

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-358/83-09(OSC)

Docket No. 50-358

License No. CPPR-88

Licensee: Cincinnati Gas and Electric Company
139 East Fourth Street
Cincinnati, Ohio 45201

Facility Name: Wm. H. Zimmer Nuclear Power Station

Inspection At: Wm. H. Zimmer Site, Moscow, Ohio

Inspection Conducted: May 30 through July 29, 1983

Inspectors: *W. L. Forney for*
W. F. Christianson

8/25/83
Date

W. L. Forney for
T. P. Gwynn

8/25/83
Date

W. L. Forney for
E. H. Nightingale

8/25/83
Date

D. E. Keating
D. E. Keating

8/26/83
Date

Approved By: *W. L. Forney* Chief
W. L. Forney
Section 1, Zimmer

8/25/83
Date

Inspection Summary

Inspection during the period May 30, 1983 through July 29, 1983 (Report No. 50-358/83-09(OSC))

Areas Inspected: Routine and reactive, unannounced inspection by the resident inspectors of licensee action on previously identified items, licensee action on I&E Circulars, fuel receipt and storage, QCP Task VII - review of previously voided H. J. Kaiser nonconformance reports, plant tours, welder qualification

program, new program implementation, nonconformance report review, QCP Tasks I, II, III, IV, V, X, XI, QCP Task II - Bechtel Material and Quality Services, and General Electric Company reactor internals evaluation plan. This inspection involved a total of 674 inspector-hours onsite by three resident inspectors and one reactor inspector including 0 inspector-hours onsite during off-shifts.

Results: Of the twelve areas inspected, no items of noncompliance or deviations were noted.

DETAILS I

Prepared By: W. F. Christianson, Senior Resident Inspector

T. P. Gwynn, Resident Inspector

Reviewed By: W. L. Forney, Chief, Section 1, Zimmer

1. Personnel Contacted

Cincinnati Gas and Electric Company

- *J. Williams, Jr., Senior Vice President
- *E. J. Wagner, Assistant Vice President - Nuclear Engineering
- *J. R. Schott, Manager, Nuclear Production Department
- *J. F. Shaffer, Quality Confirmation Program (QCP) Director
- + H. R. Sager, Quality Assurance (QA) Manager
- *G. C. Ficke, Nuclear Licensing Department (NLD) Manager
- *R. E. Spence, Acting Manager, QAD
- *G. M. Orlov, Assistant Director, QCP
- *W. P. Cooper, Director, Nuclear Engineering Department
- *D. J. Frederick, NED Director, Special Projects
- *W. N. Tobler, Director Construction Engineering, Generation Construction Department
- *S. D. Osborne, QCP Task VII Coordinator
- +*R. N. Taylor, NLD Licensing Specialist
- + C. Keller, Technical Staff Supervisor, QA Engineering
- + F. S. Hoover, System Engineer, Generation Construction Department
- + D. L. Cooley, Lead QA Engineer
- *D. J. Chamberlain, NLD Director, Region III Interface
- *J. P. Kloosterman, NLD Licensing Engineer
- *R. Wrucke, NLD Licensing Engineer
- *R. E. Monroe, Welding Consultant
- *D. Harvey, NED Engineer
- *G. A. Brown, NLD Licensing Engineer
- *J. E. Kissell, GCD Construction Engineer
- *P. Russ, Staff
- *D. Stephenson, NLD Licensing Engineer

H. J. Kaiser Company

- R. N. Prewitt, Manager, Records Management
- + J. W. Flaherty, Manager, Current Welding Operations
- + D. Colbert, Welding Engineer
- M. A. Butterworth, Manager, Historical Welding Operations

And others of the station and construction project staffs.

*Denotes those attending exit meeting on July 29, 1983.

+Denotes those attending meeting on June 22, 1983 (see paragraph 6).

2. Licensee Action on Previously Identified Items

- a. (Closed) Unresolved Item (358/82-17-05): Thermowell TW-RI-001 was recorded on a voided nonconformance report (E-5171).

