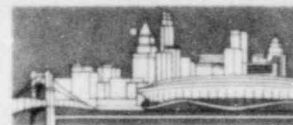


THE CINCINNATI GAS & ELECTRIC COMPANY



CINCINNATI, OHIO 45201

May 28, 1982

QA-1795

E. A. BORGMANN
SENIOR VICE PRESIDENT

U. S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Attention: Mr. J. G. Keppler
Regional Administrator

RE: WM. H. ZIMMER NUCLEAR POWER STATION UNIT 1
10CFR50.55(e) - ITEM M-38 - IMPROPER FILLER
METAL IN RR SYSTEM WELDS - DOCKET NO. 50-
358, CONSTRUCTION PERMIT NO. CPPR-88,
W.O. #57300 JOB E-5590 FILE NRC-8, ITEM M-38

Gentlemen:

The Henry J. Kaiser Company (HJK) performed a review of quality documentation related to welds in the Reactor Recirculation (RR), Reactor Water Cleanup (RT), and the Residual Heat Removal (RH) Systems prior to their undergoing Induction Heating Stress Improvement (IHSI). This review resulted in HJK Nonconformance Reports (NRs) which describe document deficiencies for pipe welds in the RR system. The welds are RR B-2 (NR E-4359), RR B-20 (NR E-4351), and RR A-12, A-14, and A-22 (NR E-4352).

The nonconforming conditions arose in discrepancies between the description of the weld rod and the rod heat number recorded on the weld rod issue slip. The weld rod issue slip (Weld KE-2 form) lists the weld rod type, the weld rod heat number and the weld rod stock number, in addition to other information, such as the weld to be made, the welder to whom the rod was issued, the welding procedure used, and the net quantity of weld rod used. The weld rod issue clerk fills out the stock number of the rod as well as the rod heat number after filling the rod request based on the type of rod requested by the welding foreman. In each case, E-308-16 rod type was requested by the welding foreman, as documented by the KE-2 form. In five (5) cases, where E-308-16 rod was requested, the heat number recorded by the weld rod issue clerk was traceable to E-7018 or E-70S2 weld rod. The weld required E-308-16 or E-308 stainless steel filler material. E-7018 and

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E-70S2 are carbon steel weld rods, and therefore unacceptable in a stainless weld.

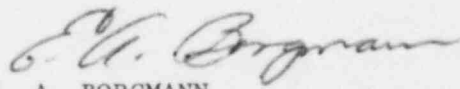
In order to determine the likelihood of the use of carbon steel weld rod in these welds, CG&E and HJK contacted four welders, the QC weld inspector, and the weld rod issue shack clerk involved with these particular welds. Each provided a statement that carbon steel filler material would not have been inadvertently used in place of stainless steel filler material. Each welder stated that the welding properties of carbon and stainless steel filler are significantly different to allow each to have known immediately during welding that carbon was substituted for stainless steel rod. In addition, carbon steel E-70S2 TIG weld rod is copper coated exclusively on this site. Carbon steel E-7018 rod has a heavy flux coating covering the rod. The rod issue clerk claimed that he would not have issued carbon steel weld when stainless was requested, and suggested that the heat number was incorrectly transcribed onto the weld rod issue slip. The correct traceability can then be determined since the welding department issues only one heat of a given rod size and type on any one day.

In addition to the above, the Henry J. Kaiser Company is experimenting with various NDE techniques in an effort to determine the detection sensitivity of these techniques to all quantities of carbon steel in a predominantly stainless steel welds. Techniques under consideration include ultrasonic and radiographic testing. To this date, no conclusive results have been achieved. Additional testing and perhaps other techniques may be required. CG&E is continuing this investigation and will submit a final report by September 31, 1982.

We trust that the above will be found acceptable as an interim report under the requirements of 10CFR50.55(e).

Very truly yours,

THE CINCINNATI GAS & ELECTRIC COMPANY

By 
E. A. BORGMANN
SENIOR VICE PRESIDENT

GMO:plc

cc: NRC Resident Inspector
Attn: W. F. Christianson
NRC Office of Inspection and Enforcement
Washington, D. C. 20555