

From: Chawla, Mahesh
Sent: Thursday, August 25, 2011 1:21 PM
To: KUEMIN, JAMES L; GUSTAFSON, OTTO W
Cc: Cunanan, Davida; Wood, Kent; Ulses, Anthony; Pascarelli, Robert; Lingam, Siva; Boyle, Patrick
Subject: Palisades Nuclear Plant - LAR - ME5419 - SFP Region I Criticality - RAIs - Revised - Non-Proprietary Version

By letter dated January 31, 2011(ADAMS Accession No. ML110380093) Entergy Nuclear Operations, the licensee for the Palisades Nuclear Plant provided a fuel storage criticality analysis in order to revise Appendix A, Technical Specifications as they apply to the spent fuel pool (SFP) storage requirements in TS section 3.7.16 and criticality requirements for Region I SFP and north tilt pit fuel storage racks, in TS section 4.3. On the basis of the provided information, the NRC staff concluded that additional information is required from the licensee to determine that the licensee has acceptably demonstrated that the spent fuel pool will remain subcritical under all conditions. The initial set of RAIs were sent via e-mail as proprietary (ML112240177) and non-proprietary (ML112240197) versions, which was followed by a teleconference with your representatives on August 24, 2011. As per the discussion during the teleconference, following is the revised version of RAI which is non-proprietary and can be made public. Please provide your written response within 30 days from the receipt of this e-mail.

REQUEST FOR ADDITIONAL INFORMATION (RAI)

1. On page 19, the licensee mentions that the material for the cladding, instrument tube, and guide bars has been changed. Clarify the material that the analysis assumes for all parts.
2. On page 28, the licensee mentioned several abnormal conditions. Please provide and justify any changes from the seismic analysis on record that may take place as a result of this license amendment.
3. On page 37, the licensee states that on rack C was evaluated for storage of non-fuel bearing components. Please justify only using rack C in this case.
4. On page 118, the swelling model was examined using fuel of several different configurations. Identify and justify the most limiting configuration.

REFERENCES

- 1 Kirwin, Thomas P, "Palisades License Amendment Request for Spent Fuel Pool Region I Criticality," Letter to Document Control Desk, NRC, from Acting Site Vice President, January 31, 2011
- 2 Code of Federal Regulations, Title 10, Part 50, Section 68, "Criticality Accident Requirements."
- 3 L.I. Kopp, "Guidance on the Regulatory Requirements for Criticality Analysis of Fuel Storage at Light-Water Reactor Power Plants," Nuclear Regulatory Commission, Rockville, MD, August 1998.

- 4 K. Wood, DSS-ISG-2010-1, "Draft Staff Guidance Regarding the Nuclear Criticality Safety Analysis for Spent Fuel Pools." ADAMS Accession Number ML102220567, Nuclear Regulatory Commission, Rockville, MD, August 2010