Review of licensee activities under QCP Task VII revealed that TW-RI-001 documented on voided nonconformance report E-5171 was in fact traceable to a certified test report and certificate of compliance on file in the CG&E vault. This matter was verified by the inspector through field verification of the identification on the item (note - identification marking code was partially obscured by the pressure boundary weld). The inspector further verified that the thermowell manufacturer was an approved CG&E supplier whose Quality Program had been approved via a QA Manual review. This was acceptable considering the ASME Code Section III, paragraph NB-2610 (1977 edition) allowances for small products. The inspector agreed with QCP Task VII that nonconformance report E-5171 was voided because it was written in error.

- b. (Open) Noncompliance Item (358/83-04-06): Inadequate Control of Temporary Changes to Nuclear Engineering Procedures (NEPs). The inspector reviewed the Nuclear Engineering Department (NED) response to CG&E Corrective Action Report (CAR) 83-70. This response committed to a corrective action completion date of August 30, 1983.

The inspector reviewed revision 1 to NEP-8.5 and the new Owners Project Procedure (OPP)-3.10 (Engineering Review of Cable Separation for Panels, revision 0 dated June 23, 1983) which corrected the specific identified deficiencies and which provided better management control over the panel review.

This item remains open pending CG&E Quality Assurance Department verification of corrective action under CAR 83-70 and review of the revised NEP-1.1 (Preparation, Review, and Approval of NEPs).

- c. (Open) Unresolved Item (358/83-04-05): FSAR Analysis of Cable Interactions.

The inspector reviewed NEP-8.5 (Engineering Review of Cable Separation for Essential Panels, revision 1 dated June 28, 1983) and found that paragraph 3.6.4 incorporated the FSAR criteria in question. This paragraph defines the condition where a white cable comes in close proximity (less than 6") to a class 1E cable within panels and outside the panel to the first raceway as an interaction. This definition and a CG&E programmatic commitment to reinspect previously reviewed essential panels for this condition resolves the current NRC concern with regard to this matter. However, the method to be employed to control future

interactions (interactions imposed by ongoing construction work) to assure compliance with the Wm. H. Zimmer Final Safety Analysis Report has yet to be determined by CG&E NED. This item remains open pending that determination and further NRC review.

- d. (Closed) Open Item (358/82-07-01): Surveillance Program Per Immediate Action Letter 81-11 to Reduce 100% Reinspection.

NRC acceptance of the CG&E Surveillance Program to Reduce 100% Reinspection of contractor inspections was documented in a letter from NRC Region III (J. G. Keppler) to the Cincinnati Gas and Electric Company (E. A. Borgmann) dated August 3, 1982.

Verification of licensee action required by that letter was performed by the Resident Inspectors prior to implementation of the CG&E Surveillance Program.

No items of noncompliance or deviations were noted.

3. Licensee Action on I & E Circulars

- a. (Closed) 79-13 "Replacement of Diesel Fire Pump Contactors"

Review of the licensee's file indicates that the licensee determined Zimmer Diesel Fire Pumps utilized starting contactors of the type discussed in the circular, replacement parts were procured and installed.

- b. (Closed) 79-20 "Failure of GTE Sylvania Relay, Type PM Bulletin 7305, Catalog 5412-11-AC with 120V AC Coil"

Review of the licensee's file indicates the licensee determined the subject relays are not used at Zimmer.

- c. (Closed) 79-25 "Shock Arrestor Strut Assembly Interference"

Review of the licensee's file indicates the licensee determined the subject parts are not in use at Zimmer.

- d. (Closed) 80-01 "Service Advice for GE Induction Disc Relays"

Review of the licensee's file indicates the licensee has identified use of the subject relays at Zimmer, has procured replacement parts, installation of replacement parts is in progress with a scheduled completion date of September 30, 1982.

- e. (Open) 81-02 "Performance of NRC - Licensed Individuals While On Duty"

Review of the licensee's file indicates the licensee incorporated the NRC concerns addressed in the circular into Zimmer procedure OS.NP.01 and the circular and other appropriate NRC documents were provided to operators to read. The file indicates inclusion and cross-reference of circular discussion items 1-5 to O.S.NP.01 sections; however, the inspector did not find indication in the file that consideration had been given to guidance provided in the "Additional Information" section of the circular at pages 2 and 3. Recommended action in the circular for each licensee was to "ensure the guidance contained or referenced herein is incorporated".

