delete the discussion of wear on the valves in the last two sentences. Page 3-174, fifth bullet, delete entire bullet. Page 3-174, last bullet, delete entire bullet. Page 3-175, third bullet, delete entire bullet. Page 3-176, third paragraph, delete discussions of "elastomer degradation of valve internals" and "wear for valves." Page 3-179, Section 3.9.3.2.2, delete the entire section. Page 3-180, Section 3.9.3.2.4, delete the discussions regarding check valves from the first and second paragraphs. Add Section 4.3 to the list of sections where the FMP is discussed.
3-2 3-069	2nd 2nd	Both paragraphs state that the number of cycles of critical transients are compared to the analysis of record every six months. Elsewhere in the SER (pages 3-3 and 3-169) the staff refers to data collection "periodically." Since the six months is not a critical factor in the monitoring frequency, BGE prefers that it be deleted and consistently referred to as "periodically."	Delete reference to six months and replace with "periodically."
3-6	bullets	The description of the chemistry program is inconsistent with the LRA (Reference 1). Three programs, CH-1, CP-224, and CP-410, are listed in the SER but are not credited programs. (CP-224 was credited at one time but has been removed.) (See Reference [6]. Section 5.6.) CH-1 is a higher level procedure, covering all chemistry procedures, and is used frequently in the LRA, but only as a reference. CP-410 is only a reference in the Auxiliary Feedwater (AFW) section (page 5.1-17). Two CPs that are credited programs, CP-222 and CP-226, are not identified in the SER. These are credited in the Emergency Diesel Generator (EDG) and Diesel Fuel Oil sections. CP-226 is for the fuel oil, so it would not be expected to be listed under "water chemistry," but CP-222 is for the EDG jacket cooling water, so it should be listed in this section of the SER.	Revise the list of procedures in the chemistry program description so that it is consistent with the credited programs in the LRA.
3-6	bullets (except 6th)	Accuracy and Clarity – Inclusion of the Revision number for a site document is overly restrictive and unnecessary.	For each bullet, 1-5 and 7, delete, "Revision xx."
3-7	3.1.2.3, 1st	The last sentence in this paragraph lists the systems that are addressed by water chemistry programs. This list is missing the EDG jacket cooling water system. (See LRA page 5.8-17.)	Add the EDG Jacket cooling water system to the list.

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3-7	3.1.2.3, 3rd	The "erosion corrosion inspection program" is identified as a program for managing the spent fuel pool cooling (SFPC) pumps. This program is not applicable to this system, and was not credited. The programs credited for the SFPC System are shown in LRA Table 5.18-6 on LRA page 5.18-23.	Remove the reference to the erosion corrosion program, and replace with the pump overhaul procedure.
3-8	carryover	The age-related degradation mechanisms (ARDMs) listed as being managed by the secondary water chemistry program is incomplete. This program is also credited for denting and stress corrosion cracking (SCC) of the steam generator (SG) tubes. This was a change brought about by a response to an RAI.	Add denting and SCC to the list of ARDMs managed by secondary chemistry.
3-9	3.1.2.4	The SER states that "... the plant chemistry program will minimize the potential for this plausible aging degradation mechanism ...". It is not clear which ARDM(s) this statement refers to. This is a particular concern because the list of ARDMs earlier in this section was not complete.	Specify which ARDMs are managed by the chemistry program by referring to paragraph 3.1.2.2.
3-14	3.1.4.2	Numerous statements of the form, "The applicant placed the (System) within the scope of the BACI program." This implies that inclusion of the specific system was as a result of the AMR/LRA process, when in fact, for the most part, these systems were already included.	"The (System) is within the inspection scope of the BACI Program", would be a more correct statement.
3-16	6th	The SER states that the BACI Program is credited for this system, referring to the FP System. The actual case is that the program is credited for portions of the Chemical and Volume Control System (CVCS) and RCS that have FP functions, not for equipment in the FP System.	In the first sentence, replace "for this system" with "for fire protection."
3-17	last	The SER lists erosion corrosion as one of the ARDMs related to the BACI Program for RCS. The program is credited for managing erosion, not erosion corrosion.	Change erosion corrosion to just erosion. This appears again in the first paragraph of page 3-20.
3-21	carryover	The SER considers the Technical Specification limits on leakage an "important part of the aging management program." BGE does not credit this program for managing the aging being discussed in the SER. In response to Open items 3.2.3.2.1-1 and 3.2.3.2.1-2, BGE does now credit those limits for managing the aging of reactor vessel (RV) flange leakoff lines and also SG tubes.	Do not describe the Technical Specification leakage limits as part of the aging management program (AMP) in this area of the SER.
3-23	carryover	Clarity - line 2 from the bottom says, "... most important components." It is not clear what this means.	Revise text to provide substantive description of the targeted components.
3-24	3.1.5.4	Consistency - This paragraph, unlike the other conclusions in this section, is written in the future tense, implying that the Corrective Actions Program has yet to be demonstrated.	Rewrite this section to conform to the format and content used in other "conclusions" subsections.

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Page	Paragraph	Comment	Recommended Revision
3-24	3.1.5.3	Last sentence states, "... the applicant is committing to extend its Appendix B program to cover all structures and components subject to AMR, whether they are safety-related or not." This phrase is inconsistent with other SER sections that address BGE's Corrective Actions Program and the response to Confirmatory Item 3.1.5.3-1.	See BGE recommendation provided in Reference (6), Confirmatory Item 3.1.5.3-1.
3-152	3.7.3.2		
3-177	3.9.3.2, 2nd		
3-25	1st	Clarity - Lines 4 from the bottom to 2 from the bottom say, "surface techniques. The applicant would perform these inspections using qualified procedures and personnel that are consistent with standards..."	Replace with, "surface testing techniques. The applicant would perform these inspections using qualified procedures that are consistent with ... standards, and qualified personnel. ..."
3-26	2nd	The staff discussed general corrosion as plausible for carbon and alloy steel components. The components are actually constructed of carbon steel and cast iron.	In the fourth sentence, replace "... carbon and alloy steel components ..." with "... carbon steel and cast iron components ..."
3-27	carryover	The last sentence is misleading. The only portion of the Compressed Air System (CAS) where age-related degradation inspection (ARDI) is credited is the Plant Air Subsystem containment penetration components. That is because the plant air is not maintained to any specific air quality standards.	Revise this sentence to clarify exactly which components are subject to ARDI.
3-28	carryover	Completeness and Typographic - line 6 says, "... muffler, this maintenance procedure is discussed in Section 3.7 of (this SER) and an ARDI. The ..."	Replace with, "... muffler and is discussed in Section 3.7 of this SER) and an ARDI to identify the presence of fatigue in these components. The ..."
3-28	carryover	Completeness - line 5 from the bottom says, "... and surveillance test procedures. To verify ..."	Replace with, "... and surveillance test procedures to mitigate the development of MIC in the day tanks. To verify ..."
3-29	3rd	The staff states that the ARDI is relied on to verify the effectiveness of both the chemistry controls and the preventive maintenance (PM) activities. However, PM is only done on the main steam isolation valves (MSIVs) for these ARDMs, and the MSIVs are not included in the ARDI Program.	Revise the sentence to state that the ARDI is only for verifying the effectiveness of the chemistry controls for those components not covered under the PM Program.
3-31	1st	The staff discusses the use of rubber lining in SW System components. However, some components are lined with other suitable materials.	Delete the use of the word "rubber" so that all the lining is covered in the discussion.
3-32	carryover	The staff discusses general corrosion as being plausible for various carbon and alloy steel components in the SRW System. However, the components are actually constructed of carbon steel and cast iron.	Replace "... carbon and alloy steel subcomponents, ..." with "... carbon steel and cast iron components. ..."
3-33	2nd bullet	The staff discussed general corrosion as plausible for carbon and alloy steel components. The components are actually constructed of carbon steel and cast iron.	In the first sentence, replace "... carbon and alloy steel components ..." with "... carbon steel and cast iron components. ..."
3-33	1st	Completeness - line 2 says, "... 5.3, 5.5, ..."	Replace with, "... 5.3, 5.4, 5.5, ..."
3-33	1st	Completeness - line 4 says, "... an RAI more detail ..."	Replace with, "... an RAI with respect to the applicant's need to provide more detail ..."
3-35	3rd	Completeness - line 2 says, "... 5.3, 5.5, ..."	Replace with, "... 5.3, 5.4, 5.5, ..."

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Page	Paragraph	Comment	Recommended Revision
3-36	3.2.2.2,	General corrosion is referred to as "Generic Corrosion" in several instances.	Change as noted.
3-39	3.2.3.1,		
3-40	3.2.3.1		
3-36	3.2.2	Annual update information on SCC being determined not plausible for RCS bolting needs to be incorporated into the SER. See Reference(5).	Incorporate update information as appropriate.
3-37	5th bullet	The following programs are no longer credited, as addressed in Reference(3): SG-1, SG-2, SG-5, SG-6.	Revise the list in the SER to be consistent with current program crediting.
3-37	1st	The last sentence incorrectly lists the ARDMs from the LRA operating experience section for the SG tubes. Chapter 4.1 does not list pitting as part of the OE for the SGs, but does list denting.	Pitting needs to be replaced with denting for operating experience of the SG.
3-37	4th bullet 5th bullet	RCS-10 is no longer credited. RCS-10 was previously dropped for discovering wear on valves; however, in the Errata of 2/4/99, BGE credited it with discovery of SCC, but in the Annual Amendment, all crediting of this procedure is removed. Likewise SG-1, -2, -5, -6, 5th bullet.	Delete RCS-10 as a credited program in the LRA. Delete SG-1, 2, 5, 6 as credited programs in the LRA and this SER.
3-37	6th bullet	Surveillance Test Procedures (STPs) 0-27-1/2 are no longer credited with discovering wear on RCS valve disks. However, it is credited for SG tubes as part of SER Open Item 3.2.3.2.1-1. It is also credited for managing effects of SCC for RV flange leakoff lines for SER Open Item 3.2.3.2.1-2.	Delete STP-0-27-1/2 as being credited for discovering wear on RCS valve disks. These programs manage effects of wear, denting, and various forms of SCC for SG tubes. Additionally these programs manage the effects of SCC for RV flange leak off lines.
3-37	3.2.2.3	Section 3.2.3.2.1.A.(1) credits CP-217 for denting, pitting, and SCC of the SG tubes per the errata item (Reference 3), but the chemistry procedure is not yet listed in section 3.2.2.3.	Add the procedure to Section 3.2.2.3.
3-37	3.2.2.3,	The RCS section has not been updated with RCS errata item concerning plausibility call reversal to not plausible for wear for SG manway/handholes and pressurizer manways. See Reference(3).	Incorporate information from errata item.
3-70	3.2.3.2.3, etc.		
3-38	6th bullet	A statement is made that the Fatigue Monitoring Program will be modified to include certain components. The LRA states that this modification will be made if these components are not already bounded.	Revise the SER wording to indicate that this modification is conditional.
3-38	9th bullet	The new Cast Austenitic Stainless Steel Evaluation program is credited with managing thermal and neutron embrittlement. However, the LRA only credits this program for thermal embrittlement.	Change SER to reflect that the Cast Austenitic Stainless Steel Evaluation Program is only credited for thermal embrittlement.
3-40	last	In the second to last sentence in this paragraph, the SER lists both intergranular stress corrosion cracking (IGSCC) and IGA as plausible for the SG tubes. However, the LRA BGE (Chapter 4.1) did not list IGA as plausible for the SG tubes. The group for IGA lists only the RCP seal water heat exchanger (HX). This could lead to confusion.	The SER should list primary water stress corrosion cracking (PWSCC)/IGSCC/SCC for the SG tubes to be consistent with the BGE LRA.
3-41	B, 1st	This paragraph leaves out thermal embrittlement. The SER format covers fatigue in other section, but thermal embrittlement is still not covered.	Add thermal embrittlement to the list of ARDMs for the pressurizer in the SER to be consistent with the BGE LRA.

