

April 6, 2004

Mr. Michael R. Kansler, President
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING STEAM
GENERATOR TUBE INSPECTION REPORTS FOR THE 2003 OUTAGE,
INDIAN POINT NUCLEAR GENERATING UNIT NO. 3 (TAC NO. MC1912)

Dear Mr. Kansler:

In letter dated April 25, August 19, and December 8, 2003, Entergy Nuclear Operations, Inc. (ENO) submitted reports summarizing the steam generator (SG) tube inspections performed at Indian Point Nuclear Generating Unit No. 3 (IP3) during refueling outage 12 in April 2003.

The Nuclear Regulatory Commission staff is reviewing the information provided in these submittals and has determined that additional information is needed to complete its review. The specific questions are found in the enclosed request for additional information (RAI). During a telephone call on March 26, 2004, the ENO staff indicated that a response to the RAI would be provided within 60 days.

If you should have any questions, please do not hesitate to call me.

Sincerely,

/RA/

Patrick D. Milano, Sr. Project Manager, Section 1
Project Directorate 1
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-286

Enclosure: RAI

cc w/encl: See next page

April 6, 2004

Mr. Michael R. Kansler President
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING STEAM
GENERATOR TUBE INSPECTION REPORTS FOR THE 2003 OUTAGE,
INDIAN POINT NUCLEAR GENERATING UNIT NO. 3 (TAC NO. MC1912)

Dear Mr. Kansler:

In letters dated April 25, August 19, and December 8, 2003, Entergy Nuclear Operations, Inc. (ENO) submitted reports summarizing the steam generator (SG) tube inspections performed at Indian Point Nuclear Generating Unit No. 3 (IP3) during refueling outage 12 in April 2003.

The Nuclear Regulatory Commission staff is reviewing the information provided in these submittals and has determined that additional information is needed to complete its review. The specific questions are found in the enclosed request for additional information (RAI). During a telephone call on March 26, 2004, the ENO staff indicated that a response to the RAI would be provided within 60 days.

If you should have any questions, please do not hesitate to call me.

Sincerely,

/RA/

Patrick D. Milano, Sr. Project Manager, Section 1
Project Directorate 1
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-286

Enclosure: RAI

cc w/encl: See next page

DISTRIBUTION

PUBLIC	R. Laufer	K. Karwoski	C. Bixler, RGN-I
PDI-1 Reading	P. Milano	S. Little	OGC
A. Howe	L. Lund	B. McDermott, RGN-I	ACRS

Accession Number: ML040970028

OFFICE	PDI-1:PM	PDI-1:LA	EMCB:SC	PDI-1:SC
NAME	PMilano	SLittle	LLund	AHowe for RLaufer
DATE	03/30/04	04/05/04	04/02/04	04/05/04

OFFICIAL RECORD COPY

Indian Point Nuclear Generating Unit No. 3

cc:

Mr. Gary Taylor
Chief Executive Officer
Entergy Operations, Inc.
1340 Echelon Parkway
Jackson, MS 39213

Mr. John Herron
Senior Vice President and
Chief Operating Officer
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

Mr. Fred Dacimo
Vice President, Operations
Entergy Nuclear Operations, Inc.
Indian Point Energy Center
295 Broadway, Suite 2
P.O. Box 249
Buchanan, NY 10511-0249

Mr. Christopher Schwarz
General Manager, Plant Operations
Entergy Nuclear Operations, Inc.
Indian Point Energy Center
295 Broadway, Suite 2
P.O. Box 249
Buchanan, NY 10511-0249

Mr. Dan Pace
Vice President Engineering
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

Mr. Randall Edington
Vice President Operations Support
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

Mr. John McCann
Director, Nuclear Safety Assurance
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

Ms. Charlene Faison
Manager, Licensing
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

Director of Oversight
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

Mr. James Comiotes
Director, Nuclear Safety Assurance
Entergy Nuclear Operations, Inc.
Indian Point Energy Center
295 Broadway, Suite 2
P.O. Box 249
Buchanan, NY 10511-0249

Mr. Patric Conroy
Manager, Licensing
Entergy Nuclear Operations, Inc.
Indian Point Energy Center
295 Broadway, Suite 2
P. O. Box 249
Buchanan, NY 10511-0249

Mr. John M. Fulton
Assistant General Counsel
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Senior Resident Inspector, Indian Point 3
U. S. Nuclear Regulatory Commission
295 Broadway, Suite 1
P.O. Box 337
Buchanan, NY 10511-0337

Indian Point Nuclear Generating Unit No. 3

cc:

Mr. Peter R. Smith, President
New York State Energy, Research, and
Development Authority
Corporate Plaza West
286 Washington Avenue Extension
Albany, NY 12203-6399

Mr. Paul Eddy
Electric Division
New York State Department
of Public Service
3 Empire State Plaza, 10th Floor
Albany, NY 12223

Mr. Charles Donaldson, Esquire
Assistant Attorney General
New York Department of Law
120 Broadway
New York, NY 10271

Mayor, Village of Buchanan
236 Tate Avenue
Buchanan, NY 10511

Mr. Ray Albanese
Executive Chair
Four County Nuclear Safety Committee
Westchester County Fire Training Center
4 Dana Road
Valhalla, NY 10592

