



April 10, 2007

10 CFR 50.90

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Palisades Nuclear Plant
Docket 50-255
License No. DPR-20

Response to Request for Additional Information Regarding Proposed C* License
Amendment Request for Steam Generator Tube Repair in the Tubesheet
(TAC No. MD2125)

By letter dated May 30, 2006, as supplemented on February 27, 2007, Nuclear Management Company, LLC (NMC) requested Nuclear Regulatory Commission (NRC) review and approval of a proposed license amendment request for the Palisades Nuclear Plant (PNP). The proposed amendment modifies the PNP technical specifications related to steam generator tube repair. The changes would revise the repair criteria for the portion of the tubes within the hot-leg region of the tubesheet.

By electronic mail dated March 19, 2007, the NRC sent a request for additional information (RAI) on the proposed amendment. The RAIs were in regard to the technical specification (TS) pages. The TS pages have been revised per the RAIs. Enclosure 2 provides the revised TS pages that address the RAIs. Enclosure 3 provides the annotated TS page showing the proposed changes. Enclosure 2 and Enclosure 3 supersede Enclosure 2 and Enclosure 3 that were provided by letter dated February 27, 2007. The revisions to the TS pages did not affect the finding of no significant hazards determination as provided in the original license amendment request.

Summary of Commitments

This letter contains no new commitments and no revisions to existing commitments.

A001
A122

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Page 2

I declare under penalty of perjury that the foregoing is true and correct. Executed on
April 10, 2007.

A handwritten signature in black ink, appearing to read "Paul A. Harden", written in a cursive style.

Paul A. Harden
Site Vice President, Palisades Nuclear Plant
Nuclear Management Company, LLC

Enclosures (2)

CC Administrator, Region III, USNRC
Project Manager, Palisades, USNRC
Resident Inspector, Palisades USNRC

ENCLOSURE 2

**LICENSE AMENDMENT REQUEST REGARDING
TUBESHEET INSPECTION DEPTH FOR STEAM GENERATOR TUBE
INSPECTIONS AT PALISADES NUCLEAR PLANT**

REVISED TECHNICAL SPECIFICATION PAGES 5.0-11 and 5.0-12
AND
OPERATING LICENSE PAGE CHANGE INSTRUCTIONS

Note: Enclosure 2 supercedes Enclosure 2 provided by letter dated February 27, 2007

3 Pages Follow

ATTACHMENT TO LICENSE AMENDMENT NO.

FACILITY OPERATING LICENSE NO. DPR-20

DOCKET NO. 50-255

Remove the following pages of Appendix A Technical Specifications and replace with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

REMOVE

5.0-11

5.0-12

INSERT

5.0-11

5.0-12

5.5 Programs and Manuals

5.5.8 Steam Generator (SG) Program

- b. Performance criteria for SG tube integrity. (continued)
1. Structural integrity performance criterion: All in-service SG tubes shall retain structural integrity over the full range of normal operating conditions (including startup, operation in the power range, hot standby, and cool down and all anticipated transients included in the design specification) and design basis accidents. This includes retaining a safety factor of 3.0 against burst under normal steady state full power operation primary-to-secondary pressure differential and a safety factor of 1.4 against burst applied to the design basis accident primary-to-secondary pressure differentials. Apart from the above requirements, additional loading conditions associated with the design basis accidents, or combination of accidents in accordance with the design and licensing basis, shall also be evaluated to determine if the associated loads contribute significantly to burst or collapse. In the assessment of tube integrity, those loads that do significantly affect burst or collapse shall be determined and assessed in combination with the loads due to pressure with a safety factor of 1.2 on the combined primary loads and 1.0 on axial secondary loads.
 2. Accident induced leakage performance criterion: The primary to secondary accident induced leakage rate for any design basis accident, other than a SG tube rupture, shall not exceed the leakage rate assumed in the accident analysis in terms of total leakage rate for all SGs and leakage rate for an individual SG. Leakage is not to exceed 0.3 gpm.
 3. The operational LEAKAGE performance criterion is specified in LCO 3.4.13, "PCS Operational LEAKAGE."
- c. Provisions for SG tube repair criteria. Tubes found by inservice inspection to contain flaws with a depth equal to or exceeding 40% of the nominal tube wall thickness shall be plugged. The following alternative repair criteria may be applied as an alternate to the 40% depth based criteria:
1. Tubes found by inservice inspection to contain flaws within 12.5 inches below the bottom of the hot-leg expansion transition or top of the hot-leg tubesheet, whichever is lower, shall be plugged. Flaws located below this elevation may remain in service
- d. Provisions for SG tube inspections. Periodic SG tube inspections shall be performed. The number and portions of the tubes inspected and methods of inspection shall be performed with the objective of detecting flaws of any type (e.g., volumetric flaws, axial and circumferential cracks) that may be present along the length of the tube, from the tube-to-tubesheet weld at the

5.5 Programs and Manuals

5.5.8 Steam Generator (SG) Program

d. Provisions for SG tube inspections. (continued)

tube inlet to the tube-to-tubesheet weld at the tube outlet, and that may satisfy the applicable tube repair criteria. The tube-to-tubesheet weld is not part of the tube. In addition to meeting the requirements of d.1, d.2, and d.3 and d.4 below, the inspection scope, inspection methods, and inspection intervals shall be such as to ensure that SG tube integrity is maintained until the next SG inspection. An assessment of degradation shall be performed to determine the type and location of flaws to which the tubes may be susceptible and, based on this assessment, to determine which inspection methods need to be employed and at what locations.

1. Inspect 100% of the tubes in each SG during the first refueling outage following SG replacement.
2. Inspect 100% of the tubes at sequential periods of 60 effective full power months. The first sequential period shall be considered to begin after the first inservice inspection of the SGs. No SG shall operate for more than 24 effective full power months or one refueling outage (whichever is less) without being inspected.
3. If crack indications are found in any SG tube, then the next inspection for each SG for the degradation mechanism that caused the crack indication shall not exceed 24 effective full power months or one refueling outage (whichever is less). If definitive information, such as from examination of a pulled tube, diagnostic non-destructive testing, or engineering evaluation indicates that a crack-like indication is not associated with a crack(s), then the indication need not be treated as a crack.
4. When the alternate repair criteria of TS 5.5.8.c.1 are implemented, inspect 100% of the inservice tubes into the hot-leg tubesheet region with the objective of detecting flaws that may satisfy the applicable tube repair criteria of TS 5.5.8.c.1 every 24 effective full-power months, or one refueling outage, whichever is less.

e. Provisions for monitoring operational primary to secondary LEAKAGE.

ENCLOSURE 3

**LICENSE AMENDMENT REQUEST REGARDING
TUBESHEET INSPECTION DEPTH FOR STEAM GENERATOR TUBE
INSPECTIONS AT PALISADES NUCLEAR PLANT**

MARK-UP OF TECHNICAL SPECIFICATION PAGES 5.0-11 and 5.0-12
(showing proposed changes)
(additions are bolded; deletions are strikethrough)

Note: Enclosure 3 supercedes Enclosure 3 provided by letter dated February 27, 2007

2 Pages Follow

5.5 Programs and Manuals

5.5.8 Steam Generator (SG) Program

- b. Performance criteria for SG tube integrity. (continued)
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5.5 Programs and Manuals

5.5.8 Steam Generator (SG) Program

d. Provisions for SG tube inspections. (continued)

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e. Provisions for monitoring operational primary to secondary LEAKAGE.