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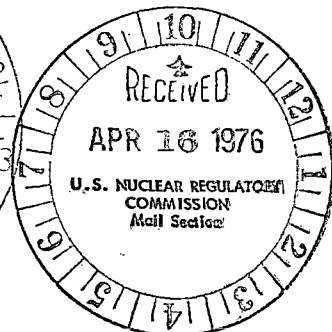
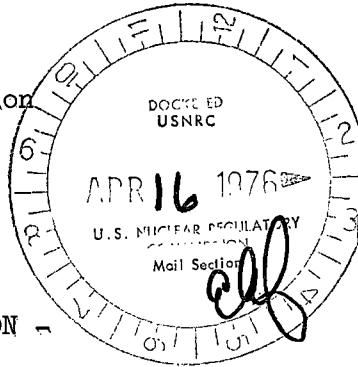
**Consumers
Power
Company**

General Offices: 212 West Michigan Avenue, Jackson, Michigan 49201 • Area Code 517 788-0550

April 15, 1976

Director of Nuclear Reactor Regulation
Att: Mr Robert A. Purple, Chief
Operating Reactor Branch No 1
US Nuclear Regulatory Commission
Washington, DC 20555

DOCKET 50-255, LICENSE DPR-20 -
PALISADES PLANT - BORON CONCENTRATION -
LONG-TERM COOLING



In our letter of August 27, 1975, we indicated that we would advise you, on a bimonthly basis, of the status of our program to prevent unacceptable chemical concentrations during the long term after a Loss of Coolant Accident (LOCA). This program involves the qualification of equipment required to provide independent flow paths to the reactor vessel. This letter provides the fourth status report of this program, covers the period through April 14, and provides the extent of the qualification achieved prior to start-up following the first refueling outage (beginning of Cycle 2).

The primary alignment and a major portion of the alternate alignment for long-term cooling has been qualified.

The qualification program has assumed that minor repairs can be made in some areas outside of containment following a LOCA. Potential repairs have been limited to those that can be made within the 12-hour requirement, and with acceptable radiation exposure, to establish long-term cooling.

Certain operating procedures for long-term cooling must be written/rewritten and approved. This task will be completed prior to the start of power operation following the present outage.

The following is the status of particular component qualifications:

Item 1. MO-3015, MO-3016 - Primary Alignment

The motors for both valves, MOV-3015 and MOV-3016, were replaced during this outage. During testing and limit switch adjustment, the motor (MO-3016) failed. This motor was replaced with a spare. The spare had previously been installed on MOV-3016 and was checked to Limitorque (Reliance Electric) specifications to verify its condition. The qualification of MOV-3015 and MOV-3016 is provided by a "type test" performed for Limitorque by the Franklin Institute Research Laboratories. We consider this equipment to meet the requirements for long-term cooling.

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Item 2. PS-0103 - Primary Alignment

This pressure switch could not be qualified and a qualified replacement could not be purchased. Therefore, as part of the procedure to establish long-term cooling (Section D.4.12 of the Operating Procedures for the Palisades Plant), steps will be initiated to bypass the interlock between PS-0103 and MO-3015 and -3016. This procedure will be finalized and approved prior to the start of power operation. While we consider this action to meet the requirements for long-term cooling, we have initiated plans for replacement of this equipment with qualified equipment and, thereby, eliminate the need for a special procedure.

Item 3. CV-2113, CV-2115 - Alternate Alignment

The qualification of these valves cannot be completed during the present outage due to lack of acceptable materials from the valve manufacturer (ITT Hammel-Dahl). The manufacturer has indicated that new viton diaphragms and O-rings are needed, delivery of which is still 8 to 12 weeks away. ITT is also providing the seismic calculations, which will determine the necessity of additional valve and/or operator supports.

Item 4. CV-2117 - Alternate Alignment

The diaphragm and seal housing assembly for this valve have been replaced. The valve manufacturer has supplied the seismic calculations for this valve. We consider this equipment to meet the requirements for long-term cooling.

Item 5. SV-2113, SV-2115, SV-2117 - Alternate Alignment

ASCO has not completed delivery of the required valves and documentation. We have type test reports that indicate that the original valves would survive a LOCA and be able to perform their intended functions. The new valves will be installed at the earliest opportunity at which time we would consider this equipment to meet the requirements for long-term cooling.

Item 6. Instrument Air System - Alternate Alignment

Installation of additional piping supports within containment is complete. As part of the operating procedure (Section D.4.12), provisions have been made to provide an alternate supply of instrument air to the system in the event of failure of the main supply system. The alternate supply will be from existing air receivers for the plant air system and will be connected to an existing test connection which is between the first and second isolation valves outside of containment (P&ID M-212, D-3). Time involved to make these connections is approximately one hour. We consider this equipment, including the procedure, to meet the requirements for long-term cooling.

Item 7. CV-1057, CV-1059 - Alternate Alignment

The diaphragm and seal housing assembly will be changed on these valves during this outage. With completion of this action, we consider this equipment to meet the requirements for long-term cooling.

Item 8. E/P-1057, -1059 - Alternate Alignment

New E/P transducers and positioners are being installed during this outage. These are Fisher Control devices and documentation has been provided to demonstrate the qualification of their equipment. We consider this equipment to meet the requirements for long-term cooling.

Item 9. Electrical Power and Control Cable Qualification - Primary and Alternate Alignments

All cables have been identified. All primary alignment cables are qualified to post-LOCA environmental conditions.

Item 10. Electrical Power Independence - Primary and Alternate Alignments

A study of cable separation requirements between the two alignments has determined that additional separation will be required. Engineering and design work is expected to take about 6 months and cannot be completed during this outage.

Item 11. Miscellaneous Procedures - Both Alignments

The operation procedure (Section D.4.12) for establishing long-term cooling will include methods for providing temporary electrical power to MOV-3015 or MOV-3016 in the event that their normal power feeds are damaged. This will include connecting the power cables for either valve to an alternate 480 V bus (MCC1 or MCC2). The time involved to make possible temporary changes should be no more than 4 hours.

Plant stock records, drawings and maintenance procedure reviews will be completed following upgrading of the individual components.

Item 12. Miscellaneous - Check Valve 3174

Review by the Palisades PRC has determined that check valve 3174 is not needed. Therefore, the internals of the valve have been removed to allow the alternate alignment to be operable. This item is considered completed.

Other Items

During discussion with members of your staff, a number of questions or requests for additional information were presented. The following is a discussion of these items:

- a. Valve CV-3006 is a valve which is isolated open to meet single failure criteria (see our letters dated 7/9/75 and 2/25/76). Since this valve is required to be closed for long-term cooling, we have reviewed the accessibility to this valve (at 12 hours following a LOCA) and determined that it would be accessible. (The resultant dose would be within the guidelines established by the National Committee on Radiation Protection [Report No 39] for lifesaving activities.)

- b. Valve CV-3006 position indication. This valve has remote flow indication located in the control room. This will provide the information needed for operation during long-term cooling.

David A. Bixel

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Assistant Nuclear Licensing Administrator

CC: JGKepler, USNRC