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3-41	last	In the last sentence, the last components that continues on the top of next page, surge nozzle safe ends, are not susceptible to SCC/IGSCC per the Errata of Reference (3), page 5.	This component needs to be removed from this list of components susceptible to SCC/IGSCC.
3-42	carryover	In the second sentence, manway bolting, is listed as susceptible to SCC. Per the Annual Amendment, page 8, the pressurizer manway bolting is not subject to SCC, only general corrosion.	The manway bolting needs to be removed from this list of components susceptible to SCC/IGSCC.
3-42	last	In the third sentence the SER states that the RCP pump cover may corrode, when in fact the BGE LRA has the RCP pump cover subject to erosion.	The word "corrode" should be replaced with "erode" to be consistent with the BGE LRA.
3-42	last	The last half of this paragraph lists "fittings, and bolting," "bolting, studs, nuts" and "RCP and safety valve closure bolting" as susceptible to SCC/IGSCC/PWSCC. Bolting is no longer susceptible to SCC/IGSCC/PWSCC. See Reference (5), page 8.	These components need to be removed from the SER as subject to SCC/IGSCC/PWSCC to be consistent with the updated BGE LRA.
3-47	1st	The SER incorrectly states that the CCNPP has four RPV supports.	The SER should be revised to state that CCNPP has three RPV supports per Unit (two on cold leg nozzle and one on a hot leg nozzle). Revise to read, "regenerative heat exchanger isolation."
3-47	3rd bullet	The third bullet lists controlling transients and inadvertently lists "regenerative heat transfer isolation."	Please change this section accordingly
3-55	1st	The SER includes the secondary manway and handhole and associated cover plates with components for which SG-20 is credited for managing aging. BGE does not credit SG-20 for the secondary manways or handholes and does not commit to using SG-20 for the secondary manways or handholes. Also, please note that in Reference (6), Attachment (3), Section 4.1, there is a change regarding SG-20. BGE no longer credits SG-20 for any aging management.	
3-56	4th	The BACI Program is listed as managing only general corrosion. It is credited also for wear and erosion. The last sentence in this paragraph indicates that the BACI program only applies to the pressurizer, not the other RCS components.	Correct the ARDMs and components listed for this program as noted.
3-56	1st, 2nd	Discussion states that SG-20 manages SCC for the SG manway and manway bolting materials. This is not consistent with the BGE LRA Errata and Annual Amendment submissions. SCC is no longer considered plausible for these components and SG-20 is no longer credited for any ARDM. See page 5 of Reference (3), and page 8 of Reference (5). Also, please note that in Reference (6), Attachment (3), Section 4.1, there is a change regarding SG-20. BGE no longer credits SG-20 for any aging management.	Delete the entire discussion in the first two paragraphs under Operating experience
3-57	last	Discussion refers to "boron" deposits. This should be changed to "boric acid" deposits.	Replace the "boron" with "boric acid."
3-66	carryover	Top paragraph, next to last sentence, "flow tolerance" should be "flaw tolerance."	Correct as noted.

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3-67		There appears to be a typo in the second sentence regarding Section 3.2.3.1.3.	Revise this section number to reflect the correct section being referenced.
3-69	1st	During a site visit, the staff requested information on experience with vibrational fatigue of the RCP leak-off lines (question 7.9). We incorrectly responded that the lines are not in scope. Based on this response the SER correctly notes that the RCP leak-off lines are non-safety-related (NSR), but incorrectly reiterates that they are not in scope.	Clarify that the lines are not within the scope of LRA Section 4.1 (RCS), but are within the scope of Section 5.10 (FP), for an NSR Appendix R function.
3-71	B., 3rd bullet)	The third bullet item for RCS-10 should be dropped. RCS-10 is no longer credited for managing aging effects. This is reflected in the BGE LRA Annual Amendment.	RCS-10 should be deleted in the SER to be consistent with the BGE LRA (Annual Amendment item under Chapter 4.1)
3-71	B., 4th bullet	The fourth bullet item for SG-1, SG-2, SG-5 and SG-6 should be deleted since they are no longer credited in the BGE LRA. See Reference (3).	Delete bulleted item for SG-1, SG-2, SG-5 and SG-6.
3-71	B., 5th bullet	SG-20 is no longer credited for managing wear of the SG manway or any other components. See RAI response of Reference (7), and the Errata or Reference (3). Also, please note that in Reference (6), Attachment (3), Section 4.1, there is a change regarding SG-20. BGE no longer credits SG-20 for any aging management.	Delete the bulleted item.
3-72	2nd bullet	"STP-M-574-1/2 provides for inspections of SG tubes." An eddy current examination is done. The statement is stronger by so stating.	Replace the word "inspections" with "eddy current examination."
3-79	3.3.2.1	"Section 5.5.1.1... describes the CI group as consisting only of those CI systems that either have no other components (WSLR)... or have components that are evaluated in other sections..." Seems incorrect, misleading. There are not multiple containment isolation (CI) systems, there are multiple systems that contain components with a CI function. Description is not complete. Reference LRA pages 5.5-5 and -6.	Revise to read, "... describes the CI group as consisting of those components with only a CI function and not evaluated for this function in other sections..."
3-79	3.3.2.1		In third sentence after "containment isolation function and" add "maintaining the pressure boundary system function."
3-81	3.3.3.1	"... applicant grouped components of similar characteristics in these systems require AMR into categories" doesn't read correctly, need to add "that."	Revise to read, "... applicant grouped ... in these systems that require AMR..."
3-82	3.3.3.1.1, 1st	General corrosion of carbon steel was omitted from the listed mechanisms affecting Group 1.	Add general corrosion to the list.
3-82	3.3.3.1.1, 2nd	In third sentence after "internal parts of" add "carbon steel."	Revise as noted.
3-83	1st	Second sentence should read "The bolts are carbon and low alloy steel." Reference LRA page 5.5-20.	Revise as noted.
3-86	3rd	CP-224 was removed from the LRA by Reference (3), page 7.	Remove CP-224 from the discussion of chemistry programs as AMPs.

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3-86	3rd	Paragraph discusses the credit of elements of the Chemistry Program to general corrosion, crevice corrosion, and pitting in the Containment Spray and Safety Injection (SI) Systems. The discussion can be interpreted to be saying CP-202 is applicable to general corrosion, but it is not.	Revise the paragraph to clarify this point. Also clarify credit for safety injection only, not containment spray.
3-86	3.3.3.2.1,	In discussion of SCC, reference is made to "... maintaining proper chemistry controls ..." but there is no identification of the credit given to CP-204 for the mitigation of the effects of SCC.	Revise the paragraph to clarify this point.
3-87	last	End of first sentence should read "... carbon and low alloy steel components potentially exposed to corrosive boric acid."	Revise as noted.
3-86	2nd	Reference LRA page 5.5-20.	
3-87	carryover	Discussion of the refueling water tank penetration leak is not entirely clear. "The licensee welded an additional reinforcement plate or penetration seal plate to the outer diameter ..." suggests this was a corrective action, but the tank was fabricated this way.	Revise to read, "The tank was fabricated with a reinforcement plate welded to the outer diameter of the pipe and the tank wall, thereby forming a narrow crevice." (See LRA page 5.15-34.)
3-88	3rd	The sentence beginning, "In the LRA, the applicant committed ..." should be clarified. The engineering review is not to determine whether SI piping changes are necessary, but to determine if any changes are required to the piping analyses of record.	Revise the sentence from "... to determine whether SI piping changes are necessary ..." to "... to determine whether any changes to the piping analyses of record for the SI System are necessary ..."
3-39	1st	Second paragraph referring to, "applicant's FMP sampling approach," seems misleading. It is not as much a sampling approach as it is a bounding approach.	Change "sampling" to "monitoring."
3-89	3.3.3.3,	Each section has a sentence that states, "The open issue discussed in Section 3.2.3.3 is also applicable to the CVCS (SI piping, NSSS Sampling System)." There appears to be no "open issue" in that paragraph, but there is a "confirmatory item" relating to GSI-190, Confirmation Item 3.2.3.3-1.	Clarify the meaning of the wording "open issue."
3-108	3.4.3.3,		
3-180	3.9.3.3		
3-90	3.4.2.1, 2nd	"The CAS (compressed air system) is seismic Category I, and its ..." Suggests the entire system is seismic, but that is not the case for NSR portions. Reference LRA page 5.4-3.	Replace beginning of sentence with "All safety related components of the CAS are seismic Category 1, and its components are ..."
3-90	3.4.2.1, 3rd	"The FP system includes ... important to safety that provide functions of detecting, fighting, and extinguishing fires. Thus, the FP system is needed to protect ... SR ..." ignores the fact that the Appendix R safe shutdown function is the reason some items are in scope.	Revise to read, "... that provides a FP function of detecting, fighting, and extinguishing fires, and a Safe Shutdown function with the capability to perform the following: RCS pressure and inventory control, reactivity control, heat removal, and process monitoring, that provide for safe shutdown of the plant in the event of a severe fire." and "... structures from fire or explosion, and provide for safe shutdown in the event of a severe fire."
3-90	3.4.2.1, 1st	First sentence incorrectly states "... the CVCS, which provides control of reactor coolant chemistry through boric acid injection for minimizing corrosion and maintaining coolant activity at the desired level."	A correct statement would be "... the CVCS, which provides control of reactor coolant chemistry through chemical injection to minimize corrosion, and which controls reactivity through boric acid injection." Change as noted.

