

October 21, 2008

MEMORANDUM TO: Harold K. Chernoff, Chief
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

FROM: Peter Bamford, Project Manager */ra/*
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

SUBJECT: THREE MILE ISLAND, UNIT NO. 1 - ELECTRONIC TRANSMISSION,
DRAFT REQUEST FOR ADDITIONAL INFORMATION REGARDING
REVIEW OF STEAM GENERATOR TUBE INSPECTION REPORT FOR
THE 2007 OUTAGE (TAC NO. MD8268)

The attached draft request for additional information (RAI) was transmitted by electronic transmission on October 21, 2008, to Mr. Thomas Loomis, at AmerGen Energy Company, LLC (AmerGen, the licensee). This draft RAI was transmitted to facilitate the technical review being conducted by the Nuclear Regulatory Commission (NRC) staff and to support a conference call (if needed) with AmerGen in order to clarify the licensee's 2007 inservice inspection report. The draft RAI is related to AmerGen's submittal dated February 14, 2008, regarding information submitted summarizing the results of the 2007 steam generator tube inspections at Three Mile Island, Unit 1. The draft questions were sent to ensure that they were understandable, the regulatory basis was clear, and to determine if the information was previously docketed. Additionally, review of the draft RAI would allow AmerGen to evaluate and agree upon a schedule to respond to the RAI. This memorandum and the attachment do not represent an NRC staff position.

Docket Nos. 50-289

Enclosure: As stated

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LPL1-2 R/F

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DRAFT

REQUEST FOR ADDITIONAL INFORMATION

THREE MILE ISLAND, UNIT 1

2007 STEAM GENERATOR TUBE INSPECTIONS

DOCKET No. 50-289

By letter dated February 14, 2008 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML080650174), AmerGen Energy Company, LLC, the licensee, submitted information summarizing the results of the 2007 steam generator (SG) tube inspections at Three Mile Island, Unit 1. In addition to these reports, the U.S. Nuclear Regulatory Commission (NRC) staff summarized additional information concerning the 2007 SG tube inspections at Three Mile Island, Unit 1, in a letter dated January 27, 2008 (ADAMS Accession No ML080160563).

In order for the NRC staff to complete its review of the portions of the above-mentioned documents pertaining to steam generator tube integrity, the NRC staff requests responses to the following questions.

1. Please confirm that all detected crack-like indications were plugged (except for those that were determined to be acceptable for service based on an NRC-approved alternate tube repair criteria).
2. It was indicated that the bobbin coil probe was used to inspect for tube-to-tube wear. Please discuss if any tube-to-tube wear was observed. If any was observed, discuss the size of these indications, how these indications were dispositioned, and the basis for leaving them in service (if applicable).
3. Please discuss whether any degradation of your tube supports was detected. If so, discuss the extent and the basis for dispositioning this degradation.
4. Please discuss the results of your visual and eddy current inspection of the plugs (including the thimble plugs).
5. Please discuss whether any of the volumetric intergranular attack indications were excluded from your growth analysis because they were outliers. If any data were excluded, please discuss the number of data points excluded and the growth rate for these data points. In addition, please discuss how the 2007 results compare to prior outages.
6. On page 15 of Enclosure 1 to your February 14, 2008 letter, you indicated that 13,819 inservice tubes in steam generator A and 14,607 inservice tubes in steam generator B were repaired by kinetic expansion. These numbers do not match those on page 18 or Table 2-1. Please clarify.
7. Other than postulated leakage from flaws in the kinetically expanded region of the tubing, please discuss the source and nature of any other sources of primary-to-secondary leakage that were detected during the 2007 outage.

ENCLOSURE

8. Please discuss whether any indications were detected at dented locations. If so, please discuss the nature and size of the indication and the size of the dent. If any indications were found in dents whose voltage was near the threshold value for performing rotating probe examinations, please provide the basis for why no sample expansion was necessary.
9. During the 2005 outage, approximately 1200 inside diameter intergranular attack indications were detected in steam generator A. During the 2007 inspection, only 1119 indications were used in the growth assessment. Please discuss this apparent discrepancy in the number of data points (e.g., were some indications not detected during the 2007 outage?).
10. Please discuss whether any indications were detected in the sleeves or in the lower tubesheet crevice. If any indications were detected, please discuss the nature of the indications.