

ILLINOIS POWER COMPANY



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U-10010

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

November 19, 1982

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

Docket No. 50-461

Dear Mr. Keppler:

Potential Deficiency 82-11
10CFR50.55(e)
Incorrect Identification of
Base Material and Weld Procedures
on Piping Hanger Travelers

On October 20, 1982, Illinois Power Company notified Mr. F. Jablonski, NRC Region III, (Ref: IP Memorandum Y-13999, 1605-L, dated October 20, 1982) of a potential reportable deficiency per 10CFR50.55(e) concerning the incorrect identification of base material and improper weld procedures identified on piping hanger travelers. Our investigation into this matter is not complete, and this letter represents an interim report per 10CFR50.55(e)(3).

STATEMENT OF POTENTIAL REPORTABLE DEFICIENCY

During final review of piping hanger installation travelers, it was discovered that incorrect identification of base materials and improper weld procedures were identified on piping hanger travelers. This condition could potentially allow for incorrect welding and improper documentation of piping hanger installation. Although investigation completed thus far has not revealed defective weldments due to this potential deficiency, further investigation is necessary to determine significance of this concern.

INVESTIGATION RESULTS/BACKGROUND

During a Baldwin Associates (IP Contractor) Technical Services Department final review of piping hanger installation travelers, it was realized that the wrong embed plate base material and welding procedure for welds between embed plates and piping hangers were identified on the documents. This error was initially identified on approximately sixty-seven (67) piping hanger installation travelers and resulted in the issuance of a Nonconformance Report (NCR-7725). Upon further investigation by Baldwin Associates, it was determined

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that approximately 1300-1400 travelers have the same problem, but have undergone final review and were transmitted to the records vault. As a result of NCR-7725, the Baldwin Associates (BA) Quality Assurance Department issued a Corrective Action Request (CAR-105) which addressed improper traveler initiation by BA Engineering and improper traveler initial review by BA Technical Services on an undetermined number of piping travelers.

Upon investigation by Illinois Power into the problems identified by NCR-7725 and CAR-105, the following information was obtained:

1. Sargent & Lundy (CPS Architect-Engineer) design drawing S21-1001 allows the use of both ASTM A-36 and ASTM A-572 Grade 50 as embed plate material.
2. During pipe hanger traveler initiation, the BA Piping Department did not realize that an alternate type of material was allowed for embed plates. It was erroneously assumed that all embed plate material was ASTM A-36, subsequently, pipe hanger travelers were prepared identifying the embed base material as ASTM A-36. In reality, both ASTM A-36 and ASTM A-572 Grade 50 material were used for embed plates.
3. The initial pipe hanger traveler review by BA Technical Services assigns a weld procedure to the traveler, based on the base materials identified on the document by the BA Piping Department. Therefore, if erroneous base material information is identified on travelers, the possibility of identifying an incorrect welding procedure exists.
4. The weld procedure for welding ASME SA-36 (pipe hanger material) to ASTM A-36 embed material is designated as N-1-1-A-1M. The weld procedure for welding ASME SA-36 (pipe hanger material) to ASTM A-572 Grade 50 embed material is designated as N-ASTM-A-SP. As ASTM A-36 embed base material was identified on the travelers, weld procedure N-1-1-A-1M was subsequently identified on the travelers by BA Technical Services. However, depending on actual embed material used, either procedure could be correct. It should be noted that these two welding procedures are the same in that they both utilize the same filler material and the same essential variables, therefore, the welds are not affected as a result of an incorrect weld procedure being specified.
5. The welders used to perform the welds in question were qualified to both procedures.
6. A review of traveler programs in the electrical, instrumentation, and HVAC disciplines for weldments to embeds disclosed no welding procedure errors such as identified above.

7. A review of travelers in the mechanical discipline for weldments to embeds is in process to determine if similar problems have occurred in this area.
8. Investigation revealed that an ASME Code Case, N-71-10, approved for Clinton Power Station through FSAK commitments to Regulatory Guide 1.85, states that an ASME weld procedure qualification (such as N-1-1-A-1M) with a base metal in one P-number and Group number (for A-36, P=1) qualified for all other base metals in the same S-number and Group number (for A-572 Grade 50, S=1).

Illinois Power investigation of this concern continues and involves reviewing additional travelers to determine if similar problems exist in weldments to base materials other than embeds, such as structural steel, containment liner, and others.

CORRECTIVE ACTION (INTERIM)

Although investigation of this potential deficiency is still in progress, several actions are planned to correct the problem and to prevent recurrence:

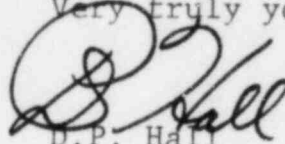
1. BA Piping Department will conduct department training relevant to traveler initiation and the importance of supplying correct information on work related documents. They will also review the structural steel drawing to assure that the applicable personnel are cognizant of the requirements. This training will be complete by December 15, 1982.
2. BA Piping Department will indicate, on piping travelers in which welds have not been started, that embeds base material are either A-36 or A-572 Grade 50, and that the applicable weld procedure is either N-1-1-A-1M or N-ASTM-A-SP, to show that alternate materials and weld procedures exist.
3. BA Piping Department will document the fact that alternate embed base materials and weld procedures exist, by placing copies of the dispositioned Nonconformance Report (NCR-7725), in those piping hanger travelers in which the welding has been started or has been completed.
4. BA Project Engineering will request Sargent & Lundy to incorporate into the piping installation specification (K-2882) the technical requirements of ASME Code Case N-71-10 as it pertains to welding procedure qualifications.

SAFETY IMPLICATIONS/SIGNIFICANCE

At this time, although documentation errors have been identified it has been determined that associated weldments are not defective. Therefore, this potential deficiency has not yet resulted in an adverse impact on the safety of operations of CPS. However, further investigation is necessary in several areas to assure that a significant deficiency has not occurred. It is anticipated that approximately sixty (60) days will be necessary to complete the investigation and to file a final report on the subject.

We trust that this interim report provides you sufficient background information to perform a general assessment of this potential reportable deficiency and overall approach to resolution of this problem.

Very truly yours,



D.P. Hall
Vice President

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