Sarah Rich

From: John Richmond, RI
Sent: Friday, January 09, 2009 3:39 PM
To: Doug Tifft
Cc: Richard Conte; Michael Modes
Subject: OC Draft IR for In-Process Review
Attachments: OC 2008-07 LRI_rev-2.doc

J 37

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To: Doug Tifft <Doug.Tifft@nrc.gov>
CC: Richard Conte <Richard.Conte@nrc.gov>, Michael Modes
<Michael.Modes@nrc.gov>
Date: Fri, 9 Jan 2009 15:39:01 -0500
Subject: OC Draft IR for In-Process Review
Thread-Topic: OC Draft IR for In-Process Review
Thread-Index: Aclymk3lsRRtTG6/Th2f8AQm7z9yLA==
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TO BE WITHHELD FOR EXEMPTION 6

Mr. Charles G. Pardee
Chief Nuclear Officer (CNO) and Senior Vice President
Exelon Generation Company, LLC
200 Exelon Way
Kennett Square, PA 19348

SUBJECT: OYSTER CREEK GENERATING STATION - NRC LICENSE RENEWAL FOLLOW-UP INSPECTION REPORT 05000219/2008007

Dear Mr. Pardee

On December 23, 2008, the U. S. Nuclear Regulatory Commission (NRC) completed an inspection at your Oyster Creek Generating Station. The enclosed report documents the inspection results, which were discussed on December 23, 2008, with Mr. T. Rausch, Site Vice President, Mr. M. Gallagher, Vice President License Renewal, and other members of your staff in a telephone conference observed by representatives from the State of New Jersey.

An appeal of a licensing board decision regarding the Oyster Creek application for a renewed license is pending before the Commission. The NRC concluded Oyster Creek should not enter the extended period of operation without directly observing continuing license renewal activities at Oyster Creek. Therefore, the NRC performed an inspection using Inspection Procedure (IP) 71003 "Post-Approval Site Inspection for License Renewal" and observed Oyster Creek license renewal activities during the last refuel outage prior to entering the period of extended operation.

IP 71003 verifies license conditions added as part of a renewed license, license renewal commitments, selected aging management programs, and license renewal commitments revised after the renewed license was granted, are implemented in accordance with Title 10 of the Code of Federal Regulations (CFR) Part 54, "Requirements for the Renewal of Operating Licenses for Nuclear Power Plants." Because the application for a renewed license remains under Commission review for final decision, and a renewed license has not been approved for Oyster Creek, the standards used to judge the adequacy of selected IP 71003 inspection samples do not apply. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel. The enclosed report records the inspector's observations, absent any conclusions of adequacy, pending the final decision of the Commissioners on the appeal of the renewed license.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web-site at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room).

Sincerely,

Richard Conte, Chief
Engineering Branch 1
Division of Reactor Safety

Docket No. 50-219
License No. DPR-16

Enclosure: Inspection Report No. 05000219/2008007

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web-site at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room).

Sincerely,

Richard Conte, Chief
Engineering Branch 1
Division of Reactor Safety

Docket No. 50-219
License No. DPR-16

Enclosure: Inspection Report No. 05000219/2008007

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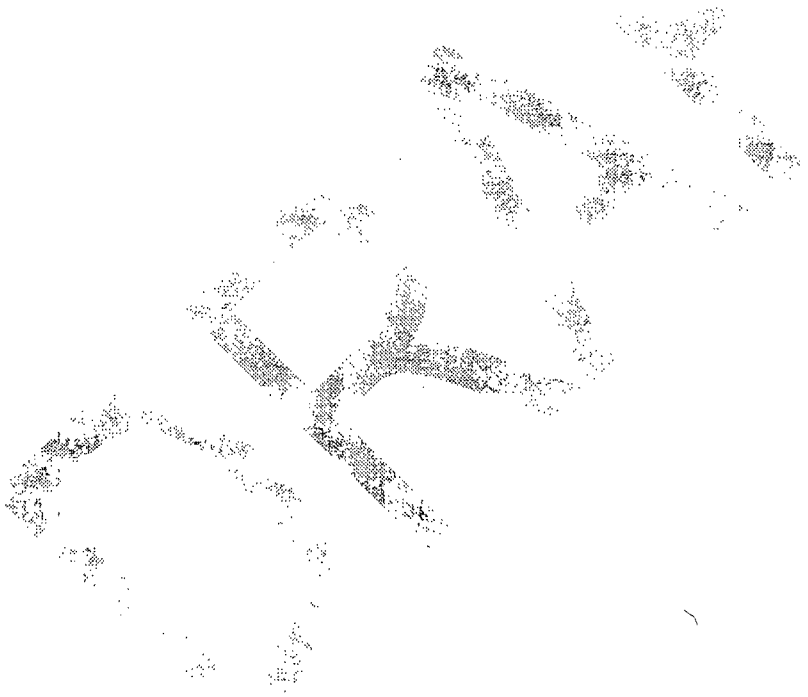

