



Calvert Cliffs License Renewal Application Status Report to the US Nuclear Regulatory Commission

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October 28, 1999



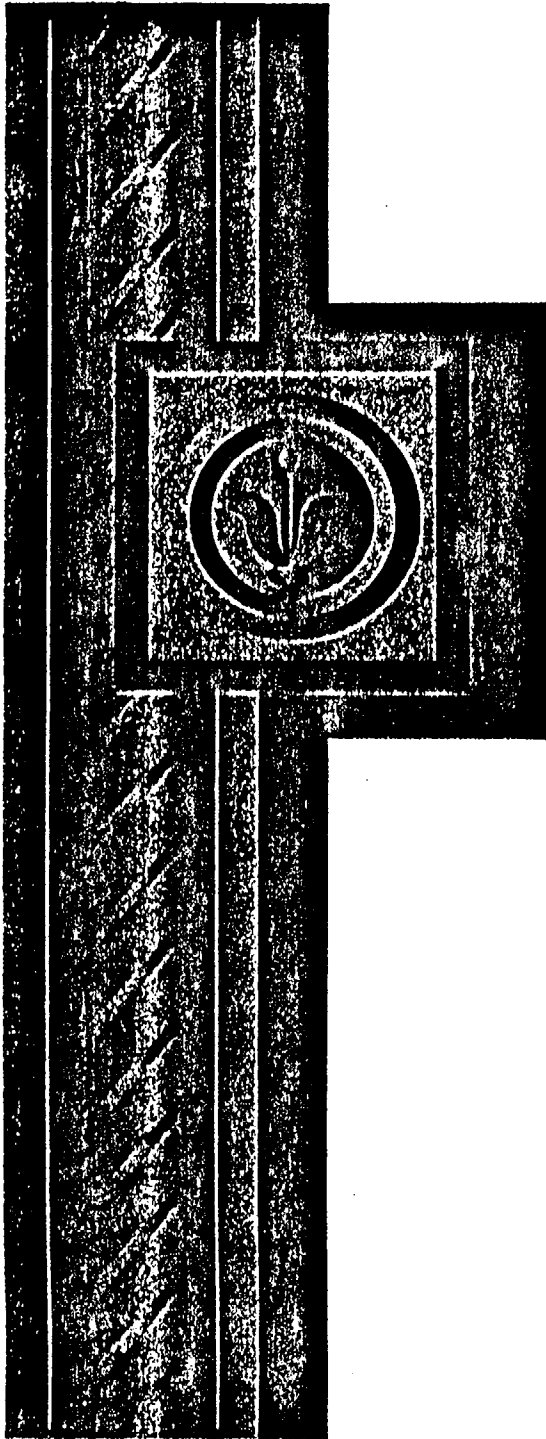
Objectives of Meeting

- Brief NRC line management on progress of license renewal application review
- Determine if any issues need elevating to NRC Steering Committee by BGE or NRC
- Establish performance indicators for next review meeting



Proposed Performance Indicators for October 1999

- Success path identified for all remaining items ✓
- Resolution reached on Option 3 list purpose and format (format OK, purpose tbd)



**October 1999
Calvert Cliffs
LRA Report Card**

October 28, 1999

October 1999 Report Card

● Schedule Adherence

- On track

● Quality of Work

- Good

● Communications

- Good

● Accomplishments

- NRC and BGE reached agreement on success path for all items
- NRC issues SEIS for interagency review
- BGE submittal forwarded remaining clarifications/responses
- October 12 meeting on outstanding OIs/CIs
- License format drafted