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3-90	3.4.2.1, 1st	List of "Major CVCS components" does not include "pumps."	Add "pumps" to the list.
3-91	1st	The statement, "The non-safety-related PB parts of these systems are the subject of the staff's review," is misleading, and suggests the safety-related pressure boundary parts are not reviewed.	Revise to read, "The non-safety-related . . . are the subject of the staff's review in this section."
3-91	last	Discussion of charging pump block cracking does not recognize/point out that these are positive displacement pumps.	Revise to read, "For CVCS components, the applicant indicated . . . fatigue caused by normal operation of these positive-displacement pumps."
3-91	4th	The list of plausible ARDMs contains two ARDMs that are not specifically identified as plausible ARDMs in the subject LRA sections. Erosion/corrosion was not specifically addressed in these LRA sections. Vibration fatigue was addressed in Section 5.2 for the CVCS; however, the plausibility determination was changed to non-plausible as documented in Reference (5), page 6.	Delete reference to erosion/corrosion and vibration fatigue.
3-92	carryover	Clarify air quality characteristics in the last sentence.	Replace the last sentence with, "Since those improvements, the CAS has been well maintained and good air quality is ensured by periodic testing, so that the air is very dry and contains little particulate content. No traces of oil or hydrocarbons have been detected, so oil content is no longer routinely monitored."
3-92	4th	"The applicant stated that the carbon steel pipe was exposed to groundwater flow . . ." incorrectly suggests that this piping is located below the water table.	Revise to read, "The applicant stated that the . . . was exposed to groundwater migrating down to the water table."
3-92	4th	. . . and then coated all penetrations with a coating that is not degraded by high temperatures." This suggests the well and pretreated water systems are at high temperature. Clarify that the leaks were in heat traced piping to the tank.	Revise to read, "The applicant discussed leaks in heat traced piping to the pretreated water tanks that developed from corrosion . . ."
3-93	carryover	"A recent inspection of the interior and exterior surfaces of the main water loop . . ." suggests a complete inspection of all interior and exterior surfaces.	Revise to delete "the" so it reads ". . . inspection of interior and exterior surfaces . . ."
3-93	Plant Heating System	"The applicant identified leakage in plant heating piping from corrosion . . ." Clarify that this is buried piping.	Revise to read, ". . . identified leakage in buried portions of plant heating piping . . ."
3-94	5th	Delete "roof slabs" and replace with "elevated floor slabs." Also, after "hardware," add "caulking and sealants,". Reference LRA page 3.3E-8 and -9.	Revise as noted.
3-94	6th	Note that caulking and sealants, and expansion joints are treated as separate component types. Reference LRA page 3.3E-16.	First sentence should read, "The applicant also identified weathering of caulking, sealants, and expansion joints as a plausible ARDM."
3-94	7th	Although the first sentence regarding corrosion of steel components is a true statement, it is incomplete. Corrosion of steel is considered plausible for all structural steel components identified in the LRA, both indoors and outdoors. Reference LRA page 3.3E-17.	Delete the words "located indoors" from the subject sentence.

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3-96	carryover	"MN-1-319... and ... NO-1-100... for managing aging effects of the following FP-related systems: ... SRW, CC, CA, ... suggests these are relied on for the entirety of the systems listed and that the systems are part of the FP System.	Revise to read, "... for managing aging effects of certain NSR portions of the following systems with FP functions ..."
3-96	1st full bullet	"New ARDI program ... on the FP-related piping in the condensate system" could be read to indicate this piping is SR.	Revise to read, "... on the FP-related piping in the NSR condensate system"
3-96	Throughout indicated pages	The SER cites four different methods to manage aging of SSCs used for FP. The word "process" should not precede these methods.	Delete the word "process" when discussing any of these methods on the indicated pages.
3-97	1st full bullet	Crevice corrosion is misidentified.	After "(3)" insert "crevice." Reference LRA page 5.10-41.
3-96	1st full bullet,	Vibrational fatigue is no longer considered to be a plausible ARDM for CVCS components. This information has not been incorporated in the noted sections, for example, ARDI is still listed as a program for Fatigue. See Reference (5), page 6.	Incorporate information from the Annual Update.
3-107	last,		
3-108	1st		
3-97	carryover	Twelfth line reads; "The applicant's Technical Specifications contain applicability, compensatory actions, testing requirements, and testing frequencies ..."	Change to read: "The applicants Technical Requirements Manual contains applicability, contingency measures, verification requirements, and verification frequencies ..."
3-97	carryover	Credited programs require clarification.	Move: "fire protection," from the eleventh sentence to the last sentence as follows; "... auxiliary feedwater, fire protection, and plant drains."
3-99	Turb. Bldg, 1st	Fourth sentence reads; "The applicant developed the inspection program based on technical specifications 3.7.12 and 4.7.12a;"	Change to read; "The applicant developed the inspection program based on Technical Requirements Manual 15.7.10 and 15.7.10.1;"
3-99	Turb. Bldg, 1st	Fifth sentence reads; "Plant personnel typically perform these inspections every 18 months in accordance with technical specification 4.7.12.a."	Change to read; "Plant personnel typically perform these inspections every 18 months in accordance with Technical Requirements Manual 15.7.10.1."
3-99	last	Next to last sentence says "... implement the site's corrective action program upon discovery of any coating degradation ..." but the Corrective Actions Program would not apply for ANY coating degradation, but only for SIGNIFICANT coating degradation.	Change "any" to "significant"
3-100	3.4.2.4	BGE made no statement in the LRA as described in the first sentence of this section. Also, the information as "implied" in the last sentence is actually stated outright on p. 2.1-5 of the LRA.	Delete the first sentence and "However," of the second. Clarify the last sentence as described.
3-100	3.4.3., 1st	Fire Protection RAIs were contained in References (8), and (9), dated September 2, and September 4, 1998, respectively. An NRC letter (Reference 10) clarified one FP RAI. BGE responded to the FP RAIs in References (11) and (18).	Revise SER (including Appendix B) to reflect the new information.

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Page	Paragraph	Comment	Recommended Revision
3-100	last	Fifth sentence begins "Crevice corrosion and pitting of the internal surfaces of stainless steel CVCS components can occur, particularly for those portions of the system that do not have hydrogen overpressure and/or low-flow or stagnant conditions. . . . This is not correct.	Sentence should be phrased, ". . . and that have . . ."
3-101	2nd	Calvert Cliffs is not a marine environment. Basis for deletion: 1) Per CCNPP UFSAR, Revision 25, Section 2.8.3.5, the distance of the bay entrance to Calvert Cliffs plant is 110 miles (statute). 2) Per page 4-12 and 4-16 of PPER-CEIR-7, Power Plant Cumulative Environmental Impact Report for Maryland, dated 1991, the habitat of Calvert Cliffs by salinity regime is mesohaline for all seasons. A mesohaline habitat has a salinity range of 5.0 – 18.0 ppt (parts per thousand), whereas a marine habitat has a salinity range of 30.0 to 35.0 ppt. 3). According to page II-12 of Final Environmental Statement Related to Operation of CCNPP, Units 1 and 2, Baltimore Gas and Electric Company, Docket Nos. 50-317 and 50-318, April 1973, U. S. Atomic Energy Commission, Directorate of Licensing, "The mean salinity of the Bay at the point opposite the Plant is about 15,000 ppm but this varies from an extreme of 17,000 to 18,000 ppm near the bottom and 11,000 to 13,000 ppm in the upper levels." 4) Recent CCNPP salinity samples indicate a salinity range of 8 to 18 ppt, usually around 12 ppt. In conclusion, Calvert Cliffs is not considered a marine environment.	Delete the following sentences: "In addition, the staff notes the proximity of CCNPP to sea water indicates that the atmosphere at the plant can be classified as marine. Corrosion in a marine atmosphere can occur 400 to 500 times faster than in a dry, rural atmosphere."
3-103	3rd	The staff recognized that BGE typically measures the dew point every 12 weeks. BGE would prefer the staff refer only to periodic measurements as we would like to maintain flexibility in the scheduling and not be locked into a 12-week requirement. The operating experience shows that the aging effects to date are negligible and, therefore, the periodicity is not a critical criteria for aging management of general corrosion of CAS and CVCS components.	Delete the reference to 12 weeks and replace it with periodic measurements.
3-104	last	There is an STP-M-583 for each unit, but only the Unit 2 is listed.	Change "STP-M-583-2" to "STP-M-583-1/2."
3-104	1st	Sentence halfway down states, "The staff finds the scope of the plant modification to be effective in that it encompasses the entire CVCS." The modification does not in fact encompass the "entire" CVCS.	A correct statement would be, "The staff finds the scope of the plant modification to be effective in that it completely encompasses that portion of the CVCS equipped with heat tracing."
3-105	last	Per LRA Table 5.10-2, this paragraph applies only to the CVCS and the RCS.	Clarify as appropriate.
3-105	3rd	The last sentence refers the reader to Section 3.1.3 of the SER, however, NO-1-100 is not discussed in this referenced section.	Add reference to the SER section where NO-1-100 is discussed (e.g., 3.4.2.3).
3-108	1st	The reference to the Confirmatory Item 3.4.2.2-1 is incorrect.	Change the Confirmatory item number to 3.4.3.2.2-1
3-109	3.5.2.1, 1st	Some applicable materials are missing from the list. Reference LRA pages 5.3-12, -13, -20 and -25.	In fifth sentence, after "bronze," add "cast brass, aluminum bronze, and butyl rubber."

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3-109	3.5.2	Annual update information on the replacement of the Unit 1 SRW HXs needs to be incorporated into the SER as necessary. See Reference (5).	Incorporate as appropriate.
3-110	2nd	The SER states that the "piping, pumps and valves" are constructed of carbon steel.	In sentence 3, after "carbon steel," insert "low alloy steel, alloy steel, stainless steel and elastomer lining."
3-110	1st	In describing the loads that the SPW System cools, it is implied that all EDGs are cooled by the system, but that is not the case.	Delete "the" from in front of "emergency diesel generators".
3-110	carryover	The CC System is misidentified.	In first full sentence replace "SWS" with "Component Cooling (CC) System."
3-110	carryover	Materials of the SW System include ductile iron, cast steel, bronze, stainless steel, monel, and titanium in addition to those listed. Linings include cement mortar, neoprene, saran, kynar, belzona (brand name), tuboscope (brand name), buna-N, natural and hard rubbers, polypropylene, and coal tar epoxies.	And these materials to the description to be thorough.
3-111	3rd bullet	This bulleted list contains a duplication of the LLRT program, with the name slightly changed. This was apparently due to it being credited in two different systems (CCW and SFPC).	Remove the duplicate entry (seventh bullet on page 3-112)
3-111	3.5.2.2	Cavitation erosion should be included as "plausible."	Change as noted.
3-111	6th bullet	Repetitive Tasks 10122107 through 10122110, 10122086 through 10122088, and 20122092 through 20122094 were added to this list by Reference (5).	Add repetitive tasks to the list.
3-111	6th bullet	Repetitive task number is incorrect; it should be "10122068, but is shown as "10120268." This error originates in the LRA and was corrected in Reference (13).	Replace "10122063 through 10120268" with "10122063 through 10122068." Also, add the following reference to SER Appendix B: "BGE letter to NRC, dated 11/12/98, on Request for Additional Information for Review of Calvert Cliffs Nuclear Power Plant Units 1 and 2. Integrated Plant Assessment Report for the Saltwater System, and Errata."
3-111	7th bullet	The list of Checklists were changed by Reference (5).	Change the bullet to read, as follows: "Checklists MPM04194, MPM01180, and MPM01181 (modified program)."
3-111	10th bullet	Repetitive Tasks 10112052 and 10112053 were deleted by Reference (5), page 18.	Delete the repetitive tasks from the list.
3-111	Next to last	Clarity - Listing of individual PM numbers with no indication of the subject or action may be confusing.	Either delete the numbers or add the titles
3-111	4th bullet	Wear is no longer considered plausible for CC relief valves. See Reference (12).	Delete the entire contents of this bullet. Also, add Reference (12) to SER Appendix B.
3-111	3.5.2.3	Annual Amendment indicates that MN-1-319 will replace ARD1 for inspections of SW System boiling corrosion, but the SER does not appear to reflect this. See Reference (5).	Revise as appropriate.
3-112			

