Prairie Island Unit 1R24 Outage*

NRC Phone Call

and

NRC Discussion Points**

May 18, 2006

*The attached information has not been validated. In many cases, it is preliminary information from ongoing activities. To our knowledge, it is the best information available as of 6 PM on the date prior to this report and may be changed following further review and analysis.

** 2R23 NRC Discussion Points used as template for this presentation.

Participants

- Ben Stephens (PI SG Program Engineer)
- Richard Pearson (PI alternate SG Engineer)
- Scott Redner (PI SG NDE Level III)
- Jeff Kivi (PI Licensing)
- Kari DenHerder (PI SG HIT Lead)
- Scott McCall (PI Engineering Programs Manager)
- Steve Brown (PI Engineering Director)

Current Status of 1R24 ISI SG Inspection (As of 1800 on May 17, 2006)

Category	11 SG	12 SG
Acquisition (% completed)	100	100
Analysis (% completed)	100	100
# of Pluggable Tubes	0	3
# of In Situ Candidates	0	0

Q1: Discuss any trends in the amount of primary-to-secondary leakage observed during the recently completed cycle.

- 11 Steam Generator maximum steady state leakage by tritium was 0.7 gallons per day over the last cycle
- 12 Steam Generator maximum steady state leakage by tritium was 0.8 gallons per day over the last cycle
- Leak rate based on Argon was less than detectable over the last cycle

Q2: Discuss whether any secondary side pressure tests were performed during the outage and the associated results.

- None were planned or performed

Q3: Discuss any exceptions taken to the industry guidelines.

- No exceptions will be taken from industry guidelines.

Q4: 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 the dents/dings greater than 5 volts and a 20 percent sample between 2 and 5 volts), and the expansion criteria. Also, discuss the extent of the rotating probe inspections performed in the portion of the tube below the expansion transition region (reference NRC Generic Letter 2004-01, "Requirements for Steam Generator Tube Inspections").

- Prairie island 1R24 steam generator inspection plan is attached on the following sheet.

Inspection Plan

SCOPE	PROBE TYPE	S/G 11	S/G 12
Full Length	Bobbin	100%	100%
Rows 1 through 9 U-Bends	MRPC	0%	0%
Hot Leg Tubesheet	MRPC	0%	0%
Cold Leg Tubesheet	MRPC	0%	0%
Post In Situ Pressure Test	MRPC	100%	100%
Supplemental❶	MRPC	~50❷	~32❷

❶ Supplemental MRPC testing is based on both baseline and current results: Inspect all baseline GMD, PVN, SVI, and percent calls. Inspect all current BLG ≥ 1.0, CUD, DEP, DNG ≥ 1.0, DNI, DSI, DTI, INR > 1.5 V @ TSP's, MBM, NQI, OXP, PDS, PLP, and percent calls.

❷ Approximate number of tubes based on baseline results.

Q5: For each area examined (e.g., tube supports, dents/dings, sleeves, etc), provide a summary of the number of indications identified to-date of 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 primary water stress corrosion cracking at the expansion transition for the first time at this unit).

Analysis Status

Analysis Status (percent completed) as of 1800 on May 17, 2006:	SG 11		SG 12	
	Hot	Cold	Hot	Cold
Tubesheet Crevice MRPC	N/A	N/A	N/A	N/A
Bobbin	100	100	100	100
U-Bend MRPC	N/A	N/A	N/A	N/A
Special Interest MRPC (Actual Tests)	100 (139)	100 (59)	100 (90)	100 (61)

SG 11 Analysis Results to Date

Degradation Mode and Location	#	Volt	Depth	Length	New
TSP Tapered Wear (volumetric)	56	0.15	13	0.82	Y
AVB Wear (volumetric)	9	0.21	7	0.59	Y

Structural and accident induced leakage integrity was maintained during the previous cycle

SG 12 Analysis Results to Date

Degradation Mode and Location	#	Volt	Depth	Length	New
TSP Tapered Wear (volumetric)	7	0.29	21	1.27	Y
AVB Wear (volumetric)	32	0.24	8	0.62	Y
PLP (confirmed)	1	N/A	N/A	N/A	Y

Structural and accident induced leakage integrity was maintained during the previous cycle

Q6: Describe repair/plugging plans.

Predicted Repairs

SCOPE	S/G 11	S/G 12
In Situ Pressure Test	0	0
Hot Leg Roll Plugs	0	0
Cold Leg Roll Plugs	0	0

Q6: Describe repair/plugging plans.

Required Repairs

SCOPE	S/G 11	S/G 12
In Situ Pressure Test	0	0
Hot Leg Roll Plugs	0	3
Cold Leg Roll Plugs	0	3

- Plugged R55 C58 for 21% at 03H and 15% at 05C
- Plugged R31 C104 for 19% at 03C
- Plugged R40 C20 for PLP at 01H

Q7: Describe in-situ pressure test and tube pull plans and results (as applicable and if available).

- We have no plans to pull tubes for unit 1, as part of a licensed repair program.
  - Status – No tube pull needed.
- We have no plans on performing in situ tests.
  - Status – No in situ needed.

Q8: Provide the schedule for steam generator-related activities during the remainder of the current outage.

- ET examinations were completed on May 10.
- In-situ testing is not required
- Repairs were completed on May 12
- Installed primary manways May 13

Q9: Discuss the following regarding loose parts: 1) what inspections are performed to detect loose parts, 2) a description of any loose parts detected and their location within the SG, 3) if the loose parts were removed from the SG, 4) indications of tube damage associated with the loose parts, 5) the source or nature of the loose parts, if known

1. A) All bobbin data is evaluated for possible loose parts (PLP) and PLP wear using manual analysis by primary.

   B) Secondary uses Computer Data Screening (CDS) with a PLP specific sort and various wear detection sorts.

   C) All MRPC data is evaluated for PLP's.

   D) All bobbin PLP indications are tested with MRPC.

   E) All PLP indications are bounded radially by one tube at the same elevation.

   F) A Foreign Object Search and Retrieval Inspection (FOSAR) was completed on the secondary side on top of the tubesheet using fiberscope equipment.

   G) The Loose Part Trapping Screens in the downcomer were inspected to ensure that they were intact and clear of foreign material

2. A) SG 11 had 2 bobbin PLP indications on the top of the hot leg tube sheet not confirmed by MRPC.
   B) SG 12 had 1 bobbin PLP indication at the first tube support plate on the hot leg side confirmed by MRPC.

3. A) SG 11 secondary side FOSAR is complete.
   B) SG 12 secondary side FOSAR is complete.

4. A) SG 11 has no indication of wear associated with PLP's.
   B) SG 12 has no indication of wear associated with PLP's .

5. A) SG 11 PLP indications are bobbin false positives.
   B) SG 12 PLP was a possible machine chip.