



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

November 20, 2008

NOTE TO: File

FROM: Jack Cushing, Senior Project Manager
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

A handwritten signature in cursive script that reads "Jack Cushing".

SUBJECT: POINT BEACH NUCLEAR PLANT UNIT 1 - TELECONFERENCE SUMMARY
REGARDING THE 2008 STEAM GENERATOR TUBE INSPECTION RESULTS
(TAC NO. MD9468)

On October 20, 2008, the U.S. Nuclear Regulatory Commission staff participated in a conference call with Point Beach Unit 1 representatives regarding their ongoing steam generator (SG) tube inspection activities.

Point Beach Nuclear Plant Unit 1 has two Westinghouse 44F SGs each containing 3214 thermally-treated Alloy 600 tubes. Point Beach Unit 1 SGs were replaced during refueling outage 11 in 1984. The tubes have an outside diameter of 0.875 inches, a wall thickness of 0.050 inches, and are supported by six stainless steel tube support plates and a baffle plate. The tube support plate holes are quatrefoil-shaped. The U bend region of the tubes in rows 1 through 8 was stress relieved after bending.

The licensee is at the midpoint of the first 60 effective full power month period.

The licensee has identified 98 tubes with potentially high residual stresses based on a review of the bobbin coil eddy current data for an offset. The licensee used the bobbin probe as the primary probe for inspecting these tubes (i.e., there are no routine rotating probe samples of expansion transitions or dent/dings in these tubes).

Material provided by the licensee is enclosed. Subsequent to the call, the licensee notified the staff that the total amount of material removed via chemical cleaning and sludge lancing was approximately 7500 and 225 pounds, respectively.

The staff did not identify any issues that required follow-up action at this time; however, the staff asked to be notified in the event that any unusual conditions were detected during the remainder of the outage.

Docket No. 50-266

Enclosure:
Conference Summary

SUMMARY OF CONFERENCE CALL WITH
POINT BEACH UNIT 1
REGARDING THE 2008 STEAM GENERATOR TUBE INSPECTION RESULTS
DOCKET NO. 50-266

The staff identified the acronyms used below: U1R31 (Unit 1 Refueling Outage 31), gpm (gallons per minute), gpd (gallons per day), SG (steam generator), C/L (cold leg), H/L (hot leg), TTS (top of tubesheet), AVB (anti vibration bar), BLG (bulge), OXP (overexpansion), R (row), C (column), PWSCC (Primary Water Stress Corrosion Cracking), PLP (Possible Loose Part), ECT (Eddy Current Testing), FOSAR (Foreign Object Search and Retrieval), UT (Ultrasonic Testing), and MRPC (Motorized Rotating Pancake Coil). The information below was provided by the licensee.

1. Discuss any trends in the amount of primary-to-secondary leakage observed during the recently completed cycle.

Unit 1 primary-to-secondary leak-rate remains in the range of approximately 0.00021 gpm or 0.2 to 0.4 gpd and has not changed over several operating cycles including the most recent. The leak cannot be attributed to a specific SG.

2. Discuss whether any secondary side pressure tests were performed during the outage and the associated results.

No secondary side pressure tests were conducted.

3. Discuss any exceptions taken to industry guidelines.

The site has no exceptions to industry guidelines related to SG inspections.

4. For each SG, provide a description of the inspections performed including the areas examined and the probes used (e.g. dents/dings, sleeves, expansion-transition, U-bends with a rotating probe), the scope of the inspection (e.g., 100 percent of dents/dings greater than 5 volts and a 20 percent sample between 2 and 5 volts), and the expansion criteria.

Inspections completed to date include +Point rotating probe testing in the tubesheet region. The remainder of the program is discussed in the reply to question 11 and will be completed following chemical cleaning of both SGs.

SG A (Completed)

- ~50% H/L tubesheet full depth (Tube end to +3" TTS) with +Point
 - This includes acquiring 50% of BLG/OXPs in the SG
- 100% C/L periphery (~3 tubes deep) (+/- 3") with +Point
- 50% Low row (R1/R2) U-bends with+Point
- Full Depth tubesheet +Point of Unexpanded tube at R38/C96

SG B (Completed)

- 20% H/L tubesheet full depth with +Point
- 50% H/L tubesheet from tube end to +5" above tube end with +Point

Enclosure

- Note that these same tubes were inspected from the top of tubesheet down to 17" at U1R30. Thus, U1R30 and U1R31 inspections complete 50% of the tubesheet full depth by the mid-point of this period.
 - Tube population ensures 50% BLG/OSP population is inspected within the tubesheet
- 100% C/L periphery (~3 tubes deep) (+/- 3") with +Point
 - 20% Low row (R1/R2) U-bends with +Point. No expansion criteria have been met
5. For each area examined (e.g., tube supports, dent/dings, sleeves, etc), provide a summary of the number of indications identified to-date for each degradation mode (e.g., number of circumferential primary water stress-corrosion cracking indications at the expansion transition). For the most significant indications in each area, provide an estimate of the severity of the indication (e.g., provide the voltage, depth, and length of the indication). In particular, address whether tube integrity (structural and accident-induced leakage integrity) was maintained during the previous operating cycle. In addition, discuss whether any location exhibited a degradation mode that had not previously been observed at this location at this unit (e.g., observed circumferential PWSCC at the expansion transition for the first time at this unit).

