



**Consumers
Power
Company**

General Offices: 1945 West Parnall Road, Jackson, MI 49201 • (517) 788-0550

October 15, 1982

Dennis M Crutchfield, Chief
Operating Reactors Branch No 5
Nuclear Reactor Regulation
US Nuclear Regulatory Commission
Washington, DC 20555

DOCKET 50-255 - LICENSE DPR-20 -
PALISADES PLANT - SEP TOPIC IX-3, STATION SERVICE AND COOLING WATER SYSTEM

The purpose of this letter is to provide the NRC with a status summary on the commitment made in Consumers Power Company March 31, 1982 and August 17, 1982 letters concerning SEP Topic IX-3, "Station Service and Cooling Water Systems," for the Palisades Plant. Consumers Power Company committed to conduct analysis to determine the performance adequacy of the Service Water System (SWS) assuming only one SWS pump is operable. With only one SWS pump, the analysis is to focus on verifying that Component Cooling Water (CCW) temperature limits are not exceeded under the postulated conditions. The commitment also called for modifying procedures, if necessary, to direct isolation of non-essential service water loads under those postulated conditions.

In order to perform the analysis and address the above questions, a computer model of the critical SWS was developed. The model allowed for more than one pump and explicitly modeled the engineering safeguards equipment. It was verified by test data taken at the Palisades Plant during performance of Special Test T-153.

During the course of the analysis it was discovered that, assuming loss of off-site power, instrument air to the SWS valves on the discharge of the Component Cooling Water Heat Exchanger (CCWHX) would be lost causing the SWS valves to fail in the open position. This would result in a large increase in flow to the CCWHX, and also in a considerable loss in system pressure. The net affect would be SWS pump discharge pressures less than that covered by the performance curves and flows to engineering safeguard equipment (except for CCWHX) less than assumed in the FSAR. As a result, Licensee Event Report 82-24 was initiated. To correct the problem, hard stops were placed on the operators for the SWS valves on the discharge of the CCWHX. This will limit flow through the heat exchangers in the event of

8210190546 821015
PDR ADOCK 05000255
P PDR

A035

DMCrutchfield, Chief
Palisades Plant
SEP TOPIC IX-3
October 15, 1982

2

loss of off-site power such that SWS pump discharge pressure is within the values on the pump performance curves while still providing sufficient flow to the CCWHX. In addition, the plant emergency operating procedures were modified to require the alignment of the Fire Water System to the SWS header if the postulated event were to occur. This action will increase total system flow enough to provide adequate cooling to the engineering safeguards equipment. Further corrective measures, if any, will be identified once the SWS analysis is complete.

It is expected that the analysis will be submitted to the NRC by 11/15/82.

Kerry A Toner

Kerry A Toner
Senior Licensing Engineer

CC Administrator, Region III, USNRC
NRC Resident Inspector - Palisades