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3-111	3.5.2.2	The second sentence of the paragraph lists the plausible ARDMs for which effects should be managed for License Renewal. However, "cavitation erosion" (LRA Table 5.18-3) was apparently inadvertently omitted.	Add "cavitation erosion" to the list of plausible ARDMs in the second sentence.
3-112	1st bullet	Should refer to MPM00005 instead of MPM05000.	Correct as noted.
3-112	3rd bullet	Indicates that Repetitive Tasks 10122095 and 20122099 require modification. They do not. See Reference (13) and LRA Table 5.16-6.	Revise as noted.
3-112	3.5.3.1	Materials list is incomplete. See SW LRA groups 1, 2, 3, and 4 (Reference 1).	Add the following materials to the end of the first sentence, "monel, iron, cast iron, cast steel, low alloy steel, red brass, cast brass, copper nickel, aluminum bronze, and various lining materials."
3-113	2nd	The statement, "The cause of leakage was determined to be damage to the concrete lining and subsequent corrosion of the bare metal exposed to leaking salt water," suggests corrosion was caused by leaking SW, that leakage resulted directly from damaged lining.	Delete "leaking"
3-113	carryover	The sentence, "The external environment is air," is not entirely correct. Reference LRA page 5.16-14.	Replace sentence with, "The external environment is air, with the exception of below ground saltwater piping, i.e., external environment is soil. The external surfaces of buried piping are protected from the soil per standard industry practice with a multiple layer wrap and enamel coating."
3-113	carryover	The fourth sentence of the paragraph lists the plausible ARDMs that should be managed for License Renewal. However, "cavitation erosion" was apparently inadvertently omitted.	Add "cavitation erosion" to the list of plausible ARDMs in the fourth sentence.
3-114	3.5.3.1.1, 2nd	Regarding Question 5.3.4, references to pertinent RAI Responses should be provided in this paragraph and in SER Appendix B.	Add References: <ul style="list-style-type: none"> NRC letter to BGE, dated 8/27/98, on Requests for Additional Information for the Review of the CCNPP, Units 1 & 2, IPA for the CC System BGE letter to NRC, dated 11/12/98 on Response to RAI for the Review of the CCNPP, Units 1 & 2, IPA for the CC System.
3-115	3rd	CCNPP PUMP-14 is edited with discovering crevice corrosion, pitting and general corrosion for the CC pumps. Reference LRA Table 5.3-4.	The first sentence should read, "As an additional assurance for components other than the CC pumps, the applicant will establish the ARDI Program to verify that degradation of CC components is not occurring."
3-116	3.5.3.1.1.3, 2nd	From this statement on ARDI, it could be inferred that the ARDI Program will consist of multiple inspections per component instead of just one.	Revise to state, "Also, the CCNPP ARDI Program will inspect components for general corrosion. The ARDI program will provide additional assurance that the plausible general corrosion effects are effectively managed."
3-116	3.5.3.1.1.3, 1st	Components in CC System affected by general corrosion include carbon steel and cast iron materials. Reference LRA page 5.3-18.	In the first sentence, after "carbon steel" add "and cast iron."

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3-117	3.5.3.1.1.5, 2nd	To provide additional assurance . . . will also undergo periodic inspections under the ARDI program." ARDI itself does not provide periodic inspections, although it may result in periodic inspections.	Delete "periodic"
3-117	3.5.3.1.2.2, 2nd	Materials are misidentified. Reference LRA page 5.3-23.	In second sentence replace "aluminum-brass" with "aluminum bronze."
3-117	3.5.3.1.1.6, 1st	Wear of relief valves is not considered plausible per Attachment (2) of Reference (12).	Replace first sentence to read, "The applicant determined that check and control valves are susceptible to wear."
3-118	3.5.3.1.2	Section does not describe corrosion of fasteners due to SW leakage, managed by MN-1-319. See Reference (5).	Insert this information as appropriate.
3-118	3.5.3.1.2.1	Paragraph omits that components subject to general corrosion consist of low alloy or carbon steel bolting.	Add information as noted.
3-119	3.5.3.1.2.2, 1st	Sixth sentence is not clear. Reference LRA page 5.16-15.	Replace sixth sentence to read, "In addition, the program addresses ARDMs caused by particulate wear erosion, which is only plausible for piping with cement mortar lining; and elastomer degradation, which is plausible for components with lining constructed of neoprene, Buna-N, natural rubber, and hard rubber."
3-120	3.5.3.1.2.4, 2nd	Second sentence is incomplete. Reference LRA page 5.16-25.	The beginning of the second sentence should read, "Erosion/corrosion occurs at the inlet side of the tubes in line heat exchangers and is . . ."
3-121	1st	List of repetitive tasks is incomplete. Reference LRA page 5.16-27 and LRA Table 5.16-5.	In the sentence beginning with "Periodic cleaning" after "10152024" add Repetitive Task "20112006."
3-121	3.5.3.1.2.5, 1st	Paragraph states that Checklists MP-M05000 and MPM05101 inspect the Emergency Core Cooling System pump room air coolers. MPM05000 replaces sacrificial anodes. Inspections are only conducted by MPM05101.	Clarify as noted.
3-121	1st	Repetitive Tasks 10112052 and 10112053 are no longer active because of the Unit 1 SRW HX replacements; however, new repetitive tasks for the new plate and frame HXs have not been generated. Removal of the Unit 1 repetitive tasks is identified in Reference (5).	Delete Repetitive Tasks 10112052 and 10112053 from the list.
3-121	2nd	" . . . this ARDM . . ." should be ". . . these ARDMs . . ."	Correct as noted.
3-122	3.5.3.1.2.6, 2nd	ARDI is credited for an orifice that was not inspected by the credited repetitive tasks. Because of the system changes with the installation of the new HXs, the orifice is no longer installed and ARDI is no longer credited for orifices. See Reference (6).	Delete references to the ARDI/orifice.
3-124	2nd	Section concludes "Based on existing periodic inspections supplemented by ARDI . . ." but no other inspection programs are credited.	Revise section to clarify that ARDI is the only credited program.
3-124	3.5.3.1.3.3	Fourth sentence says ". . . IPM10000 and IPM10001 is used to inspect tie valves." This is not true. The correct purpose of the checklists is described in the succeeding sentence.	Delete ". . ." is used to inspect the valves. These checklists . . ." and run the two sentences together.

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3-124	3.5.3.1.3.3	"As a safety precaution, the applicant credited its ARDI program to provide . . ." This characterization of the ARDI Program is not strictly true and is not consistent with other sections.	Delete "As a safety precaution", add "also" after "applicant."
3-124	3.5.3.1.3.3	From the discussion, it is possible to infer that the ARDI Program applies to the portions of the system that are managed by IPM10000/10001. This is not the case. The ARDI applies to wetted portions of the SRW System and not the control valves in the air environment.	Revise the paragraph to clarify this point.
3-126	3.5.3.1.4, 2nd	Editorial - in the 6th sentence of the 2nd paragraph, it appears that the word "since" is missing between the words 'indicated that' and 'implementation of.'	Add "since" as noted.
3-127	3.5.3.1.4.2, 2nd	NRC declined to completely evaluate rubber degradation and radiation damage programs because, "This ARDM is applicable to valve internals" etc. One of the subcomponents is the rubber lining of the valve body, which has no moving parts or changes in configuration.	Reevaluate whether these programs should be further evaluated.
3-128	3.5.3.1.4.4, 2nd	In the fourth sentence that begins, "In the aging management program . . ." the words "specifically applicable to" should be replaced with "explicitly present inspection requirements for" to more accurately reflect the modification to the AMP.	Revise as noted.
3-130	last bullet	The item should reflect, "Control element drive mechanism cooling subsystem."	Revise the bulleted item as noted.
3-132	2nd	The grouping by ARDMs and device types was done to efficiently present the results of the AMR. It was not done during the AMR to expedite the AMR.	Delete the words "expedite the AMR and."
3-132	last set of bullets	The word "partially" in the first bullet is not appropriate.	Replace "partially" with "potentially."
3-133	3rd	The second sentence is not entirely true because some of the motor-operated valves (MOVs) have seats constructed of ethylene propylene. Since the MOVs appear to be satisfactorily discussed in sentences 3, 4, and 5, there is no need to include MOVs in the second sentence.	Delete MOVs from the second sentence.
3-133	4th	All of the components mentioned in the third paragraph are not exposed to moisture. Only those components discussed in the LRA for Groups 2 and 5, i. e., piping, hand valves, and MOVs in the hydrogen purge subsystem exhaust path and the containment air coolers.	Clarify the statement of which components are potentially exposed to moisture.
3-133	last	The very last sentence discusses the maximum temperature and humidity for normal operating conditions for the Control Room. Actually, this is the maximum temperature and humidity for the Auxiliary Building. (The Control Room HVAC System is physically located in the Auxiliary Building where the normal max temperature is 110°F.)	Revise this statement to identify these conditions are for areas of the Auxiliary Building where the Control Room HVAC equipment is housed.