- f. (Closed) 81-09 "Containment Effluent Monitor That Bypasses Radioactivity Monitor"

Review of the licensee's file indicated that there are no pathways for unmonitored release of water from the primary containment to the environment, whether or not primary containment is isolated. This issue is also addressed in the Zimmer SER (NUREG-0737, item II.E.4.2)

No items of noncompliance or deviations were noted.

4. Fuel Receipt and Storage

The inspector verified the integrity of security controls for the new fuel storage area, and of provisions for control of the new fuel storage environment.

The inspector observed licensee activities under SE.SAD.03, "Interim Access Control New Fuel Storage Area", and verified fire protection, installed barriers, locks, and the presence of watchmen to control personnel access. The inspector verified that water sources to the 627' elevation refueling floor were being administratively controlled and that provisions were in place to protect the new fuel from contaminants.

No items of noncompliance or deviations were noted.

5. Quality Confirmation Program (QCP) Task VII - Review of H. J. Kaiser Voided Nonconformance Reports (NRs)

- a. The inspector continued to monitor the activities of QCP Task VII. During this inspection period the inspector reviewed 147 previously voided H. J. Kaiser nonconformance reports falling into three distinct categories:

- (i) Category 1 NRs consisted of those reports which were written against nonessential, nonsafety-related items over which the NRC has no regulatory jurisdiction. These NRs were reviewed to a degree sufficient to satisfy the inspector that the items documented in the report were, in fact, nonessential. The following nonconformance reports were category 1:

E-107	N-184	N-537	N-775
N-157	N-317	N-669	

- (ii) Category 2 NRs consisted of those reports which were written against essential, safety-related items and which had been "voided" rather than "superceded". The review consisted of determining that the exact problem identified on the original (voided) NR had been copied on the superceding NR. This review was performed after each voided NR and superceding document had been submitted to and approved by a review committee per CG&E Quality Confirmation Program Procedure 9.18, "Review and Processing of Voided Nonconformance Reports." The following nonconformance reports were category 2:

E-93	E-833	CN-2266	E-2708
E-127	E-1166	E-2275	E-2811
E-163	E-1455	E-2276	E-2835
E-186	E-1535	E-2277	E-3031
N-319	E-1787	E-2300	E-3043
E-389	E-2037	E-2308	E-3070
E-402	E-2156	CN-2396	E-3127
E-602	E-2185	CN-2542	CN-5559
E-627	E-2186	CN-2578	E-6013
E-640	E-2200	E-2669	E-6013 R1
E-683	E-2233	E-2686	E-6108
	E-1602	E-2258	E-7429

- (iii) Category 3 NRs consisted of those reports which were written against essential, safety-related items and which were dispositioned "Accept-As-Is" by the voided NR review committee. Those items dispositioned "Accept-As-Is" were either written in error by the originator or were written against conditions which no longer exist. The following nonconformance reports were category 3:

E-61	E-1034	E-1624	E-2210
E-95	E-1050	E-1627	E-2213
E-193	CN-1109	E-1643	E-2230
E-194	CN-1119	E-1649	E-2241
E-195	E-1183	E-1671	E-2243
E-282	E-1198	E-1696	E-2245
N-325	E-1214	E-1728	E-2248
CN-341	E-1219	E-1744	E-2255
E-371	E-1238	E-1803	E-2268
CN-404	CN-1276	E-1810	E-2294
E-547	E-1284	E-1888	E-2323
N-579	E-1293	E-1931	CN-2326
E-666	E-1324	E-1963	CN-2394
E-667	E-1418	E-2028	CN-2413
E-683	E-1419	E-2036	CN-2519
CN-706	E-1425	E-2037R1	CN-2552
CN-837	E-1496	E-2099	E-2581
E-905	E-1505	E-2127	E-2586
E-906	E-1521	E-2128	E-2627
E-907	E-1523	E-2140	E-2995
E-946	E-1531	E-2162	E-3007
E-971	E-1581	E-2176	E-5171
E-1030	E-1616	E-2200R1	E-2600
			E-1432

b. During the performance of this review, several items of concern were identified by the inspector which were pursued by QCP Task VII personnel during the inspection. These items and their resolution were as follows:

(i) NR N-532 - This voided NR identified P1004A unistrut spot welds and butt welds which were rusting. The S&L Specification H-2173, STD-EB-115 states in part:

2.8 All hanger components shall have a hot-dip or pre-galvanized finish

4.1 The following shall be touched-up with (1) coat of zinc-rich paint:

(a) Areas of galvanized surfaces which have been marred due to handling, shipping, erection, weathering, etc.

