From:	<john.hufnagel@exeloncorp.com> <dja1@nrc.gov> 10/24/2006 10:34:26 AM</dja1@nrc.gov></john.hufnagel@exeloncorp.com>	
То:		
Date:		
Subject:	ct: Communications package	

Donnie,

Here's the package we used in our discussions with Region I yesterday - you may have this already...

- John.

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#### ------

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Here's the package we used in our discussions with Region I yesterday - you may have this already...

- John.

>

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### c:\temp\GW}00001.TMP

### Page 1

Mail Envelope Properties (453E2461.EC9 : 3 : 48841)

Subject:	Communications package
Creation Date	10/24/2006 10:28:27 AM
From:	<john.hufnagel@exeloncorp.com></john.hufnagel@exeloncorp.com>

Created By: john.hufnagel@exeloncorp.com

Recipients nrc.gov OWGWPO01.HQGWDO01 DJA1 (D. Ashley)

Post Office OWGWP001.HQGWD001 Route nrc.gov

 Files
 Size
 Date & Time

 MESSAGE
 1053
 24 October, 2006 10:28:27 AM

 TEXT.htm
 1656

 Comm Doc - Drywell Inspections 10-23-06 alex.ppt
 358400

 Mime.822
 495999

Options	
<b>Expiration Date:</b>	None
Priority:	Standard
<b>ReplyRequested:</b>	No
<b>Return Notification:</b>	None

Concealed Subject:NoSecurity:Standard

### Junk Mail Handling Evaluation Results

Message is eligible for Junk Mail handling This message was not classified as Junk Mail

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Junk Mail handling disabled by User Junk Mail handling disabled by Administrator Junk List is not enabled Junk Mail using personal address books is not enabled Block List is not enabled

# Oyster Creek 1R21 Outage

### Communication Package Related to Drywell Shell Inspections October 23, 2006

# **1R21** Drywell Inspections

- Reactor Cavity Trough Drain Line
- Sand Bed Region Poly Bottles
- Sand Bed Drain Lines
- Epoxy Coating on External Surface of Drywell Sandbed in all 10 Bays
- Internal Drywell Shell in Sand Bed Region Above Floor Elevation
- Internal Drywell Shell in Upper Regions
- Seal at the junction between drywell shell and concrete floor in Sand Bed Region
- External Drywell Shell in Sand Bed Region
- Plate Thickness Transitions at Two Elevations
- Internal Drywell Shell in Trenches (Bays 5 and 17)

### PRELIMINARY

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# Inspection Status (To Date)

- The reactor cavity trough drain line is not clogged and is successfully removing a small amount of water entering the trough. Daily water leakage monitoring continues (as planned, strippable coating was applied to reactor cavity before flood-up).
- There has been no water observed in the Sand Bed Regions and no water coming down through the air gap.
- There has been no water leakage from the Sand Bed Regions confirmed by the absence of water in the poly bottles. Daily monitoring of the poly bottles continues.
- Two of the five Sand Bed drain lines were found to have some blockage and debris. These will be cleaned prior to restart.
- The visual inspection of the epoxy coating on the external shell surface in the Sand Bed regions has been completed.
- The seal at the junction of the drywell shell and the concrete floor in the Sand Bed region has been inspected.

### PRELIMINARY

# Inspection Status (To Date)

- The Ultrasonic Inspections of the Interior Surface of the Drywell in the Sand Bed regions have been completed.
- The Ultrasonic Inspections of the Interior Surface of the Drywell in the Upper regions are in progress.
- The Ultrasonic Inspections of the Exterior Surface of the Drywell in the Sand Bed regions are completed.
- The Ultrasonic Inspections of the plate thickness transitions at two locations are in progress.
- The Ultrasonic Inspections of the Interior Surface of the Drywell in the Trenches in Bays 5 & 17 have been completed.

# **Issues Identified**

- Standing water was identified in the trench inside the Drywell at the Drywell floor level in Bay 5 when the foam fill was removed for planned inspections.
- Dampness was identified in the other trench in Bay 17; however, no standing water was present.
- The Drywell drain trough may be a contributor to water leakage into the trench in Bay 5.

# Water in Bay 5 Trench

### Description of Findings and Actions to Resolve this Issue

7

## **Issue Description**

- When performing planned Non Destructive Examinations of the Drywell Shell from inside the Drywell, water was found in a trench area below the floor elevation.
- A similar condition was identified in the mid 1990s and documented in the corrective action process.
- The source of this water needs to be understood and addressed, and any impact on the drywell shell or concrete evaluated and addressed.

# Drywell Design and Layout

- The Drywell floor drain sump is located within the under-vessel area room
- A concrete trough encircles the under-vessel area to channel any leakage in the drywell to the drywell sump

PRELIMINARY

### Sketch Showing Lower Drywell - Sandbed, Trench and Sump









# Top View – Drywell Floor Sketch



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# As Found Condition

- Surface of drywell shell visible from trenches in Bays 5 and 17 exhibited a surface layer of iron oxide
- Approximately 5" of water found in bottom of trench in Bay # 5, and trench in Bay 17 had only dampness
- Connection between under-vessel area trough and floor drain sump potentially allowing water leakage
- Trough located in the under-vessel area is not lined, potentially allowing water passage into the concrete slab

### PRELIMINARY

# Investigative/Corrective Actions Completed

- Visual inspections and pictures taken of sump, trough and trench areas
- Visual and Ultrasonic examinations of drywell shell in trench areas (as originally planned)
- Chemical Analysis of water samples from trench, sump and other areas
- Correlation and evaluation of water levels in sump, trough and trench areas

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# **Actions Planned/Pending**

- Visual Examination (VT-1) of floor drain sump liner to look for evidence of a leak path
- Tracer test aimed at determining whether under-vessel trough is in communication with trench in Bay 5
- Development of contingency repair to trough to address likely water source into trench
- Complete non destructive examination and analysis of Drywell shell in trench areas
- Perform evaluation of the impact of water that may exist beneath concrete surface on drywell shell
- Development of contingency repair to caulk intersection of Drywell Shell and concrete slab curb

PRELIMINARY

# **Current Conclusions**

- Preliminary Inspection Results indicate that the Drywell Shell
  - Retains its structural integrity
  - Provides margin to design safety function
  - Supports plant operation for the period of extended operation

### PRELIMINARY