System INDIANA & MICHIGAN POWER COMPANY

DONALD C. COOK NUCLEAR PLANT
P.O. Box 458, Bridgman, Michigan 49106

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Oct. 2, 1978 Operating License DPR-58 Docket #50-315 AEO - 78-04/04X-0

Mr. J. G. Keppler, Regional Director
Office of Inspection and Enforcement
United States Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

This report is submitted as required by Appendix B, Technical Specifications, Section 5.4.2.1 in relation to the abnormal environmental occurrence on September 23, 1978. Chlorine residuals taken of the condenser outlet showed analytical results greater than 0.10 PPM as specified by Appendix B Technical Specifications 2.2.1.2.

The Circulating water chlorination system had been in operation chlorinating automatically twice a day for several months. Chlorine residuals had been averaging 0.04 ppm to 0.06 ppm during this interval. During the chlorination cycle on September 23, 1978 the technician analyzing chlorine residual at the condenser outlet recorded results of 0.10, 0.11, 0.12 PPM chlorine residual for the samples corresponding to 1010, 1012 and 1015 respectively. Chlorination was secured until September 26, 1978 when automatic chlorination was re-established using a different chlorinator.

Investigation immediately after the incident showed the chlorine feed rate had increased from 750 lbs. per 24 hrs. to 1100 lbs. per 24 hrs. for no apparent reason. Investigation and repair of the chlorinator in service during the time of the incident revealed that the clutch on the feed rate control motor was slipping. This clutch slippage caused the chlorinator feed rate to stick at a chlorine feed rate higher than desired. The clutch tension has been adjusted and the chlorinator tested to verify proper operation.

As the indicated chlorine residual was only slightly above technical specifications for a brief period of time, it is felt that no adverse environmental impact will occur.

Very truly yours,

For D. V. Shaller Plant Manager

78/01/0080

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