(b) Field welds and shop welds made on galvanized surfaces.

Field observation by the inspector of several electrical hanger components utilizing P1004A unistrut indicated that in some instances the unistrut spot welds exhibited a reddish oxide film similar to iron oxide (rust). There was no evidence of either hot-dip galvanize (after welding) or zinc-rich paint on the welded surface.

This nonconformance report was dispositioned "Accept-As-Is" by the voided NR review committee with justification based upon several items of correspondence between Sargent and Lundy Engineers (S&L) and Unistrut Corporation of Wayne, Michigan addressing a similar problem at the Commonwealth Edison Company Byron/Braidwood Stations.

The inspector noted that although the correspondence indicated that the condition was acceptable to the Unistrut Corporation and that it was their (Unistrut's) opinion that the service life would not be degraded, the correspondence did not indicate that the condition was acceptable to S&L. In view of the fact that the S&L specification requirements remained in effect and that the field condition of P1004A unistrut exhibited the condition identified in the voided NR, the inspector requested that QCP Task VII submit this item to an engineering review. Condition Evaluation Request (CER) No. 83-204 was initiated by QCP Task VII on June 30, 1983 addressing the above concern. This item remains open pending further review after proper processing of CER 83-204 (358/83-09-01).

- (ii) NR E-248 - This voided NR identified a "clamp" mark on a piping penetration sleeve. The sleeve in question provides a flood barrier between the lower elevations of the reactor building and the turbine building (main steam pipe chase). This NR was initially dispositioned "Accept-As-Is" by the voided NR review committee with the justification that the condition no longer exists. Discussion with QCP Task VII personnel and field observation by this inspector revealed that, due to lack of clarity regarding the location of the pipe sleeve, the condition identified on NR E-248 did still exist. QCP Task VII personnel performed a further review of this item and subsequently initiated NR Q-QAD-83-1991-E to reopen this item for proper disposition and closure. This QCP Task VII NR requires NRC review prior to action being taken on the disposition.

- (iii) E-2548 - This voided NR identified a lack of fusion indication on weld VP K-281 (in the primary containment ventilation system) by radiography. This NR was initially dispositioned "Accept-As-Is" by the voided NR review committee with the justification that the condition no longer exists. This inspector questioned the validity of a statement on the radiographic report for final weld acceptance. That statement, which was also the justification for voiding the NR was "weld was re-x-rayed at a different angle and indication was determined to be a surface indication". In addition, the inspector noted potential inconsistencies in records related to repair #2 performed on weld VP K-281. QCP Task VII personnel performed a further review of this item and subsequently initiated NR Q-QAD-83-1854-E to reopen this item for proper disposition and closure. This QCP Task VII NR requires NRC review prior to action being taken on the disposition.
- (iv) NR E-2600 - This voided NR identified a lack of fusion indication on weld WS K-16 (in the Service Water System) by radiography. This NR was initially dispositioned "Accept-As-Is" by the voided NR review committee with justification that the area in question was ground and rewelded thus obtaining a good x-ray film of that area. This information was the disposition provided on the Nuclear Energy Services (NES) Audit Checklist by the H. J. Kaiser Weld/NDE QA Engineer on April 3, 1980. The inspector requested to see records related to the weld repair (as denoted on the audit checklist) however, no weld repair records could be located for the time frame in question (3/20/80 - 4/3/80). QCP Task VII personnel initiated a search of KE Weld 2 weld rod issue forms for this weld but were unable to locate any evidence that weld rod had been issued for this weld during the time frame in question. Since the original radiographic acceptance film for weld WS K-16 was no longer available for comparison to the final acceptance film, QCP Task VII personnel were unable to substantiate the statement of the H. J. Kaiser Weld/NDE QA Engineer (weld ground, rewelded and acceptable after re-x-ray) and could only conclude that this statement referred to a previous weld repair performed in 1977. This NR was resubmitted to the voided NR review committee and accepted. This inspector had no further questions regarding this item.
- (v) NR E-2604 - This voided NR identified incomplete fusion in weld WS-25 (in the Service Water System) by radiography. The NR was initially dispositioned "Accept-As-Is" by the voided NR review committee based upon a statement of a former H. J. Kaiser Weld/NDE QA Engineer. This statement, which was also the basis for voiding the NR, was "No Deficiency exists. Area re-x-rayed at different angle. No incomplete fusion or