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U. S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.:	50-219
License No.:	DPR-16
Report No.:	05000219/2008007
Licensee:	Exelon, LLC
Facility:	Oyster Creek Generating Station
Location:	Forked River, New Jersey
Dates:	October 27 to November 7, 2008 (on-site inspection) November 13, 15, and 17, 2008 (on-site inspection) November 10 to December 23, 2008 (in-office review)
Inspectors:	J. Richmond, Lead M. Modes, Senior Reactor Engineer G. Meyer, Senior Reactor Engineer T. O'Hara, Reactor Inspector J. Heinly, Reactor Engineer J. Kulp, Resident Inspector, Oyster Creek
Approved by:	Richard Conte, Chief Engineering Branch 1 Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000219/2008007; 10/27/2008 - 12/23/2008; Exelon, LLC, Oyster Creek Generating Station; License Renewal Follow-up

The report covers a multi-week inspection of license renewal follow-up items. It was conducted by five region based engineering inspectors. The inspection was conducted in accordance with Inspection Procedure 71003 "Post-Approval Site Inspection for License Renewal." Because the application for a renewed license remains under Commission review for final decision, and a renewed license has not been approved for Oyster Creek, [(b)(5)] The report documents the (b)(5) inspector observations, absent any conclusions of adequacy, pending the final decision of the Commissioners on the appeal of the renewed license.

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA2 License Renewal Follow-up (IP 71003)

1. Inspection Sample Selection Process

This inspection was conducted in order to observe AmerGen's continuing license renewal activities during the last refueling outage prior to Oyster Creek (OC) entering the extended period of operation. The inspection team selected a number of inspection samples for review, using the NRC accepted guidance based on their importance in the license renewal application process, as an opportunity to make observations on license renewal activities. Because the application for a renewed license remains under Commission review for final decision, and a renewed license has not been approved for Oyster Creek, [(b)(5)] [(b)(5)]

Accordingly, the inspectors recorded observations, without any assessment of implementation adequacy or safety significance. Inspection observations were considered, in light of pending 10 CFR 54 license renewal commitments and license conditions, as documented in NUREG-1875, "Safety Evaluation Report (SER) Related to the License Renewal of Oyster Creek Generating Station," as well as programmatic performance under on-going implementation of 10 CFR 50 current licensing basis (CLB) requirements.

The reviewed SER proposed commitments and license conditions were selected based on several attributes including: the risk significance using insights gained from sources such as the NRC's "Significance Determination Process Risk Informed Inspection Notebooks," revision 2; the extent and results of previous license renewal audits and inspections of aging management programs; the extent or complexity of a commitment; and the extent that baseline inspection programs will inspect a system, structure, or component (SSC), or commodity group.

For each commitment and on a sampling basis, the inspectors reviewed supporting documents including completed surveillances, conducted interviews, performed visual inspection of structures and components including those not accessible during power operation, and observed selected activities described below. The inspectors also reviewed selected corrective actions taken as a consequence of previous license renewal inspections.

