Cheryl Miskey

From: Richard Conte , RI
Sent: Tuesday, October 14, 2008 9:06 AM
To: Glenn Meyer; John Richmond
Cc: Ronald Bellamy
Attachments: 2008AnnAssLicRenQAsRev4.doc; OC RA Brief (10-01-08) (2).doc; OCDWShellCommPlanRev4.wpd

here are the files -

reminder to talk with Ron Bellamy on his understanding of comms before the outage at Oyster Creek.

Richard J. Conte
Chief, Engineering Branch No. 1, DRS, Reg. I
[(b)(6)]
Off. 610-337-5183

Ex. 6

N/118

Received: from R1CLSTR01.nrc.gov ([148.184.99.7]) by R1MS01.nrc.gov
([148.184.99.10]) with mapi; Tue, 14 Oct 2008 09:05:38 -0400
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Content-Transfer-Encoding: binary
From: Richard Conte <Richard.Conte@nrc.gov>
To: Glenn Meyer <Glenn.Meyer@nrc.gov>, John Richmond <John.Richmond@nrc.gov>
CC: Ronald Bellamy <Ronald.Bellamy@nrc.gov>
Date: Tue, 14 Oct 2008 09:05:36 -0400
Subject:
Thread-Index: Ackt/Yw9bNld8iogTw2lyGAKQWRIYA==
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Ex. 5 All TO BE WITHHELD FOR EXEMPTION 5

COMMUNICATIONS PLAN

Oyster Creek Inservice and License Renewal Commitments Inspection

November 9, 2006
Revision 4

GOALS

To communicate the results of Region I's inspection and oversight of AmerGen's implementation of license renewal commitments with respect to drywell shell and torus meeting the design basis at the Oyster Creek Nuclear Generating Station (OCNGS). This will include:

- Communicating important Licensee activities.
- Communicating important NRC activities.
- Communicating key NRC observations/results.
- Communicating important NRC determinations based on review of available information:

Background

In the mid-1980s, GPU Nuclear (as licensee) identified corrosion of the shell of the OCNGS containment drywell in the region of the sandbed. Initial actions taken were not effective in arresting corrosion, and in 1992, the 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.

On October 15, 2006, OCNGS shut down for a refueling and maintenance outage. Scheduled outage work included expanded inservice inspection of the drywell shell thickness (UT) and accessible conditions (VT-Visual Testing) both internal and external. The NRC inspection included baseline inservice inspection, review of license renewal commitments for the current outage and review of emergent issues by region based specialists and the resident inspectors.

The NRC staff conducted an extensive on-site review of AmerGen's efforts to examine the Oyster Creek Nuclear Generating Station (OCNGS) primary containment (drywell), during their on-going Fall 2006 plant outage. This inspection involved a multi-week inspection of AmerGen's inservice inspection program, and reviewed the their response to the unexpected identification of water in two trenches located inside the drywell. The staff also reviewed license renewal commitments for the current outage and, in conjunction with regional and headquarters personnel, reviewed two of AmerGen's technical evaluation reports for primary containment.

Key Messages

- **Communicating important Licensee activities.**

  During the current outage, AmerGen Energy, LLC (the current licensee) has been taking 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 in various levels of the drywell shell from the inside the drywell (the upper drywell shell is not accessible from the outside; due to the concrete shield building).

  There was also the implementation license renewal commitments related to inservice inspection.

- **Communicating important NRC activities. On a sampling basis, the NRC staff focused on:**

  AmerGen's efforts to identify and mitigate the source of water which is accumulating 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.

  Structural integrity of the concrete floor and the condition of the embedded portion of the drywell shell that is accessible.

  The potential impact from various repairs to the containment on the design and licensing bases of the drywell.

  Non-destructive examination results of the drywell shell and torus and related AmerGen evaluations.

- **Communicating key NRC observations/results. The overall results of the staff's observations and review were:**

  All UT measurements were greater than the calculated minimum required wall thickness for various plates that form the drywell shell;

  NRC staff observation in five of the ten bays and AmerGen VT results for all ten bays indicated there were no adverse conditions of the epoxy coating on the outside of the drywell shell in the former sandbed region;

  The review of AmerGen's repairs in and around the trough within the reactor vessel

pedestal area and a review of AmerGen Issue Reports documenting the review of conditions in the drywell noted no adverse conditions;

The unexpected water found in the drywell trenches had no adverse impact on the structural integrity of the concrete floor and the potential for corrosion of the embedded portion of the drywell shell based on a review of the related AmerGen technical evaluation report.

