

**From:** Chawla, Mahesh  
**Sent:** Monday, August 29, 2011 2:10 PM  
**To:** KUEMIN, JAMES L; GUSTAFSON, OTTO W  
**Cc:** Dozier, Jerry; Harrison, Donnie; Thomas, George; Lee, Brian; Anderson, Shaun; Khanna, Meena; Pascarelli, Robert  
**Subject:** Request for Additional Information - Palisades- LAR to Extend the Containment Type A Leak Rate Test Frequency to 15 years - ME5997

In a letter dated April 6, 2011 (ADAMS Accession No. ML110970616), Entergy Nuclear Operations, Inc requested an amendment to License Number DPR-20, in the form of changes to technical specifications (TS) for the Palisades Nuclear Plant (PNP). The license amendment request (LAR) proposes a change to technical specifications, 5.5.14, "Containment Leak Rate Testing Program" to allow a permanent extension of the Type A integrated leak rate test (ILRT) interval from one in ten years plus 15-month frequency to one in fifteen years. The NRC staff has reviewed the risk-related information in the license amendment request and requires following additional information from the applicant to complete the review:

### **Request for Additional Information**

1. Page A-4 of the Palisades LAR indicates that the PNP Probabilistic Risk Assessment (PRA) substantially meets the ASME PRA Standard at Capability Category II or better for 83% of the applicable supporting requirements, with 88% meeting a capability category I or better. Please clarify if Appendix A addresses all findings from the peer review that does not meet capability category I and II, except those related to flooding. If not, please describe those findings and provide an evaluation of the impact on the ILRT extension request.
2. Please clarify what version of the PRA Standard was used in the October 2009 Full Power Internal Events Peer Review. Regulatory Guide 1.200 endorses ASME/ANS RA-Sa-2009 as the current standard. If the peer review was not to the latest Regulatory Guide 1.200 Rev. 2, please describe any gaps from the peer reviewed PRA to this Regulatory Guide and the impact on this application.
3. The risk contribution of pre-existing leakage for the pressurized-water reactor and boiling-water reactor representative plants in the EPRI Guidance confirmed the NUREG-1493 conclusion that a reduction in the frequency of Type A tests from three tests in 10 years to one test in 20 years leads to an "imperceptible" increase in risk that is on the order of 0.2 percent and a fraction of one person roentgen equivalent man (rem) per year in increased public dose. Table 6-3 of the EPRI guidance summarizes figures-of-merit information for 59 plants that have applied for one-time ILRT interval extensions. In table 6-3, the maximum population dose change is .2 person-rem/yr.

In the PNP LAR, the change in dose risk for changing the Type A test frequency from three-per ten years to once-per-fifteen-years, measured as an increase to the total integrated dose risk for all accident sequences for PNP, is 1.34E+00 person-rem/yr using the EPRI

guidance with the base case corrosion case. This value is greater than the acceptance criteria (per the EPRI guidance) for a "very small" change of <1.0 person-rem/yr.

PNP indicates that conservatisms were incorporated into this value. PNP indicated that the calculated increase is conservatively high based on the assignment of the L-LL release category to the intact containment case, which subsequently yields conservative estimates of the EPRI Class 3a and 3b calculated dose results. As provided in the EPRI guidance, "Despite very conservative assumptions, the submittals to date have been able to demonstrate that the revised ILRT testing interval has little impact on risk."

Using the approved EPRI Methodology, please demonstrate that PNP can meet the acceptance criteria of <1.0 person-rem/yr.

Note: The PNP LAR indicated that the change in dose risk drops to 2.55E-01 person-rem/yr when using the EPRI expert elicitation methodology. The Nuclear Regulatory Commission (NRC) staff has not accepted the EPRI expert elicitation as presented in the appendices of EPRI Report No. 1009325, Revision 2 (See SER (ADAMS ML081140105). The NRC staff concerns with the EPRI expert elicitation are documented in an NRC letter dated April 22, 20