

January 17, 2007

Mr. Christopher M. Crane  
President and CEO  
AmerGen Energy Company, LLC  
200 Exelon Way, KSA 3-E  
Kennett Square, PA 19348

**SUBJECT: OYSTER CREEK GENERATING STATION - NRC IN-SERVICE INSPECTION  
AND LICENSE RENEWAL COMMITMENT FOLLOWUP  
INSPECTION REPORT 05000219/2006013**

Dear Mr. Crane:

On December 6, 2006, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Oyster Creek Generating Station. The inspection was a review of AmerGen's in-service inspections, including a followup inspection of your license renewal commitments relevant to the Fall 2006 outage related to the drywell shell and torus. The enclosed report documents the inspection results, which were discussed on November 16, 2006, and again on January 16, 2007, with Mr. T. Rausch, Senior Vice President, Oyster Creek, and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. In addition, this inspection also examined the plant activities and documents that supported license renewal commitments of Oyster Creek Generating Station drywell shell and torus. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no findings of significance were identified. Also, the NRC staff determined that there were no safety significant conditions with respect to the primary containment that would prohibit plant startup and there was reasonable assurance that the primary containment is capable of performing its design function throughout the upcoming operating cycle.

For the license renewal commitments reviewed during this inspection, the inspectors determined that AmerGen was adequately implementing those commitments. This inspection report does not provide an overall NRC conclusion about acceptability of programs for license renewal; final technical conclusions will be provided by the NRC Office of Nuclear Reactor Regulation.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) 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/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

*/RA/*

Richard J. Conte, Chief  
Engineering Branch 1  
Division of Reactor Safety

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

Enclosure: Inspection Report 05000219/2006013  
w/Attachment: Supplemental Information

cc w/encl:

Chief Operating Officer, AmerGen  
Site Vice President, Oyster Creek Nuclear Generating Station, AmerGen  
Plant Manager, Oyster Creek Generating Station, AmerGen  
Regulatory Assurance Manager, Oyster Creek, AmerGen  
Senior Vice President - Nuclear Services, AmerGen  
Vice President - Mid-Atlantic Operations, AmerGen  
Vice President - Operations Support, AmerGen  
Vice President - Licensing and Regulatory Affairs, AmerGen  
Director Licensing, AmerGen  
Manager Licensing - Oyster Creek, AmerGen  
Vice President, General Counsel and Secretary, AmerGen  
T. O'Neill, Associate General Counsel, Exelon Generation Company  
J. Fewell, Assistant General Counsel, Exelon Nuclear  
Correspondence Control Desk, AmerGen  
J. Matthews, Esquire, Morgan, Lewis & Bockius LLP  
Mayor of Lacey Township  
K. Tosch, Chief, Bureau of Nuclear Engineering, NJ Dept of Environmental Protection  
R. Shadis, New England Coalition Staff  
N. Cohen, Coordinator - Unplug Salem Campaign  
E. Gbur, Chairwoman - Jersey Shore Nuclear Watch  
E. Zobian, Coordinator - Jersey Shore Anti Nuclear Alliance  
P. Baldauf, Assistant Director, Radiation Protection and Release Prevention, State of NJ

## SUMMARY OF FINDINGS

IR 05000219/2006013; 10/16/2006 - 12/6/2006, Oyster Creek Generating Station; In-service Inspection, including License Renewal Commitment Followup inspection activity.

This inspection of in-service inspection activities, including license renewal commitment followup activities, was performed by four regional office inspectors and one resident inspector. There were no safety significant conditions with respect to the primary containment that would prohibit plant startup and there is reasonable assurance that the primary containment is capable of performing its design function throughout the upcoming operating cycle. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

### A. NRC-Identified and Self-Revealing Findings

No findings of significance were identified.

### B. Licensee-Identified Violations

None.