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3-134	3.6.2.3.1	The existing SER configuration implies two different CCNPP programs are being modified.	Delete the second bullet item and incorporate the text starting with "Modified Existing Procedure . . ." into the first bullet item replacing the existing text in parentheses "modified program."
3-135	3.6.2.3.2, 1st	Under item (a), "control valves and hand valves" have been omitted from that listing. They were included in the LRA.	Add "control valves and hand valves" to the listing.
3-135	last bullet	In the last bullet on the page, Checklist MPM09005 needs to be added to MPM0411. MPM0411 performs its function in Unit 1. MPM09005 performs the same function in Unit 2.	Add Checklist: MPM09005 to the listing.
3-135	carryover	In the first sentence on the page, delete the text "combined" and replace the text "these three programs" with "the modified program (MN-1-319)." The existing paragraph addresses three different programs, whereas the CCNPP LRA only refers to a single program (MN-1-319) to manage the ARDMs discussed.	Revise the first sentence of the page as noted.
3-135	carryover	In item (a), "general corrosion" has been omitted from this item. It is managed along with crevice corrosion and pitting per the LRA.	Add "general corrosion" to the list.
3-135	1st bullet	It appears that the ARDI program is only credited for discovery of the effects of elastomer degradation and wear. The ARDI Program is also credited for discovery and management of the effects of crevice corrosion, general corrosion, and pitting for the internal surfaces of duct and heat exchangers.	Create two bullets under ARDI and clarify for what the ARDI program is credited.
3-136	last bullet	The ARDI Programs is incorrectly listed under "Existing CCNPP Maintenance Programs."	Make the distinction that the ARDI Program is not part of the CCNPP Maintenance Program.
3-137	last	The list of ARDMs in the second sentence did not include elastomer degradation.	Add elastomer degradation to the list of ARDMs.
3-138	1st	The staff discusses corrective actions taken by BGE, including installation of flexible collars or cloth boots to minimize vibration. These subcomponents were part of the original design and installation of HVAC systems, not in response to degradation.	Delete the installation of flexible collars or cloth boots to minimize vibration as a corrective action taken in response to discovered degradation.
3-138	2nd	The first sentence is only partially true. BGE's determination that the effects of corrosion should be managed is based on the entire AMR process, not just a review of previous records and analysis of operating experience. Also, it is unclear what the term "previous records" means.	Replace the phrase . . . its review of previous records and analysis of operating experience, . . . with . . . application of the aging management review methodology, . . .
3-140	3rd	Under "Operating Experience," the first sentence appears to contain some typographical errors.	Rewrite the sentence to clarify the meaning.
3-142	carryover	Statement says, "The components are all constructed of carbon steel . . ." Some fasteners are alloy steel and tanks have coating/seals that are not metallic.	Delete the word "all" and replace with "primarily."
3-142	1st bullet	Refers to PEG-7, which was superseded by MN-1-319	Change "PEG-7" to "MN-1-319" here and elsewhere (e.g., p. 3-148).
3-142	3rd bullet	The listed PEO is in error. It should be PEO-0-023-02-O-M.	Change as noted.
3-142	3.7.2.2	List of ARDMs refers to corrosion fatigue, which is no longer considered a separate ARDM. See Reference (3).	Delete the reference to corrosion fatigue.

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Page	Paragraph	Comment	Recommended Revision
3-148	carryover	Item (6) states, "... acceptance criteria ensure that any coating degradations would be reported and evaluated. ... Use of "any" is overly restrictive.	Change "any" to "significant."
3-148	1st	QL-2-100 (listed incorrectly as OL-2-100) doesn't describe the parameters monitored.	Delete OL-2-00
3-148	carryover	Top paragraph, line 5 says, "external" when it appears it should say "internal."	Clarify as needed.
3-148	1st	Second paragraph appears to consider external corrosion, but this section concerns internal effects.	Clarify as needed.
3-150	carryover	Wording "... indicates that corrosion of the FOST bottoms is not subject to any applicable aging effects." suggests that corrosion mechanisms are not subject to aging effects.	Change "subject to any applicable aging effects" to "occurring."
3-153	2nd	The following AFW device types requiring AMR were omitted from this list: governor valves, hand valves, pressure control valves, and solenoid valves.	Add these device types to the list.
3-153	4th, 5th	In the listing of device types requiring AMR, the "valves" in this list should be broken down into check valves, hand valves, and MOVs (paragraph 4), or check valves, control valves, flow control valves, hand valves, MOVs, relief valves, pressure control valves, and solenoid valves (paragraph 5), per the format in the LRA, and per the AFW description referred to above.	Change as noted.
3-153 3-154	3.8.2.2	The ARDM 'selective leaching' has been omitted from this list and 'general corrosion, crevice corrosion, and pitting' have been combined under "corrosion."	Revise the ARDM listing as necessary.
3-154	5th bullet	Editorial -- For Group 5, close the parentheses on "turbine throttle/stop valves."	Change as noted.
3-155	2nd bullet	In the 2nd bullet on the page, for Group 3, in the last sentence, reference is made to "carbon steels."	Change to "carbon steel."
3-155	4th bullet	For Group 5, the last sentence could be misinterpreted to mean that some of the device type subcomponents are made of carbon and some are made of different types of stainless steels.	Make "steels" after "stainless" singular and add "steel" after the other materials; i.e., alloy steel, chromium-molybdenum steel, carbon steel, and stainless steel.
3-155	3rd bullet	Under Group 4, add "galvanic corrosion" in the first sentence after "crevice corrosion." Reference LRA 5.1-22.	Revise as noted.
3-158	1st bullet	Reference is made to "valves" and to "MOV's," yet "valves" actually includes check valves, control valves, and hand valves.	Correct the list as noted
3-158	4th bullet	Under the more detailed discussion for Group 1 on this page, in the last paragraph of this discussion, the dewpoint of instrument air is given as 40°F instead of -40°F.	Correct as noted.
3-159	last	The last sentence of the last paragraph is inconsistent with operating experience presented in LRA page 5.12-2.	Replace the last sentence with, "The applicant also replaced blowdown system piping inside containment, which is within the scope of the LRA, with new carbon steel piping with bends instead of elbows. The bends

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Page	Paragraph	Comment	Recommended Revisions:
3-159	within carryover bullet	Clarity – The second sentence, "The SG blowdown valves have been evaluated for this mechanism with the erosion corrosion mechanism." is not clear.	are a better design in an erosion/corrosion environment. Additionally, the carbon steel elbows in the blowdown piping at the SGs were replaced with chromium-molybdenum elbows, which are more resistant to erosion/corrosion. As more piping is identified that meets the criteria for replacement, the applicant plans to replace it with piping that is more resistant to erosion corrosion. Revise to clarify.
3-160	9th bullet	Information presented is not complete. See Reference (14).	After "Auxiliary Feedwater Pump Turbine Overhaul" add "and procedure VALVE-28, 'Auxiliary Feedwater Pump Turbine Governor Valve Overhaul'."
3-160	12th bullet	Aging management for the Condensate Storage Tank No. 12 perimeter seal is now managed by MN-1-319 (modified). MN-1-319 is already listed by one of the above bullets. See Reference (3)	Delete "Caulking and Sealant Program."
3-161	3.8.3.1.1	In the title of this section, "Cavitation" should be "Cavitation Erosion."	Revise as noted.
3-161	4th bullet	Credited programs require updating. See Reference (5), page 14.	Delete "MSIV-13, MSIV Actuator Removal and Installation" and replace with "PM Repetitive Tasks 10832067, 10832068, 20832062, 20832063."
3-161	3.8.2.4	Description is not complete. Reference LRA page 2.1-5.	At the end of the first sentence after "main steam system" add "(supply lines to the auxiliary feedwater pump turbines)."
3-163	last	The sentence beginning with "CST water at ..." should be clarified. BGE did not claim that no thermal stresses would be introduced, but that the introduction of the cool water occurs relatively infrequently.	Revise this sentence to read, "CST water at 40°F-100°F is delivered through these lines on an infrequent basis; e.g., during tests."
3-165	3.8.3.2.1	The title of this section is, "Crevice Corrosion, General Corrosion, and Pitting Applicable to All Components in SPCS." Additionally, the first sentence of this section incorrectly says, "One or more of these ARDMs will affect each component in the SPCS." These ARDMs are not applicable to all components in these systems. For example, the piping and components installed in Instrument Air System lines that are in scope in LRA Section 5.12 are not subject to any of these ARDMs. The same is true for the SG blowdown radiation monitor cooler in LRA Section 5.12.	Delete "all" in title. Delete the first sentence.
3-165 3-166	3.8.3.2.1	The following other programs within Section 3.8 that manage crevice and general corrosion and pitting have been omitted: MSIV-4; Repetitive Tasks 10832098 & 99, 20832089 & 90, IPMs 10000 and 10001 and their associated repetitive tasks.	Revise to add these programs.
3-166	1st bullet	PEG-7 has been replaced by MN-1-319.	PEG-7 should be changed to MN-1-319, Structure and System Walkdowns.

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Page	Paragraph	Comment	Recommended Revision
3-166	1st	Second sentence requires additional detail.	Replace the second sentence to read, "The applicant minimizes humidity in the nitrogen system by using dry nitrogen or dry air from the instrument air system. The applicant minimizes humidity in the instrument air system by maintaining the dew point of the compressed air at -40°F at 100 psig."
3-166	2nd bullet	Governor valves are also affected. See Reference (14), page 2.	In the first sentence after "pump turbines" add "and governor valves."
3-166	2nd bullet	VALVE-28 is also credited. See Reference (14), page 1.	At the end of the last sentence add "and procedure VALVE-28, 'Auxiliary Feedwater Pump Turbine Governor Valve Overhaul'."
3-166	3rd	Governor valves are also affected. See Reference (14).	At the end of the first sentence, add "and governor valves."
3-166	1st, 2nd bullets	Clarity - Line 2 of each bullet includes, "the AFW with the CCNPP."	At each bullet, replace with, "the AFW system, from the listing in Section 3.8.2.2 of this SER, with the CCNPP." Replace "PEG #7, 'System Walkdowns'" with "MN-1-319, 'Structure and System Walkdowns'."
3-167	3.8.3.2.2	This section omitted MN-1-102 from Section 3.8 for managing erosion corrosion for feedwater check valves.	Add MN-1-102 to the discussion.
3-167	2nd	Sentence begins with "All the components with predicted erosion/corrosion damage are inspected the . . ." but not all piping is inspected. Reference LRA page 5.12-29.	Replace the sentence with, "All piping within the scope of the program is evaluated and categorized to determine inspection points. Inspection points are determined primarily based on previous inspections and erosion trends. Inspection results are then analyzed to determine the need to repair or replace components."
3-167	2nd	Next to last sentence is not strictly true. It implies that the erosion/corrosion program will be expanded under ARDI.	Replace the next to last sentence with, "The ARDI program will include components that are not part of other inspection programs."
3-168	carryover	The statement, "The staff finds that these programs will provide sufficient assurance that the components . . . will satisfactorily perform their design functions during . . . extended operation." suggests staff has assessed all design functions (active and passive).	Since only intended functions were reviewed for license renewal, change "design" to "intended."
3-168	3.8.3.2.3	In the last sentence of this section, the word "cooler" needs to be inserted between the words "monitor" and "will."	Correct as noted.
3-168	3.8.3.2.4	In first sentence, replace "Caulking and Sealant Inspection Program" with "MN-1-319, Structure and System Walkdowns." See Reference(3).	Revise as noted.
3-169	1st	"The plant parameter data, which are collected periodically, are used to update the fatigue usage." Some plant parameter data is collected continuously. The data is analyzed periodically.	Change "collected" to "analyzed"
3-172	3rd	The last sentence lists borated water as an internal environment for components of the Radiation Monitoring System (RMS), however, none of the components within the scope of license renewal for the RMS is exposed to an internal environment of borated water.	Delete borated water as an internal environment for components of the RMS.
3-173	2nd.	Section 6.4 of the BGE LRA includes connected instruments. Additionally, Section 6.4 of the BGE LRA does not include supports for small bore piping. Reference BGE LRA page 6.4-2, and RAI 3.1.7 of Reference (2).	Recommend revising third sentence to read, "An instrument line may contain components such as small bore piping (i.e., 2-inch diameter and smaller), tubing, fittings from the root valve to the instrument, hand valves, connected instruments, and supports for tubing."

