Indian Point 3
Nuclear Power Plant
P.O. Box 215
Buchanan, New York 10511
914 736.8001

New York Power Authority

Robert J. Barrett
Site Executive Officer

December 17, 1999
IPN-99-129

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

SUBJECT: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
License No. DPR-64
Steam Generator Inservice Inspection Results

Dear Sir:

The following is a report on the Indian Point Unit 3 Steam Generator Inservice Inspection (ISI), prepared in accordance with Technical Specification (TS) Section 4.9.C.2. The requirements of the TS include the reporting of the number and extent of tubes inspected, location and percent of wall thickness penetration for each indication, and identification of the tubes plugged and the tubes repaired.

The Steam Generator Field Service Group of the Westinghouse Nuclear Services Division (W- NSD) performed the eddy current tube inspection on steam generators 31 and 32 during Indian Point's Refueling Outage 10. The inspection resulted in a number of non-repairable signals (including three volumetric indications detected in steam generator 32) manufacturing buff marks (MBM), dings and dents and others that were subsequently determined to be not flaw-like. None of the tubes required plugging or repair. Attachment I summarizes the scope of the inservice inspection. This inspection sampling exceeded the minimum Technical Specification inspection requirement.

This was the third In-Service Inspection program for these steam generators since their installation in 1989. Prior inspections were two - 20% bobbin probe inspections of all four steam generators, performed in September 1990 and May 1992. The programs performed in steam generators 31 and 32 during this refueling outage included:

- 100% full length bobbin inspections with the exception of the U-bend portion of rows 1 and 2 which were inspected by rotating pancake coil (RPC)
- 40% plus point RPC top of tubesheet inspection
- 40% U-Bend plus point RPC inspection in rows 1 and 2 and,
- A special interest program which include all dents and dings greater than 5 volts in the straight section of the hot leg was performed.

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The program also included signals dispositioned as I-codes and possible loose parts from the bobbin probe. There was no scope expansion other than the 30 tubes plus point RPC tested at the top of the tubesheet. This was to encompass all adjacent tubes where possible loose parts or loose parts wear indications were reported or where any loose parts were previously removed from the generators. There were no new dents reported during the bobbin inspection that were not present in the baseline data. All dents reported by bobbin at support plates were inspected with plus point RPC, which detected no degradation or cracking.

The tubes that showed small volumetric wear- like indications from the 3 coil plus point exam in #32 generator were adjacent tubes located at R40C29, R41C28 and R41C29 just above the top of tubesheet. The three(3) indications were sized by setting up a volts-vs-percent curve on both the 20% and 43% notches on the AVB standard and the 20% and 41% flat bottom holes on the ASME standard with both the Plus Point coil and the .115" pancake coil on both the 300 kHz channel and a 300/100 kHz mix channel. This sizing technique is based on EPRI Examination Technique Specification Sheet (ETSS) #96910 for the Plus Point coil and ETSS #96911 for the .115" pancake coil which are qualified for straight-length tube section wear.

For additional conservatism, the greatest estimate of depth from among all the wear curves was used for each tube. The maximum depths for the tubes were as follows: R41C28 - 23%, R40C29 - 21%, and R41C29 - 13%. Since the indications were all well below the applicable plugging limit of 40% and the loose parts were no longer at these locations, the tubes were left in service to be monitored in future inspections.

Secondary side activities performed during the refueling outage included tubesheet cleaning, foreign object search (FOS) and retrieval, support plate inspection, inbundle inspection service (IBIS), upper support plate inspection, steam drum inspection and assessment and feedring visual inspection. The visual inspections were informational, to collect data for an engineering assessment of the secondary side condition. This includes erosion, corrosion, and structural integrity. Some of these activities were as a result of NRC Information Notice 96-09 and its supplement.

The NIS-1 form for In-Service Inspection (ISI), as required by the provision of the ASME code rules, will be included in ISI 90 day report that is forthcoming.

Attachment II includes the refueling outage 10 listing of indications found in #31 and #32 steam generators and also the Conditional Monitoring and Operational Assessment Report.

The Authority is making no new commitments in this report. If you have any questions about this matter, please call Mr. Ian Mew at (914) 287-3197.