## Executive Summary

The NRC staff conducted a baseline inspection of in-service inspection (ISI) activities, as well as an extensive onsite review of AmerGen's actions to evaluate: (1) the structural integrity of the primary containment relative to the existing licensing basis in consideration of any actual or potential corrosion, and (2) the significance of water that was identified in two trenches located inside the drywell during the October 2006 outage at the Oyster Creek Nuclear Generating Station (OCNGS). The NRC review involved a multi-week inspection of AmerGen's ISI program, and included an assessment of license renewal commitments for the outage and AmerGen's technical evaluation and structural integrity reports associated with the design basis for the primary containment (drywell). In accordance with the NRC's agreement with the State of New Jersey, state engineers observed portions of the NRC's staff review. Based on the results of the NRC's inspection activities, the NRC concluded that: (1) ISI activities were adequately performed, (2) there were no safety significant conditions with respect to the primary containment that would prohibit plant startup, and (3) there is reasonable assurance that the primary containment is capable of performing its design function throughout the upcoming operating cycle. The following provided additional background and details pertaining to the primary containment.

In the mid-1980s, GPU Nuclear (as licensee) identified corrosion of the shell of the OCNGS containment drywell in the sandbed region. Initial licensee actions were not effective in arresting corrosion, and in 1992, all sand was removed from the sandbed region and the accessible exterior surfaces of the drywell shell were cleaned and coated with an epoxy paint. Ultrasonic test (UT) measurements of the drywell shell thickness were taken in 1992 and 1996. UT results indicated that the corrosion had been effectively arrested.

On October 16, 2006, OCNCS shut down for a refueling and maintenance outage. Scheduled outage work included expanded in-service inspection of the drywell shell thickness (through UT testing) and material condition of accessible internal and external portions of the drywell (via visual testing).

During the Fall 2006 outage, AmerGen Energy, LLC (the current licensee) obtained UT measurements of drywell shell thickness at many of the same locations as previously examined in the 1990s. UT measurements were taken in the former sandbed region, both inside and outside the drywell, and in two trenches cut into the concrete floor in two bays inside the drywell. These trenches permit access to the embedded portion of the drywell shell below the sandbed region. In addition, UT measurements were taken at various levels of the drywell shell from the inside (the upper drywell shell is not accessible in these areas from the outside due to the concrete shield building).

The NRC staff inspection throughout the outage focused on:

- 1) Non-destructive examination results of the drywell shell and torus and related AmerGen evaluations.
- 2) AmerGen's efforts to identify and mitigate the source of water which accumulated in the trenches in the concrete floor inside the drywell. These efforts included tracer dye testing of the drywell leakage collection trough inside the reactor pedestal, inspection of the drywell sump, inspection and repair of the leakage collection trough, and caulking of the joint between the concrete drywell floor and the steel drywell shell.
- 3) Structural integrity of the concrete drywell floor and the condition of the embedded portion of the drywell shell.
- 4) The potential impact from various repairs to the containment on the design and licensing bases of the drywell.

The overall results of the staff's observations and review were:

- 1) All UT results were greater than the AmerGen calculated minimum ASME code required thickness for various plates that form the drywell shell.
- 2) There were no adverse conditions associated with the epoxy coating on the outside of the drywell shell in the former sandbed region.
- 3) Repairs performed by Amergen in and around the trough within the reactor vessel pedestal area did not result in any adverse conditions.
- 4) The water discovered in the drywell trenches had no adverse impact on the structural integrity of the concrete floor or the potential for corrosion of the embedded portion of the drywell shell. AmerGen has taken actions to prevent further accumulation of water in this area.
- 5) There were no adverse conditions with respect to the drywell or torus structural integrity that would preclude restart.

Based on a review of the technical information, the NRC staff determined that AmerGen had sufficient justification to restart OCNCS.

