

UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

June 22, 1989

Docket Nos. 50-361, 50-362, 50-368 50-382, 50-528, 50-529, 50-530

> MEMORANDUM FOR: John N. Hannon, Director Project Directorate III-3 Division of Reactor Projects - III, IV, V and Special Projects

- FROM: M. David Lynch, Project Engineer Project Directorate III-3 Division of Reactor Projects - III, IV, V and Special Projects
- SUBJECT: FORTHCOMING MEETING WITH CE OWNERS GROUP (ANO-2, WATERFORD 3, SAN ONOFRE 2 & 3, PALO VERDE 1, 2, & 3) ON 10 CFR 50.62 IMPLEMENTATION
- DATE & TIME: Wednesday, July 12, 1989 9 a.m. - 4 p.m.
- LOCATION: One White Flint North (Room 14B-11)

PURPOSE: Discussion of technical issues related to the design of a diverse emergency feedwater actuation system to comply with the ATWS Rule (10 CFR 50.62) (Agenda Attached)

***PARTICIPANTS:** NRC

S. Newberry J. Mauck V. Thomas W. Hodges H. Li A. Nolan (INEL) G. Wermeil M.D. Lynch J. Hannon

M. Meisner, et al.

Utility

M. David Lynch, Project Engineer Project Directorate III-3 Division of Reactor Projects - III, IV, V and Special Projects

DFOI

8906300040 890622 PDR ADOCK 05000361 PNU

cc: See next page

*Meetings between NRC technical staff and applicants or licensees are open for interested members of the public, petitioners, intervenors, or other parties to attend as observers pursuant to "Open Meeting Statement of NRC Staff Policy," 43 Federal Register 28058, 6/28/78.

AGENDA

FOR MEETING WITH THE CEOG ON JULY 12, 1989

CEOG docketed design information CEN-384 "Design for a Diverse Emergency Feedwater Actuation System (DEFAS) Consistent with 10CFR50.62 Guidelines" on April 30, 1989. A meeting was held on May 1, 1989 to discuss this design. The staff has reviewed this information. Based on this review, we have the following questions.

- 1. The interlock from the Diverse Scram System (DSS) allows the DEFAS to initiate feedwater flow only if a DSS actuation has occurred once the pressure transient reaches the DSS initiation setpoint. During an ATWS event, the emergency feedwater should be provided during the early stage of the transient so that it will be an effective means to mitigate the event. Provide analyses of reactor coolant system pressure vs. time for an ATWS to illustrate that the timing of DSS actuation is sufficient to allow the actuation of emergency feedwater for mitigation.
- 2. Provide a discussion of using a low steam generator level in both steam generators as an alternative to the DSS interlock.
- 3. CEN-384 Section III.E "Test Capabilities" does not mention the coordination associated with the sensor testing. An overlapping end-to-end test capability at refueling is required for the ATWS mitigation system. In addition, provide information to address the complete at-power test capabilities for the DEFAS.
- 4. The DEFAS uses programmable logic controllers. Describe the software verification and validation program for the software associated with the DEFAS, and its conformance with R.G. 1.152 "Criteria for Programmable Digital Computer System Software in Safety Related Systems of Nuclear Plants." The staff recognizes that these logic controllers are nonsafety-related but believes that a verification and validation program is necessary.
- 5. The equipment required by the ATWS Rule to reduce the risk associated with an ATWS event must be designed to perform its function in a reliable manner. A method acceptable to the staff for demonstrating that the equipment satisfies the reliability requirements of the ATWS Rule is to provide equipment technical specifications including operability and surveillance requirements. The staff will provide guidance on technical specification requirements for the ATWS mitigation systems in a separate document. Provide a discussion of your current plans or procedures for actions required should the AMSAC not be operable during reactor operation or prior to startup.

6. In your submittal CEN-384 Section V, "Request Areas of Concurrence," you stated that a 10CFR50.59 may not be possible for the installation of the proposed DEFAS. 10CFR50.59 is a regulatory requirement for the changes made in the facility as described in the safety analysis report. Therefore, each licensee will be required to perform such an analysis. With respect to assumptions regarding control systems, we do not agree with your statement regarding worst failures, but expect you to take an approach, as you perform analyses for control system failures, as described in Standard Review Plan Sections 7.7 and 15.1.5.

-2-

DISTRIBUTION

٠. .

Docket Files NRC & Local PDRs PDIII-3 Reading T. Murley/J. Sniezek J. Partlow G. Holahan M. Virgilio D. Lynch W. Lanning OGC E. Jordan B. Grimes Receptionist (OWFN) SNewberry JMauck **VThomas** WHodges HLi ANclan(INEL) GWermeil JHannon PKreutzer ACRS (10) GPA/PA V. Wilson L. Thomas J. Clifford J. Strasma

P. Kreutzer