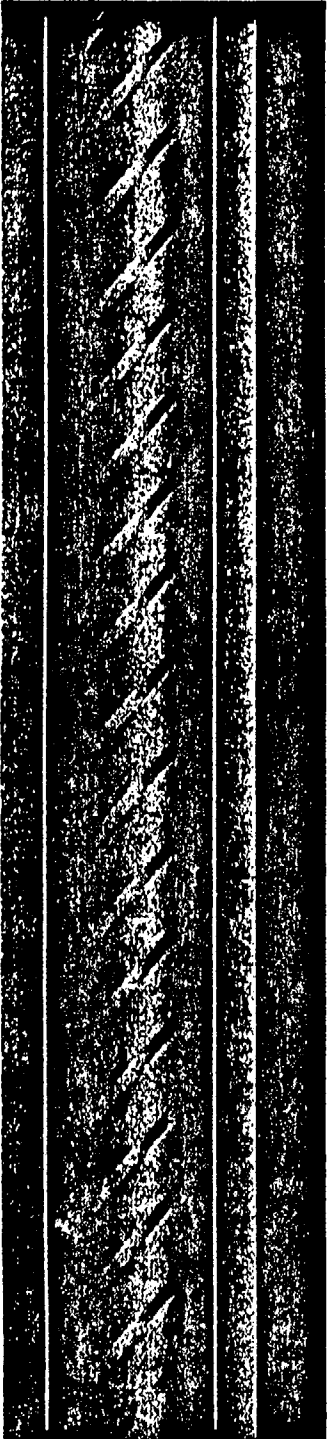
● Concerns

- Purpose of the Option 3 list
- BGE reviewing license format



Proposed Performance Indicators for December 1999

- List submitted to NRC
- SER and SEIS issued on schedule
- Agreement reached on format of licenses
- ACRS Subcommittee briefed on OI/CI closeout



NRC Schedule for BGE Calvert Cliffs License Renewal Application

NRC Overall Schedule 1998

- 4/10/98 - Application Submitted - **completed**
- 5/10/98 - Acceptance and Docketing Completed - **completed**
- 7/8/98 - Notice of Opportunity for Hearing Filed by NRC - **completed**
- 7/7-7/10 - NRC Environmental Site/Public Visit - **completed**
- 7/9/98 - Public Meetings for Environmental Impact Statement Scoping - **completed**
- 8/7/98 - Filing of Intervener Petitions Ends - **completed**
- 9/7/98 - NRC Completes Technical Requests for Additional Information (RAI) - **completed**
- 9/28/98 - Management Progress Review - **completed**
- 10/1/98 - Deadline for Whistleblower Center Filing - **completed**
- 10/7/98 - NRC Completes Environmental RAIs - **completed**

NRC Overall Schedule 1998/1999

- 10/16/98- Whistleblower Center Petition Dismissed - completed**
- 10/22/98- BGE EQ Presentation to NRC Staff - completed**
- 10/29/98- Management Program Review; NRC Steering Committee Meeting - completed**
- 11/21/98- BGE Completes Technical Responses - completed**
- 12/6/98 - BGE Completes Environmental Responses - completed**
- 12/16/98- Management Progress Review - completed**
- 1/14/99 - Management Progress Review - completed**
- 2/26/99 - Management Progress Review - completed**
- 3/6/99 - NRC Issues Draft Supplemental Environmental Impact Statement (SEIS) for Comment - completed**

NRC Overall Schedule 1999

- 3/21/99 - NRC Completes Initial Safety Evaluation Report (SER) and Open Items - **completed**
- 4/6/99 - Public Meeting for Draft SEIS Comments - **completed**
- 5/5/99 - ACRS Meeting - **completed**
- 5/20/99 - NRC Comment Period on Draft SEIS Closes - **completed**
- 7/19/99 - BGE Completes Response to SER - **completed**
- 10/12/99 - Applicant and NRC Meeting to Resolve Outstanding OI/CI - **completed**
- 10/12/99 - Applicant and NRC Meeting to Resolve Outstanding FSAR OI - **completed**
- 10/20/99 - NRC Develop Renewed License Format - **completed**
- 11/1/99 - Forward closure of OI/CI to ACRS

NRC Overall Schedule 1999-2000

- 11/16/99 - Staff Issue SER & SEIS
- 11/17/99 - Meeting with Applicant on Form of New License
- 11/18/99 - ACRS subcommittee SER OI/CI Review
- 12/3/99 - Conduct 3rd License Renewal Inspection
- 12/4/99 - ACRS Full Committee SER OI/CI Review
- 12/10/99 - ACRS Letter
- 12/20/99 - Issue SER as NUREG-1705
- 12/31/99 - Regional Administrator Letter
- 1/14/00 - Commission Paper with Staff Recommendation
- 3/15/00 - Commission Meeting (if requested)
- 3/27/00 - Commission Decision
- 4/3/00 - Renewed License Issued