## REPORT DETAILS

### 1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

#### 1R08 In-service Inspection Activities (71111.08G - 1 Sample)

##### a. Inspection Scope

The inspectors observed non-destructive examination (NDE) activities and reviewed documentation of NDE and repair activities. The sample selection was based on the inspection procedure objectives and risk priority of those components and systems where degradation could result in a significant increase in the risk of core damage. The direct observations and documentation reviews were performed to verify that NDE activities were performed in accordance with the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, 1995 Edition, with the 1996 Addenda, 10CFR 50.55a, Codes and Standards, Boiling Water Reactor Vessel Internals Program recommendations, and station implementing procedures. The inspectors reviewed a sample of NDE reports initiated to document the performance and record results of in-service inspection (ISI) examinations completed during the current refueling outage 1R21 as well as those since the last refueling outage 1R20. The inspectors also evaluated the licensee's effectiveness in resolving relevant indications identified during ISI activities. Documents reviewed for this inspection are listed in the attachment.

The inspectors reviewed several NDE examinations, including liquid penetrant (PT), UT, and radiographic (RT) examination data records, to verify the effectiveness of the licensee's program for monitoring degradation of risk-significant piping structures, systems, and components. The inspectors examined the licensee's evaluation and disposition for continued operation, without repair or rework, of non-conforming conditions identified during ISI activities by review of AR 547617 and General Electric INR 01R21 IVVI-06-08, which documented some indications during IVVI examinations on the inside diameter surface of core shroud vertical weld SHD V-09. The indications are horizontal (transverse to the SHD V-09 weld). These indications had previously been identified and documented in 1996. Measurements were taken to evaluate the condition observed this outage (1R21) to those identified in 1996. The inspector verified that the licensee comparison of the indications found during 2006 correlated closely with the indications identified and documented in 1996. The indications meet the requirement of the program.

The inspectors reviewed one ASME Section XI code repair and its associated NDE from the 1R21 refueling cycle. Specifically, the inspectors reviewed the NDE associated with the welding repair activities performed per work order C2013778 on 3-inch control rod drive return line weld NC-2-2, which is a ferritic steel to austenitic steel joint with austenitic weld material. This categorizes the weld as a dissimilar metal weld. The weld is located between valve V-15-28 and V-15-29 inside the drywell. AmerGen selected

Enclosure

this weld for UT examination to support license renewal. The inspectors reviewed initial UT data examination report number 1R21-217, data sheet number D-218 of weld NC-2-2, which documented a recordable axial indication during a 45° RL scan in the circumferential direction during the current 1R21 refueling outage. The indication started adjacent to the root on the ferritic side of the weld and had an estimated through-wall height of 50 percent. The inspectors verified that AmerGen implemented corrective actions to replace a section of the piping between the two valves and sent the pipe section with the weld flaw indication for failure analysis to determine the failure mechanism. After the section of piping was replaced and repairs completed, the inspectors reviewed the liquid penetrant examination and radiographic records of the new welds NC-2-2A and NC-2-2B. This review was performed to verify that the activities associated with welding on ASME Class I or II components were in accordance with applicable ASME code requirements.

The inspectors performed direct field observations of UT examination of "B" Isolation Condenser 12-inch pipe welds NE-1-220 and NE-1-221 per work order C2012158, UT examination of N8 closure head nozzle reactor head vent to shell NR02 5-576 weld per work order C2012402, documented in UT examination report number 1R21-166, sheet D-107 and PT examination of N8 nozzle to flange reactor head NR02 6-576 weld, documented in examination report number 1R21-163, sheet PT-004. The review was performed to evaluate examiner skills and performance; examination technique; assess contractor oversight activities; and to verify licensee and contractor ability to identify and characterize observed indications.

b. Findings

No findings of significance were identified.

**4. OTHER ACTIVITIES (OA)**

4OA2 Other - License Renewal Commitment Followup (71003)

.1 License Renewal Commitment Followup Inspections

a. Inspection Scope

The license renewal portion of this inspection was performed in accordance with the guidance in IP 71003, which is a part of the NRC Inspection Manual Chapter 2516, License Renewal Program. The inspectors verified that the license renewal commitments contained in AmerGen Letters 2130-06-20284 (4/4/06), 2130-06-20358 (7/7/06) and 2130-06-20414 (10/20/06) were met. All of the commitments dealt with inspections and actions necessary to ensure structural integrity of the primary containment (drywell and torus) at Oyster Creek.

