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ILLINOIS POWER COMPANY

CLINTON POWER STATION, P.O. BOX 678, CLINTON, ILLINOIS 61727

May 29, 1986

Docket No. 50-461

Director of Nuclear Reactor Regulation
Attention: Dr. W. R. Butler, Director
BWR Project Directorate No. 4
Division of BWR Licensing
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Clinton Power Station
Safe Shutdown Analysis

Dear Dr. Butler:

The purpose of this letter is to discuss the justification that a fire in the vicinity of the valves listed in Section 3.5.1.2, Paragraph Two of the Clinton Safe Shutdown Analysis (1SX012A&B, 1SX016A&B, and 1SX062A&B) will not prevent a safe plant shutdown.

During the review of the deviations, Subsections 4.2.2.12 and 4.2.4.7 and Table 4.2.4.7-5 of the Safe Shutdown Analysis, a discrepancy was found in the listing of valves 1SX012B and 1SX062B. It was found that these valves could move as a result of a hot short in the associated cables. Subsequently, we reviewed all of the valves listed in Table 4.2.4.7-5 and have determined that there are no other concerns of this type.

Since the valves 1SX012B and 1SX062B could reposition due to a hot short, the function of these shutdown service water boundary valves was reviewed. Regardless of the position of 1SX012B and/or 1SX062B, the shutdown service water system (SX) will not be prevented from performing its intended function. Valves 1SX012B and 1SX062B and their associated equipment will be removed from the Safe Shutdown Analysis. Valves 1SX012A and 1SX062A will not reposition due to a hot short; however, for consistency, they and their associated equipment will also be removed from the Safe Shutdown Analysis.

The cables associated with valves 1SX016A&B have also been analyzed. The cables located in the vicinity of these valves are the power cables (three phase AC current) and control cables (limit switch).

As referenced in NRC Generic Letter 86-10, Section 5.3.1:

"For three-phase AC circuits, the probability of getting a hot short on all three phases in the proper sequence to cause spurious operation of a motor is considered sufficiently low as to not require evaluation except for any cases involving Hi/Lo pressure interfaces."

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Since the SX system is not a Hi/Lo pressure interface, we have concluded that the power cables would not cause a spurious operation of valves 1SX016A&B.

The control cables for the valves were also reviewed. A fault in the control cables in the fuel building due to a fire in that area cannot reposition the valves because the cables which complete the opening circuit are not routed in the fuel building. The only way to open the valves is to operate the control switch associated with each valve, and that control switch and its associated cable are not in the fuel building.

If you need any additional information, please contact me.

Sincerely yours,

F. A. Spangenberg
Manager - Licensing & Safety

DWW/kaf

cc: B. L. Siegel, NRC Clinton Licensing Project Manager
NRC Resident Office
Regional Administrator, Region III USNRC
Illinois Department of Nuclear Safety