lack of penetration identified based on HJK ASNT-1A Level III review". It was not clear to the inspector that re-x-ray at a different angle would remove lack of fusion. It appeared that either the NES auditor had improperly evaluated the original film or that the re-x-ray at a different angle had failed to disclose the previously identified deficiency. A further review of documentation related to this weld (located in the H. J. Kaiser records management system) revealed an NDE (nondestructive examination) request form No. X-178 dated June 18, 1980 (approximately two and a half months after the NR was voided), which stated "weld WS-25 - re-x-ray after repair". There was no documentation to indicate that this weld had been repaired since 1976. In addition, there appeared to be inconsistencies in the documentation related to repair #2 for this weld. This matter was reviewed by Task VII personnel who subsequently initiated nonconformance report Q-QAD-83-1864-E to reopen this item for proper disposition and closure. This QCP Task VII NR requires NRC review prior to action being taken on the disposition.

(vi) NR E-867 - This voided NR identified damage (in the form of (1) buckled and cracked I-Beam flanges, (2) cracked welds, and (3) gouge and scuff marks) to equipment 1F15-E003 (Refueling Platform Equipment Assembly). This NR was initially dispositioned "Accept-As-Is" by the voided NR review committee as a category 2 (void/superseded) NR, having been superseded by PCI NR #50. The inspector disagreed that the exact problem had been copied on the superseding document in that only item (2) above was addressed by PCI NR #50. Review of General Electric Field Deviation Disposition Request (GE-FDDR) No. KN 1-116 (also related to this item) indicated that although the FDDR was closed (dated 4-19-79) there was insufficient evidence to support the closure. This matter was further reviewed by QCP Task VII personnel who subsequently initiated nonconformance report Q-QAD-83-2020-E to reopen this item for proper disposition and closure. This QCP Task VII NR requires NRC review prior to action being taken on the disposition.

(vii) NR E-1151 - This voided NR identified an item of noncompliance to the site procedure for control of nonconforming materials (valve 1E12F012 reworked prior to disposition of NR E-1122) and a lack of access to the item (the valve operator had been completely reassembled) for inspection of the rework. This NR was dispositioned "Accept-As-Is" by the voided NR review committee with the justification

that NR E-1122 had been dispositioned adequately with rework properly inspected and the NR subsequently closed. Review of NR-E1122 revealed that the NR was inspected by an individual qualified to perform VT, MT and PT (visual weld, magnetic particle, and dye penetrant examination) and closed on the date that NR E-1151 was voided. The inspector requested that QCP Task VII perform a document search to provide evidence that the valve operator had been disassembled and reassembled between the date of issuance and date of void for NR 1151. No documentation was available. In view of the lack of properly qualified personnel to perform the inspection and in view of the lack of documentary evidence that the valve operator had been disassembled for inspection, this NR was returned to QCP Task VII for verification of corrective action under NR E-1122. This item is open pending further review (358/83-09-02).

- (viii) NR E-1412 - This voided NR identified a large bore piping modification where traceability of the piping added was not maintained. This NR was initially dispositioned "Accept-As-Is" by the voided NR review committee with justification that the piping was cut from Pullman Kellogg piping spool piece No. 1WS15A18-47 per Additional Work Order No. 2550 and Design Document Change M-1330. Field observation by this inspector resulted in further review by QCP Task VII personnel who subsequently initiated NR Q-QAD-83-1880-E to reopen this item for proper disposition and closure. This QCP Task VII NR requires NRC review prior to action being taken on the disposition.
- (ix) NR E-2258 - This voided NR identified deficiencies related to cable tray and tray hangers in the control room. This NR was initially dispositioned "Accept-As-Is" by the voided NR review committee with justification that the voided NR was superseded by NR E-2258 revision 1 which copied the items identified on the original NR. Review of the CG&E vault copy (record copy) of NR E-2258 revision 1 revealed that item 6, 10, and 12 were not copied on the superseding document. This NR was returned to the voided NR review committee for further justification/action. Further review by QCP Task VII personnel revealed that items 6, 10, and 12 were not transferred to the superseding document because there were acceptable inspection records on file for these items.
- (x) NR E-5078 - This voided NR identified rejected linear indications in a pipe support hanger beam located in the reactor building. This NR was initially dispositioned "Accept-As-Is" by the voided NR review committee