The following commitments were verified to be completed during the October 2006 1R21 refueling outage:

Enclosure

- (1) Visual inspection of the epoxy coating on the exterior of the drywell in the former sandbed region.
- (2) UT thickness measurements (internal and external) of the drywell shell in the sandbed region.
- (3) The application of a strippable coating to the reactor cavity liner before beginning refueling operations during the October 2006 1R21 refueling outage.
- (4) The reactor cavity seal drains and the drywell sand bed region drains were monitored for water leakage during the October 2006 1R21 refueling outage.
- (5) Visual inspection of the drywell shell in the access trenches. Upon noting water in the trenches, AmerGen completed a technical evaluation of the unexpected condition. AmerGen determined that structural integrity was not affected by the presence of this water.
- (6) Visual inspection of the coating on the inside of the torus. A number of shallow pits were noted in the metal and many were repaired in accordance with plant specifications and repair procedures.
- (7) Conducted UT thickness measurements at the 23'6" and 71'6" elevations of the drywell at the same locations which had been previously measured.

The inspectors completed confined space training and sandbed bay mock-up training in preparation for observing the licensee's inspections in the drywell shell sandbed bays (Bays 1, 11, and 13). Additionally, the inspectors reviewed inspection data sheets and video records of the inspections of all 10 sandbed bays. The inspectors verified that the sandbed bay external conditions were accurately described and measured on the AmerGen data sheets in the context of the Aging Management Program for the drywell and torus (see below ASME, Section XI, Subsection IWE and Protective Coating Monitoring and Maintenance).

#### ASME, Section XI, Subsection IWE Program

Monitoring of the condition of the primary containment drywell is accomplished through the licensee's ASME Section XI, Subsection IWE monitoring program. Additionally, if the plant obtains a renewed license, the Aging Management Program (AMP) for the primary containment drywell and torus will use the same program.

The ASME, Section XI, Subsection IWE Program is an existing program modified for the purpose of managing the aging effects in the drywell containment system at Oyster Creek. ASME Section XI, Subsection IWE provides for inspection of primary containment components, including steel containment shells. The aging effects are managed by periodic visual inspections and periodic ultrasonic testing wall thickness measurements. Additionally, AmerGen will conduct monitoring of leakage from the drywell sand bed region drains as an additional method to detect conditions which indicate further corrosion may occur. Analysis and evaluation of the visual and ultrasonic examinations are given credit for managing the effects of aging.

The inspectors reviewed supporting documentation and interviewed AmerGen personnel to confirm the adequacy of the license renewal conclusions of this program.

Enclosure

The inspectors reviewed the licensee's UT inspection procedures, interviewed NDE supervisors and observed field collection and recording of UT data in accordance with the approved procedures. The inspectors also reviewed the UT qualifications of selected data collection technicians.

#### Protective Coating Monitoring and Maintenance Program

The Protective Coating Monitoring and Maintenance Program is an existing program credited with managing the aging effects on the internal and external surfaces of the torus and the condition of the drywell in the sandbed region. The aging effects are managed by visual inspections of the protective coatings on each component, and examination, evaluation and repair of all coating defects observed.

The inspectors reviewed supporting documentation and interviewed applicant personnel to confirm the adequacy of the license renewal conclusions from the visual inspections conducted in the drywell and torus.

The inspectors reviewed the licensee's VT inspection procedures, interviewed NDE supervisors and observed field collection and recording of VT data in accordance with the approved procedures. The inspectors also reviewed the VT qualifications of selected data collection technicians.

