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Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Special Report: Failure to Return Clinton Power Station
Meteorological Tower Instrumentation to Service
Within Allowed Out of Service Time

Dear Sir:

Clinton Power Station (CPS) Technical Specification 3.3.7.3, Action "a," requires inoperabilities of meteorological monitoring instrumentation channels for more than 7 days be reported to the Nuclear Regulatory Commission (NRC) within the next 10 days pursuant to Specification 6.9.2, SPECIAL REPORTS. The differential air temperature monitoring instrumentation was declared inoperable at 0315 hours on June 26, 1994 and was not declared operable again until 2245 hours on July 8, 1994. This Special Report is therefore being submitted in accordance with the CPS Technical Specifications to provide information regarding the extended inoperability of the meteorological monitoring instrumentation.

The CPS Environmental Monitoring system utilizes a 199 foot high tower equipped with two levels of instrumentation to monitor the meteorological conditions at the plant. The tower is instrumented with wind direction, wind speed, temperature, and dewpoint (10-meter elevation only) sensors at the 10-meter and 60-meter levels. A delta temperature is taken between the 10-meter and 60-meter levels and a rain sensor is set on a mounting stand adjacent to the meteorological tower. The temperature is sensed by an aspirated dual temperature sensor at the 60-meter level and an aspirated dual temperature sensor at the 10-meter level. One half of the dual sensor at each elevation is used for ambient temperature. The second half of each sensor is used to provide a differential temperature between the 10-meter and 60-meter elevation. It is this differential temperature instrumentation in addition to the wind speed and direction instrumentation which is required to be operable in accordance with CPS Technical Specification 3.3.7.3.

On June 24, 1994, the 60-meter temperature indication was observed to be indicating a saw tooth pattern with a magnitude of variation of approximately three degrees every 15 minutes on the associated recorder. The differential air temperature

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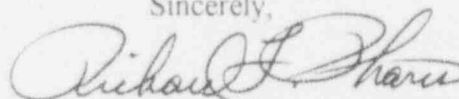
instrumentation was declared inoperable and a maintenance work request (MWR) was initiated and worked. All as-found data was satisfactory and the instrumentation was declared operable again on June 25, 1994. However, the problem occurred again, and at 0315 hours on June 26, 1994, the differential air temperature instrumentation was declared inoperable due to the inoperability of the 60-meter temperature indication. Control and Instrumentation (C&I) personnel installed continuous recorders to aid in localizing the problem and worked on correcting the problem which was intermittent in nature. Several times it was thought that the problem was resolved only to discover that the same erratic indications would again occur. As a result of the time needed to identify the cause of the intermittent problem and the desire to ensure the problem had been fixed prior to returning the equipment to operation, C&I personnel were not able to restore the instrumentation to operable status within seven days.

Subsequent to exceeding the allowed out-of-service time it was determined that the problems being experienced were associated only with the 60-meter temperature indication and that these problems actually had no effect on the differential air temperature indication. It was initially thought by Operations personnel that the 60-meter temperature indication provides input to the differential temperature indication. As a result, when the 60-meter temperature indication was determined to be inoperable the differential air temperature indication was also declared inoperable thus requiring entry into the Action statement. It has since been verified that the problem was in fact only associated with the 60-meter ambient temperature instrumentation. A review of the recorder traces indicates that the differential air temperature indication was functioning properly during this period. Illinois Power believes that calling the differential temperature instrumentation inoperable was a conservative decision to make since the problem had been difficult to troubleshoot and the differential temperature is used as input to emergency plan decisions.

C&I personnel worked expeditiously to return the meteorological tower instrumentation to service. However, because of the intermittent nature of the problems troubleshooting was difficult. It was finally determined that the 60-meter transmitter card had degraded. In fact, the card eventually failed upscale. The faulty transmitter card was replaced, calibrations were performed and the instrumentation was declared operable at 2245 hours on July 8, 1994.

Submittal of this letter satisfies the requirements of CPS Technical Specifications 3.3.7.3, Action "a" and 6.9.2 for submitting a Special Report for meteorological tower inoperabilities.

Sincerely,



Richard F. Phares
Director, Licensing

cc: NRC Clinton Licensing Project Manager
NRC Resident Office, V-690
Regional Administrator, Region III, USNRC
Illinois Department of Nuclear Safety