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Page	Paragraph	Comment	Recommended Revision
3-173	2nd	List of environments should include SW.	Add "saltwater" to the list.
3-173	bullets	The bulleted items at the top of the page are intended to represent the intended functions of the RMS. The CCNPP LRA (pages 5.14-2.3) lists many more intended functions than represented in the SER for the RMS.	Add the omitted intended functions.
3-173	3.9.2.2	This paragraph summarizes the evaluation of the applicability of ARDMs for the components subject to AMR for the NSSS Sampling System and RMS including the Instrument Lines Commodity Evaluation. However, the next to last sentence of the paragraph only identifies Section 5.13 (NSSS Sampling System) when addressing aging management for the three systems.	Identify the LRA Sections for the RMS (5.14) and Instrument Line Commodity Evaluation (ILCE) (6.4) in the next to last sentence of the paragraph.
3-176	3.9.3.1, 1st	Copper may apply to tubing as well as piping.	Recommend replacing the third sentence with the following sentence for clarification purposes, "For example, piping or tubing exposed internally to reactor coolant is made of stainless steel, and the water chemistry is controlled to minimize dissolved oxygen; piping exposed to air is generally carbon steel, and the air is dehumidified; and copper is used in some oil applications."
3-177	carryover	Last sentence states that humidity in the Auxiliary Building is controlled. According to LRA page 6.4-11, this is incorrect. Additionally, the last sentence, which seems to be apply to all three systems, i.e., NSSS Sampling, RMS and ILCE, implies that all of these systems are located in the Auxiliary Building. Per LRA page 6.4-10, and -11, ILCE components are located inside Containment, in other buildings, and outdoors.	Delete the sentence altogether.
3-177	3.9.3.2.1	The effects of general corrosion of valve operators for the NSSS Sampling System, Group 3, were not addressed in this section. As such, the staff's evaluation of IPM 10000 (10001) was not presented.	Add a discussion of the effects of general corrosion for NSSS Sampling System valve operators.
3-177	last	The second sentence is worded incorrectly. Furthermore, there are subcomponents subject to this ARDM that are constructed of alloy steel.	Add alloy steel after carbon steel and delete the word "that"
3-177	last	The very last sentence is not true because the instrument line tubing supports are subject to corrosion. Refer to Group 2 discussion for ILCE in Section 6.4 of the LRA. The AMPs credited include the Structure and System Walkdown program (MN-1-319) and ARDI.	Revise sentence and add a discussion of corrosion of instrument line tubing supports somewhere in Section 3.9.3.2.1 of the SER.
3-178	3.9.3.2.1.2	The third sentence omitted the material copper that is used for the tubing for sample chillers in the SG blowdown conditioning racks.	Add copper to this list of materials.
3-178	3.9.3.2.1.2	The seventh sentence omitted the material alloy steel that is used for the hand valve stems.	Add alloy steel to this list of materials.
3-178	3.9.3.2.1.2	The RMS components are subject to general corrosion as well as crevice corrosion and pitting.	Incorporate general corrosion as an ARDM where appropriate.
3-179	3.9.3.2.2	The fourth sentence is incomplete.	Revise this sentence as appropriate.

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3-184	last	In the last line on the page, the term "significant ARDM" could be confusing or misleading.	Change "significant" to "plausible."
3-184	1st	Containment Building ARDMs were not compared to the Turbine Building as suggested.	Recommend first and second sentence read, "The applicant evaluated the TB components subject to AMR, and identified two plausible ARDMs, weathering of caulking and sealants and corrosion of steel. The applicant determined that the aging effects from these plausible ARDMs should be managed for license renewal."
3-184	4th	ARDMs from other structures were not compared to the Auxiliary Building.	Recommend that the first sentence read, "The applicant evaluated components of the AB&SR-DGB..."
3-185	3.10.2.3	The list of programs is missing one program credited for the Auxiliary Building: ETP 86-03R, Analysis of Neutron-Absorbing Material in Spent Fuel Storage Racks.	Add this program to the list.
3-185	carryover	During the April 1999 Region 1 License Renewal Inspection at CCNPP, initial settlement cracks were identified in the Auxiliary Building. This did not affect BGE's determination that settlement is a non plausible ARDM. See Reference (15).	Recommend inserting, "other than minor initial settlement cracks" between "or other evidence of settlement" and "that would affect structural integrity of CCNPP's structural foundations has been observed to date."
3-186	2nd	At the time the LRA was prepared, BGE expected to complete the update during 1999. This schedule was based on site priorities and workload as were known at that time. The update is now expected to be completed in early 2000. This schedule is likewise based on current site priorities and workload and is, therefore, subject to change. Nevertheless, the existing analyses will remain valid through the period of the current licenses and BGE expects to complete the update as soon as is reasonably achievable.	Change the date listed.
3-187	4th	In the third sentence, corrosion of the fuel transfer tube/bellows is not a plausible ARDM, therefore, delete "fuel transfer tube/bellows."	Revise as noted.
3-187	4th	In the third sentence, settlement is not a plausible ARDM, therefore, delete "foundation settlement."	Revise as noted.
3-188	7th bullet	"Degradation of miscellaneous tanks and valve enclosures" is not a plausible ARDM. The only plausible ARDM associated with the Miscellaneous Tanks and Valve Enclosures is corrosion of steel, which is identified in the 2nd bullet.	Delete 7th bullet.
3-189	3rd	Clarify the third sentence to indicate the prestressing forces applied to the concrete are not reduced unless the wires break. If the prestressing forces are reduced, a reduction in design margin may result."	Clarify as noted.
3-190	last	The first sentence of this paragraph implies that we have experienced ongoing tendon degradation since 1997. The degradation was initially discovered in 1997 and had obviously been going on for some time. Corrective actions have addressed the degradation.	Rephrase the sentence to read, "In recent years, CCNPP Units 1 and 2 have addressed degradation in their containment prestressing systems originally discovered in 1997," or something similar.

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Page	Paragraph	Comment	Recommended Revision
3-190	2 nd	Line 12 says "programs were further revised", but the actions have not yet been completed.	Change to "programs will be revised."
3-191	2 nd	In the bottom of half of the paragraph, replace "CCNPP technical specification 15.6.1" with "CCNPP UFSAR 15.6.1."	Correct as noted.
3-192	last	"The applicant considered freeze-thaw as a plausible ARDM . . ." is not correct.	Change the word "plausible" to "potential."
3-194	4 th	Details of well water analysis are incorrect.	In line 7 change "two out of three" to "three out of four" and "on the west side" to "on the north side."
3-194	1 st bullet	During the April 1999 Region 1 License Renewal Inspection at CCNPP, minor cracking was observed on the exterior Containment concrete structure. As a result, BGE now considers "corrosion of embedded steel/rebar" a plausible ARDM for the exposed exterior concrete Containment structure. Aging effects will be managed by Procedure MN-1-319, Structure and System Walkdown. See Reference (15).	Recommend adding another bullet to reflect this information on this page and in other SER sections as appropriate.
3-195	last	Several structures are affected by weathering.	In first sentence, after "diesel generator building structures" add " TB and IS." In the second sentence, delete "auxiliary building and safety-related diesel generator building."
3-195	2 nd	Clarity - Line 4 from the bottom says, ". . . The applicant object to this degradation . . ."	Revise the sentence so that its meaning is clear.
3-196	1 st	After "AB&SR-DGB" add ", TB and IS."	Revise as note d.
3-196	2 nd	In the third sentence, after "RWT Pump Rooms," add "TB and IS."	Revise as noted.
3-196	3 rd	Fifth sentence reads, ". . . technical specifications 4.7.12 a."	Change to read, ". . . Technical Requirements Manual 15.7.10.1."
3-197	last	In first sentence, after "AB&SR-DGB" add ", TB and IS." In sub-sentence (1), delete "AB&SR DGB structures" in two places. In sub-sentence (3), delete "in the auxiliary building and adjacent rooms." In sub-sentence (4), delete "in the safety-related diesel generator building, as well as for those in the auxiliary building and adjacent rooms."	Revise as noted.
3-198	2 nd	The first and second sentences could be clarified to conform to the information in the LRA. Reference LRA page 3.3A-24, second paragraph under Group 3.	Replace first and second sentences with referenced paragraph beginning, "The containment wall and the containment dome . . ."
3-199	2 nd	Information in this paragraph comes from the BGE LRA, not from BGE response to RAI 3.3.24.	Recommend that the first sentence begin as follows: "The applicant stated . . ."
3-201	3 rd	In second sentence, replace "MN-1-139" with "MN-1-319."	Clarify as noted.
3-202	1 st	STP-M-661-1/2 is an existing AMP, not a new AMP.	Clarify the second sentence to read, "The applicant proposed to continue to implement surveillance test procedure . . ." Clarify the last sentence to read, as follows: "The staff finds this surveillance test procedure . . ."
3-202	2 nd , 3 rd	Information in the second and third paragraphs was derived from BGE's response to RAI 3.3.47 in Reference (16). Recommend referencing RAI 3.3.47 in the beginning of both of these paragraphs.	Clarify as appropriate.