There were no adverse conditions in technical evaluations for Drywell and Torus structural integrity.

- **Communicating important NRC conclusions based on review of available information:**

The NRC staff determined that AmerGen has sufficient technical justification to restart OCNGS

The NRC staff found no safety significant conditions that would prohibit plant startup.

The NRC staff has reasonable assurance that the drywell shell will meet the design basis for the next operating cycle.

NOTE: **The staff did not rely on a draft Sandia Lab Report that is being reviewed by NRC staff for their review of the Drywell corrosion problem and license renewal issues.**

OTHER INFORMATION AS NEEDED REFER TO DRAWING IN COLOR [Box in back]

SANDBED

1. Visual observations, by AmerGen and NRC, of the coating on the drywell shell exterior, in the former sandbed bays, showed no observable coating deterioration.

2. NRC observations in former sandbed Bay 7 identified a gap in the floor sealer between the bay bottom and the shell and identified a separation in the sealer, similar to a crack. Both were subsequently repaired by AmerGen.

Background In a letter dated April 5, 2006, AmerGen committed to perform additional visual inspections of the epoxy coating such that the coated surfaces in all 10 Drywell bays are inspected once prior to the period of extended operation. The inspections are in conformance with ASME Sec XI, Sub IWE.

Supporting Information All external visual and UT examinations in the 10 bays outside the drywell (sandbed region) were completed and video taped. AmerGen concluded the epoxy coating on the outside of drywell was in good condition. UT measurement results from 106 of the original 115 (9 original locations could not be located) were evaluated. [(b)(5)]

THICKNESS GAUGING

1. UT data indicates no loss of wall thickness, within the accuracy of NDE uncertainty

limits.

Background In the April 2006 letter, AmerGen committed to UT thickness measurements of the drywell shell in the sandbed region, prior to the period of extended operation. Thereafter, the UT measurements will be taken from the inside of the drywell, at the same locations where UT measurements were performed in 1996. The examination results will be compared to previous results. Statistically significant deviations from the1992, 1994, and 1996 UT results will be entered into AmerGen's corrective action program. AmerGen also committed to conduct UT thickness measurements of the drywell shell in the upper regions of the drywell shell, prior to the period of extended operation.

Supporting Information Nineteen UT measurements, inside the drywell at the elevation of the sandbed, were performed and evaluated as satisfactory. Nine UT measurements, inside the drywell at upper elevations, were performed. Two measurements in the upper drywell, in Bay 15 at elevation 23 foot, were less than the evaluation thickness threshold of 0.655 inches, and were subsequently evaluated as satisfactory. Additional UT examinations in Bay 15 showed an average thickness, in the 6 inch by 6 inch areas around the two identified locations, as 0.758 inches. ASME code states the minimum required local thickness for the drywell shell, at elevation 23 foot, is 0.360 inches, and the minimum required average thickness is 0.541 inches. Therefore these thickness measurements satisfy the drywell design basis requirements. (IR-00548459)

TRENCHES

1. Trenches in the concrete floor, inside the drywell, intended to permit access to the drywell shell for UT measurements, were found to contain water in the area of Bays 5 and 17. The trench in Bay 5 refilled after being drained; subsequently Bay 17 refilled. Tracer dye, injected into the sump trough, migrated over time into trench 5, indicating the trough as the apparent source of the water.

   Background In the April 2006 letter, AmerGen committed to a visual examination of the drywell shell, in the drywell floor inspection access trenches, to assure the drywell shell (steel) remained intact, prior to the period of extended operation. If degradation is identified, the drywell shell condition will be evaluated. The surfaces will either be inspected as part of the scope of the ASME Sec XI, IWE program, or they will be restored to the original design configuration, using concrete or other suitable material to prevent moisture collection in those areas.