To date there has been no observed stress corrosion cracking.
Through inspections conducted thus far, tube integrity was not challenged during the previous operating cycle
No new degradation mechanism has been observed

Only indications known to be present are:

- wear associated with a PLP signal in SG B reported this inspection
- historical wear at anti-vibration bars in the u-bends and at tube supports
- historical wear associated with sludge lance equipment in peripheral tubes

6. Describe repair/plugging plans

In SG A, tube at R38/C96 was not expanded the full depth of the tubesheet on the H/L. This tube is being considered for preventative plugging to position the plant for adoption of a permanent alternate repair criterion for the tubesheet region.

7. Describe in-situ pressure test and tube pull plans and results (as applicable and if available).

No plans for in-situ pressure tests unless ECT results dictate. No plans for tube pull

8. Discuss the following regarding loose parts:

- a. What inspections are performed to detect loose parts

All periphery tubes will be inspected using +Point (+/- 3" referenced from the top of tubesheet) on H/L and C/L. This is complimented with a visual FOSAR at the tubesheet to include the annulus, blowdown lane and in-bundle looks.

- b. A description of any loose parts detected and their location within the SG (including the source or nature of the loose part if known)

There currently is only one indication of a loose part in SG B C/L Row 1, column 5, 6, 7. Source and nature are unknown at this point. Post chemical cleaning visuals and retrieval attempt are planned.

- c. If the loose parts were removed from the SG

In preparation for chemical cleaning a personnel dosimeter was dropped in SG A, but was located and removed. Additional inspections and removal of parts, including the item in SG B C/L discussed above, will occur following chemical cleaning as applicable.

- d. Indication of tube damage associated with the loose parts

For the loose part in SG B C/L at row 1, a preliminary wear indication is present for the tube at Row 1 Column 5 – This will be sized following chemical cleaning.

9. Discuss the scope and results of any secondary side inspection and maintenance activities (e.g, in-bundle visual inspections, feedring inspections, sludge lancing, assessing deposit loading, etc).

A full bundle chemical cleaning is being conducted. Following the cleaning, sludge lancing will be performed at the Flow Diverter Baffle (FDB) and tubesheet.

Planned visual inspections in both SGs include:

- Tubesheet cleanliness visuals
- Tubesheet FOSAR activities including resolution of PLP signals from ECT
- FDB and first support plate visuals
- Top (6th) support plate visuals to verify and document removal of quatrefoil blockage in selected areas.
- Planned inspections of upper internals including:
 1. Feedring visuals and UT measurements
 2. Primary moisture separators visuals and UT measurements
 3. General area visuals of components and supports.

10. Discuss any unexpected or unusual results

No unusual or unexpected results

11. Provide the schedule for SG-related activities during the remainder of the current outage.

Chemical cleaning is expected to begin on October 20th,
Sludge lancing is expected to commence on October 27th
ECT is planned to resume on October 25th

- This will include a 100% bobbin program of A & B
- 100% Top of Tubesheet H/L +Point
- MRPC +Point of selected AVB wears to determine shape
- Dings/dents in hot and cold legs based on the following criteria:
 - Bobbin inspect 5 volts and less in freespan straight sections
 - +Point >5 volts in freespan straight sections
 - +Point all dings/dents at tube supports and in u-bends
- Any special interest as a result of bobbin inspections

Visuals will commence following sludge lancing on October 28th and will continue through October 31.

November 20, 2008

NOTE TO: File

FROM: Jack Cushing, Senior Project Manager /RA/
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

SUBJECT: POINT BEACH NUCLEAR PLANT UNIT 1 - TELECONFERENCE SUMMARY
REGARDING THE 2008 STEAM GENERATOR TUBE INSPECTION RESULTS
(TAC NO. MD9468)

On October 20, 2008, the U.S. Nuclear Regulatory Commission staff participated in a conference call with Point Beach Unit 1 representatives regarding their ongoing steam generator (SG) tube inspection activities.

Point Beach Nuclear Plant Unit 1 has two Westinghouse 44F SGs each containing 3214 thermally-treated Alloy 600 tubes. Point Beach Unit 1 SGs were replaced during refueling outage 11 in 1984. The tubes have an outside diameter of 0.875 inches, a wall thickness of 0.050 inches, and are supported by six stainless steel tube support plates and a baffle plate. The tube support plate holes are quatrefoil-shaped. The U bend region of the tubes in rows 1 through 8 was stress relieved after bending.

The licensee is at the midpoint of the first 60 effective full power month period.

The licensee has identified 98 tubes with potentially high residual stresses based on a review of the bobbin coil eddy current data for an offset. The licensee used the bobbin probe as the primary probe for inspecting these tubes (i.e., there are no routine rotating probe samples of expansion transitions or dent/dings in these tubes).

Material provided by the licensee is enclosed. Subsequent to the call, the licensee notified the staff that the total amount of material removed via chemical cleaning and sludge lancing was approximately 7500 and 225 pounds, respectively.

The staff did not identify any issues that required follow-up action at this time; however, the staff asked to be notified in the event that any unusual conditions were detected during the remainder of the outage.

Docket No. 50-266

Enclosure:

Conference Summary

DISTRIBUTION:

PUBLIC

JCushing, NRR RKrsek RIII LJJames, NRR RidsNrrLATHarris AHiser, NRR

KKarwoski, NRR AObedoako NRR

ADAMS Accession No.: ML083230820 *by memo ML083170563

OFFICE	LPL3-1/PM	LPL3-1/LA	*CSGB/BC	LPL3-1/BC
NAME	JCushing	THarris <i>JH</i>	AHiser	LJames <i>LJ</i>
DATE	11/18/08	11/20/08	11/12/08	11/20/08

OFFICIAL RECORD COPY