2. NRC Unresolved Item

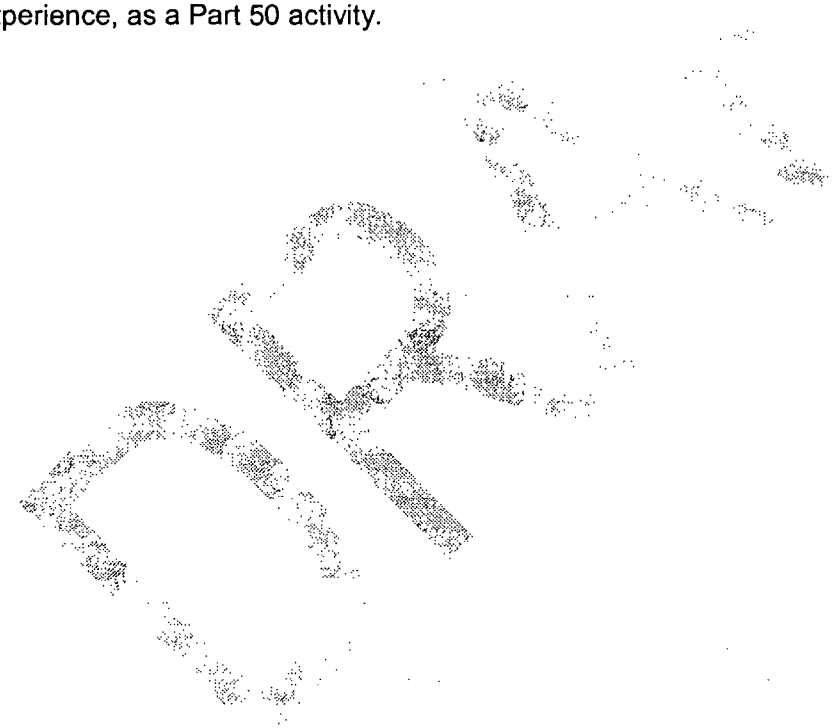
10 CFR 50 existing requirements (e.g., current licensing basis (CLB)

xxx USE words from PN
- The conclusions of PNO-1-08-012 remain unchanged

- An Unresolved Item (URI) will be opened to evaluate whether existing current licensing basis commitments were adequately performed and, if necessary, assess the safety significance for any related performance deficiency.

- The issues for follow-up include the strippable coating de-lamination, reactor cavity trough drain monitoring, and sand bed drain monitoring.

- The commitment tracking, implementation, and work control processes will be reviewed, based on corrective actions resulting from AmerGen's review of deficiencies and operating experience, as a Part 50 activity.



3. Detailed Reviews

3.1 Drywell Floor Trench Inspections

a. Scope of Inspection

Proposed SER Appendix-A Item 27, ASME Section XI, Subsection IWE Enhancements (5, 16, & 20), stated:

> Perform visual test (VT) and ultrasonic test (UT) examinations of the drywell shell inside the drywell floor inspection trenches in bay 5 and bay 17 during the 2008 refueling outage, at the same locations that were examined in 2006. In addition, monitor the trenches for the presence of water during refueling outages.

The inspectors independently performed direct field observations of the conditions in the trenches on multiple occasions during the outage and reviewed selected VT and UT examination records. The inspectors compared UT data results to licensee established acceptance criteria in Specification IS-318227-004, revision 14, Functional Requirements for Drywell Containment Vessel Thickness Examinations."

The inspectors reviewed Technical Evaluation 330592.27.43, "Evaluation of 2008 UT Data of the Sand Bed Trenches," dated 11/8/08. The Evaluation determined that the UT thickness values satisfied minimum wall thickness values for general uniform thickness (e.g., average thickness of an area) and for locally thinned areas (e.g., areas 2 inches or less in diameter), as applicable. For UT data sets, such as 7x7 arrays (i.e., 49 UT readings in a 6 inch by 6 inch grid), the Evaluation calculated mean values, standard deviation, standard error, skewness, and kurtosis and determined that the data sets had a normal distribution. The Evaluation also compared the data set values to the corresponding 2006 values and concluded there were no significant differences and no observable on-going corrosion. The inspectors independently compared the UT data to the corresponding 2006 data values and to minimum thickness values established by design analysis and calculations.

The inspectors reviewed Exelon UT examination procedures, interviewed nondestructive examination (NDE) technicians, reviewed NDE technician qualifications and certifications, and reviewed records of trench inspections performed during two forced plant outages during the last operating cycle.

b. Observations

- Remove & reinstall lower 6" of grout at bottom of Bay 5 trench
- Inspect caulk sealant (trench edge where concrete meets shell)
- Verify no water accumulation

3.2 Reactor Cavity Liner Strippable Coating

a. Scope of Inspection

Proposed SER Appendix-A Item 27, ASME Section XI, Subsection IWE Enhancement (2), stated:

> A strippable coating will be applied to the reactor cavity liner to prevent water intrusion into the gap between the drywell shield wall and the drywell shell during periods when the reactor cavity is flooded. Refueling outages prior to and during the period of extended operation.

