

Outside of Scope

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**BRANCH 3
DAILY
STATUS**

4/15/10

highlighted items were discussed at DKT/DRS Coordination meeting
BOLD items are new

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SALEM ONE

Weekend Coverage: Dan (Sat)/Harry (Sun)

AL1=(9X)>0.07

AL2=(2of3)>0.11

AL3=(1X)>0.13

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ASW Piping Degradation

- Buried AFW piping to the 12 and 14 S/Gs appears to have significant degradation of the protective coating and piping. The preliminary guided wave inspection results indicate that the ASME Class 2 piping is degraded below min wall. The pipe is schedule 80 4" inside diameter carbon steel piping with a coal tar type coating that appears to been hand applied. The piping run of concern involves about 150 ft of pipe that is buried at depths ranging from 4 ft adjacent to the out side of containment to 17 ft deep in a covered area adjacent to the containment.
- The UT results confirmed the guided wave results. Engineering determined they could not support operability of the piping through the next cycle.
- EOC - Unit 2 has greater margin - it is a newer plant and is presumably in better condition; documentation exists that proves the piping was opened and inspected ~10 years ago and found to be in pristine condition; ISI code gives more allowance to an operating unit (they can take credit for up to 90% of the yield stress). DRS was provided access to the available information and completed its review. There are no immediate safety concerns.
- On each unit there are three safety-related systems with buried piping (ASW, SW and control air)
 - o Control air coating in tact, PSEG will document the inspection.
 - o Control air small leak. PSEG cut out and replaced. Will evaluate the failure mechanism (believe it was

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repeatedly stepped on).

- No previous UT inspections for service water piping, previously focused on seals for bell and spigot joints (as of end of outage all will have been replaced). Based on SW piping OE the current concern would be groundwater corrosion of the metal bands between concrete layers.
 - No recorded inspections of Unit 1 AFW piping
- PSEG evaluating past operability for Unit 1 using finite element analysis. Results will be used to determine if MC 0309 entry conditions are met (if piping was inop need to perform an MC 0309 review).

Update as of 4/15 at 0730

- **Shallow pipe UTs (1" x 1" examination grid):** Surface prep was taking too long so backed out of UTs and will cut out any sections of the shallow pipe that they did not complete UTs. They will finish UTs on those sections after the pipe is cut out.
- **Currently a combined total of ~50 ft of the shallow piping will be cut out and replaced on the 12 and 14 AFW headers.** The 50 ft includes areas where UT results indicated less than 0.200" thickness and areas that were not UT'd.
- **PSEG expects the finite element analysis (FEA) to be completed and 3rd party reviewed on 4/17.** PSEG will use the FEA results to support past operability for Unit 1, cycle operability for Unit 1, and to determine any need for additional review of the pipe condition at Unit 2. Based on the 4/17 date for the FEA, Operability determinations will not be completed until 4/19.
- **PSEG claims that they have an acceptable bounding analysis using 0.152" thickness at 1275 psig for Unit 1 and plan to implement an AFW design change through 50.59.**
- **Evaluation of deep section of pipe also completed.** PSEG currently plans **no piping replacements in this area:**
 - **UTs were completed around one elbow in deep section. Thinnest UT measurement in this area was 0.226" – Cycle operability requirement was 0.200"**
 - **Guided wave measurements for 20 ft of the deep straight run are better than the original guided wave results for the shallow pipe guided wave measurements. (30% wall loss vs. 40% wall loss)**
 - **Excavated to a level below the ground water and identified that piping was coated. Areas of pipe above that level are currently uncoated but will be recoated.**
 - **Will perform hydrostatic test of the entire length of pipe – deep and shallow sections – to verify structural integrity.**

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Additional Items

Status Board Items:

- Salem AFW buried piping (PRIORITY)

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