

Serial: RNP-RA/04-0065

Jun 15, 2004

United States Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261/LICENSE NO. DPR-23

MONTHLY OPERATING REPORT

Ladies and Gentlemen:

In accordance with the H. B. Robinson Steam Electric Plant (HBRSEP), Unit No. 2, Technical Specifications (TS) Section 5.6.4, "Monthly Operating Reports," TS Section 5.6.8, "Steam Generator Tube Inspection Report," and Technical Requirements Manual (TRM) Section 6.2, "Monthly Operating Report," Progress Energy Carolinas, Inc., also known as Carolina Power and Light Company, submits the attached report of operating statistics and shutdown experience for the month of May 2004.

Attachment I provides the Monthly Operating Report in accordance with TS Section 5.6.4 and TRM 6.2. Attachment II provides the Steam Generator Tube Inspection Report information for Refueling Outage 22 (RO-22) required by TS Section 5.6.8.b. Attachment III provides an addendum to the Steam Generator Tube Inspection Report information for Refueling Outage 21 (RO-21) that was submitted by letter dated November 14, 2002.

If you have any questions concerning this matter, please contact me.

Sincerely,

***Original signed by
C. T. Baucom***

C. T. Baucom
Supervisor – Licensing/Regulatory Programs

CTB/jwv

United States Nuclear Regulatory Commission

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Attachments:

- I. Monthly Operating Report
- II. Refueling Outage 22 Steam Generator Tube Inspection Report
- III. Refueling Outage 21 Steam Generator Tube Inspection Report (Addendum)

c: NRC Resident Inspector, HBRSEP

L. A. Reyes, NRC, Region II

C. P. Patel, NRC, NRR

MONTHLY OPERATING REPORT

DOCKET NO. 050-0261

UNIT H. B. ROBINSON STEAM ELECTRIC PLANT (HBRSEP), UNIT NO. 2

DATE 6/4/04

COMPLETED BY TIM SURMA

TELEPHONE (843) 857-1086

REPORTING PERIOD: MAY 2004

1. DESIGN ELECTRICAL RATING (NET MWE): 765.0
2. MAX DEPENDABLE CAPACITY (NET MWE): 710.0

	<u>THIS MONTH</u>	<u>YR TO DATE</u>	<u>CUMULATIVE</u>
3. NUMBER OF HOURS REACTOR CRITICAL	100.0	2740.0	223298.0
4. HOURS GENERATOR ON LINE	83.4	2722.4	219960.7
5. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	23.2
6. NET ELEC. ENERGY GENERATED (MWH)	33301.0	2007036.0	144384394.0

DOCKET NO. 050-0261UNIT NAME HBRSEP, UNIT NO. 2DATE 6/4/04COMPLETED BY TIM SURMATELEPHONE (843) 857-1086

REPORTING PERIOD: MAY 2004

UNIT SHUTDOWNS

No.	Date	Type F: Forced S: Scheduled	Duration (Hours)	Reason ¹	Method of Shutting Down the Reactor or Reducing Power ²	Cause / Corrective Actions / Comments
04.001	040419	S	660.6	C	4	Shutdown for Refueling Outage 22.

1

Reason:

A-Equipment Failure (Explain)

B-Maintenance or Test

C-Refueling

D-Regulatory Restriction

E-Operator Training & License Examination

F-Administrative

G-Operational Error (Explain)

H-Other (Explain)

2

Method:

1-Manual

2-Manual Scram

3-Automatic Scram

4-Continuation

5-Other (Explain)

SUMMARY: The unit was returned to service at 1236 hours on May 28, 2004, to end Refueling Outage 22. There were no challenges to the pressurizer power operated relief valves or the pressurizer safety valves during the month.

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2**REFUELING OUTAGE 22 STEAM GENERATOR TUBE INSPECTION REPORT**

This report summarizes the Steam Generator (SG) Inspection Program and the results of the examination that was performed at the H. B. Robinson Steam Electric Plant (HBRSEP), Unit No. 2, during Refueling Outage 22 (RO-22), as required by the HBRSEP, Unit No. 2, Technical Specifications Section 5.6.8, "Steam Generator Tube Inspection Report."

1. Number and Extent of Tubes Inspected

The SG Inspection Program included the use of multi-frequency Bobbin coil, and Motorized Rotating Pancake Coil or Plus Point Coil (RPC) probes. Bobbin coil examinations were performed in SGs A and C on approximately 50% of the tubes and SG B had 100% of the open tubes examined. RPC examinations were performed in SGs A, B, and C on 114 of the inlet (hot leg) side historical manufacturing buff marks and dents, as well as additional RPC examinations on suspect bobbin indications (diagnostics). RPC examinations were also performed on 50% of the U-bend region of rows 1 and 2. SGs A, B, and C had approximately 50% of the hot leg top-of-tubesheet (TTS) area tested with RPC probes. In addition, SG B had RPC examinations on all cold leg peripheral tubes (one tube deep) at the top-of-tubesheet.