The inspector reviewed work order R2098682-06, "Coating application to cavity walls and floors."

b. Observations

Strippable Coating De-lamination

- From Oct. 29 to Nov. 6, the strippable coating limited leakage into the cavity trough drain at less than 1 gallon per minute (gpm)
- On Nov. 6, the observed leakage rate in the cavity trough drain took a step change to 4 to 6 gpm
- Water puddles were subsequently identified in 4 sand bed bays
- AmerGen identified several likely or contributing causes:
  - A portable water filtration unit was improperly placed in the reactor cavity, which resulted in flow discharged directly on the strippable coating
  - An oil spill into the cavity may have affected the coating integrity
  - No post installation inspection of the coating had been performed
- AmerGen stated follow-up UTs will re-evaluate the drywell shell next outage

3.3 Reactor Cavity Trough Drain Inspection for Blockage

a. Scope of Inspection

Proposed SER Appendix-A Item 27, ASME Section XI, Subsection IWE Enhancement (13), stated:

> The reactor cavity concrete trough drain will be verified to be clear from blockage once per refueling cycle. Any identified issues will be addressed via the corrective action process. Once per refueling cycle.

The inspector reviewed a video recording record of a boroscope inspection of the cavity trough drain line.

b. Observations

See observations in section 2.4 below.

3.4 Reactor Cavity Trough Drain Monitoring

a. Scope of Inspection

Proposed SER Appendix-A Item 27, ASME Section XI, Subsection IWE Enhancement (3), stated:

> The reactor cavity seal leakage trough drains and the drywell sand bed region drains will be monitored for leakage. Periodically.

The inspectors xxx

In addition, the inspectors reviewed AmerGen's cavity trough drain flow monitoring plan and pre-approved Action Plan. AmerGen had established an administrative limit of 12 gpm on the cavity trough drain flow, based on a calculation which indicated that cavity trough drain flow of less than 60 gpm would not result in trough overflow into the gap between the drywell concrete shield wall and the drywell steel shell. The plan had pre-established actions at various cavity drain flow rates, as follows:

- If the cavity trough drain flow exceeds 5 gpm, then increase monitoring of the cavity drain flow to every 8 hours.
- If the cavity trough drain flow exceeds 12 gpm, then increase monitoring of the sand bed poly bottles to every 4 hours.
- If the cavity trough drain flow exceeds 12 gpm and any water is found in a sand bed poly bottle, then enter and inspect the sand bed bays.

b. Observations

On Oct. 27, the cavity drain line was isolated to install a tygon hose to allow drain flow to be monitored. On Oct. 28, the reactor cavity was filled. Drain line flow was monitored frequently during cavity flood-up, and daily thereafter. On Oct. 29, a boroscope examination of the drain line identified that the isolation valve had been left closed. When the drain line isolation valve was opened, about 3 gallons of water drained out, then the drain flow subsided to about an 1/8 inch stream (less than 1 gpm).

On Nov. 6, the reactor cavity liner strippable coating started to de-laminate. The cavity trough drain flow took a step change from less than 1 gpm to approximately 4 to 6 gpm. AmerGen increased monitoring of the trough drain to every 2 hours and sand bed poly bottles to every 4 hours. On Nov. 8, NDE technicians inside sand bed bay 11 identified dripping water. Subsequently, water puddles were identified in 4 sand bed bays. After cavity was drained, all sand bed bays were inspected; no deficiencies identified. The sand bed bays were originally scheduled to have been closed by Nov. 2. In addition, on Nov. 15, after cavity was drained, water was found in the sand bed bay 11 poly bottle.

3.5 Drywell Sand Bed Region Drains Monitoring

a. Scope of Inspection

Proposed SER Appendix-A Item 27, ASME Section XI, Subsection IWE Enhancement (3), stated:

> The sand bed region drains will be monitored daily during refueling outages.

There is one drain line for each two sand bed bays (five total). A poly bottle was attached via tygon tubing to a funnel hung below each drain line. AmerGen performed the drain line monitoring by checking the poly bottles.

The inspectors independently checked the poly bottles during the outage, and accompanied AmerGen personnel during routine daily checks. The inspectors also reviewed the written monitoring logs.

b. Observations

The sand bed drains were not directly observed and were not visible from the outer area of the torus room, where the poly bottles were located. After the reactor cavity was drained, 2 of the 5 tygon tubes were found disconnected, laying on the floor. In addition, sand bed bay 11 drain poly bottle was empty during each daily check until Nov. 15 (cavity was drained on Nov 12), when it was found full (greater than 4 gallons). Bay 11 was entered within a few hours, visually inspected, and found dry.

3.6 Moisture Barrier Seal Inspection (inside sand bed bays)

a. Scope of Inspection

Proposed SER Appendix-A Item 27, ASME Section XI, Subsection IWE Enhancements (12 & 21), stated:

> Inspect the [moisture barrier] seal at the junction between the sand bed region concrete [sand bed floor] and the embedded drywell shell. During the 2008 refueling outage and every other refueling outage thereafter.

