DMB/50.55(e)

ILLINOIS POWER COMPANY

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L14-81(08-10)-L
500 SOUTH 27TH STREET, DECATUR, ILLINOIS 62525

August 10, 1981

Mr. James G. Keppler
Director, Region III
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 61037

Dear Mr. Keppler:

Clinton Power Station Unit 1
Docket No. 50-461/CPPR-137
Reportable Deficiency 80-01

Our letter of February 26, 1980 notified you of a reportable deficiency under the requirements of 10 CFR 50.55(e) concerning defective plugwelds on swinging dividers for PGCC termination cabinets. A subsequent letter dated September 22, 1980 was submitted as an interim report. This letter is being submitted as the final report concerning the subject deficiency.

1. Statement of Reportable Deficiency

On-site receipt inspection of the control room termination cabinets revealed that some of the attachment welds of the swing barriers dividing the cabinets into bays had failed during shipment.

2. Investigation Results

As previously reported to the NRC, during the receipt inspection of the Power Generation Control Complex (PGCC) termination cabinets, it was discovered that one of the swing barriers in each of three (3) f the twenty-one (21) cabinets had separated from the hinge attaching it to the cabinet frame. The design drawing for the barrier specifies plug or spot welds on four inch (4") centers for the full lengt' of the hinge attachm nt. The manufacturer, (Hogan Manufacturing Company), had selected the plug weld alternative which, in these three cases, resulted in separation failure during shipment. Subsequent investigation revealed that the welds had failed due to lack of fusion and that some plug welds on other barriers were also unacceptable for the same reason.

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3. Corrective Action

Nonconformance Report NCR 2968 was written documenting this problem and submitted to General Electric (GE) for dispositioning. GE dispositioned the NCR such that repairs are to be made per FDDR LH1-508-80 R/3. As reported in my September 22, 1980 letter to the Commission, the swing barriers were removed from all cabinets in preparation for repair at an off-site repair facility. Since installation of field cables was facilitated by the absence of these barriers, it was decided to leave them out until most of the work was done. In order to avoid any reoccurrence of this problem, all the termination swing barriers for [illegible]S were scheduled for reworking even though some may not have needed repair. Since my last letter of September 22, 1980, NCR 4547 was written recommending that repairs be made on-site by the contractor. A program has been developed for the repair of the barriers at Clinton Power Station which will be implemented in the coming months.

4. Safety Implications/Significance

As previously discussed in my earlier letter of September 22, 1980 to the Commission, it is believed that these swing barriers failed during transit to the Clinton Power Station. The actual loading conditions imposed on the barriers is not known and it would be impracticable to attempt to quantify the loads which were imposed. It can be assumed, however, that if the condition had gone undetected, it is possible that one or more swing barriers could have separated from the hinge attachment during a severe seismic event. If a swing barrier came completely loose from its hinge, it would most probably fall to the side, possibly coming to rest against terminal blocks at its upper end. Although barrier-type terminal blocks are employed in the design, it is possible that the impact of the falling panel on the terminal blocks could sufficiently damage the separation barriers between terminals to short circuit some of the wiring, which could include critical circuitry in one safety division. If more than one failure occurred and the failure followed the same course and caused the same damage to the circuitry in another safety division, the ability of the plant to shut down or to be maintained in a safety shut-down condition could have been compromised.

Since the repair of the swing barriers does not have any impact on other control room installation work, the planned repair will be performed as time permits during the final months of 1981 or early 1982. Therefore we are submitting this as a

final report in accordance with 10 CFR 50.55(e), and trust that it is sufficient for your analysis and evaluation of the deficiency and Corrective Action.

Sincerely,

L.J. Koch
Vice President

AJB/prh

cc: H.H. Livermore, NRC Resident Inspector
Director, Office of I&E, USNRC, Washington, DC 20013
Director-Quality Assurance