

ILLINOIS POWER COMPANY



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

April 27, 1984

Docket No. 50-461

Mr. James G. Keppler  
Regional Administrator  
Region III  
U.S. Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, Illinois 60137

Subject: Potential 10CFR50.55(e) Deficiency 55-84-06  
Damage to Conax Penetrations

Dear Mr. Keppler:

On March 28, 1984, Illinois Power Company notified Mr. F. Jablonski, NRC Region III, (Ref: IP memorandum Y-20509 dated March 28, 1984) of a potentially reportable deficiency concerning damage to Conax Cable Penetrations through the containment wall. Our investigation of this issue is progressing, and this letter is submitted as an interim report in accordance with the requirements of 10CFR50.55(e)(3).

#### Statement of Potentially Reportable Deficiency

Inspection of control and instrumentation type cable penetration assemblies identified damage to the termination areas. The damage consisted of bent studs on terminal blocks, broken terminal block barriers, loose terminal blocks, heat shrink tubing covering part of the wire terminal ring, bent termination cage, and cracking of the enclosure seam weld. An evaluation of these items is being performed to determine the effects on the integrity of the cable connections and the significance to the safety of operation of CPS.

#### Background

The penetration assemblies were inspected and shipped from the Conax facility in late 1980 and installed in early 1981. The assemblies were inspected and shipped in special packing cases and were installed without protective enclosures over the termination cages. In mid-1981, the enclosure covers were installed over the termination cages with some difficulty, since the enclosure end opening was small and did not fit readily

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over the terminal cage. An inspection of one of the installed penetration assemblies led to the discovery of bent terminal studs and broken barriers on terminal blocks. As a result, IP decided to inspect all NSSS and BOP control and instrumentation penetration assemblies for possible damage.

#### Investigation Results/Corrective Action

Illinois Power has prepared and is implementing an investigation plan to determine the extent of this problem at CPS. The investigation plan includes:

1. A review will be made of all NCRs (written against Conax penetrations) to identify the reported damage into specific areas for IE and non-IE applications. The effect on safety for each type damage will be evaluated.
2. A review of Conax installation instruction manual and Baldwin Associates installation and inspection procedures will be made to determine adequacy and compliance.
3. The Baldwin Associates travelers will be reviewed to verify that the vendor's recommended procedures were followed.
4. The Conax Corporation will be consulted in determining the effect of the damage to the penetration assemblies and proper means of correcting the damage.
5. The Baldwin Associates procedures for inspection and termination of field cables to the penetrations will be reviewed to determine quality hold points prior to connecting cables.
6. Field testing methods for assurance of equipment and circuit integrity will be evaluated with respect to identifying damage prior to energizing.

Power cable type penetration assemblies do not use terminal blocks for termination, and therefore, are not subject to the same type damage. However, inspections will be performed on these penetration assemblies for any damage.

The corrective action taken on this issue to date includes the inspection of thirty (30) class IE and non-IE control and instrumentation type penetration assemblies and the issuance of eighteen (18) nonconformance reports.

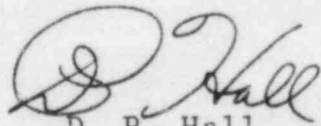
The complete scope and root cause of this problem have not yet been identified, such that a determination of generic corrective action can be defined. Inspection of the penetration assemblies is continuing and loose or damaged terminal blocks are being tightened or replaced, respectively. Other corrective action will be made as determined necessary.

Safety Implications/Significance

The on-going investigation will determine if there is a safety concern with the damaged penetration assemblies and what corrective action is necessary to preclude recurrence on future work. The extent and significance of this condition cannot be determined until further evaluation of the damage is performed. Approximately ninety (90) days will be required to complete the investigation, determine reportability, and file a final report on this potentially reportable deficiency.

We trust that this interim report provides sufficient information to perform a general assessment of this potential deficiency and adequately describes our overall approach to resolve this problem.

Sincerely yours,



D. P. Hall  
Vice President

RLC/lag

cc: NRC Resident Office  
Director, Office of I&E, US NRC, Washington, DC 20555  
Illinois Department of Nuclear Safety  
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