

ILLINOIS POWER COMPANY



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U-0535

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

September 17, 1982

Mr. James G. Keppler
Director, Region III
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

Deficiency 81-05
10 CFR 50.55(e)

Minimum Separation Requirements for
Certain Components of the 4160V Switchgear

On October 2, 1981, Illinois Power verbally notified Mr. H.M. Wescott, NRC Region III, of a potential reportable deficiency per 10CFR50.55(e) concerning minimum separation requirements for certain components of the 4160V switchgear. This initial notification was followed by three interim reports: L.J. Koch letter U-0326 to J.G. Keppler dated November 6, 1981, W.C. Gerstner letter U-0423 to J.G. Keppler dated February 26, 1982, and W.C. Gerstner letter U-0490 to J.G. Keppler dated May 27, 1982. Our investigation of this matter has not been completed, and this letter provides an update on our investigation.

BACKGROUND

During September, 1981, three nonconformance reports (NCRs 5425, 5426, 5453) were written against the 4160V switchgear, addressing apparent violation of separation requirements between Class 1E and Non-Class 1E circuits inside certain switchgear cubicles. These violations were identified subsequent to termination of field cables and were found to exist in both current transformer circuits and control wiring circuits. This lack of physical separation in the installed switchgear prompted the investigation into several areas of potential deficiency, including design, construction procedures and controls, and QC training.

INVESTIGATION RESULTS (INTERIM)

In the area of design, Sargent and Lundy (CPS Architect Engineer) was requested to review their design and procedures in meeting the requirements of the Clinton Power Station FSAR. This review determined that drawings for the subject 1E equipment did not meet separation requirements described in IEEE 384. However, Sargent and

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Lundy performed a comprehensive technical analysis of the subject 1E equipment which demonstrated that the safety function of the class 1E switchgear is not compromised. Sargent and Lundy also performed a 100% review of their wiring diagrams to determine if other equipment might not meet the separation requirements of the Clinton Power Station FSAR. The results of their review showed no other equipment drawings required revision.

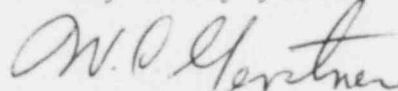
In the area of construction procedures and controls, and QC training, investigation has revealed that present procedures for cable termination and inspection are inadequate to assure and verify that required separation is maintained. The governing contractor (Baldwin Associates) procedures, BAP 3.3.3 and Quality Control Instruction 408, require inspection of class 1E cable terminations for separation considerations, but do not require inspection of non-class 1E cable terminations within 1E panels. If non-1E cables are terminated in a class 1E panel or enclosure after all class 1E cables have been terminated and inspected, an inspection to verify separation is not required.

Presently, these procedures/instructions are being reviewed and evaluated for additional separation controls in conjunction with an Electrical Stop Work Recovery Program being prepared at CPS, under close scrutiny by the NRC. Revised procedures/instructions will be issued to assure that separation requirements between class 1E and non-1E cables terminated within electrical equipment are met. Additionally, a reinspection effort is being planned to assure that separation requirements are met for Class 1E cables previously terminated and inspected.

SUMMARY

The conditions noted in the three (3) nonconformance reports have been fully evaluated from an engineering standpoint and determined not to have a significant adverse affect on the safety of operations. However, since procedures which control inspection of terminations of both class 1E and non 1E cables within class 1E panels are not adequate to assure that separation requirements are met, a reinspection effort must be performed to determine and assure that existing completed work meets separation requirements. Until reinspection plans have been developed and implemented, and results of which evaluated for significance, a conclusion as to reportability cannot be made. We anticipate that we will need an extension of approximately ninety (90) days to complete our investigation of cable termination practices, provide a determination of reportability of the potential deficiency, and to file the final report.

Very truly yours,



W.C. Gerstner
Executive Vice President

J.G. Keppler
NRC

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cc: H.H. Livermore, NRC Resident Inspector
Director, Office of I&E, Washington, D.C.
Illinois Department of Nuclear Safety
Director-Quality Assurance