Status Report on Baltimore Gas and Electric Company License Renewal Application Review

October 28, 1999

**David Matthews, Director, Division of Regulatory
Improvement Programs**

**Chris Grimes, Branch Chief, License Renewal &
Standardization Branch**

Summary of LRA Review Activities

Status of activities regarding:

- Review Schedule
- Safety
- Inspection
- Environmental
- Petitioner

Summary of LRA Review Activities

Schedule

Calvert Cliffs Milestones	Target
Applicant & NRC Meeting to Resolve Outstanding OI/CI	10/12/99
Applicant & NRC Meeting to Resolve Outstanding FSAR OI	10/12/99
NRC Develop Renewed License Format	10/20/99
Forward closure of OI/CI to ACRS	11/1/99
ACRS subcommittee SER OI/CI Review	11/15/99
Staff Issue SER & FSEIS	11/16/99
Meeting with Applicant on Form of New License	11/17/99
Conduct 3rd License Renewal Inspection	12/3/99
ACRS Full Committee SER OI/CI Review	12/4/99
ACRS Letter	12/10/99
Issue SER as NUREG-1705	12/20/99
Regional Administrator Letter	12/31/99
Commission Paper with Staff Recommendation	1/14/00
Commission Meeting (if requested)	3/15/00
Commission Decision	3/27/00
Renewed License Issued	4/3/00

Summary of LRA Review Activities

Safety Review

- Communications to resolve OIs/CIs were effective
- Management meeting to discuss remaining OIs/CIs - October 12, 1999
- Received all supplemental information on October 22, 1999
- NRC letter on license condition for FSAR OI, October 25, 1999

Summary of LRA Review Activities - continued

- Resolution of open and confirmatory items
 - Staff has interacted with BGE to gain clarification regarding OI and CI responses, changes to LRA, comments on SER
 - CIs: CASS, CEDM
 - OIs: small bore piping, Rx vessel flange leak off line, SCC in RCS, pressurize clad cracking, FSAR
 - Void swelling

Summary of LRA Review Activities - continued

Inspection Activities

- Additional inspection may be performed
- Placeholder for one week inspection starting
November 29, 1999

Summary of LRA Review Activities - continued

Environmental Review

- **Final SEIS issued to EPA on October 5, 1999**
- **Environmental review considered complete unless concerns are raised by a Federal Agency by November 15, 1999**

Summary of LRA Review Activities - continued

Petitioner Status

- Arguments for case given in US Court of Appeals for D.C. Circuit on October 6, 1999
- Waiting for court's ruling



Oconee License Renewal Project



Duke/NRC Management Meeting

October 28, 1999



Agenda

- Specific Commission Package Topics
- Review Highlights
- Expectations
- Meeting Plans

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Commission Package

- As described to Duke the following are part of the Commission Package of information.
 - ◆ Facility Operating License
 - ◆ Technical Specification Changes (none identified)
 - ◆ Final Safety Evaluation Report ✓
 - ◆ UFSAR Supplement
 - ◆ Region II Recommendation Letter ✓
 - ◆ Final Supplemental Environmental Impact Statement
 - ◆ ACRS Recommendation Letter
 - ◆ Amendment to the Indemnity Agreement

✓ indicates discussion item later in this presentation

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Looking Backward Looking Forward

- License renewal's use of the original SER, FSAR and licensing correspondence shows the importance of links among the written record
- For the renewal package, clear links among the SER, the UFSAR Supplement and any license conditions will be an important legacy
- Duke made this observation in a general comment on the SER
- A good goal for the commission package is to assure clear links among the appropriate documents

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■ Final Safety Evaluation Report

- ◆ Application annual update submitted September 30, 1999
- ◆ Written responses to all Open Items and Confirmatory Items along with overall comments on the SER were submitted October 15, 1999
- ◆ Good communications continue as Duke and NRC staff have already begun to clarify several follow-up topics from these submittals

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■ Region II Recommendation Letter

- ◆ Region II Inspection Report 99-12 was issued on September 21, 1999
- ◆ A specific inspection report item concerning cable aging management prompted ONRR to issue a new SER Open Item 3.9.3-1 on 10/5/99
- ◆ Duke plans to respond by 11/5/99
- ◆ A master list of inspection close-out topics is under development by Region II

