

CONSUMERS POWER COMPANY
DOCKET 50-255 - LICENSE DPR-20 - PALISADES PLANT
REQUEST FOR CHANGE TO TECHNICAL SPECIFICATIONS

For the reasons hereinafter set forth, it is requested that the Technical Specifications contained in the Provisional Operating License DPR-20, Docket 50-255, issued to Consumers Power Company on October 16, 1972, for the Palisades Plant be changed as described in Section I below:

I. CHANGE(s)

- A. Add the following to Section 3.3.1, "Safety Injection and Shutdown Cooling Systems", Item B:

"For the remainder of cycle 5, Safety Injection tank T-82B is to have a boron concentration greater than or equal to the primary coolant system boron concentration but not to exceed 2000 ppm."

- B. Add the following to Table 4.2.1, "Minimum Frequencies for Sampling Tests", Item No 5, "SI Tanks - Frequency":

"For T-82B

Weekly

Within one hour of primary coolant system boration greater than 70 ppm."

The revised Technical Specifications Section 3.3.1 and Table 4.2.1 are attached. Proposed changes are shown by a vertical line in the right hand margin.

II. DISCUSSION

Current problems involving leakage of primary coolant into Safety Injection tank T-82B and thereby causing the boron concentration in this tank to decrease below the Technical Specifications limit initiated an investigation of the basis for maintaining a lower limit of 1720 ppm boron concentration in T-82B by frequently raising and lowering the fluid levels in T-82B. Recognizing that maintaining the fluid level in T-82B is important with regard to the system's response to a Loss of Coolant Accident, this proposed Technical Specifications change allows the T-82 fluid level to be within the limits specified in the Technical Specifications a greater percentage of the time. Safety Analyses were performed for Loss of Coolant Accident (LOCA) events to determine the Safety Injection tank boron concentration required to maintain the reactor in a shutdown condition. These analyses were performed assuming that all control rods remained fully withdrawn and that the contents of one Safety Injection (SI) tank containing water with a boron concentration of 1720 ppm emptied into the containment via the primary coolant system (PCS) break.

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The results showed that the requirement to maintain a boron concentration of 1720 ppm in all Safety Injection tanks is very conservative. The analyses showed that under all conditions of burnup, power level, and xenon level, the boron concentration in the reactor core resulting from the discharge of two SI tanks with 1720 ppm boron and one SI tank with a boron concentration equal to that in the PCS is more than sufficient to shutdown the reactor and maintain it in a shutdown condition throughout the LOCA. Also, maintaining the boron concentration in one SI tank equal to or greater than the PCS boron concentration ensures that a boron dilution event cannot occur. Accordingly, the proposed Technical Specifications change allows the boron concentration in SI tank T-82B to have a lower boron concentration limit equal to the PCS boron concentration.

In recognition of the primary coolant in-leakage problem, the monthly sampling requirement for T-82B is changed to weekly by the Technical Specifications change request in order to closely monitor the boron concentration in T-82B. In addition to this weekly sampling requirement, this Technical Specifications change requires that T-82B be sampled within one hour of a PCS boration of 70 ppm. This second requirement ensures that the boron concentration in T-82B will be maintained at or above the PCS boron concentration under all operating and shutdown conditions.

III. CONCLUSION

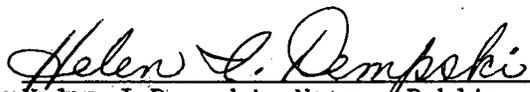
Based on the foregoing, both the Palisades Plant Review Committee and the Safety and Audit Board have reviewed these changes and find them acceptable.

CONSUMERS POWER COMPANY

By


 R B DeWitt, Vice President
 Nuclear Operations

Sworn and subscribed to before me this 15 th day of December 1982.


 Helen I Dempski, Notary Public
 Jackson County, Michigan

My commission expires December 14, 1983.