SG	Inspection	Number Of Tubes
A	Cold Leg RPC Special Interest	67
A	Cold Leg Bobbin	1751
A	Hot Leg Bobbin Rows 1 and 2	138
A	Hot Leg RPC Special Interest	32
A	Hot Leg RPC Top-of-Tubesheet	1739
A	Hot Leg RPC Rows 1 and 2 U-bend	90
B	Cold Leg RPC Special Interest	72
B	Cold Leg Bobbin	3210
B	Cold Leg RPC Top-of-Tubesheet	263
B	Hot Leg Bobbin Rows 1 and 2	183
B	Hot Leg RPC Special Interest	119
B	Hot Leg RPC Top-of-Tubesheet	1764
B	Hot Leg RPC Rows 1 and 2 U-bend	91
C	Cold Leg RPC Special Interest	45
C	Cold Leg Bobbin	1765
C	Hot Leg Bobbin Rows 1 and 2	138
C	Hot Leg RPC Special Interest	50
C	Hot Leg RPC Top-of-Tubesheet	1758
C	Hot Leg RPC Rows 1 and 2 U-bend	90

2. Location and Wall Thickness Penetration

Location definitions:

CTS	Cold leg top-of-tubesheet
HTS	Hot leg top-of-tubesheet
FBH	Flow distribution baffle on hot leg side
02A	Anti-vibration bar 2
03A	Anti-vibration bar 3
04A	Anti-vibration bar 4
02C	Cold leg second support plate
02H	Hot leg second support plate
03C	Cold leg third support plate
03H	Hot leg third support plate
04C	Cold leg fourth support plate
04H	Hot leg fourth support plate
06C	Cold leg sixth support plate
06H	Hot leg sixth support plate

SG	Tube	% Depth	Location Inches
A	R23C14	24	HTS/0.05
A	R33C41	25	HTS/0.10
A	R34C41	24	HTS/0.09
A	R41C53	27	HTS/0.07
A	R15C35	18	03C/-0.97
A	R24C54	25	03H/-0.61
A	R1C1	19	CTS/13.72
A	R7C1	18	CTS/0.68
A	R1C2	15	CTS/13.74
A	R11C2	20	CTS/0.54
A	R1C3	19	CTS/15.66
A	R13C3	22	CTS/0.45
A	R1C4	20	CTS/15.78
A	R16C4	19	CTS/0.41
		17	CTS/0.84
A	R1C5	16	CTS/15.76
A	R1C6	17	CTS/15.57
A	R23C7	19	CTS/0.50
A	R26C9	21	CTS/0.50
A	R33C15	21	CTS/0.48
A	R37C20	17	HTS/0.63

SG	Tube	% Depth	Location Inches
A	R40C25	21 18	CTS/0.47 CTS/0.68
A	R42C30	19 16 16	CTS/0.47 HTS/0.63 HTS/0.95
A	R43C33	18 17	CTS/0.56 CTS/0.57
A	R44C36	18	CTS/0.60
A	R43C37	19 20	CTS/0.55 CTS/1.75
A	R45C41	20	CTS/0.62
A	R45C47	18 20	CTS/2.74 CTS/6.74
A	R45C52	21 22 18	CTS/0.44 CTS/0.55 CTS/3.79
A	R44C57	21 19 16 19 17 18	CTS/0.51 CTS/0.55 CTS/0.99 CTS/1.89 HTS/0.67 HTS/1.11
A	R43C60	22	CTS/0.59
A	R42C63	20 18 15	CTS/0.61 CTS/0.79 HTS/0.64
A	R40C68	19 18	HTS/0.65 HTS/0.73
A	R36C74	16	HTS/0.62
A	R31C80	19	CTS/0.59
A	R26C84	19	CTS/0.61
A	R23C86	19 18	CTS/0.61 CTS/3.16
A	R19C87	19	CTS/7.62
A	R1C89	16	HTS/15.54
A	R11C91	19 18	CTS/0.67 CTS/0.52
A	R7C92	17	CTS/0.61
B	R24C33	20	HTS/0.19
B	R34C18	22	FBH/0.60
B	R23C71	55	04H/-0.03
B	R23C72	76	04H/-0.34