Ms. Stacey Lousteau
Treasury Department
Entergy Services, Inc.
639 Loyola Avenue
Mail Stop: L-ENT-15E
New Orleans, LA 70113

Mr. William DiProfio
PWR SRC ConsultanT
139 Depot Road
East Kingston, NH 03827

Mr. Dan C. Poole
PWR SRC Consultant
20 Captains Cove Road
Inglis, FL 34449

Mr. William T. Russell
PWR SRC Consultant
400 Plantation Lane
Stevensville, MD 21666-3232

Mr. Alex Matthiessen
Executive Director
Riverkeeper, Inc.
25 Wing & Wing
Garrison, NY 10524

Mr. Paul Leventhal
The Nuclear Control Institute
1000 Connecticut Avenue NW
Suite 410
Washington, DC, 20036

Mr. Karl Coplan
Pace Environmental Litigation Clinic
78 No. Broadway
White Plains, NY 10603

Mr. Jim Riccio
Greenpeace
702 H Street, NW
Suite 300
Washington, DC 20001

Mr. Robert D. Snook
Assistant Attorney General
State of Connecticut
55 Elm Street
P.O. Box 120
Hartford, CT 06141-0120

Indian Point Nuclear Generating Unit No. 3

cc:

Mr. David Lochbaum
Nuclear Safety Engineer
Union of Concerned Scientists
1707 H Street NW, Suite 600
Washington, DC 20006

REQUEST FOR ADDITIONAL INFORMATION
REGARDING STEAM GENERATOR TUBE INSPECTIONS
ENTERGY NUCLEAR OPERATIONS, INC.
INDIAN POINT NUCLEAR GENERATING UNIT NO. 3 (IP3)
DOCKET NO. 50-286

In letters dated April 25 (ADAMS Accession No. ML031200250), August 19 (ML032330262), and December 8, 2003 (ML033450339), Entergy Nuclear Operations summarized the steam generator (SG) tube inservice inspection (ISI) performed at IP3 during refueling outage (RFO) 12. The Nuclear Regulatory Commission (NRC) staff has the following questions regarding the information provided in these reports:

1. The SGs at IP3 were replaced in 1989 with Westinghouse Model No. 44F SGs. In several locations, the reports reference tube support structures (e.g., 1C) and tube locations (e.g., Row 29, Column 17). In order for the NRC staff to better understand the location of the indications, provide a sketch of the IP3 SGs that depicts the tube and support naming conventions. In addition, provide the following general design information: (a) tube manufacturer and (b) tube support (including anti-vibration bar) thickness. Discuss reference datum for the measurements from a tube support such that it is clear whether the measurements are from the middle of the support or the edge of the support (e.g., does AV2 minus 0.6 inch specify an indication 0.6 inch from the bottom edge of the second anti vibration bar?).
2. Provide the completion date for RFO 11 and state whether any SG tube inspections were performed during that RFO. The staff notes that the August 19 report implies that inspections were performed (i.e., "...wear scars were not identified during Refueling Outage 11 because sludge lancing occurred after the ISI."). However, the December 8 report indicates that no eddy current inspections were performed.
3. Provide the completion date for your SG tube inspections in 1999.
4. Three tubes were reported as having restrictions such that a 0.700-inch bobbin probe could not pass through the U-bend region. Discuss: (a) the largest size probe that passed through these tubes during RFO 12, (b) the largest size probe that ever passed through these tubes, and (c) the source of these restrictions. Also, provide the bend radii of the first three rows of tubes.
5. All hot leg dents in the straight section of the tubes were inspected with a rotating probe if the dent voltage was greater than 5 volts. Discuss whether the calibration procedure (for measuring dent size) is consistent with the guidance described in Generic Letter (GL) 95-05, "Voltage-Based Repair Criteria for Westinghouse Steam Generator Tubes Affected by Outside Diameter Stress Corrosion Cracking," or is consistent with industry guidelines. Also, discuss whether the dents and dings found during the RFO 12

Enclosure

inspection were traceable back to the baseline inspection and discuss any changes in magnitude. If the dents or dings are not traceable to your baseline inspection and/or have changed in magnitude, discuss the reason for any change.

6. One tube was classified as having a “trackable anomaly.” Define this classification.
7. Clarify whether the tubes with possible loose parts signals were visually inspected to confirm the nature of any potential loose parts. Provide the location of these indications. If visual inspections were not performed and/or the part was not removed, discuss the analyses performed to ensure these potential parts do not compromise tube integrity for the period of time between inspections.
8. In 1997, a free span bobbin indication was identified in one tube in SG 34 (Row 8, Column 21). During that outage, a rotating probe inspection was performed at this location which revealed the presence of a small ding. Discuss whether any indications were identified in this region of the tube during your 2003 outage, and discuss whether the bobbin signal has continued to change.
9. During the 1997 outage, possible indications of erosion-corrosion were identified in two J-tube joints (refer to page 11 of 31 of the December 19, 1997, report). The report further indicated that these J-tubes would be reinspected at a later outage to determine if the erosion-corrosion is progressing. Have these additional inspections been performed? If so, describe the results of these inspections.
10. The staff’s review of the 2003 inspection results included referring back to the previous inspection results which were provided by letter dated December 17, 1999. In reviewing this document (ML003670350), it appears that portions of Attachment 2 were not incorporated into the NRC’s document management system. Provide a copy of Attachment 2 to the December 17, 1999, letter.