

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

November 18, 1974

Directorate of Licensing
US Atomic Energy Commission
Washington, DC 20545

Re: Docket 50-255, License DPR-20
Palisades Plant - AO-24-74
Additional Information

Gentlemen:

Abnormal Occurrence Report AO-24-74 (transmitted to the AEC on October 29, 1974) described an event at the Palisades Plant which involved a greater than allowed pH difference between the lake inlet and outlet water. Item 7 "Apparent Cause" and Item 9 "Corrective Action" are amplified as follows:

Item 7 - Apparent Cause

On October 18, 1974 at 1930 hours, the "A" cooling tower circulating pump E30A was shut off. However, the cooling tower acid injection system continued to operate.

The cooling tower acid injection system was initially designed and installed to operate automatically to maintain a preset pH. A problem associated with the sampling probe installation caused the acid injection system to function improperly. On October 17, 1974, one sample probe was relocated in a position which was thought to provide a more representative basin sample. However, we have since determined that this probe, in its new location, does not see a representative sample when the cooling tower circulating water pumps are shut off. When the cooling tower circulating pump E30A was shut off, the acid injection system continued to run until October 19, 1974, adding excess acid to the mixing basin of the "A" cooling tower.

Item 9 - Corrective Action

The following corrective action was taken or will be taken:

- a. About 2500 pounds of lime were added to the "A" cooling tower basin to raise the pH. We previously stated that we intended to operate the towers with only additions of sulphuric acid and chlorine compounds. However, we believe that the addition of lime in this instance was a reasonable course of action, as it would not be

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2

permissible (by Michigan Water Resources Commission Limits) to discharge water that was strongly acidic directly to the lake. The lime addition resulted in the formation of calcium sulfate which occurs naturally in the lake.

- b. To prevent recurrence, it is proposed that the cooling tower acid injection system be interlocked with the cooling tower circulating water pumps to permit operation of the acid pumps only when the circulating water pumps are in operation. This action will be taken after appropriate reviews and approvals have been made.
- c. A temporary procedure change has been instituted (until modifications have been completed) to ensure that the acid pump is shut off when a cooling tower is taken out of service.

Yours very truly,



Ralph B. Sewell
Nuclear Licensing Administrator

RBS/map

CC: JGKeppler,
USAEC