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Areas Successfully Completed

■ **Reactor Vessel Internals**

- ◆ Successful meeting with NRC on September 29, 1999
- ◆ Applicant actions agreed to by Duke and provided in 10/15/99 submittal
- ◆ Expect SER on BAW-2248 by end of October

■ **McGuire/Catawba Exemption Request**

- ◆ Approved October 1, 1999

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Priority Areas of Focus

■ **Mechanical Scoping Issue**

- ◆ NRC letter issued October 8, 1999
- ◆ Plan for resolution is topic of discussion at meeting on October 28, 1999

■ **Cable Aging Management Program**

- ◆ New SER Open Item 3.9.3-1
- ◆ Duke currently developing a new location-focused cable aging management program

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Expectations

- Expectations to be accomplished by next NRC/Duke Management Meeting
 - ◆ Closure of Mechanical Scoping Issue (Duke and NRC Staff)
 - ◆ Resolve Cable Aging Management Program issue (Duke and NRC Staff)
 - ◆ Provide updated milestone schedule for "End Game" planning (NRC staff)

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Meeting Plans

- Schedule for next NRC/Duke management meetings:
 - ◆ October 28, 1999
 - ◆ November / December date not set - suggest December 7, 1999

Dec 6 - SLP workshop

Dec 9 - Mgt. mtg.

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Oconee License Renewal Application Status Report to Duke Energy October 28, 1999

**David Matthews, Director, Division of Regulatory
Improvement Programs**

**Chris Grimes, Branch Chief, License Renewal and
Standardization Branch**

Oconee Renewal Status

■ Schedule Adherence

- Duke completed responses to safety evaluation report (SER) open items by schedule date of 10/15/99
 - Final SEIS and SER to be issued by 2/12/2000
 - Establish “end game” schedule when resolution of open and confirmatory items is in sight
-

Accomplishments

- Communications continue to be good
 - Duke provided license renewal application (LRA) update on 9/30/99
 - Duke responded to all SER open items (OIs) and confirmatory items (CIs)
 - Staff tracking 43 original SER OIs, and 6 SER CIs
 - Staff also tracking 1 SER OI that was added due to Region II inspection report and 12 comments from Duke on the SER
 - Two letters issued on 10/5 and 10/8 dealing with insulated cables and scoping, respectively
-

Concerns

- 10 CFR Part 54 Scoping Issue
 - Scoping plan provided 10/8/99, meeting scheduled for the afternoon of 10/28/99
- Schedule for the following items needs to be developed
 - Scoping
 - Insulated Cables
 - Reactor Vessel Flange Monitoring Pipes
 - Secondary Shield Wall Tendons
- Review of additional SSCs that were added to the scope of license renewal due to response to SER OIs or because of LRA update
- FSAR supplement open item

Near Term Schedule

- Staff to identify by mid-November any outstanding issues from the following:
 - SER OIs, CIs, and Duke SER comments
 - Additional SSCs that were added due to SER OI responses or LRA update
 - May need a meeting in December to resolve any outstanding issues
-