The inspectors reviewed the VT inspection data sheets for the drywell shell and torus inspections conducted during the October 2006, 1R21 refueling outage. The inspectors reviewed the VT inspection data sheets for the torus internal coating inspections conducted during the October 2006, 1R21 refueling outage. The inspectors verified that the VT results for the drywell sandbed regions indicated no degradation of the epoxy coating.

The inspectors reviewed documented evidence that strippable coating of the refueling channel had been applied during October 2006 1R21 refueling outage. This strippable coating is used as a measure to limit or prevent water leakage during refueling operations.

#### Structural Review

During the planned structural review, AmerGen removed the temporary grout in the trenches inside the drywell which were previously dug out to expose the shell in the sandbed region. The structural review was expanded when water was unexpectedly discovered in the trenches. Accordingly, the inspectors monitored licensee actions and reviewed drawings, visually examined the condition of concrete in the drywell floor slab, and reviewed chemical analysis of the water sampled from one of the trenches. The inspectors reviewed the 50.59 screen associated with repairs to the drywell floor, trough, and curb (interface between the concrete floor slab and the drywell shell) and performed a walkdown of the drywell to ensure that the repairs were made in accordance with written instructions. The inspectors attended the Station Onsite Review Committee meeting on November 4, 2006, that discussed AmerGen's technical evaluation of the

Enclosure

drywell issue. The inspectors performed inspections of the water collection bottles associated with the sandbed drains on October 19, 23, 27, and November 1, 2006, to ensure no water was being detected.

b. Findings and Observations

No findings of significance were identified.

Observations

The inspectors noted that AmerGen commitments for the drywell and torus were met; a more detailed listing of observations (factual details) are noted below. With respect to the water in the trenches, the most likely source was found and conditions inside the drywell as a result of the issue were appropriately evaluated by AmerGen (additional factual details are noted in Commitment No. (5) below). Overall, the team determined that there were no safety significant conditions with respect to the primary containment that would prohibit plant startup and that there is reasonable assurance that the primary containment is capable of performing its design function throughout the upcoming operating cycle.

Also, during this inspection, the inspectors noted improvement in AmerGen's procedure controls governing VT and UT inspections and data analysis. The documentation of inspection results, the presence of acceptance criteria, and the disposition and analysis of the data were significantly improved over past inspections.

Commitments (1), (2) and (7) (Commitment numbers related to the listing at the start of this report section)

The inspectors reviewed the UT wall thickness data sheets for the drywell shell from 1R21 refueling outage which documented shell thickness measurements. The UT results indicate that the shell thickness was accurately reported by the licensee. The inspection procedures contained appropriate criteria for reporting nonconforming conditions and that all nonconforming data were reported and evaluated by cognizant engineering personnel. AmerGen subsequently verified that design minimum wall thicknesses, required for pressure loads and for buckling loads, remain valid until the next refueling outage in 2008.

The inspectors noted that coating inspections performed on the outside surface of the drywell shell during 1R21 in 2006 did not identify any blistering or degradation of the coating. The inspectors determined that AmerGen will perform an inspection of the drywell shell during the 1R22 Oyster Creek refueling outage scheduled for 2008 based on review of AmerGen letter 2103-06-20426, dated December 3, 2006.

The AmerGen aging management program, which includes both the ASME Section XI, Subsection IWE program and the Protective Coatings Monitoring and Maintenance, will address structural integrity beyond 2008, subject to NRC staff safety evaluation review.

Enclosure

Commitment (3)

The inspectors reviewed documented evidence that strippable coating of the refueling channel had been applied during October 2006 1R21 refueling outage.

Commitment (4)

The inspectors reviewed the licensee's procedure for inspections of the sandbed drains and the reactor cavity seal drains. The inspectors also reviewed and verified records which showed that the licensee inspected the sandbed drains and the reactor cavity seal drains throughout the outage. The inspectors also performed independent inspections of the water collection bottles associated with the sandbed drains on October 19, 23, 27, and November 1, 2006, to ensure no water was being detected.

