

ILLINOIS POWER COMPANY



1605-L  
U-10029

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

February 16, 1983

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 Deficiency 83-02  
10CFR50.55(e)  
Counterboring of Safety Related Pipe

Dear Mr. Keppler:

On January 13, 1983, Illinois Power verbally notified Mr. F. Jablonski, NRC Region III (ref: IP memorandum Y-14090, 1605-L, dated January 13, 1983) of a potentially reportable deficiency per 10CFR50.55(e) concerning procedural controls for inspection of field counterboring of safety related pipe. Our investigation of this matter continues, and this letter represents an interim report in accordance with 10CFR50.55(e)(3) for this potentially reportable deficiency.

Statement of Potentially Reportable Deficiency

During routine inspection activities performed by the Authorized Nuclear Inspector (ANI), it was discovered that in some cases inspections were not performed and documented by Baldwin Associates' (IP contractor) Quality Control (QC) or Technical Services (T/S) Departments of field performed counterboring activities on safety related piping. Potentially, this condition could have allowed the installation of incorrectly counterbored pipe and fittings at Clinton Power Station. An evaluation of this concern is in-progress to determine the scope of the problem, the as-built condition of hardware, and the potential for impact on the safety of operations of Clinton Power Station.

Background/Investigation Results

As a result of routine inspection activities performed by the ANI, and as confirmed by Illinois Power Quality Assurance surveillance activities, it was determined that inspections were not being performed and inspection documentation was unavailable for certain field counterbored pipe for piping wall thickness and taper. This issue was brought to the attention of Baldwin Associates Quality and Technical Services and Piping Departments and resulted in the issuance of Corrective Action Request (CAR) Number 113. As a result of further investigation by Illinois Power into the problems identified by the ANI and CAR 113, the following information was obtained:

1. In cases of field performed counterboring, the requirements of the piping specification K-2882 shall be met. Deviations from these requirements are allowed only upon the issuance of an approved Field Change Request (FCR).
2. Baldwin Associates Procedure BAP 2.14, "Fabrication / Installation of Items, Systems, and Components", was reviewed, revealing that the Technical Services Department (T/S) inspectors are responsible for inspection and inspection documentation (hold point on traveler) for weld joint fit-up. Counterbore is not addressed in this procedure.
3. Baldwin Associates Technical Services Procedure BTS-405, "Procedure Specification for Visual Inspection of Weldments", was reviewed, revealing that T/S inspectors are required, at weld joint fit-up, to inspect for weld gap, weld joint ID mismatch, pipe ID cleanliness, base material surface irregularities, etc. Guidelines for piping counterbore inspection are given but the procedure does not require an inspection to be made.
4. Baldwin Associates Quality Control Instructions, QCI-302, "Piping/Mechanical Quality Control Inspection Criteria for Piping System Fabrication/Installation", and QCI-309, "Piping Mechanical Quality Control Inspection Criteria for Piping System Fabrication / Installation for Augmented D and Fire Protection", were reviewed, revealing that piping counterbore was not addressed.
5. Because project procedures and instructions do not provide clear guidance on the inspection and documentation needed for piping counterbore, field personnel were not consistent in their method of inspection and subsequent inspection documentation for safety related piping counterbore activities. In some cases,

inspections were performed and documentation of counterbore inspection was provided. In other cases, inspections were not performed and inspection documentation was not generated.

6. Illinois Power Company has received from Baldwin Associates and is presently evaluating a complete list of 172 weld joints that, because of internal diameter mismatch, may have been counterbored. Of this list, fifty five (55) joints have been investigated thus far. Inspection reports have been obtained for thirteen (13) of these joints; the remaining forty two (42) are as yet, indeterminate.

Our investigation continues, to determine the existence of inspection documentation for the counterbored piping, and to develop plans to establish the adequacy of field counterbored piping where no inspection documentation is available.

#### Corrective Action (Interim)

Although the investigation of this potential deficiency is still in progress, actions have been or are being taken to correct the problem and to prevent recurrence.

1. No further weld fit-up or material identification inspections, for those joints involving pipe counterbore, will be performed until the applicable procedures and instructions are revised and training is performed.
2. On January 6, 1983, the BA Piping Department conducted on-the-job training for field personnel involved with pipe counterbore, titled "Counterbore and Grinding Inspection".
3. On January 12, 1983, the BA Technical Services (T/S) Department conducted on-the-job training for T/S personnel, covering the assignment of the responsibilities for checking wall thickness and counterbore.
4. BAP 2.14 was revised, via a Procedure Change Request (PCR-1-83), to address piping counterbore. This procedure now requires joints that are counterbored to be inspected per the requirements of piping specification K-2882, and that this inspection shall be a piping installation traveler hold point. PCR-1-83 was approved 1/20/83.
5. BTS-405 is in the process of being revised to clarify the inspection and documentation of piping counterbore.

6. QCI-302 and QCI-309 are in the process of being revised to address the inspection and documentation of piping counterbore. Approval is expected by 2/15/83.
7. Illinois Power Company and Baldwin Associates are presently investigating visual and non-destructive examination as methods of determining the as-built condition of those counterbored welded pipe joints in which no inspection documentation is available.

Safety Implications/Significance

Illinois Power Company's investigation to determine the as-built condition of those counterbore welded pipe joints in which inspection documentation is not available is continuing. Until this phase of the investigation is complete, an analysis of the safety implication of this potentially reportable deficiency cannot be performed. It is anticipated that approximately ninety (90) days will be necessary to complete our investigation and to file a final report on the matter.

We trust that this interim letter provides you sufficient background information to perform a general assessment of this potentially reportable deficiency and adequately describes our overall approach to the problem.

Sincerely yours,



D. P. Hall  
Vice President

cc: NRC Resident Inspector  
Director, Office of I&E, USNRC Washington, DC 20555  
Manager-Quality Assurance  
Illinois Department of Nuclear Safety