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U-600462 L14-86(03-12)-L 1A.120

ILLINOIS POWER COMPANY



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

March 12, 1986

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: Potentially Reportable 10CFR50.55(e) Deficiency 55-85-15: Classification of Instrument Lines Connected to the Reactor Coolant Pressure Boundary

Dear Mr. Keppler:

On December 27, 1985, Illinois Power Company (IP) notified Mr. Guldenmond, NRC Region III (Ref: IP Record of Coordination Y-32700 dated December 27, 1985) of a potentially reportable deficiency under the provisions of 10CFR50.55(e) concerning the instrument lines connected to the reactor coolant pressure boundary that are ASME Class 3 instead of ASME Class 2 as required by the Final Safety Analysis Report (FSAR). This initial notification was followed by one (1) interim report (Ref: IP Letter U-600422, D. P. Hall to J. G. Keppler, dated January 25, 1986). Our investigation of this matter is complete. Illinois Power has reviewed and evaluated the findings associated with this investigation and has determined that the identified deficiency would not have resulted in a condition adverse to the safety of operations of the Clinton Power Station (CPS) had this deficiency gone uncorrected. On this basis the issue is evaluated to be not reportable under the provisions of 10CFR50.55(e). Attachment A provides the details of our investigation.

We trust that this final report provides you sufficient background information to perform a general assessment of this potentially reportable deficiency and adequately describes our overall approach to resolve this issue.

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Sincerely yours,

D. P. Hall Vice President

RLC/ckc

Attachment

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

Illinois Power Company Clinton Power Station

Docket No. 50-461

Potentially Reportable 10CFR50.55(e) Deficiency 55-85-15 Classification of Instrument Lines Connected to the Reactor Coolant Pressure Boundary

Final Report

Statement of Reportable Deficiency/Background

Illinois Power Company Nuclear Station Engineering Department (NSED) identified a deficiency with the design classification of instrument lines connected to the reactor coolant pressure boundary. The instrument lines are classified as ASME Class 3 instead of ASME Class 2 as required by the Final Safety Analysis Report (FSAR).

Investigation Results/Corrective Action

Illinois Power (IP) prepared and implemented an investigation plan to determine the extent of this problem at the Clinton Power Station (CPS). The results of our investigation are discussed below.

A review was performed by NSED and Illinois Power Quality Assurance (IPQA) to determine the differences in requirements regarding the two ASME Classes. The results of this review determined that additional nondestructive examinations (NDE) would have to be performed on the instrument line welds in order to upgrade these lines to ASME Class 2.

A review was performed of the isometric drawings and design documents, including line lists and P&IDs, to identify the instrument lines which had not been classified in accordance with the FSAR. As a result of this review 2,716 instrument line welds were identified which required additional nondestructive examination for upgrading to ASME Class 2. Of this total, 132 welds required radiographic (RT) examination. The remainder required liquid penetrant (LP) examination. The NDE examinations were completed on March 1, 1986. IP reviewed the results of the examinations and determined that forty-nine (49) of the welds radiographed and four (4) of the welds examined by liquid penetrant did not meet acceptance criteria. Nonconformance Reports (NCRs) were initiated to document and disposition these welds in accordance with approved site procedures. It is anticipated that all corrective action associated with this matter will be completed by March 14, 1986.

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ATTACHMENT A (continued)

Root Cause

Illinois Power's investigation of this matter has determined the root cause to be a deficiency in design documentation. In 1979, when the CPS instrumentation design was being developed, Instrument Society of America Standard 67.02 was in draft form. The Clinton design rules were changed to implement a conservative version of the draft standard, which specified less than the Class 2 requirement contained in the Preliminary Safety Analysis Report (PSAR). However, the Classification Criteria and the Design Criteria (DC-CI-03-CP), and the Clinton Power Station FSAR were not revised to be consistent with this new direction.

Engineering Change Notices (ECNs) 6926, 6927 and 6976 were issued to upgrade the design. In addition, Sargent & Lundy (S&L) has issued an internal memorandum to appropriate engineering personnel reiterating the design requirements.

Safety Implications/Significance

A safety significance evaluation was performed which concludes that the identified weld deficiencies would not have resulted in a condition adverse to the safety of operations of CPS had these weld deficiencies gone uncorrected. In addition, a significant portion of the RT examination failures were destructively tested to aid in these evaluations. On this basis, the issue is evaluated to be not reportable under the provisions of 10CFR50.55(e).