   Supporting Information Approximately 294 UT measurements were taken in each trench. Preliminarily SAT. Additional concrete was chipped out of Trench 5 on Oct 25-26, 2006, to allow additional UT measurements of the drywell shell below the sandbed region; 42 UT measurements and a full UT scan of the areas where the concrete was chipped out, was completed. [(b)(5)] RAI 5

   The drywell floor has a trough that ends in a pipe connection into the drywell floor sump. There appeared to be a gap between the trough and the pipe connected to the trough, due to a difference in elevation. This could be allowed

water to be transported into the embedded region, as evidenced by injected tracer dye showing up in the trenches. In addition, during trough cleaning, a concrete void was found in the trough adjacent to the outside corner of the drywell sump. The void was a glass object (possibly a bottle) embedded in the concrete surface at the bottom inside surface of the trough. This condition appears to have existed since original construction and was another possible cause for water leaking into the Bay 5 trench. The void object (bottle) was removed and the concrete surface repaired.

NRC performed a visual survey inside the drywell of the area underneath the reactor vessel, inside the reactor pedestal, in the area of the sump, trough, and trenches. The NRC observed a crack in the floor surface going across the entire floor length, which was attributed to a wear layer on the structural concrete.

Water sampling and analysis in the trenches indicated the water was too alkaline to cause drywell shell corrosion.

TORUS

1. The torus internal surfaces were inspected and degraded areas were repaired.

   Background In the April 2006 letter, AmerGen committed to visually inspecting the torus in accordance with ASME Section XI, IWE, prior to the period of extended operation.

WATER BOTTLES

1. AmerGen implemented a regular schedule of surveys of the water collection bottles from the former sandbed drains. No water was observed. The NRC independently surveyed the water collection bottles and confirmed that no water was present.

   Supporting Information AmerGen inspected the 5 sandbed drain lines. Two had some debris and were cleaned prior to restart. No standing water was found in any of the bays. The collection bottles were monitored by the NRC and AmerGen; no evidence of water was observed.

STATE of NJ PARTICIPATION

1. AmerGen has been communicating with New Jersey Department of Environmental Protection. New Jersey Bureau of Nuclear Engineering personnel are on-site and have been monitoring the drywell inspection activities.

Audience

Internal Stakeholders

- Office of Public Affairs
- Office of Congressional Affairs
- Office of Executive Director for Operations
- Office of General Counsel

- Office of Nuclear Reactor Regulation
- Region I, DRS, Plant Support Branch 1
- Region I, DRS, Engineering Branch 1
- Region I, DRP, Branch 7
- Region I, State Liaison Officer

(b)(5)

Ex. 5

External Stakeholders

- New Jersey Department of Environmental Protection
- New jersey Bureau of Nuclear Engineering
- US Congressional Staffs: Representatives Saxton, Smith, Andrews, Holt, Pallone, Pascrell, and Senator Lautehberg (New Jersey).

