

October 19, 1994

Mr. Robert A. Fenech
Vice President, Nuclear Operations
Consumers Power Company
Palisades Plant
27780 Blue Star Memorial Highway
Covert, MI 49043

SUBJECT: PALISADES PLANT - QUESTIONS ON PALISADES INDIVIDUAL PLANT
EXAMINATION (IPE) SUBMITTAL

Dear Mr. Fenech:

Based on the on-going review of the Palisades IPE and the staff's diagnostic evaluation team (DET) report on the Palisades Nuclear Generating Facility, we require additional information and have prepared the attached list of supplemental questions.

The questions relate primarily to concerns identified by the DET as perceived inadequacies in your IPE. Your August 11, 1994, submittal responding to the DET report indicated that you will resolve the IPE-related concerns, presumably in the near future. Please provide a response to the enclosed questions within 45 days of the date of this letter.

If you have any questions, please contact me at (301) 504-3024.

Sincerely,

ORIGINAL SIGNED BY

Marsha Gamberoni, Project Manager
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Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

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Docket No. 50-255

Enclosure: As stated

cc w/encl: See next page

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Mr. Robert A. Fenech
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Palisades Plant

cc:

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Supplemental Request for Additional Information

Palisades Nuclear Power Plant

1. Information Notice 89-54, "Potential Overpressurization of the CCW System," discussed a postulated accident scenario in which leakage of reactor coolant could occur into the CCW system via failure of the RCP heat exchanger. This scenario dominated the risk profile at another Combustion Engineering plant. No mention of this accident scenario was made, however, in the Palisades IPE submittal. Please discuss the risk significance of this accident scenario and its disposition with respect to the Palisades plant.
2. NUREG-1424, "Safety Evaluation Report Related to the Full-Term Operating License for Palisades Nuclear Plant," dated November 1990, indicated that the results of Generic Letter 89-19, which relates to steam generator overfill, would be addressed in the Palisades IPE. No mention of this issue, however, was made in the licensee's IPE submittal. Please address the safety significance of the issues related to this Generic Letter, as discussed in NUREG-1424.
3. Section 2.3.2.3.3, Reduction of Reliance on Human Errors, of Rev. 1 of the IPE (July 22, 1994) (retitled, Determination of Important Recovery Actions, of Rev. 2 (October 6, 1994)) states that to reduce the reliance on operator actions following an initiating event, post-accident human errors that are performed outside the control room, and are either a backup to an automatic action or a bypass for a failed component, were not included in the preliminary quantification. These actions (backup to an automatic action or bypass for a failed component) are generally classified as recovery actions. It is not clear from the original IPE or Revision 1 to the IPE how non-recovery, proceduralized and non-proceduralized operator actions that are performed outside of the control room, and are needed for accident mitigation and safe shutdown of the plant, were identified and quantified. Please provide: (1) A list of all credited operator actions (including proceduralized, non-proceduralized, and recovery) performed outside of the control room which are needed for accident mitigation and for safe shutdown of the plant, and; (2) A discussion on how these operator actions were identified and quantified. Include sample task analyses for the more significant operator actions.
4. The original IPE submittal states that if a procedure offers precise and unambiguous guidance, then a basis exists for using a lower error probability. Further, the submittal states that actions that are emphasized in training are more likely to be successful, therefore, human error rates can be decreased. In contrast, however, poor procedures and training may result in increased human error rates. In the request for additional information (April 14, 1994) the staff asked the licensee to indicate which operator actions were beneficially impacted by training and procedures, by what factor, and whether these factors were used globally or individually (HRA question 9). The licensee's response stated that no operator actions were affected and no factors were used. However, a recent diagnostic evaluation team (DET) report identified "persistent problems with procedural adherence and poor quality procedures." Please discuss how the IPE/HRA reconciles itself with these later findings.

5. The IPE submittal does not provide enough detail to determine what diesel generator coping time is available, given the fuel in the day tank, in comparison with what is actually needed to mitigate severe accidents. However, a recent staff report indicated that the day tank coping time is actually less than that originally estimated in the FSAR. Discuss the impact on the IPE results of using the actual, as-built, diesel generator coping times instead of the FSAR-based values.

6. As indicated in your response to Back-End (BE) Question 1 you indicated (July 22, 1994 transmittal) that a potential containment modification which would prevent core debris from entering into the containment sump appeared to be cost beneficial. Please discuss your current implementation plans for this containment modification involving the blocking off of the drain lines between the containment cavity and the auxiliary building.