SG	Tube	% Depth	Location Inches
B	R34C44	26	HTS/0.07
B	R4C47	14	CTS/1.42
		15	CTS/1.44
B	R4C48	17	CTS/1.59
		27	CTS/3.27
B	R5C48	27	CTS/1.71
B	R4C49	17	CTS/1.53
B	R5C49	26	CTS/1.69
B	R4C50	15	CTS/1.76
B	R11C53	25	CTS/1.27
B	R1C1	15	CTS/9.62
		14	CTS/12.71
		20	CTS/12.75
		22	CTS/13.10
		17	CTS/15.08
B	R2C1	17	CTS/10.07
		17	CTS/11.52
B	R6C1	15	CTS/0.49
B	R7C1	13	CTS/0.63
		17	CTS/1.14
		16	CTS/12.47
B	R11C2	19	CTS/0.56
B	R16C4	16	CTS/0.44
B	R23C7	14	HTS/0.68
B	R26C9	20	HTS/0.62
B	R37C20	17	HTS/0.60
		16	CTS/0.51
		17	CTS/0.53
B	R40C25	16	CTS/0.53
		22	CTS/0.55
B	R40C26	18	CTS/0.51
B	R2C42	26	CTS/1.50
B	R40C67	13	CTS/0.41
B	R40C68	18	CTS/0.63
B	R33C78	17	CTS/0.62
B	R26C84	20	CTS/0.67
B	R23C86	18	CTS/0.65
B	R16C89	21	CTS/0.60

SG	Tube	% Depth	Location Inches
B	R1C92	17	CTS/8.55
		18	CTS/9.62
		19	CTS/10.92
		16	CTS/11.86
		13	HTS/2.03
		15	HTS/2.84
		13	HTS/13.56
B	R2C92	17	CTS/10.66
B	R25C11	23	04C/-0.59
B	R29C14	26	FBH/0.56
		28	FBH/0.63
B	R29C15	23	FBH/0.49
B	R7C16	17	CTS/15.94
B	R27C65	18	03H/0.08
B	R1C67	18	06C/-0.62
		17	06C/0.56
		4	06C/-0.56
		2	06C/0.58
C	R7C1	15	CTS/0.69
C	R44C38	17	HTS/0.49
C	R34C50	24	HTS/0.02
C	R34C51	21	HTS/-0.03
C	R44C57	16	HTS/0.61
		15	HTS/1.18
		19	CTS/0.67
C	R33C78	18	HTS/0.63
C	R39C34	17	02H/-0.82
C	R39C35	30	02H/-0.74
C	R35C51	19	HTS/0.03
C	R35C75	17	CTS/1.49
C	R3C91	24	HTS/0.39
C	R37C45	7	03A/-0.18
		6	04A/-0.08
C	R35C61	6	02A/-0.13
		5	03A/0.18
C	R38C62	4	02A/-0.53
		14	03A/-0.26
C	R31C13	5	06C/0.60
		4	06C/-0.45

Primary-to-secondary leakage at the time the refueling outage commenced was non-detectable.

3. Identification of Tubes Plugged

Steam Generator	Tube	Comments
B	R24C33	Wear indication.
B	R34C18	Wear indication.
B	R23C71	Wear indication.
B	R23C72	Wear indication.
B	R38C69	Wear Indication.
C	R39C34	Wear Indication.
C	R39C35	Wear Indication.

H.B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2**REFUELING OUTAGE 21 STEAM
GENERATOR TUBE INSPECTION REPORT (ADDENDUM)**

The Steam Generator Tube Inspection Report is required by H. B. Robinson Steam Electric Plant (HBRSEP), Unit No. 2, Technical Specifications Section 5.6.8. This addendum to the Refueling Outage 21 (RO-21) Steam Generator (SG) Tube Inspection Report, submitted by letter dated November 14, 2002, identifies an additional indication that had been inadvertently omitted from the previous report.

2. Location and Wall Thickness Penetration

SG	Tube Identification (Row and Column)	Location	% Depth
B	R34C44	HTS/0.07	*

HTS – Hot leg top-of-tubesheet

- * Based on comparison of signal size to a known indication of 20% throughwall identified during RO-21 in the adjacent tube at R34C43, the indication in R34C44 was estimated to be smaller than the indication at R34C43 (i.e., less than 20% throughwall).

The indication was not recognized during the initial data evaluation for RO-21. Therefore, the indication was not sized at that time. However, upon review of the data in preparation for RO-22, two Progress Energy Level III qualified data analysts independently estimated the size to be 10% throughwall or less. This was subsequently verified by qualified vendor personnel. This indication is below the Technical Specifications plugging limit, and further review in RO-22 showed the indication remained essentially unchanged.

The indication was not recognized during previous data analysis due to inattention to detail by vendor analysts. After identifying the problem, the work performed by these analysts during RO-21 was sent to a qualified independent vendor to ensure no further discrepancies existed. The tube at R34C44 was inspected with a Rotating Pancake Coil (RPC) during RO-22 to ensure the indication had not significantly changed, and surrounding tubes were RPC inspected as well.