Status of Oconee SER OIs, CIs, and Technical Comments as of October 28, 1999

Open Item Number	Description	Current Status
2.1.3.1-1	Scoping issue	Open Action N/D
2.2.3-1	Recirculated cooling water system should be within scope	Open Action N/D
2.2.3.4.3.2.1-1	Chilled water system should be within scope	Open - Action N
2.2.3.4.3.2.1-2	Sealant materials for the control room pressurization and filtration system (consumables)	Open - Action N
2.2.3.4.8.2.1-1	Portions of the SSF Diesel fuel oil system, starting air system, and jacket water heat exchangers (complex assembly)	Open - Action N
2.2.3.6.1.2.1-1	Structural sealants - water stops, caulking, expansion joints (consumables)	Open - Action N
2.2.3.6.4.2.1-1	Turbine building and Keowee building roofs (consumables)	Confirm - Action N
2.2.3.7-1	Fire detection cables	Open - Action N
2.2.3.7-2	Active equipment in storage	Confirm - Action N
3.0-1	Content of FSAR Supplement	Open - Action N
3.1.1-1	Aging effect inconsistencies in the license renewal application	Open - Action N
3.1.3.1.7.4-1	Buried piping	Open - Action N
3.2.3.3-1	Appendix B commitment	Open - Action N
3.2.12-1	SSF HVAC coolers (complex assembly)	Open - Action N
3.2.12-2	SSF heat exchangers	Confirm - Action N
3.2.13-1	Service water piping corrosion program loss of material	Open - Action N
3.2.13-2	Carbon steel inspection "indicator" of the condition of non-carbon steel components	Open - Action N
3.2.13-3	Service water piping corrosion program relationship to Keowee	Open - Action N
3.2.13-4	UT inspections capability to detect localized degradation	Open - Action N
3.3.3.1-1	Tendon anchorages	Resolved 10/26/99
3.4.3.2-1	Spray head aging effect (CASS item)	Open - Action N
3.4.3.2-2	Void swelling (Reactor Vessel Internals)	Open - Action N
3.4.3.3-1	Pressurizer heater bundle	Open - Action N
3.4.3.3-2	Heater-sleeve-to-heater-bundle diaphragm plate inspection	Confirm - Action N
3.4.3.3-3	Identify limiting Reactor Vessel Internals component items and incorporate into the ISI program	Open - Action N

Status of Oconee SER Ols, Cls, and Technical Comments as of October 28, 1999

Open Item Number	Description	Current Status
3.4.3.3-4	Baffle former bolts inspection (Reactor Vessel Internals)	Open - Action N
3.4.3.3-5	For loss of fracture toughness from synergistic thermal and neutron embrittlement, perform supplemental examinations/evaluations of CASS items (Reactor Vessel Internals)	Open - Action N
3.4.3.3-6	Vent valve bodies and retaining rings (CASS items) (Reactor Vessel Internals)	Open - Action N
3.4.3.3-7	Evaluate CASS components to criteria in EPRI TR-106092 (RCP Casing)	Open - Action N
3.4.3.3-8	Letdown coolers thermal fatigue	Resolved
3.6.1.3.1-1	Aging effects of HVAC sub-component parts of isolators	Open - Action N
3.6.2.3.2-1	RCP oil tank inspection plan	Open - Action N
3.6.3.3.2-1	Keowee oils sampling program	Confirm - Action N
3.8.3.1-1	Spent fuel pool temperature	Confirm - Action N
3.8.3.1-2	Experience database should consider results of Oconee baseline inspection and instances of reported unusual events	Confirm - Action N
3.8.3.1.9-1	Aging effects for cable trays	Confirm - Action N
3.8.3.2.5-1	Secondary shield wall prestressing tendons	Open - Action D
3.9.3-1	Insulated cables and connections (not part of original SER added due to inspection findings)	Open - Action D
4.2.1.3-1	Provide discussion of cumulative effects of all possible cycles in the containment fatigue analysis	Resolved 10/26/99
4.2.2.3-1	Trend lines for containment tendons	Open - Action N
4.2.3-1	Provide information regarding the Section XI flaw evaluations for identified locations	Open - Action N
4.2.3-2	GSI-190	Open - Action N
4.2.5.3-1	Plan to develop data to demonstrate that the Reactor Vessel Internals will meet the deformation limit	Confirm - Action N
4.2.5.3-2	Applicability of flaw growth acceptance in accordance with the ASME B&PV code, Section XI ISI requirements (Reactor Vessel Internals)	Confirm - Action N

Status of Oconee SER Ols, Cls, and Technical Comments as of October 28, 1999

Confirmatory Item Number	Description	Status
2.2.3.6.9-1	Pipe segments that provide structural support	Confirm - Action N
3.5.3.2-1	Reactor Building spray system inspection	Confirm - Action N
3.6.1.3.2-1	Auxiliary service water system operating experience	Confirm - Action N
3.6.3.3.2-1	Basis for Keowee oil sampling program	Confirm - Action N
4.2.1.3-1	Containment pressure tests	Resolved 10/26/99
4.2.3-1	Fatigue Management Program analyses commitments	Confirm - Action N

