TO BE WITHHELD FOR EXEMPTION 5

OYSTER CREEK COMMITMENT INSPECTION
Per IP 71003 – App. C MC 2515, Infrequent Procedures
STATUS AND NEXT STEPS
(As of 12/10/08)

G:\DRS\Engineering Branch 1_LicRenewal\Oyster Creek\2008 Outage\OC Exit Meeting Next Steps.doc

DISCUSSION:

[(b)(5)] Ex 5

[(b)(5)] the Deputy Division Director of DRS assigned EB 1 action in order to build consensus in this area by developing and implementing an action plan.

On December 2, 2008, Region I staff met with cognizant representatives of DRP PB6, NRR/DLR, OGC, SLO, PAO in order to dry-run the exit notes for the subject inspection. The telephonic exit with Amergen was to be conducted on December 3, 2008 with a separate brief for the State of New Jersey, who had been observing the inspection since the start and have expressed concerns about Amergen's continued failure to meet commitments, etc. Related to the license renewal commitments area with particular focus on Drywell integrity, Amergen started up Oyster Creek on November 18 based on no immediate safety concerns with the problems found (self revealing or licensee identified) in the outage. Related to the same, Region I also issued a PN on the matter on December 18, 2008, Attachment 4.

And executive summary of the inspection results is in Attachment 1.

Based on the results of discussion on the briefing of December 2, 2008, Region I management decided to postpone the brief with the State of New Jersey and the exit meeting with Amergen because there was a debate on how certain problems were being addressed. [(b)(5)] Ex 5

[(b)(5)]

1. SER App. A No. 27 item (2) (p20): "A strippable coating will be applied to the reactor cavity liner to <u>prevent water intrusion into the gap</u> between the drywell shield wall and the drywell shell during periods when the reactor cavity is flooded."
    a. The strippable coating initially limited leakage into the cavity drain trough at < 1 gpm.
    b. On Nov 7, the leakage rate took a step change to 4 to 6 gpm. Water was subsequently identified in 4 sand bed bays (the sand bed bays are air connected to the area between the drywell shield wall and the drywell shell itself).
    c. This is viewed by the inspector as self revealing.

2. SER App. A No. 27 item (3) (p20): "The … drywell sand bed drains will be monitored (daily during refueling outages) … if leakage is detected, procedures will be in place to determine the source of leakage and investigate and address the impact of leakage on the drywell shell including verification of the condition of the drywell shell coating and moisture barrier (seal) in the sand bed region and performance of UT examinations of the shell in the upper regions…."
    a. Daily, the sand bed drains were remotely monitored by checking poly bottles, attached via tygon tubing to funnels hanging below the drain lines.
    b. The drain lines were not directly observed and in fact, 2 of the 5 tygon tubing became disconnected from the funnels for a period of time which include the leakage period in which the strippable coating started to come loose. The drains to funnel to tygon tubing interface were not readily visible to those monitoring the poly bottles.

Information in this record was deleted in accordance with the Freedom of Information Act.
Exemptions 5
FOIA/PA 2009-0070

N/14

c. This is viewed by the inspector as licensee indentified.

3. SER App. A No. 27 item (3) (p20): "The reactor cavity seal leakage trough drains .... will be monitored for leakage (periodically)." ... it then continues with same statement above on "if leakage is detected..."
   a. The drain line for the trough drain was found isolated during a boroscope examination to verify no line blockage.
   b. When the drain line was monitored at certain times in the outage, the valve was shut. When the strippable coating started to give way, the drain line had been clear with the valve open in order to perform its function and it was being periodically monitored satisfactory.
   c. This is viewed by the inspector as self revealing (when they did the boroscope they weren't looking for a closed valve).

The questionable areas surrounding the results of the OC commitments inspection were listed in Attachment 2. Consideration should be given to obtaining additional stakeholder input in the form of OE, for views on commitments and deviations, and DRIS, for views on assessment of commitments.

An assignment was given to EB 1 to build consensus in this area by developing and implementing an action plan while getting the above noted questions addressed in a consensus way[(b)(5)] 5-X5

ACTION PLAN:

	Action	Responsible Organization	Expected Completion Date
1	Discuss the part 50 activities for the commitments in question with Amergen and get there perspective on references and revisit the adequacy of implementation, thereof, for each of the 3 commitments.	EB1 TL/BC	Action started 12/3
2	Revise Exit notes for Division management review after the following, whichever is later: a. After one-on-one consensus building with key NRC staff stakeholders b. TL submits complete draft of BV Lic. Ren. Report to BC c. Amergen reports back on item 1	EB1/BC	Ongoing Est. 12/17
3	Key Offices complete review of new exit notes and preliminary answers to questions in the context of what is learned from above	EB1/OGC/DIRS/DLR/PB6 (OE informed)	12/18
4	Discuss in conference – achieve consensus for exit meeting. Revisit need for Board Notification from Region I.	EB 1 lead Key Stakeholders	12/18
5	Prebrief ORA – Region I	EB1 Lead	12/19 1000am
6	Brief ORA – Region I	EB1 lead	12/22 1000am
7	Prebrief State of New Jersey - AM Telephonic exit – PM	EB1/SLO/PB6	Tentative 12/23 Dependent on ORA results
8	Issue Report	EB1	Target 1/23/09 DD 2/5/09
9			

Attachment 1 – Preliminary Executive Summary for OC Commitments Inspection

And executive summary of the inspection results can be characterized in plain language as follows:

- Satisfactory Actions to evaluate primary containment structural integrity
- [(b)(5)] 4x5
  [(b)(5)]
  These items were also licensee established actions for Generic Letter 87-05
    - Strippable Coating to Prevent Water Intrusion
    - Monitoring of Sand Bed Drain Lines
    - Monitoring of Cavity Trough Drain Line
- For the selected samples, aging effects [(b)(5)] 4x5
  [(b)(5)]
    - Sampled 9 AMPs to Verify Commitment Implementation
    - No Problems or Issues Identified, with Three Exceptions
- [(b)(5)] Outage-related Proposed License Conditions (two items) 4x5
    - Perform Full Scope inspections of sand bed region every other outage
    - Monitor drywell trenches for water every refueling outage (until trenches restored)
- Verified 2 commitment changes were done iaw Exelon commitment management program
    - Bolting Integrity Program (commitment 12)
    - Rx Vessel Axial Weld Examination Relief Request (commitment 48)

Note: There is another issue that may or may not be discussed related to an apparent gap on when the license renewal application needs to be updated annually, with respect to newly identified SSCs; and there is an extensive delay from the time of staff final SER and the issued renewed license such as for Oyster Creek and potentially Vermont Yankee – see details in exit notes.

Attachment 2 – Questions to be Addressed

The questionable areas surrounding the results of the OC commitments inspection were listed below. Consideration should be given to obtaining additional stakeholder input in the form of OE, for views on commitments and deviations, and DRIS, for views on assessment of commitments.

1. What is the purpose of the IP 71003 as a part of 2516, or as a part of 2515 (ROP), is there any difference, why or why not?
    a. Is it to verify the adequacy and proper implementation of license renewal commitments?
    b. If yes to 1.a, how is this done if no implementation (with results) occurs such as before the period of extended operations?
    c. If no to 1.a, is it true that that the basis for this is that the standard in license renewal is: Were the commitments implemented so there is REASONABLE ASSURANCE the affects of aging is managed? (OR Is this too high a level for the objective of the IP 71003?
    d. Is it true that there is no standard in license renewal called "adequate" or "inadequate"?
    e. Is there a difference between commitments made as a part of Part 50 vs. Part 54?
    f. Was the inspection plan consistent with the objective of the IP 71003 latest issue from RIC of 2008?
    g. How do we determine failures to implement commitments in light of the endorsed definitions and above noted standards? The agency endorsed reference is:

        NEI 99-04 (endorsed by RIS 2000-17, dated September 21, 2000):
        "A Regulatory Commitment means an explicit statement to take a specific action agreed to, or volunteered by, a licensee and submitted in writing on the docket to the NRC. Licensees frequently commmunicate their intent to take certain actions to restore compliance with Obligations, to define a certain method of meeting Obligations, to correct or preclude the recurrence of adverse condtions, or to make improvements to the plant or plant processes. A Regulatory Commitment is an intentional undertaking by a licensee to (1) restore compliance with regulatory requirements, or (2) complete a specific action to address an NRC issue or concern (e.g., generic letter, bulletin, order, etc.). With respect to corrective actions identified in a NOV response or LER, the specific method(s) used by licensee to restore compliance with an obligation are not normally considered a Regualatory Commitment. The regulatory commitment in this instance is the promise to restore compliance with the violated obligation."

        This is not to be confused with a license condition or other requirment which is officially defined as an "obligation" as follows:

        "Obligation refers to any condition or action that is a legally binding requirement imposed on licensees through applicable rules, regulations, orders and licenses (including technical specifications and license conditions). These conditions (also referred to as regulatory requirements) generally require formal NRC approval as part of the change-control process. Also included in the category of obligations are those regulations and license conditions that define change-control processes and reporting requirements for licensing basis documents such as the updated FSAR, quality assurance program, emergency plan, security plan, fire protection program, etc."