with justification that the voided NR was superceded by NR E-5078 revision 1 which copied the items identified on the original NR. The inspector disagreed that the exact problem had been copied, since the original voided NR addressed the potential generic significance of the problem while the superceding NR only addressed the specific hanger beam in question. This NR was returned to the voided NR review committee for further justification/ action and is an open item (358/83-09-03).

- (xi) NR E-1618 - This voided NR identified misalignment of the orifice flanges for flow instrument 1E51-N001 in the Reactor Core Isolation Cooling System. This NR was initially dispositioned "Accept-As-Is" by the voided NR review committee based on acceptable hydrostatic test data for the line containing 1E51-N001. Review of the data provided (hydro RI-7) revealed that this hydro was performed at 188psig whereas the design pressure for the line containing 1E51-N001 was approximately 1335psig (per the Sargent and Lundy Piping Line List). The inspector requested that QCP Task VII visually verify the adequacy of the installation. QCP Task VII performed a further review and subsequently initiated NR Q-QAD-83-1950-E to reopen this item for proper disposition and closure. This QCP Task VII NR requires NRC review prior to action being taken on the disposition.
- (xii) NR Control Number (CN) -2903 - This voided NR (Inspection Report) identified stainless steel bar which had been purchased from an unapproved vendor. This NR was voided with the justification "Vendor has been approved". This NR was initially dispositioned "Accept-As-Is : Void instead of closed" by the voided NR review committee. Review by this inspector revealed that the purchase order for the material in question specified Allegheny Ludlum Steel Corporation as the material manufacturer but the material supplied had been manufactured by Al Tech Specialty Steel Corporation (as identified on the voided NR). The inspector requested that QCP Task VII provide evidence to support the justification for voiding the report. QCP Task VII personnel subsequently initiated NR Q-QAD-83-1959-E to reopen this item for proper disposition and closure. This QCP Task VII NR requires NRC review prior to action being taken on the disposition.
- (xiii) NR E-451 - This NR was included with voided NR review committee meeting #12 in error. The NR was never voided. No NRC review was provided for this NR other than to assure the NR had not been previously voided.

(xiv) NR E-1602 - This voided NR identified that ASME Code piping attachment welds for hangers 1WR200HR and 1WR214HR (in the reactor building closed cooling water system) were made to nontraceable hanger station material and that the hangers in question were not installed to the latest design drawing. This NR was dispositioned "Accept-As-Is" by the voided NR review committee with justification that the NR duplicated an earlier NR E-1493. Review of NR E-1493 by the inspector revealed that that NR addressed a related problem which resulted in correction of the identified condition. Information provided by the QCP Task VII investigative review of NR E-1602 indicated that verifiable, traceable station material was installed for these hangers. However, the inspector noted that the disposition of NR 1493, "Rework both hangers per revision A to hanger drawing M-448-3H Sheet 98 & 99. Revise PSK to reflect the hanger weld attachments to the WS pipe system & issue KE1 Forms etc. Full documentation of welds is required", had not been fully inspected prior to the NR being closed. The note associated with the signature in block 12 on the NR merely states that the ASME Code requirements were satisfactorily completed - the acceptability of the rework to bring the hanger installation into conformance with the drawing requirements was not indicated and this inspector concluded that the NR (E-1493) may have been closed in error. This was brought to the attention of QCP Task VII personnel who initiated a request for revision to NR E-1493. With this action, the NRC inspector agreed that the condition identified on voided NR E-1602 was acceptable as is.

(xviii) NR E-1432 - This voided NR identified a nonconformance to a hanger drawing requirement wherein carbon steel pipe was substituted for stainless steel pipe in the fabrication of pipe guides on instrument piping hangers. This NR was voided with the justification "See SLM-472 DDC". This NR was dispositioned "Accept-As-Is" by the voided NR review committee with the same justification as that used to void the NR. Review by this inspector indicated that DDC SLM-472 was incorporated in Sargent & Lundy drawing M-471 sheet 39 which was subsequently voided. This action essentially voids the DDC. The inspector requested that QCP Task VII provide a further review of this matter. That review indicated that the present inspection criteria contained in H. J. Kaiser procedure MIP-13 (Inspection Instruction For Pipe Support Installation, paragraph 4.1.4(F)) specifically allowed the substitution of carbon steel for stainless steel materials. This justification was submitted and approved by the voided NR review committee.

