Commonwealth Edison
Quad-Cities Generating Station
Post Office Box 216
Cordova, Illinois 61242
Telephone 309/654-2241

October 29, 1973

J.F. O'Leary, Director
Directorate of Licensing
Regulation
U.S. Atomic Energy Commission
Washington, D.C. 20545

SUBJECT: Quad-Cities Nuclear Power Station
Docket Number 50-265
DPR-30 Appendix-A
Sections: 1.0.A.4 and 6.6.B.

Dear Mr. O'Leary:

The purpose of this letter is to inform you of the details of a failure of an emergency power system component which occurred on October 19, 1973. This abnormal occurrance involved a malfunction of the supply breaker to Unit 2 Bus 23-1 from the shared diesel generator and was reported to you by telegram on October 20, 1973.

PROBLEM AND INVESTIGATION

At 2120 on October 19, 1973, a Core Spray Logic Test was in progress as required by Technical Specification 4.A.1.f. Unit 2 had been shutdown since October 17, 1973 and Unit 1 was operating at 85% power. During the course of the Core Spray Logic Test, the No. 1/2 Diesel Generator was auto started according to the test procedure. When an attempt was made to close in the Diesel Generator to Bus 23-1, the breaker failed to close. Since the diesel also serves as the emergency power supply for Bus 13-1, it was closed in to that bus for loading prior to shutdown as required by station operating procedures. This also verified that the diesel was operable with regard to Unit 1.

EVALUATION AND CORRECTIVE ACTION

Safety Implications

During monthly surveillance the unit diesel generators are tested and tied in their respective emergency buses for loading. Our present procedures, however, do not require Diesel Generator ½ closure to a specific bus. Therefore, the last time that the feed to bus 23-1 was tested satisfactorily could not be accurately determined.

Although the exact length of time that the diesel was not available to Unit 2 is unknown, the safety implications of this occurrence are minor in view of the demonstrated reliability of the normal auxiliary power supply.

CAUSE AND CORRECTIVE ACTION

When the switchgear was inspected, the closing spring was found discharged and the interlock mechanism prevented it from charging although the breaker appeared to be racked in to the operate position. The switchgear involved is a General Electric MC-4.76 Horizontal Drawout type. When the breaker was racked out and racked in again the interlocks made up and the closing spring charged properly. It can only be postulated that the original alignment of this equipment did not allow a sufficient tolerance in the interlock linkage for proper operation. A minor adjustment was made to the jacknut in the breaker housing to allow the breaker to travel further into the compartment. This should insure that a slight movement from operation of the breaker does not result in breaking the "racked in" interlock which would in turn prevent the spring from recharging.

To prevent similar recurrences surveillance procedures will be revised to include visual verification that the breaker has recharged after each operation. Similarly the surveillance procedures will be revised to include a definite program to insure that the feed to bus 23-1 from Diesel Generator $\frac{1}{2}$ is tested periodically.

CUMULATIVE EXPERIENCE

A somewhat similar occurrence was experienced on a Unit 1 core spray pump breaker as reported by our letter of October 31, 1972. These failures can be primarily attributed to the original installation and alignment of the breakers which did not provide sufficient tolerances for the proper operation of the interlocks. In view of the total number of successful operations on breakers of this type, including those in non-safety related applications, the safety implications are minor.

Very truly yours,

COMMONWEALTH EDISON COMPANY
QUAD CITIES NUCLEAR POWER STATION

B.B. Stephenson
Station Superintendent

BBS/ill

cc: Regional Director
Directorate of Regulatory Operations - Region III