Very truly yours,

Robert J. Barrett
Site Executive Officer
Indian Point 3 Nuclear Power Plant

cc: Mr. Hubert Miller
Regional Administrator
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, Pennsylvania 19406-1415

U.S. Nuclear Regulatory Commission
Resident Inspectors' Office
Indian Point 3 Nuclear Power Plant

Mr. George F. Wunder, Project Manager
Project Directorate I-1
Division of Reactor Projects I/II
U.S. Nuclear Regulatory Commission
Mail Stop 14 B2
Washington, DC 20555

ATTACHMENT I

IP3 CYCLE 10/11 STEAM GENERATOR
INSERVICE INSPECTION

Eddy current full length tube inspection
Full length Bobbin

Steam Generator	Percent of Tubes	Number of Tubes
31	100	3214
32	100	3214

Eddy current top of tubesheet 3-Coil Plus Point RPC
Pattern

Steam Generator	Percent of Tubes	Number of Tubes
31	40.32	1296
32	40.63	1306

Eddy current of row 1 and 2 u-bend
Plus Point RPC
Pattern

Steam Generator	Percent of Tubes	Number of Tubes
31	40	74
32	40	74

ATTACHMENT II TO IPN-99-129

REFUELING OUTAGE 10

CONDITIONAL MONITORING AND OPERATIONAL ASSESSMENT REPORT

NEW YORK POWER AUTHORITY
INDIAN POINT 3 NUCLEAR POWER PLANT
DOCKET NO. 50-286
DPT-64

123 Main Street
White Plains, New York 10601
914 681 6200

OCT 18 1999

NewYorkPower Authority

October 15, 1999 DCME-99-0921

To: WESTINGHOUSE ELECTRIC COMPANY
P O Box 355
Pittsburgh PA 15230-0355

Attn: Mr. Steve Ira, Customer Project Mgr.

The document(s) listed below are being returned to you with the status indicated on each document.

Document No.	Rev.	Status
SG-99-10-003	0	1 ACCEPTED
RF10 CONDITION MONITORING ASSESSMENT AND OPERATIOAL ASSESSMENT		

Very truly yours,

for Vivek Vaidya

R. Cullen
Sr. Nuclear Chemical Eng.

copies (transmittal only):
w. attachment: R. Cullen, I. Mew, M. Dries, K. Moody

Westinghouse
Electric Company

Nuclear Services Division

Box 158
Madison, Pennsylvania 15663-0158

INT-99-256

October 14, 1999

Mr. R. Penny
New York Power Authority
123 Main Street
White Plains, NY 10601

New York Power Authority
Indian Point 3
RF 10 CONDITION MONITORING ASSESSMENT AND OPERATIONAL ASSESSMENT

Dear Mr. Penny:

Attached is the Indian Point 3 RF10 Condition Monitoring Assessment and Operational Assessment (SG-99-10-003, dated 10/13/99). The transmittal of this deliverable completes the scope of Section III 9.0 of the Scope of Work under Purchase Order Number 4500001356.

If you have any questions or comments, please contact me at 724-722-5658.

Sincerely,

S. M. Ira
Customer Projects Manager

SMI/krs

Attachment

NEW YORK POWER AUTHORITY	
DOCUMENT REVIEW STATUS	
STATUS NO:	
1	☒ ACCEPTED
2	☐ ACCEPTED AS NOTED RESUBMITTAL NOT REQUIRED
3	☐ ACCEPTED AS NOTED RESUBMITTAL REQUIRED
4	☐ NOT ACCEPTED
Permission to proceed does not constitute acceptance or approval of design details, calculations, analysis, test methods or materials developed or selected by the supplier and does not relieve supplier from full compliance with contractual negotiations.	
REVIEWED BY:	TITLE: Sr. Mech. Eng.
	DATE: 10/15/99

Official Record Electronically Approved in EDMS 2000.

INT-99-256
October 14, 1999

cc: R. Cullen/NYPA White Plains*
I. Mew/NYPA White Plains*
W. K. Cullen/WM
R. F. Keating/WM
D. D. Malinowski/WM
W. B. Middlebrooks/WM
T. A. Pitterle/WM
H. O. Lagally/WM

*With Attachment

Internal Reference: SG-99-10-003 dated 10/13/99