DCS No.: 05000219111708
Date: November 17, 2008

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE PNO-1-08-012

Facility	**Licensee Emergency Classification**
AmerGen Energy Company, LLC	_____ Notification of Unusual Event
Oyster Creek	_____ Alert
Forked River, New Jersey	_____ Site Area Emergency
Docket: 50-219	_____ General Emergency
	__X__ Not Applicable

Subject: RESULTS OF IMPLEMENTATION OF OYSTER CREEK LICENSE RENEWAL COMMITMENTS RELATED TO THE DRYWELL PRIMARY CONTAINMENT

The NRC staff is performing an inspection of AmerGen's actions related to license renewal commitments, some of which were implemented during the 2008 refueling outage at the Oyster Creek Nuclear Generating Station (OCNGS). The NRC staff completed its on-site portion of a multi-week inspection of AmerGen's three aging management programs associated with the drywell primary containment: containment metallic liner inservice inspection; structures monitoring program; and protective coating monitoring and maintenance program. In accordance with the NRC's agreement with the State of New Jersey, State Engineers observed portions of the NRC staff review. Based on the results of the NRC's inspection activities to date, the NRC staff concluded there were no safety significant conditions with respect to the drywell containment that would prohibit plant startup.

In the mid-1980s, GPU Nuclear (previous licensee) identified corrosion of the drywell containment steel shell, in the sand bed region. Initial licensee actions were not effective in stopping the corrosion. In 1992, all sand was removed from the sand bed region and the accessible exterior surfaces of the drywell shell were cleaned and coated with epoxy. Ultrasonic test (UT) thickness measurements of the drywell shell taken in 1992 and 1996 indicated the corrosion had been effectively halted. This information was confirmed by UT measurements in 2006, during a refueling outage.

On October 24, 2008, OCNGS shut down for a scheduled refueling and maintenance outage. Outage work included implementation of various license renewal aging management programs.

During the 2008 refueling outage, the NRC's drywell shell inspection focused on:

1. Results of drywell shell UT thickness measurements, taken during the 2008 refueling outage.
2. Direct observation of drywell shell conditions both inside the drywell, including the floor trenches, and outside the drywell, in the sand bed regions.
3. Condition and integrity of the drywell shell epoxy coating, including AmerGen's activities to evaluate and repair one small broken blister (with a small rust stain) and three small unbroken blisters (initially described as surface bumps) found in Bay 11, during the outage.
4. Condition and integrity of the drywell shell moisture barrier seal between the shell and the sand bed floor, including AmerGen's activities to evaluate and repair small cracks in moisture barrier seals in multiple sand bed bays, and a small seal crack in Bay 3 which also exhibited small rust stains. The purpose of the seal is to prevent water from entering a gap below the floor in the sand bed region.
5. AmerGen's activities to monitor, evaluate, and mitigate water leakage from the reactor refueling cavity onto the external surface of the drywell shell and into the sand bed regions.

Preliminary Notification

With respect to AmerGen's implementation of license renewal commitments, the NRC staff has concluded:

1. All drywell shell UT thickness measurements satisfied AmerGen's acceptance criteria to ensure current licensing basis design requirements, for the thickness of the steel plate are satisfied.
2. There were no identified significant conditions affecting the drywell shell structural integrity.
3. AmerGen's inspection of the as-found condition of the external drywell shell epoxy coating, in the sand bed regions, was acceptable. In Bay 11, four small blisters (three of which were initially identified as bumps) on the coating, including a small amount of surface rust under the blisters, were identified and repaired. AmerGen reported that some blistering was expected, and would be identified during routine visual examinations. The NRC staff will review AmerGen's apparent cause evaluation after it is completed.
4. AmerGen's inspection of the as-found condition of the external drywell shell moisture barrier seal, between the shell and the sand bed floor, was acceptable. Surface cracks, which did not appear to completely penetrate the seal, were identified in multiple bays, and were adequately repaired. During one crack repair in Bay 3, some drywell shell surface corrosion was also identified and repaired.
5. AmerGen's activities to monitor and mitigate water leakage from the reactor refueling cavity onto the external surface of the drywell shell and into the sand bed regions are still under evaluation.

During the outage, water leakage from the reactor refueling cavity into the cavity drain trough, as monitored in the trough's drain line, increased from less than 1 gallon per minute (gpm) to approximately 4 to 6 gpm. Some of the water in the cavity drain trough spilled into the gap between the steel shell and the concrete shield wall, and ultimately into the sand bed regions. AmerGen enhanced its leakage monitoring and performed visual inspections to detect any water entry. Small water puddles were identified in several sand bed bays. After the cavity was drained, AmerGen performed direct inspections of the sand bed bays, and no significant adverse conditions were identified.

AmerGen identified and fixed the problems found in sand beds Bay 3 and Bay 11, as part of its aging management program implementation. The drywell shell epoxy coating and the moisture barrier seal, both in the sand bed region, are barrier systems used to protect the drywell shell from corrosion. The problems identified with these barriers had a minimal impact on the drywell steel shell and the projected shell corrosion rate remains very small, as confirmed by NRC staff review of UT data.

Based on a review of the technical information, the NRC staff determined AmerGen has provided an adequate basis to conclude the drywell primary containment will remain operable during the period until the next scheduled examination, in the 2012 refueling outage. An NRC inspection report will be issued after the inspection is finished.

The information presented herein has been discussed with AmerGen and is current as of November 17, at 2:00 p.m.

The State of New Jersey has been notified. Region I Public Affairs is prepared to respond to media inquiries.

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

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