        NOTE: Nothing in the above reference addresses whether the commitments were relied on or made within the current licensing bases

2. What process are we in, 2516 or 2515 (ROP), for the OC inspection including what is the documentation and assessment process to be used?

3. Why is the inspector talking/documenting the apparent failures to meet commitments if these areas are indeed minor performance deficiencies - appears to be contrary to MC 0612?

    a. Is there agreement that a commitment is a standard for which any licensee and in particular, Amergen, had reasonable control?

b. Can we call them performance deficiencies with or without a renewed license?

IMC 0612 Section 03, Defintiions, for Performance Deficiency states:
"An issue that is the result of a licensee not meeting a requirement or standard where the cause was reasonably within the licensee's ability to foresee and correct, and that should have been prevented. A performance deficiency can exit if a licensee fails to meet a self-imposed standard or a standard required by regulation." ... it goes on to discuss that cross cutting aspects in and of themselves are not performance deficiencies... mostly causal attribute information.

NOTE: Nothing in the above reference addresses whether the commitments were relied on or made within the current licensing bases

c. Why document these issues if they are minor?

IMC 0612 Section 05 as an exception in a box:
EXCEPTION: "A minor violation or finding may be documented when it is necessary to close a licensee event report or to close an unresolved item, or if related to an issue of agency wide concern (e.g., in documenting the results of a temporary instruction). If it is necessary to document a minor violation, then it is done in accordance with the guidance contained in the Enforcement Manual."

4. For Amergen and if the basis for the commitment statements is a license renewal document, which they are, then how can you say they are performance deficiencies since the licensing action has not been taken on these commitments?

   a. Should we be only discussing factual based observations without context of meeting or not meeting the commitment and with no assessment of significance – how would this look and how receptive would the public be to the issue being written up without context, assessment, or action by NRC staff?
   b. How can we proclaim a finding if we are still deciding over wording in an SER listing of commitments – Should we not be waiting for a renewed license and waiting until they enter the period of extended operation before you can proclaim it a "finding".
   c. Until we know what acceptable, should the issue be written as Unresolved – see definition of URI in MC 0612 (information needed in order to determine acceptability, violation or deviation)?

5. For Amergen and if the commitment statements are duplicated or slightly different in Part 50 documents, can we still use the ROP guidance document to address the performance deficiencies (potentially use separate section of the report so as to not confuse the reader that we are taking a Part 54 action here)?

   a. Is there agreement that a commitment is a standard for which the licensee/applicant (Amergen) had reasonable control on implementation as a Part 50 activity?
   b. Is it worth pursuing details on part 50 activities in light of the purpose of the 71003 effort?
   c. Should we only be processing failures to properly implement a commitment for which the commitment is uniquely a Part 50 activity with absolutely no overlap to Part 54 (now that we know about them from the 71003 effort)?
   d. Do we agree that if the commitment is only a Part 50 activity then it is outside scope of 71003 and should be processed using the normal ROP?
   e. Does the picture on performance deficiencies change if, for example, commitments on the monitoring of drains or installation of strippable coating are operating procedural steps?

6. How can we agree to move on, in an interim way, while formal answers to the above questions are developed as a part of OpE and/or lessons learned for the implementation of 71003 for which documentation and assessment guidance is under development?

    a. Although not most preferred, will an unresolved item help all parties with NRC stakeholder interest?

    > IMC 0612 Section 03 definitions for an Unresolved Item:
    > "An issue about which more information is required to determine if it is acceptable, if it is a finding., or if it constitutes a deviation or violation. Such a matter may require additional information from the licensee or cannot be resolved without additional guidance or clarification/interpretation of the existing guidance (e.g., performance indication reporting guidance.

    NOTE: We have embarked on 71003 inspections without documentation guidance (draft App. G of IMC 0612 not issued) or additional assessment guidance (not even in the draft stage yet – thoughts on paper only) to address the unique aspects of license renewal conditions and commitments – an apparent cause for the indecisiveness of the exit pre-brief and why we need to build consensus in this paper.

Attachment 3A/B/C – Consensus Building Survey for Issue Nos. 1/2/3

See the first page for a description of issue Nos. 1/2/3. Do you have any dispute with the inspector developed facts as noted herein and within Rev. 6 of the draft exit notes?

For each question below:

(b)(5)

Pages 9 through 10 redacted for the following reasons:

(b)(5)

Attachment 4 – Related PN

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 Oyster Creek Forked River, New Jersey Docket: 50-219	_____ Notification of Unusual Event _____ Alert _____ Site Area Emergency _____ 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.

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.

ADAMS Accession Number: ML083220240

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