

Preliminary Notification

G:\DRS\Engineering Branch

1\LicRenewal\Oyster Creek\2008 Outage\Backup\OC PNO Nov-2008_Drywell_rev-0.docDCS No.: 0500021911XX08

Date: November XX, 2008

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE PNO-1-08-XXX

Facility

Licensee Emergency Classification

AmerGen Energy Company, LLC
Oyster Creek
Forked River, New Jersey
Docket: 50-219

Notification of Unusual Event
 Alert
 Site Area Emergency
 General Emergency
 Not Applicable

Subject: RESULTS OF IMPLEMENTATION OF OYSTER CREEK LICENSE RENEWAL COMMITMENTS RELATED TO THE CONTAINMENT DESIGN FUNCTION

The NRC staff conducted an on-site inspection of AmerGen's actions related to license renewal commitments to be implemented during the 2008 refueling outage at the Oyster Creek Nuclear Generating Station (OCNGS). In particular, the NRC review involved a multi-week inspection of AmerGen's three aging management programs associated with the primary containment (drywell): Containment Metallic Liner Inservice Inspection; Structures Monitoring Program; and Protective Coating Monitoring and Maintenance Program. Observable aspects of other aging management programs were also reviewed: Buried Piping; Non-EQ Electrical Cables and Connections and Inaccessible Medium Voltage Cables; Inspection of Water-Control Structures; One Time Inspection Program; and Metal Fatigue of Reactor Coolant Pressure Boundary. 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 staff found: 1) for the areas sampled by the inspectors, (b)(5) and no significant adverse conditions; 2) there were no safety significant conditions with respect to the primary containment that would prohibit plant startup. (b)(5)

(b)(5) 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, and indicated that the corrosion had been effectively arrested. This information was confirmed in the outages for 2006 and this year.]

On October 24, 2008, OCNGS shut down for a refueling and maintenance outage. Scheduled outage work included the implementation of various license renewal aging management programs using various non-destructive testing such as ultrasonic testing (UT) and visual testing (VT).

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With respect to the drywell, 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. The condition of the inside of the drywell, including trenches in the floor, and the outside of the drywell shell in the sand bed region.
3. The integrity of the epoxy coating in light of four blisters found in Bay No. 11 and the integrity of the seal joint between the drywell and sandbed region floor in light of the seal separation noted in Bay No. 3.
4. The potential impact of water leaking by the strippable coating in the reactor refueling cavity and from various repairs to the containment on the design and licensing bases of the drywell.

On a sampling basis, the NRC staff had the following observations as a result of Amergen's implementation of license renewal commitments for the 2008 refueling outage:

1. UT measurements on the drywell met the licensee acceptance criteria and the acceptance criteria are based on the current licensing basis.
2. Work repair improved the functionality to the epoxy coating on the outside of the drywell shell in the former sandbed region and enhanced the seals between the drywell and sandbed region floor. Amergen reported that the blistering was expected; they are detectable by VT; the cause, although not specifically known, appeared to be related to molecular interactions through penetration of moisture in the atmosphere through the epoxy coating.
3. The strippable coating at a portion of the reactor cavity liner had some delamination causing water to enter the cavity trough and sandbed region (moisture not a flood of water). As a result Amergen enhanced its monitoring for water in the sandbed region; delayed closeout of these areas until after the reactor cavity was drained; and they will be factoring in additional actions for the 2010 outage to determine if there is any appreciable corrosion on the side of the drywell effect by water impingement in the 2008 outage.

Through the implementation of Aging Management Programs, Amergen identified and fixed the problems found in Bay No. 11 and Bay No. 3 of the sandbed region. The degradations on the coating and the potentially degrading seals, however slight, were barrier systems used to protect the drywell, the safety related target for which the barriers exist. The problems identified by the implementation of aging management programs appeared to have had minimal impact on the drywell itself or corrosion rate remained very small.

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

The State of New Jersey has been notified and no further updates are planned.

This PN is being issued for information only and will not be updated.

ADAMS Accession Number: ML.....

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