Commitment (5)Presence of Water in the Drywell Concrete Slab

Water was discovered in the drywell trenches of bay 5 and bay 17 after removal of the grout by AmerGen during the current 1R21 refueling outage. The grout was being removed in order to perform a license renewal commitment inspection. The presence of the water was not expected by AmerGen. The condition was entered in the corrective action process and AmerGen carried out the following actions:

- (1) Conducted walkdowns of the structure and examined drawings to determine the source of the water. The actual source of the water was not positively determined.
- (2) Sampled the water and performed dye tracer testing to determine the source of the water.
- (3) Removed the water from the trenches and conducted the planned UT thickness measurements of the drywell shell in the trenches.
- (4) Conducted technical engineering evaluations by an industry corrosion expert and AmerGen engineering personnel to assess the structural integrity of the drywell concrete slab given the presence of the water.
- (5) Installed a seal between the concrete curb and the drywell shell to prevent water from entering the drywell shell-to-concrete gap.
- (6) Made a repair to the drywell trough drain, which eliminated leakage path into the concrete/drywell liner gap.
- (7) Removed an additional 5" of concrete from the trench in Bay 5 and collected more UT thickness data in a previously unmeasured area.
- (8) Performed and documented a VT inspection of the drywell shell in the trenches.

Clearing of the trough drain and repair of the trough routed some leakage away from the drywell shell. AmerGen's root cause evaluation did not determine the exact source of the water in the drywell trenches. Operational leakage via the unsealed concrete to drywell shell interface or control rod drive leakage could not be ruled out. AmerGen had a technically justifiable logic as to why the major source of the water was the trough with

Enclosure

concrete flaws, but the associated technical evaluation lacked details with respect to the basis and elimination of other potential sources of water.

#### Drywell Concrete Floor

The inspectors observed that the condition of the concrete outside the reactor pedestal was in good condition, there was no obvious indication of concrete deterioration, e.g., disintegration, spalling, chipping and/or erosion.

The floor within the reactor pedestal annulus is overlaid by approximately 7-inch thick wearing surface to provide a crown for drainage towards the drainage trough around the pedestal. This wearing slab is textured with exposed rounded gravel which is generally used to protect surfaces from damaging effects of long time/sustained drip and/or flow of any liquid/water on structural surfaces. There was a visible crack in this overlay that appeared to extend the full depth of the overlay; however, the crack did not appear to be active, and was filled with fine granular material. Such loose, fine materials are not uncommon and/or unusual in textured finish surfaces. Also, the overlay is not reinforced, and does not have any structural significance.

Based on observation of the concrete floor, the structural integrity of the concrete is not impaired or negatively affected by the construction joint in the concrete overlay inside the pedestal annulus.

During cleaning of the troughs, a glass bottle was found imbedded in the side of the trough near the drywell sump pumps. The object was removed in pieces from the concrete. There appeared to be a leakage path from where the bottle was removed. Based on NRC staff review, the effect of this small void on the strength, durability, and functionality of slab is negligible.

#### Drywell Steel Shell Corrosion

The drywell steel shell is embedded between the structural reinforced concrete base and the drywell floor, which also is reinforced structural concrete. Therefore, the service environment of the steel liner is similar to embedded rebar or any other carbon steel embedment.

There is sufficient technical literature and public domain studies available to support a conclusion that carbon steel embedded in highly alkaline material does not corrode in general service, unless the alkaline environment is radically altered and a sustained acidic environment is created. Availability of chloride ions also affects and accelerates corrosion.

With available information, it appears that the drywell shell is not in a corrosive environment, thus active corrosion is unlikely. The most likely source of water inside the drywell during operation is condensate water, which does not contain corrosive materials.