Comment #	Description	Status
1	Clarify Basis for Program Evaluation Conclusions	Open - Action N
2	Revise Pressurized Thermal Shock Discussion for Oconee Unit 2	Open - Action N
3	Discuss leak-before-break evaluation in SER section 4.2	Open - Action N
4	Clarify admin Controls for Preventive Maintenance	Open - Action N
5	Clarify Discussion of Aux Service Water	Open - Action N
5.1	Raw water portion of the system	Open - Action N
5.2	Air portion of the system	Open - Action N
6	Clarify discussion of CASS	Open - Action N
7	Revise the evaluation of the Chemistry Control Program	Open - Action N
8	Revise the Description of the "Technical Information for Identifying SSCs within scope of License Renewal"	Open - Action N
9	Verify the appropriateness of Specifically referencing documents that are not part of the application	Open - Action N
10	Revise discussion of class E piping supports	Open - Action N

Additional SSCs being added to the Scope of License Renewal for Oconee

LRA update change or SER open item #	Corresponding Change to the SER	Status of questions
LRA 9/30/99 update for plant modification to add the Essential siphon vacuum system, the siphon seal water system, the essential siphon vacuum trenches, and the essential siphon vacuum building	Add Section 2.2.3.4.9 to the SER to capture the systems scoping (similar to what was done for the standby shutdown facility)	requested drawings
	Add Section 2.2.3.6.10 to the SER to capture scoping for the structures that were added	requested drawings
	Add discussion to existing Section 3.6.3 to capture the AMR for the systems	questions sent 10/27
	Evaluate if fatigue needs to be addressed	
	Add Section 3.8.2.2.15 to capture the aging effects for the structures	no questions
	Add Section 3.8.2.3.10 to capture aging management programs for structures	no questions
LRA 9/30/99 update to revise steam generator tube rupture accident analysis (Added portions of the component cooling water system (CCW) to the scope of renewal. Previously only the containment isolation portion of the CCW was considered to be within scope of renewal	Add Section 2.2.3.3.4 to capture scoping	requested drawings
	Add discussion to Section 3.6.3 to capture aging management review	questions sent 10/27
	Evaluate if fatigue needs to be addressed	

Additional SSCs being added to the Scope of License Renewal for Oconee

LRA update change or SER open item #	Corresponding Change to the SER	Status of questions
LRA 9/30/99 update for functional change of the reactor building auxiliary coolers (added portion of the low pressure service water system to the scope of renewal)	Add to scoping discussion in Section 2.2.3.4 on LPSW	
	Add to AMR discussion in Section 3.6.1	questions sent 10/27
	Evaluate if fatigue needs to be addressed	
SER OI 2.2.3.4.3.2.1-1. Response scoped in chilled water system, portions of the condenser circulating water system, and portions of the control room pressurization and filtration system	Add Section 2.2.3.4.10 to capture the chilled water system scoping	requested drawings
	Add Section 3.6.4 to capture aging management review for chilled water system	
	Evaluate if fatigue needs to be addressed	
	Add to existing discussion in Section 2.2.3.4.1 to capture expanded scoping of the condenser circulating water system	
	Add to existing discussion in Section 3.6.1 to capture expanded AMR for the condenser circulating water system	
	Add to existing discussion in Section 2.2.3.4.3 to capture expanded scoping of the control room pressurization and filtration system	
	Add to existing discussion in Section 3.6.1 to capture expanded AMR for the control room pressurization and filtration system	

Additional SSCs being added to the Scope of License Renewal for Oconee

LRA update change or SER open item #	Corresponding Change to the SER	Status of questions
SER OI 2.2.3.4.3.2.1-2. Response provided an aging management program for the control room pressurization and filtration system (Also related to SER OI 3.6.1.3.1-1)	Add to existing discussion in Section 2.2.3.4.3 to capture scoping	no questions
	Add to existing discussion in Section 3.6.1 to capture aging management review (fatigue already addressed by SER OI 3.6.1.3.1-1)	
SER OI 2.2.3.4.8.2.1-1 Response expanded the scope of the systems associated with the standby shutdown facility diesel generator.	Add to existing discussion in Section 2.2.3.4.8 to capture scoping	no questions
	Add to existing discussion in Section 3.6.3 to capture aging management review (fatigue address 3.6.3.3.1 page 3-163 of the Oconee SER)	