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Page	Paragraph	Comment	Recommended Revision
3-204	3rd	In fifth sentence, before "liner" insert "refueling pool" to clarify which liner is being discussed.	Clarify as noted.
3-205	2nd	In first sentence, before "liner" insert "refueling pool" to clarify which liner is being discussed.	Clarify as noted.
3-206	1st	The program discussed in the SER for managing IGSCC of the spent fuel pool liner is MN-1-319. The actual program credited is PEO 0-67-2-O-M and OI-24D.	Add these programs to the list (MN-1-319 is correctly credited for the refueling pool liner and the permanent cavity seal ring). Also in the first sentence of the following paragraph, change "periodic walkdown program" to "programs."
3-208	2nd	Technical Specification numbers have changed as a result of the Improved Technical Specifications.	In the last sentence, replace "technical specification 3.6.1.6.b" with "Technical Specification 3.6.1."
3-210	carryover	In the second sentence, after "... modify the existing PM tasks" insert "or new PM tasks will be initiated." Similarly, in the third sentence, after "... modified PM tasks" insert "or new PM tasks." Reference BGE LRA page 3.3C-22 and -24.	Clarify as noted.
3-211	3rd	BGE considers settlement a potential ARDM for the Intake Structure.	In the first sentence, delete "initially."
3-212	1st	Citing ACI 349.3R-96 is overly restrictive. BGE has not agreed with its use.	Delete the citation.
3-215	carryover	This section incorrectly states that there are 20 support type categories. The correct number is 19.	Correct as noted.
3-214	3.11	Fuel Handling Equipment (FHE) and Heavy Load Handling Crane (HLHC) section has not been updated with FHE & HLHC errata item (Change 1) concerning ARDMs/programs for carbon steel chain. See Reference (3).	Incorporate information from errata item.
3-214	3.11	FHE & HLHC section has not been updated with FHE & HLHC errata item (Change 2) concerning programs for Reactor Refueling Machine wire rope. See Reference (3).	Incorporate information from errata item.
3-214	3.11	FHE & HLHC section has not been updated with FHE & HLHC errata item (Change 3) concerning programs for Transfer Machine, Cable Crane, Spent Fuel Inspection Elevator, and New Fuel Elevator. See Reference (3).	Incorporate information from errata item.
3-218	2nd bullet	Reference is made to PEG-7 and parenthetically to MN-1-319. The reference to PEG-7 should be removed since that procedure has been replaced by MN-1-319.	PEG-7 should be changed to MN-1-319, Structure and System Walkdowns.
3-219	3rd bullet	The paragraph provides an incorrect perception of the nature of the checklists and requires rewording.	Suggested rewording is, "Preventive maintenance checklists are part of the plant's Preventive Maintenance Program. Two of these existing checklists need to be modified to provide for the inspection of metal spring isolators and fixed bases inside Containment. The applicant credits these two checklists for the Group 2 combination of supports and ARDMs."

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Page	Paragraph	Comment	Recommended Revision
3-219	4th	Subsequent to the submittal of the LRA, BGE has determined that the 24 inaccessible supports will no longer be managed by the ARDI Program. Changes to the LRA resulting from this determination are detailed in Attachment (3) of Reference (6).	Revise SER pages 3-219, -222, and -233 to delete reference to the ARDI Program. Additionally, revise the SER to incorporate other new information from Reference (6) as appropriate.
3-220	1st bullet	"Additional baseline walkdowns procedure" is not strictly a procedure at this point.	Delete the word "procedure."
3-220	2nd bullet	For Plant Modification Program, the explanation is not correct. The section appears to involve a misinterpretation of Table 3.1-4 of the LRA. The Plant Modification Program is not new; however, the modification required to change the type of air handler supports is new.	The bullet title should be shortened to just "Plant Modification" and the description should be rewritten to read, "A new plant modification is credited for the replacement of the Control Room HVAC air handler elastomer-type isolator supports with spring-type isolators. The applicant credits this modification for the Group 3 combination of supports and ARDMs."
3-220	3.11.2.3.3	Paragraph starts, "For the AMR of component supports . . ." but should say, "For the AMR of Fuel Handling Equipment and other Heavy Load Handling Cranes. . . ."	Revise as noted.
3-221	2nd bullet	Description omits the second repetitive task.	Change "Program 10992001 is an existing program and is . . ." to "These existing repetitive tasks are . . ."
3-221	3rd bullet	The use of "Procedures" in the bullet is redundant and the information format is the reverse of that used on the previous page.	Change the title, "Procedures for Operating Instructions and Operation Section Performance Evaluations" to "Operations Section Performance Evaluations and associated Operating Instructions" and reorder the information to conform to the format of the final bullet on the previous page.
3-221	last bullet	In this same title, the repetitive tasks for Unit 2 have been omitted from the listing.	Parenthetically add Repetitive Tasks 20812009, 20812014, 20992010, and 20992002 behind Repetitive Tasks 10812007, 10812013, 10992016, and 10992010, respectively.
3-221 3-222	3.11.2.3.3	Last sentence of each program description says "The applicant applies this(these) program) to Group(s) # of support and ARDM combinations." It appears that the word "support" is a vestigial carryover from boilerplating with the previous section on Component Supports.	Change "support" to "crane subcomponents" or something similar.
3-221	last bullet	Last paragraph, "intake structural semi-gantry" should be "intake structure semi-gantry crane."	Revise as noted.
3-222	1st bullet	Title is incorrect and Unit 2 repetitive tasks are omitted.	In the title, insert "Repetitive" between "Maintenance" and "Tasks." In the first sentence of the description, replace "preventive" with "repetitive." Also in the title, parenthetically add Repetitive Tasks 20992002 and 20642030 behind Repetitive Tasks 10992010 and 10642031, respectively.

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3-222	3.11.2.3.4	Based on the submittal of Revision 1 of Section 6.2 of the LRA, replace the 4 bullets under this section. See Reference (17).	Replace with: <ul style="list-style-type: none"> Certain checklists associated with existing repetitive tasks governed by CCNPP Maintenance Program Procedure MN-1-102, "Preventive Maintenance Program" New repetitive tasks and associated checklists, governed by CCNPP Maintenance Program Procedure MN-1-102, "Preventive Maintenance Program"
3-223	3.11.3, 3 rd	Reference (2) (dated 11/19/98) responded to NRC RAIs on component supports.	Replace "21" with "19" in second sentence.
3-224	1 st	Elastomer vibration isolators are constructed from carbon steel and elastomers, not just elastomers.	Revise the end of the first sentence to read, "... except for elastomer vibration isolators, which are constructed of carbon steel and natural or synthetic rubber, and ring foundations, which are constructed from reinforced concrete."
3-225	3 rd	Loading from thermal expansion is plausible for piping supports, but it is not plausible for loss-of-coolant accident restraints.	Insert "piping supports" before "frames" and delete "LOCA restraints." Also, revise end of first sentence to read, as follows "... (Group 1 and 6 support/ARDM combinations)".
3-225	6 th	Reference (2) (dated 11/19/98) responded to NRC RAI on component supports.	Replace "21" with "19" in second sentence.
3-226	last	Accuracy - The opening phrase says, "As described in Section 3.11.2.2.3 above." The relevant information does not appear to be in the referenced section.	Clarify as appropriate.
3-227	last	Last sentence of last paragraph states, "These repeated loads will cause low-cycle fatigue of the PC rails."	It would be more appropriate to say "... could cause. . . ."
3-229	3.11.3.1.3	Annual Amendment eliminated disconnect cabinets. See Reference (17). Page 3-229 change to, "Bus and switch gear cabinets . . ."	Incorporate Annual Amendment information as appropriate. Page 3-246, remove "disconnect cabinets."
3-246	3.11.3.2.3.2 3.11.3.2.3.3	Annual Amendment eliminated ARDI to manage aging in favor of repetitive tasks. See Reference (5).	Incorporate Annual Amendment information as appropriate.
3-231	3.11.3.1.3	Clarity - There appears to be a disconnect between the opening sentence, which lists the ARDMs, and the second sentence, which refers to "these aging management programs."	Clarify the paragraph.
3-232	last	In the last sentence, the reference to PEG-7 should be changed to MN-1-319. Also, in this sentence, credit should be given to the NO 1-200 and NO-1-107 walkdown programs and ARDI.	Revise as noted.
3-233	2 nd	PEG-7 has been superseded by MN-1-319.	In the 1 st sentence of the 3 rd paragraph on this page, the parenthetical reference to PEG-7 should be removed.
3-233	3 rd	General corrosion is the only corrosion ARDM plausible for component supports.	In the first sentence delete "(revice corrosion, galvanic corrosion, general corrosion, MIC, and pitting)."
3-233	1 st		

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Page	Paragraph	Comment	Recommended Revision
3-233	1st	Elastomer vibration isolators are constructed from carbon steel and elastomers, not just elastomers.	Revise the end of the first sentence to read, "... except for elastomer vibration isolators, which are constructed of carbon steel and natural or synthetic rubber, and ring foundations, which are constructed from reinforced concrete."
3-235	1st	The last 3 sentences do not reflect the change that the ARDM of vibration on piping frames and stanchions is now considered plausible. See References (6) and (15).	Revise as necessary.
3-235	3rd	In the 1st sentence, the misstatement is made that the ARDI Program is used for baseline walkdowns. It should be replaced with Seismic Verification Program (SVP). Reference LRA page 3.1-37.	Replace "ARDI" with "SVP."
3-235	3rd	The listing of programs includes a parenthetical listing of PEG-7. This should be changed to MN-1-319 (without parentheses), and NO-1-200 and NO-1-107 should be added.	Revise as noted.
3-235	3rd	In the second sentence, there is a listing for "... the 'Preventive Maintenance Checklists' program. ..." The PM items credited for Component Supports apply only to the containment air cooler fans. Hydraulic vibration and water hammer are not plausible ARDMs for these components; therefore, this listing should be removed.	Delete the listing.
3-235	1st	Loading due to hydraulic vibration or water hammer is plausible for snubber supports.	In the second sentence, after "rod hangers" insert "snubber supports."
3-236	2nd	In the 3rd sentence, the "PEG-7" reference should be changed to "MN-1-319." Additionally, for consistency, "(NO-1-200)" should be added immediately following "the control of shift program" and "(NO-1-107)" should be added immediately following "the ownership of plant operating spaces program."	Revise as noted.
3-236	2nd	In the fourth sentence, the reference to "hydraulic vibration or water hammer" should be changed to "elastomer hardening."	Revise as noted.
3-236	2nd	In item (3) of the same paragraph, change the reference from "PEG-7" to "MN-1-319."	Revise as noted.
3-237	1st	In the 3rd sentence, the "PEG-7" reference should be changed to "MN-1-319." Additionally, for consistency, "(NO-1-200)" should be added immediately following "the control of shift program" and "(NO-1-107)" should be added immediately following "the ownership of plant operating spaces program."	Revise as noted.
3-238	2nd	In the 3rd sentence, the "PEG-7" reference should be changed to "MN-1-319." Additionally, for consistency, "(NO-1-200)" should be added immediately following "the control of shift program" and "(NO-1-107)" should be added immediately following "the ownership of plant operating spaces program."	Revise as noted.
3-238	3rd	SVP inspections and Section XI inspections were utilized for the baseline activities.	In sub-sentence (2), after "Section XI" insert "and SVP."