The inspectors performed the following:

- Independently inspected portions of the moisture barrier in 7 sand bed bays
- Reviewed VT-1 examination records for each sand bed bay
- Observed AmerGen's activities to evaluate the moisture barrier seals

b. Observations

- AmerGen identified deficiencies in 7 of the 10 sand bed bays, including
  - Surface cracks
  - Partial separation of the seal from the shell, or the floor
- AmerGen determined the moisture barrier function was not impaired, because no cracks or separation fully penetrated the seal. All deficiencies were repaired.

Sand Bed Bay 3 Seal Crack and Rust Stain

- Observed activities to evaluate and repair the moisture barrier seal in Bay 3
- The seal had rust stains on the surface, below the identified crack
- When the seal was excavated, some drywell shell surface corrosion was identified
- Seal crack and surface rust were repaired

• Laboratory analysis determined there was inadequate epoxy cure, an original 1992 installation issue

2006 Inspection Did Not Identify Any Seal Cracks
• During 2006 seal inspections, no deficiencies were identified

3.7 Drywell Shell External Coatings Inspection (inside sand bed bays)

a. Scope of Inspection

Proposed SER Appendix-A Item 27, ASME Section XI, Subsection IWE Enhancements (4 & 21), stated:

> Perform visual inspections of the drywell external shell epoxy coating in all 10 sand bed bays. During the 2008 refueling outage and every other refueling outage thereafter.

The inspectors performed the following:

- Independently inspected portions of the epoxy coating in 7 sand bed bays
- Reviewed VT-1 examination records for each sand bed bay
- Observed AmerGen's activities to evaluate the epoxy coating in bay 11

b. Observations

Sand Bed Bay 11 Blisters
• Observed activities to evaluate and repair blisters found in Bay 11
  • 1 small 1/4 inch broken blister identified, with a 6" rust stain
  • 3 smaller unbroken blisters were identified by the NRC, during initial investigation
  • All 4 blisters were within a 1-2 inches square area, and all were evaluated and fixed
• For extent of condition, 4 bays re-inspected by different NDE level-II
  • -- AmerGen reported that No deficiencies were identified
• AmerGen estimated corrosion of ~ 3 mils had occurred over about a 16 year period

Sand Bed Bay 9 Coating Deficiency
• AmerGen identified and re-coated a area approximately 8" x 8" area because of a difference in epoxy color which could have been indicative of only 2 layers instead of 3.

2006 Inspection Did Not Identify the Bay 11 Rust Stain or the Bay 9 Coating Deficiency
• AmerGen reviewed a 2006 video and identified the same 6" rust stain in the 2006 video of Bay 11
• CR 844815 stated the Bay 9 coating deficiency was most probably an original 1992 installation issue
• During the 2006 coatings inspection, these 2 deficiencies were not identified

3.8 Drywell Shell Thickness Measurements

a. Scope of Inspection

Proposed SER Appendix-A Item 27, ASME Section XI, Subsection IWE Enhancements (1, 9, 14, and 21), stated:

> Perform full scope drywell inspections, including UT thickness measurements of the drywell shell, from inside and outside the drywell. During the 2008 refueling outage and every other refueling outage thereafter. This included:
>
> - 19 locations inside the drywell, at the sand bed region elevation
> - UT examinations in all 10 sand bed bays (drywell external, total 106 locations)

Proposed SER Appendix-A Item 27, ASME Section XI, Subsection IWE Enhancements (7, 10, and 11) stated:

> Conduct UT thickness measurements in the upper regions of the drywell shell. Prior to the period of extended operation and two refueling outages later. This included:
>
> - 9 locations inside the drywell, at elevations between 50 to 87 foot
> - 4 locations inside the drywell, at 23 foot elevation (bottom to middle spherical plate transition)
> - 4 locations inside the drywell, at 71 foot elevation (knuckle area)

- Observed actions to evaluate primary containment structural integrity
- Observed AmerGen perform drywell shell UT thickness measurements
- Observed field collection and recording of UT data
- Observed AmerGen evaluate the UT data (2000 separate UT readings)
- Reviewed UT examination records
- Reviewed AmerGen's Technical Evaluations of the UT data

b. Observations

- AmerGen determined that all of the UT data satisfied acceptance criteria, based on current licensing basis design requirements, for the thickness of the steel plate
- AmerGen did not identify any significant conditions affecting the drywell shell structural integrity
- AmerGen did not identify any on-going corrosion or corrosion trend, based on the UT examinations
- AmerGen did not identify any statistically significant deviations from 2006 UT data values

3.9 Moisture Barrier Seal Inspection (inside drywell)

a. Scope of Inspection

Proposed SER Appendix-A Item 27, ASME Section XI, Subsection IWE Enhancement (17), stated:

> Perform visual inspection of the moisture barrier seal between the drywell shell and the concrete floor curb, installed inside the drywell during the October 2006 refueling outage, in accordance with ASME Code.

