

From: Chawla, Mahesh
Sent: Tuesday, August 09, 2011 1:30 PM
To: KUEMIN, JAMES L; GUSTAFSON, OTTO W
Cc: Cunanan, Davida; Wood, Kent; Ulses, Anthony; Pascarelli, Robert; Lingam, Siva; Boyle, Patrick
Subject: FW: Palisades Nuclear Plant - LAR - SFP Region I Criticality - RAIs - NON-PROPRIETARY VERSION - TO BE MADE PUBLIC

I am resending this as a non-proprietary version.

From: Chawla, Mahesh
Sent: Tuesday, August 09, 2011 1:23 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 - SFP Region I Criticality - RAIs - PROPRIETARY VERSION - TO BE WITHHELD FROM PUBLIC

By letter dated January 31, 2011 (ADAMS Accession No. ML110380093), Entergy Nuclear Operations, Inc. (ENO) submitted for Palisades Nuclear Plant, 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 has 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. Please arrange a teleconference to discuss the following information:

REQUEST FOR ADDITIONAL INFORMATION (RAI)

THE FOLLOWING QUESTIONS PERTAIN TO ATTACHMENT 5 (AREVA NP TECHNICAL REPORT DOCUMENT NO. ANP-2858P-003)

1. **This question is withheld from public since it is on the portion which is PROPRIETARY INFORMATION.**
2. On page 28, the licensee mentioned several abnormal conditions. Please provide analysis on possible seismic events.
3. On page 37, the licensee states that only 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. Describe how these configurations were the most limiting configurations?

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 (ADAMS Accession No. ML110380093).

- 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 19, 1998 (ADAMS Accession No. ML003728001).
- 4 DSS-ISG-2010-1, "Draft Staff Guidance Regarding the Nuclear Criticality Safety Analysis for Spent Fuel Pools." by K.Wood, dated August 25, 2010 (ADAMS Accession Number ML102220567).