Communication Team

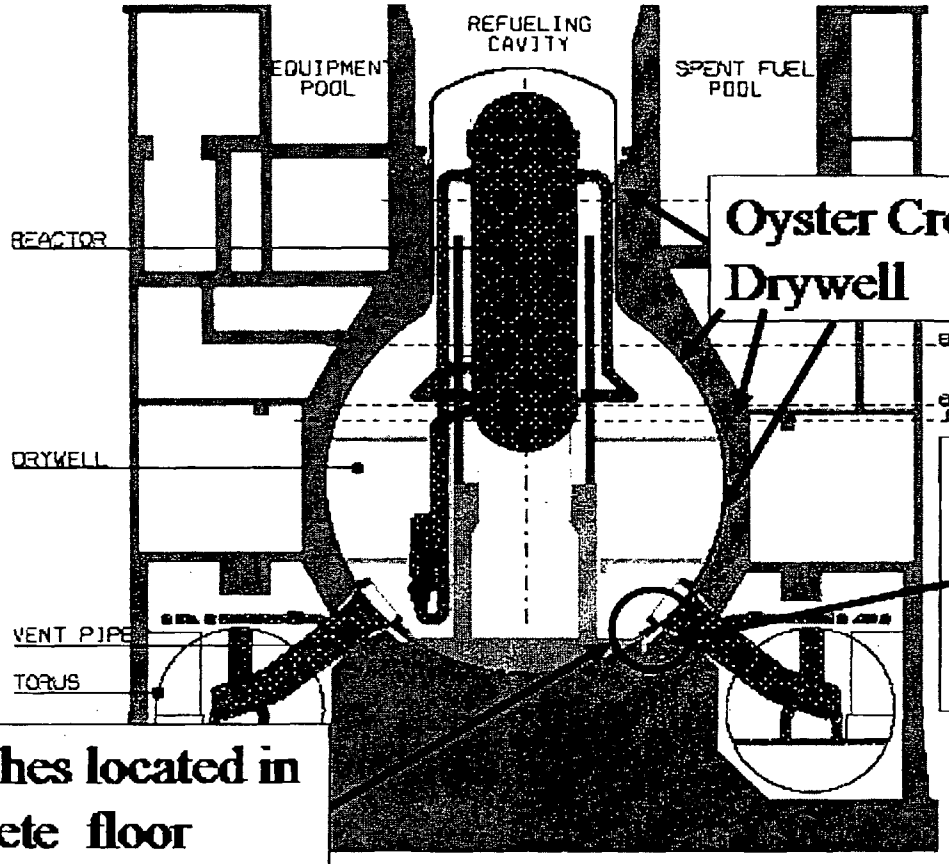
R. Bellamy	610-337-5200	Chief, Branch 7, DRP, RI, Team Leader
R. Conte	610-337-5183	Chief, Engineering Branch 1, DRS, RI
M. Ferdas	609-693-0702	Senior Resident Inspector
R. Fuhrmeister	610-337-5059	Senior Project Engineer, Branch 7, DRP, RI
N. McNamara	610-337-5357	State Liaison Officer, Region I
M. McLaughlin	610-337-5240	State Liaison Officer, Region I
D. Screnci	610-337-5330	Senior Public Affairs Officer, Region I
N. Sheehan	610-337-5331	Public Affairs Officer, Region I
R. Barkley	610-337-5065	Technical Communications Assistant, Region I
B. Sosa	301-415-1724	EDO Region I Liaison, OEDO
R. Shane	301-415-1699	Congressional Affairs Specialist, OCA
E. Miller	301-415-2481	Licensing Project Manager, NRR
D. Ashley	301-415-3191	License Renewal Project Manager, NRR
R. Dennig	301-415-1156	Chief, Containment and Ventilation Branch, NRR

Action Plan

The focus of the activities in this communication plan is to deliver key messages consistently to internal and external stakeholders.

Sequence of Events

Time Sequence Goal	Action	Responsible Organization
11/08/06 COMPLETE	Complete review of AmerGen Activities and VT/UT information	RI DRS, DRP LD Conte
11/08/06 COMPLETE	Complete review of DW/Torus Structural Integrity Tech Eval (4 hours after receipt)	RI DRS/NRR LD Conte
11/08/06 PM COMPLETE	Team Review of Preliminary Notification - overall results	RI DRP LD Fuhrmeister
11/08/06 PM COMPLETE	Team and Implementer Review of Comm Plan	RI DRS LD Conte
11/8/06 430pm COMPLETE	Status NRC review with State of NJ	RI DRS LD Conte
11/9/06 815-20am COMPLETE	Final Status review with NJ	RI DRS LD Conte/Blough
11/9/06 845 COMPLETE	Discuss results of call with NJ with DRA	RI DRS LD Conte/Blough
11/9/06 915am COMPLETE	Notify Licensee of results of NRC deliberation	RI DRS LD Conte/Blough
11/9/06 930am	Implement Comm Plan Notify New Jersey congressional offices of results	OCA
11/9/06 1030am	Issue PN	RI DRP LD Fuhrmeister
11/9/06 1045am	Notify New Jersey DEP and BNE of PN issue	RI SLO
11/9/06 1130am	Issue response to Intervener Letter of 11/7/06 of Safety of Restart	NRR LD Ed Miller
11/17/06	Exit Meeting on stand-alone report Manager R. Conte (x5183); Lead P. Kaufman (X5082)	RI DRS
1/2/07	Document inspection results in stand-alone report Manager R. Conte (x5183); Lead P. Kaufman (X5082)	RI DRS



Oyster Creek Drywell

Sandbed region is located on the exterior of Drywell

Trenches located in concrete floor inside the Drywell in two locations

In 1986, the station removed concrete at two locations inside the drywell to create the "trench area" to gain access to the drywell shell adjacent to the sand bed region. The purpose of clearing out the area was to obtain UT thickness measurements.