The inspector reviewed structural inspection reports 187-001 and 187-002, performed by work order R2097321-01 on Nov 1 and Oct 29, respectively. The reports documented visual inspections of the perimeter seal between the concrete floor curb and the drywell steel shell, at the floor elevation 10 foot. In addition, the inspector reviewed selected photographs taken during the inspection

b. Observations

None.

3.10 "B" Isolation Condenser Shell Inspection

a. Scope of Inspection

Proposed SER Appendix-A Item 24, One Time Inspection Program Item (2), stated:

> To confirm the effectiveness of the Water Chemistry program to manage the loss of material and crack initiation and growth aging effects. A one-time UT inspection of the "B" Isolation Condenser shell below the waterline will be conducted looking for pitting corrosion. Perform prior to the period of extended operation.

The inspector observed NDE examinations performed on the interior of the "B" isolation condenser shell, performed by work order C2017561-11. The inspector observed a visual inspection of the shell interior, UT thickness measurements in two locations that were previously tested in 1996 and 2002, additional UT testing in areas of identified pitting and corrosion, and spark testing of the final interior shell coating. The inspector reviewed the UT data records, and compared the UT data results to the established minimum wall thickness criteria for the isolation condenser shell, and compared the UT data results with previously UT data measurements from 1996 and 2002

b. Observations

None.

3.11 Periodic Inspections

a. Scope of Inspection

Proposed SER Appendix-A Item 41, Periodic Inspection Program, stated:

> Activities consist of a periodic inspection of selected systems and components to verify integrity and confirm the absence of identified aging effects. Perform prior to the period of extended operation.

The inspectors observed the following activities:

- Condensate system pipe expansion joint inspection
- Switchgear fire barrier inspection

b. Observations

None.

3.12 Circulating Water Intake Tunnel & Expansion Joint Inspection

a. Scope of Inspection

Proposed SER Appendix-A Item 31, Structures Monitoring Program Enhancement (1), stated:

> Buildings, structural components and commodities that are not in scope of maintenance rule but have been determined to be in the scope of license renewal. Perform prior to the period of extended operation.

On Oct. 29, the inspector directly observed the conduct of a structural engineering inspection of the circulating water intake tunnel, including reinforced concrete wall and floor slabs, steel liners, embedded steel pipe sleeves, butterfly isolation valves, and tunnel expansion joints. The inspection was conducted by a qualified structural engineer. After the inspection was completed, the inspector compared his direct observations with the documented visual inspection results.

b. Observations

None.

3.13 Buried ESW Pipe Replacement

a. Scope of Inspection

Proposed SER Appendix-A Item 63, Buried Piping, stated:

Replace the previously un-replaced, buried safety-related ESW piping prior to the period of extended operation. Perform prior to the period of extended operation.

The inspectors observed the following activities:

- Field work to remove old pipe and install new pipe
- Foreign material exclusion (FME) controls
- External protective pipe coating, and controls to ensure the pipe installation activities would not result in damage to the pipe coating

b. Observations

None.

3.14 Electrical Cable Inspection inside Drywell

a. Scope of Inspection

Proposed SER Appendix-A Item 34, Electrical Cables and Connections, stated:

> A representative sample of accessible cables and connections located in adverse localized environments will be visually inspected at least once every 10 years for indications of accelerated insulation aging. Perform prior to the period of extended operation.

The inspector accompanied electrical technicians and an electrical design engineer during a visual inspection of selected electrical cables in the drywell. The inspector observed the pre-job brief which discussed inspection techniques and acceptance criteria. The inspector directly observed the visual inspection, which included cables in raceways, as well as cables and connections inside junction boxes. After the inspection was completed, the inspector compared his direct observations with the documented visual inspection results.

b. Observations

None.

3.15 Drywell Shell Internal Coatings Inspection (inside drywell)

a. Scope of Inspection

Proposed SER Appendix-A Item 33, Protective Coating Monitoring and Maintenance Program, stated:

> The program provides for aging management of Service Level I coatings inside the primary containment, in accordance with ASME Code.