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Page	Paragraph	Comment	Recommended Revision
3-240	3.11.3.2.2	ARDM is described as "general corrosion/distortion" but should be "general corrosion/oxidation."	Revise as noted.
3-241	carryover	First paragraph twice (fourth and last sentences); refers to general corrosion/oxidation as being "potential" for carbon, improved plow, and alloy steels when it should say "plausible."	Correct as noted.
3-241	carryover	The design temperature range is not clearly described.	In line 6 add "maximum design" before "ambient air temperature." Also in Line 6, change air temperature range to "of 90°F to 160°F."
3-242	3.11.3.2.2.3	This section of the SER addresses fatigue, mechanical degradation/distortion, and wear as aging effects that should be managed for the FHE and other HLHC. The CCNPP LRA identifies fatigue, mechanical degradation/distortion, and wear as plausible for the wire ropes of FHE and other HLHC, which is addressed in Section 3.11.3.2.2.4 of the SER (starting on page 3-244). The CCNPP LRA also identifies fatigue as a plausible ARDM for the polar crane rails. Section 3.11.3.2.2.3 only applies to fatigue of the polar crane rails.	Section 3.11.3.2.2.3 of the SER should be modified to delete references to mechanical degradation/distortion and wear. The last five sentences of the first paragraph under Section 3.11.3.2.2.3 starting with, "These degradation mechanisms . . ." referring to components such as drums and sheaves (addressed by NRC RAI No. 3.2.8) should be moved to Section 3.11.3.2.2.4. Also, the last paragraph on page 3-242 and the first paragraph of page 3-243 (addressed by NRC RAI No. 3.2.9) should be moved to Section 3.11.3.2.2.4.
3-242	3.11.3.2.2.3	This section of the SER refers to a new inspection program to manage the effects of fatigue, mechanical degradation/distortion, and wear of FHE and other HLHC components. However, the CCNPP LRA does not credit any new programs for FHE and other HLHC.	Remove the reference to a new inspection program.
3-243	carryover	Maximum load cycles for Service Level "A" crane is listed as 200,000. The correct number is 100,000 as indicated in the following paragraph on 3-243.	Revise as noted.
3-244	last	Clarify fourth paragraph to conform to LRA.	In the third sentence of the fourth paragraph, replace "every 90 days" with "prior to refueling campaigns." Insert a new sentence after the existing third sentence stating, "The wire ropes for the SFHM and the elevators are also inspected every 90 days." Also delete "loss of" before "load-carrying capability" in the existing fourth sentence.
3-245	5th	NRC has accepted EPM58500 to manage fatigue of all Electrical Commodities. This is an incorrect expansion of the applicability of this checklist.	Change SER to read, "The repetitive task credited for managing fatigue of a panel will be associated with an appropriate checklist."
3-245	5th	The NRC has referenced the 48-week periodicity of this EPM58500 checklist. This is unnecessarily restrictive to BGE.	Eliminate explicit periodicity throughout the SER.
3-247	4th	NRC implies that general corrosion applies to all local control panels. General corrosion is plausible for the boric acid pump and SW air compressors' local control panels only.	Modify SER to clearly reflect applicability of general corrosion.
3-248	1st	SER credits ARDI for managing general corrosion of panels. Annual Amendment eliminated ARDI in favor of repetitive task maintenance.	Incorporate References (5) and (17).

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Page	Paragraph	Comment	Recommended Revision
3-248	3.12	RAI responses on cables in this section have not yet been incorporated. Receipt of the responses is acknowledged in 2.2.3.32.2. The ARDI is still needed as providing aging management for cables in Groups 1, 2, 3, and 6. However, completion of the ARDI as noted in our RAI response (Reference 19, pages 5 and 6), resulted in finding that Group 1 cables are not subject to plausible aging. Additionally, treeing is still listed as plausible for Group 6 cables even though the RAI response identified this potential aging mechanism as not plausible.	Incorporate RAI responses in this section of the SER.
3-249 3-254	3.12	SER does not address plausible aging of motor control center internal wiring per LRA Chapter 6.2 on page 6.2-4. See also Reference (15), page 5.	Reflect BGE commitment to replace wiring in 480 VAC motor control centers unless a different AMP is developed.
3-257	1 st bullet	The 1 st bullet in this list should be removed. It is covered by the 4 th bullet. There are no components subject to AMR that have the plausible ARDM of crevice corrosion without also having pitting.	Remove the bulleted information.
3-257	2 nd bullet	MN-1-319 has replaced PEG-7.	PEG-7 should be changed to MN-1-319 and "MN-3100" should be corrected to "MN-3-100."
3-257	4 th bullet	In the 4 th bullet, the programs should be the Chemistry Control Program and ARDI. The maintenance program is not credited in the LRA.	Revise as noted.
3-257	3.13.2.4	Section 6.3.3 of the LRA does not evaluate the 8 EQ devices. It discusses the time-limited aging analysis (TLAA) function of the CCNPP 10 CFR 50.49 Program and how it is implemented. All of the devices/components listed in Table 6.3-1 have TLAAAs in the form of EQ Files not just the 8 that have been evaluated as being subject to AMR.	Clarify as appropriate.
3-258 3-259	3.13.3.2.1 3.13.3.2.4	These two sections could be combined because, like Thermal and Radiation Damage that are combined in 3.13.3.2.5, they never appear separately in Section 6.3 of the LRA. Also, neither of these two sections address the ARDI Program credited for managing the effects of crevice corrosion and pitting for the solenoid valves included in EQ File SV0029 (Table 6.3-5 of the LRA). Previous comment relating to the maintenance activities (p. 3-257) also applies.	Revise as appropriate.
4-2	4 th bullet	Accuracy - The last line refers to 2.2.3.8.2.2 as discussing the neutron-absorbers on the spent fuel racks, but that is not the correct citation. Reference to "open issue identified in 4.1.3-1" is unclear.	Section 3.10.3.2.11 appears to be correct.
4-3	2 nd	Annual update information on Containment Liner Fatigue TLAA needs to be incorporated into the SER. See Reference (5), page 5, and the response to Confirmatory item 4.1.3-1.	Clarify as appropriate.
4-4	1 st		Incorporate the annual update information.

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Page	Paragraph	Comment	Recommended Revision
4-6, 4-7	4.2.2	In the bulleted listing of the steps used to adjust the qualified lives of equipment up or down, one of the steps included in Section 6.3.3 of the LRA has been omitted. The fourth step, the review of available specimen test data for impact on and validation of margin/uncertainty, was omitted.	Add the missing step.

References

1. Letter from Mr. C. H. Cruse (BGE) to NRC Document Control Desk, dated April 9, 1998, "Application for License Renewal"
2. Letter from Mr. C. H. Cruse (BGE) to NRC Document Control Desk, dated November 19, 1999, "Response to Request for Additional Information for the Review of the Calvert Cliffs Nuclear Power Plant, Units 1 & 2, Integrated Plant Assessment (IPA) Reports for Component Supports and Piping Segments that Provide Structural Support, and Errata"
3. Letter from Mr. C. H. Cruse (BGE) to NRC Document Control Desk, dated February 4, 1999, "Changes to the Application for License Renewal"
4. Letter from Mr. C. I. Grimes (BGE) to Mr. D. J. Walters (NEI), dated April 27, 1999, "License Renewal Issue No. 98-0016, Aging Management Review of Fuses"
5. Letter from Mr. C. H. Cruse (BGE) to NRC Document Control Desk, dated April 2, 1999, "First Annual Amendment to Application for License Renewal"
6. Letter from Mr. C. H. Cruse (BGE) to NRC Document Control Desk, dated July 2, 1999, "Response to License Renewal Safety Evaluation Report"
7. Letter from Mr. C. H. Cruse (BGE) to NRC Document Control Desk, dated December 10, 1998, "Response to Clarification Regarding NRC Question 4.1.17; Integrated Plant Assessment; License Renewal Application"
8. Letter from Mr. D. L. Solorio (NRC) to Mr. C. H. Cruse (BGE), dated September 2, 1998, "Request for Additional Information for the Review of the Calvert Cliffs Nuclear Power Plant, Units 1 & 2, Integrated Plant Assessment Report for the Fire Protection System"
9. Letter from Mr. D. L. Solorio (NRC) to Mr. C. H. Cruse (BGE), dated September 4, 1998, "Request for Additional Information for the Review of the Calvert Cliffs Nuclear Power Plant, Units 1 & 2, Integrated Plant Assessment Report for the Fire Protection System"
10. Letter from Mr. D. L. Solorio (NRC) to Mr. C. H. Cruse (BGE), dated November 16, 1998, "Clarification of Several NRC Requests for Information on Calvert Cliffs Nuclear Power Plant License Renewal Application Submitted by the Baltimore Gas and Electric Company"
11. Letter from Mr. C. H. Cruse (BGE) to NRC Document Control Desk, dated November 12, 1998, "Response to Request for Additional Information for the Review of Calvert Cliffs Nuclear Power Plant, Units 1 & 2, Integrated Plant Assessment Report for the Fire Protection System, and Errata"

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12. Letter from Mr. C. H. Cruse (BGE) to NRC Document Control Desk, dated November 2, 1998, "Responses to Requests for Additional Information for the Review of the Calvert Cliffs Nuclear Power Plant, Units 1 & 2, Integrated Plant Assessment Report for the Component Cooling System"
13. Letter from Mr. C. H. Cruse (BGE) to NRC Document Control Desk, dated November 12, 1998, "Response to Request for Additional Information for the Review of Calvert Cliffs Nuclear Power Plant, Units 1 & 2, Integrated Plant Assessment Report for the Saltwater System, and Errata"
14. Letter from Mr. C. H. Cruse (BGE) to NRC Document Control Desk, dated November 12, 1998, "Responses to Requests for Additional Information for the Review of the Calvert Cliffs Nuclear Power Plant, Units 1 & 2, integrated Plant Assessment Report for the Auxiliary Feedwater System, and Errata"
15. Letter from Mr. W. D. Lanning (NRC) to Mr. C. H. Cruse (BGE), dated May 21, 1999, "NRC Inspection Report Nos. 50-317/99-04 and 50-318/99-04"
16. Letter from Mr. C. H. Cruse (BGE) to NRC Document Control Desk, dated November 19, 1998, "Responses to Requests for Additional Information, and Errata, for the Review of the Calvert Cliffs Nuclear Power Plant, Units 1 & 2, Integrated Plant Assessment Report for the Structures and Electrical Commodities, and Errata"
17. Letter from Mr. C. H. Cruse (BGE) to NRC Document Control Desk, dated March 11, 1999, "Revision 1 for License Renewal Application Section 6.2, Electrical Commodities"
18. Letter from Mr. C. H. Cruse (BGE) to NRC Document Control Desk, dated December 10, 1998, "Response to Clarification Regarding NRC Question Nos. 4.2.8 and 5.10.6; Integrated Plant Assessment Reports, License Renewal Application"
19. Letter from Mr. C. H. Cruse (BGE) to NRC Document Control Desk, dated September 17, 1998, "Response to Request for Additional Information for the Review of the Calvert Cliffs Nuclear Power Plant, Units 1 & 2, Commodity Report for Cables"