

CINCINNATI, OHIO 45201

November 9, 1982
QA-2104

THE CINCINNATI GAS & ELECTRIC COMPANY

E. A. BORGMANN
SENIOR VICE PRESIDENT

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

Attention: Mr. J. G. Keppler
Regional Administrator

RE: WM. H. ZIMMER NUCLEAR POWER STATION UNIT 1
10CFR50.55(e), ITEM M-22, WELDS REJECTED
ON RADIOGRAPHIC REVIEW, DOCKET NO. 50-358
CONSTY PERMIT NO. CPPR-88, W.O. #57300
JOB FILE NO. NRC-8, M-22

Gentlemen:

This letter constitutes a final report concerning the subject condition, initially reported to the Commission on May 2, 1980, under the requirements of 10CFR50.55(e).

On September 24, 1979, CG&E initiated a program to perform a 100% re-review of existing field weld radiographs for conformance with the 1971 edition of Section III of the ASME Boiler and Pressure Vessel Code with Summer 1973 Addenda. The review encompassed weld quality, documentation, and radiographic technique for radiography performed through October 10, 1979.

The review was performed by Nuclear Energy Services Company (NES) contract personnel, certified in accordance with ASNT SNT-TC-1A. Radiographs rejected by the NES reviewer were forwarded to the principal constructor, H. J. Kaiser Company (HJK), for disposition and returned to the NES reviewer for concurrence.

On June 16, 1980, the initial review of the pre-October 10, 1979 radiographs by NES had been completed and forwarded to HJK. Approximately 2500 welds were reviewed. Of this total, about 970 documentation

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deficiencies, 430 radiographic technique deficiencies and 60 weld quality deficiencies were identified. All accepted weld radiographs were returned to the site document vault.

The NES reviewer was replaced by the CG&E NDE Level III for concurrence of dispositions performed after June 16, 1980. This final CG&E review addressed approximately 770 remaining film package deficiencies. Where the individual weld film package discrepancies had been properly dispositioned, the CG&E reviewer signed off the review sheet and returned the film packages to the site document vault. Welds with remaining radiograph deficiencies which were not properly resolved have been documented on Nonconformance Reports (NRs). A review of these NRs has identified two (2) generic problems in film interpretation.

- 1) Neither the NES nor HJK reviewer adequately addressed surface conditions in the review. The CG&E NDE Level III identified surface conditions which could (and in one case did) mask rejectable discontinuities in the weld.
- 2) Although the NES reviewer identified excessive root concavity, the HJK Level III accepted this condition since he believed that the ASME Code did not address this condition. To the contrary, paragraph NB-4424 of the Summer 1973 Addenda to Section III of the ASME Code states that concavity on the root side of a single welded circumferential butt weld is permitted when the resulting thickness of the weld is at least equal to the thickness of the thinner member of the two sections being joined, and that internal root weld conditions are acceptable only when the density change as indicated in the radiograph is not abrupt.


Additional action to address the above concerns is a 100% re-review of radiographs accepted by HJK prior to April 8, 1981. For item 1, this review is being performed in accordance with CG&E's commitment pursuant to 10CFR50.55(e) Report #M-50. Since the root concavity issue has been satisfactorily addressed by both the NES and CG&E reviewers, re-review of radiographs for item 2 will be limited in scope to radiographs reviewed between October 10, 1979 and April 8, 1981. The results of this review will be addressed in CG&E's report #M-50.

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We trust the above will be found acceptable as a final report
under 10CFR50.55(e).

Very truly yours,

THE CINCINNATI GAS & ELECTRIC COMPANY

By 
E. A. BORGMANN
SENIOR VICE PRESIDENT

FKP:plc

cc: NRC Office of Inspection & Enforcement
Washington, D.C. 20555
NRC Senior Resident Inspector
Attn: W. F. Christianson
Zimmer Project Inspector
Region III