The inspector reviewed a vendor memorandum which summarized inspection findings

for a coating inspection of the as-found condition of the ASME Service Level I coating of the drywell shell inner surface. In addition, the inspector reviewed selected photographs taken during the coating inspection and the initial assessment and disposition of identified coating deficiencies. The coating inspector was also interviewed. The inspection was conducted on Oct. 30, by a qualified ANSI Level III coating inspector. The final detailed report, with specific elevation notes and photographs, was not available before the end of this NRC inspection.

b. Observations

None.

3.16 Inaccessible Medium Voltage Cable Test

a. Scope of Inspection

Proposed SER Appendix-A Item 36, Inaccessible Medium Voltage Cables, stated:

> In addition, the cable circuits will be tested using a proven test for detecting deterioration of the insulation system due to wetting, such as power factor or partial discharge, as described in EPRI TR-103834-P1-2, or other testing that is state of the art at the time the test is performed. Perform prior to the period of extended operation.

The inspector reviewed the licensee's activities to implement commitment item number xxx, of the NRC Safety Evaluation Report related to the Oyster Creek License Renewal. This commitment added medium-voltage cables M0089 and M0108 into the scope of OC license renewal. In addition, it required the licensee to develop an aging management program consistent with NUREG-1801, "Generic Aging Lessons Learned," Section XI.E3.

NUREG-1801 Section XI.E3, Inaccessible Medium-Voltage Cables Not Subject To 10 CFR 50.49 Environmental Qualification Requirements, recommended the licensee determine a specific type of test to be performed prior to the initial test [at the time just prior to or at the time of the period of extended operations], and that it should be a proven test for detecting deterioration of the insulation system due to wetting, such as power factor, partial discharge, or polarization index, as described in EPRI TR-103834-P1-2. NUREG-1801 also recommended that the first test be completed before the period of extended operation.

The inspector observed field testing (work order xxx) of electrical cable xxx, 4 kV feeder cable to Bus xxx transformer xxx, and independently reviewed the test results. A Doble test of the transformer, with the cable connected to the transformer secondary, was performed, in part, to detect deterioration of the cable insulation. In addition, the inspector interviewed plant electrical engineering and maintenance personnel.

b. Observations

None.

3.17 Fatigue Monitoring Program

a. Scope of Inspection

On the basis of a projection of the number of design transients, the licensee concluded, during the license renewal application process, the existing fatigue analyses of the RCS components remain valid for the extended period of operation (See NRC Safety Evaluation Report NUREG 1728 Section 4.3). Constellation however indicated that, prior to the expiration of the current operating license, a Fatigue Monitoring Program will be implemented as a confirmatory program as discussed in Section B.3.2 of their original license renewal application.

The licensee proposed using the Fatigue Monitoring Program to provide assurance that the number of design cycles will not be exceeded during the period of extended operation. It was on this basis that the staff found licensee's Fatigue Monitoring Program provided an acceptable basis for monitoring the fatigue usage of reactor coolant system components, in accordance with the requirements of 10 CFR 54.21(c)(1)(iii).

Subsequent to the application, the NRC staff became aware of a simplified assumption used in the EPRI program for fatigue monitoring called FatiguePro. The inspector reviewed the current status of the fatigue monitoring program for the licensee. The inspector also determined if the computational shortcut was present in the program and what response the licensee was planning to the NRC's concern that the simplified assumption might result in a non-conservative prognosis of fatigue. The inspector interviewed the responsible engineer staff and reviewed the results of the fatigue program in place at the facility. The inspector reviewed the procedures and computational methodology to determine the status of current fatigue limits on reactor coolant system components.

b. Observations

None.

4. Commitment Management Program

a. Scope of Inspection

The inspectors evaluated Exelon procedures used to manage and revise regulatory commitments to determine whether they were consistent with the requirements of 10 CFR 50.59, NRC Regulatory Issue Summary 2000-17, "Managing Regulatory Commitments," and the guidance in Nuclear Energy Institute (NEI) 99-04, "Guidelines for Managing NRC Commitment Changes." In addition, the inspectors reviewed the procedures to assess whether adequate administrative controls were in-place to ensure commitment revisions or the elimination of commitments altogether would be properly evaluated, approved, and reported to the NRC. The inspectors also reviewed AmerGen's current licensing basis commitment tracking program to evaluate its effectiveness. In addition, the following commitment change evaluation packages were reviewed:

- Commitment Change 08-003, OC Bolting Integrity Program
- Commitment Change 08-004, RPV Axial Weld Examination Relief

b. Observations

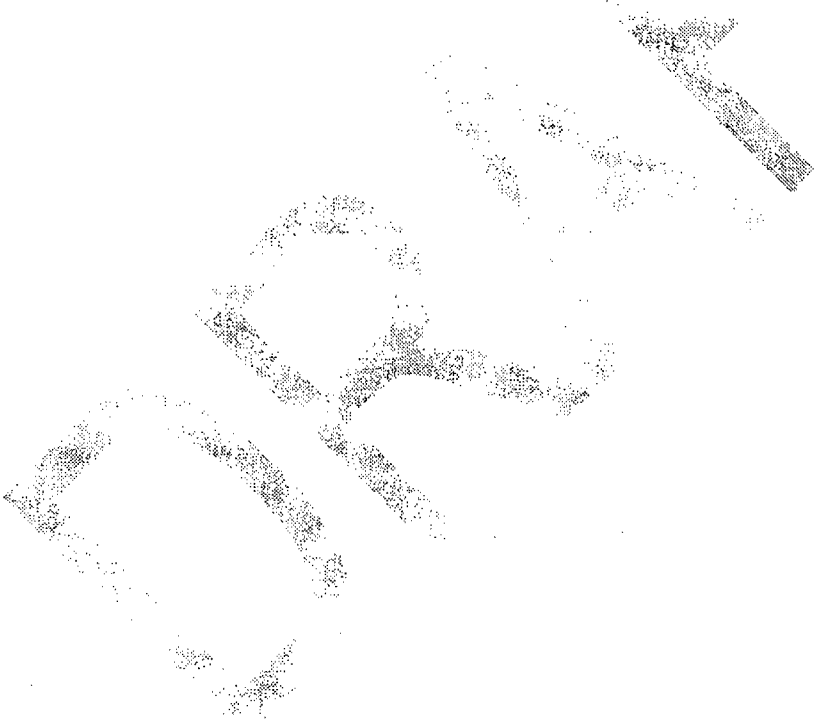
None.

4OA6 Meetings, Including Exit Meeting

Exit Meeting Summary

The inspectors presented the results of this inspection to Mr. T. Rausch, Site Vice President, Mr. M. Gallagher, Vice President License Renewal, and other members of AmerGen's staff on December 23, 2008.

No proprietary information is present in this inspection report.



ATTACHMENT

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

C. Albert, Site License Renewal
J. Cavallo, Corrosion Control Consultants & labs, Inc.
M. Gallagher, Vice President License Renewal
C. Hawkins, NDE Level III Technician
J. Hufnagel, Exelon License Renewal
J. Kandasamy, Manager Regulatory Affairs
S. Kim, Structural Engineer
R. McGee, Site License Renewal
F. Polaski, Exelon License Renewal
R. Pruthi, Electrical Design Engineer
S. Schwartz, System Engineer
P. Tamburro, Site License Renewal Lead
C. Taylor, Regulatory Affairs

NRC Personnel

S. Pindale, Acting Senior Resident Inspector, Oyster Creek
J. Kulp, Resident Inspector, Oyster Creek
L. Regner, License Renewal Project Manager, NRR
D. Pelton, Chief - License Renewal Projects Branch 1
M. Baty, Counsel for NRC Staff
J. Davis, Senior Materials Engineer, NRR

Observers

R. Pinney, State of New Jersey Department of Environmental Protection
R. Zak, State of New Jersey Department of Environmental Protection
M. Fallin, Constellation License Renewal Manager
R. Leski, Nine Mile Point License Renewal Manager

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened/Closed
None.

Opened

05000219/2008007-01	URI	xxx

Closed
None.

LIST OF DOCUMENTS REVIEWED

License renewal Program Documents

Drawings

Plant Procedures
LS-AA-104-1002, 50.59 Applicability Review, Rev 3
LS-AA-110, Commitment Change management, Rev 6

Condition Reports (CRs)
* = CRs written as a result of the NRC inspection

Maintenance Requests & Work Orders

Miscellaneous Documents

NRC Documents

Industry Documents
* = documents referenced within NUREG-1801 as providing acceptable guidance for specific aging management programs

LIST OF ACRONYMS

EPRI	Electric Power Research Institute
NDE	Non-destructive Examination
NEI	Nuclear Energy Institute
SSC	Systems, Structures, and Components
SDP	Significance Determination Process
TR	Technical Report
UFSAR	Updated Final Safety Analysis Report