

UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

March 16, 2017

Vice President, Operations
Entergy Nuclear Operations, Inc.
Palisades Nuclear Plant
27780 Blue Star Memorial Highway
Covert, MI 49043-9530

SUBJECT: PALISADES NUCLEAR PLANT - UPCOMING STEAM GENERATOR TUBE

INSERVICE INSPECTION (CAC NO. MF9396)

Dear Sir or Madam:

Inservice inspection of steam generator (SG) tubes play a vital role in assuring tube integrity. A telephone conference call has been arranged with members of your staff to discuss the ongoing results of the SG tube inspections to be conducted during the upcoming Palisades Nuclear Plant refueling outage. This call will occur after the majority of the tubes have been inspected, but before the SG inspection activities have been completed. Enclosed is a list of discussion points to facilitate this call.

The U.S. Nuclear Regulatory Commission (NRC) staff will document a summary of the conference call, including any material that you provide to the NRC staff in support of the call.

If you have any questions, please contact me at (301) 415-1530 or via e-mail at Jennivine.Rankin@nrc.gov.

Sincerely,

Jennivine K. Rankin, Project Manager

Plant Licensing Branch III

Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Docket No. 50-255

Enclosure:

SG Tube Inspection Discussion Points

cc w/encl: Distribution via ListServ

SUBJECT: PALISADES NUCLEAR PLANT – UPCOMING STEAM GENERATOR TUBE INSERVICE INSPECTION (CAC NO. MF9396) DATED MARCH 16, 2017

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STEAM GENERATOR TUBE INSPECTION DISCUSSION POINTS

ENTERGY NUCLEAR OPERATIONS, INC.

PALISADES NUCLEAR PLANT

DOCKET NO 50-255

The following discussion points have been prepared to facilitate the conference call arranged with the licensee to discuss the results of the steam generator (SG) tube inspections to be conducted during the upcoming spring 2017 refueling outage. This conference call is scheduled to occur towards the end of the planned SG tube inspections, but before the unit completes the inspections and repairs.

The NRC staff plans to document a summary of the conference call as well as any material that is provided in support of the call.

- 1. Discuss any trends in the amount of primary-to-secondary leakage observed during the recently completed cycle.
- 2. Discuss whether any secondary side pressure tests were performed during the outage and the associated results.
- 3. Discuss any exceptions taken to the industry guidelines.
- 4. 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, Ubends with a rotating probe), the scope of the inspection (e.g., 100 percent of dent/dings greater than 5 volts and a 20 percent sample between 2 and 5 volts), and the expansion criteria.
- 5. For each area examined (e.g., tube supports, dent/dings, sleeves, etc), provide a summary of the number of indications identified to-date for 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).
- 6. Describe repair/plugging plans.

- 7. Describe in-situ pressure test and tube pull plans and results (as applicable and if available).
- 8. Discuss the following regarding loose parts:
 - What inspections are performed to detect loose parts
 - A description of any loose parts detected and their location within the SG (including the source or nature of the loose part, if known)
 - If the loose parts were removed from the SG
 - Indications of tube damage associated with the loose parts
- 9. Discuss the scope and results of any secondary side inspection and maintenance activities (e.g., in-bundle visual inspections, feedring inspections, sludge lancing, assessing deposit loading, etc.).
- 10. Discuss any unexpected or unusual results.
- 11. Provide the schedule for SG-related activities during the remainder of the current outage.