Overall, the inspection team did not disagree with AmerGen's conclusion and reasons that no significant corrosion of the embedded drywell shell was evident or anticipated:

- (1) The water in contact with the drywell shell had a high pH as a result of being in contact with the adjacent concrete.
- (2) Water entering the slab-to-shell area will have to migrate through concrete and will also become high pH water; corrosion is minimal in high pH conditions.
- (3) Any exposure of the drywell to an oxygen-rich environment will be limited due to containment inerting with nitrogen during operations.

#### Commitment (6)

The VT inspection procedures contained appropriate criteria for reporting nonconforming conditions and for dispositioning nonconforming conditions. The VT results for the torus internal coating indicate continuing degradation of the coating. Of the 959 coating blisters identified by AmerGen, they repaired 881 coating blisters that exceeded the administrative repair criteria and the others were evaluated as satisfactory. AmerGen then conducted a structural integrity verification calculation of the observed conditions, which demonstrated structural integrity until the next refueling outage in 2008. The AmerGen aging management program will address structural integrity beyond 2008, subject to NRC staff safety evaluation review.

#### 4OA2 Other - Identification and Resolution of Problems

##### .2 Identification and Resolution of Problems - In-service Inspection and License Renewal Commitment Followup (71111.08 & 71003)

###### a. Inspection Scope

The inspectors reviewed the Issue Reports listed in Attachment 1 associated with ISI, including license renewal commitment followup inspection activities. The inspectors verified that problems identified by these documents were properly characterized in AmerGen's corrective action reporting system, and that applicable causes and corrective actions were identified commensurate with the safety significance of the in-service inspection deficiency.

###### b. Findings

No findings of significance were identified.

###### Observations

During the inspectors' review of Issue Reports (IRs) written during this inspection, the inspectors noted that, on several occasions, inspectors questioned AmerGen personnel on the need to enter specific conditions in the AmerGen corrective action process. Subsequently, all important conditions were entered into the corrective action process.

Enclosure

Also, the inspectors provided several technical comments and corrections on the draft technical evaluations AR A2152754-06 and AR A2152754-09, which evaluated the unexpected water in the drywell trenches. As a result of these comments provided by the inspector, AmerGen made substantive changes to the evaluations. This indicated some missed opportunities for AmerGen supervisory review to impart attention to detail.

The inspectors noted that the presence of water in the bay 5 and bay 17 trenches inside the drywell had been reported in Structural Inspection Reports in 1992 and 1994. The Structural Inspection Report from 1994 (dated January 3, 1995) indicates that the rectification of the situation will require prevention of water from reaching the trenches with proven material(s). However, this condition and the evaluation were not addressed by the corrective action process in effect at the time. More importantly, during the October 2006 1R21 refueling outage, the issue was entered into the IR process using the current standards for timeliness of identification. The AmerGen resultant evaluation in 2006 determined no significant effect on primary containment.

Further, AmerGen review of inspection results performed during the October 2006 refueling outage of the internal surface of the drywell shell caused a re-evaluation of the license renewal application with respect to water in the trenches excavated in the concrete floor. AmerGen determined that an environment/material/aging effect combination exists that had not been previously included in the Oyster Creek license renewal application. AmerGen's letter to the NRC (2103-06-20426), dated December 3, 2006, addresses this issue along with the results of an extent-of-condition review. Also, AmerGen has identified additional aging management activities that will be included in the aging management programs associated with the drywell. This additional information provided by AmerGen is being reviewed by the NRC Office of Nuclear Reactor Regulation staff similar to additional information provided by applicants when the NRC staff issues requests for additional information, that is, subject to review in a final safety evaluation report.

#### 4OA6 Meetings, including Exit

The inspectors met with Mr. T. Rausch, Oyster Creek Generating Station Vice President and other members of the licensee's staff at the conclusion of the onsite inspection on November 16, 2006, and again on January 16, 2007, to summarize the inspection results. The end of the inspection was extended to December 6, 2006, to include a review of AmerGen's letter to the NRC (203-06-20426), dated December 3, 2006. Proprietary information was provided to the inspectors during this inspection, but licensee representatives indicated that it may be released.

Enclosure