- c. The inspector reviewed twelve QCP Task VII NRs which reopened items previously identified on voided H. J. Kaiser nonconformance reports. These NRs had been forwarded by QCP Task VII to the inspector for NRC review of the disposition prior to rework or closure of the NR.
- (i) NR Q-QAD-82-3865-E: This NR was accepted by the inspector on June 28, 1983. The NR identified deficiencies related to damaged, bent, or broken cable bus located in the Reactor, Auxiliary, and Diesel Generator buildings. This NR was dispositioned "rework" to require inspection of all cable bus installed in seismic areas.
 - (ii) NR Q-QAD-82-2012-E: This NR was reviewed by the inspector to a degree sufficient to determine that only non-essential/nonsafety-related items were included in the NR. These were items over which the NRC exercises no regulatory jurisdiction.
 - (iii) NR Q-QAD-82-1639-E: This NR was accepted by the inspector on June 28, 1983. The NR identified cables and conduit in the residual heat removal system which required rework due to DDC E-2126. This NR was dispositioned "Accept-As-Is" since no nonconforming condition exists (the rework was properly controlled under the DDC - the original voided NR was initiated per H. J. Kaiser Quality Assurance Construction Methods Instruction (QACMI) G-14 which required that items identified on a surveillance report which had not been corrected within 30 days be documented on a nonconformance report).
 - (iv) NR Q-QAD-82-1379-E: This NR was accepted by the inspector on June 27, 1983. The NR identified a repair made to weld SC-K-3 by welders who were not qualified to weld to the specified procedure. This NR was dispositioned "Accept-As-Is" because the weld SC-K-3 was cutout in 1980 as a result of activities under 50.55(e) item M-22 initially reported to the NRC on May 29, 1980. The inspector verified in the field that weld SC-K-3 had been replaced.
 - (v) NR Q-QAD-82-1470-E: This NR was accepted by the inspector on July 1, 1983. The NR identified three cables which exceeded Sargent and Lundy drawing requirements for maximum allowable offset at panels. The NR was dispositioned "Accept-As-Is" because the conditions were either written in error (item 1) or were found to be corrected upon reinspection (items 2 & 3). The acceptability of the installation was confirmed by a qualified individual working under QCP Task VII.

- (vi) NR Q-QAD-82-1473-E: This NR was returned to QCP Task VII because it addressed the exact problem previously reopened on H. J. Kaiser nonconformance report E-7565Q, the disposition of which was previously concurred in by NRC Region III. This NR was written in error.
- (vii) NR Q-QAD-82-1563-E: This NR was returned to QCP Task VII because the disposition instructions/justification on the NR stated "HEAT # ON FLANGE IS C-5541 SEE ATTACHED KE1 FO FOR WELD K-800 (LEGIBLE COPY AVAILABLE IN VAULT)". Attempts by this inspector and QCP Task VII personnel to verify this statement were not successful. The heat number on the KE1 Form attached to the NR was obviously added to the form by an individual other than the inspector who performed the work. There was no heat number on the flange. The original voided NR identified that there was no heat number recorded on the documentation or on the item at the time the NR was initiated (December 5, 1979). In addition, the inspector noted that the flange in question exhibited severe arc strike, grinding marks, and a possible undocumented weld repair area.
- (viii) NR Q-QAD-82-1907-E: This NR was accepted by the inspector on June 28, 1983. The NR identified two ASME Class 2 (small bore) valves which exhibited grind areas on the valve body. This NR was dispositioned "Repair/Accept-As-Is" with disposition instruction/justification to perform an ultrasonic examination of the grind areas to determine minimum wall. If minimum wall was violated then the valve was to be repaired, otherwise accept as is.
- (ix) NR Q-QAD-82-2178-N: This NR was accepted by the inspector on June 28, 1983. The NR identified a cable which had been pulled back and repulled without evidence of quality control inspection. This NR was dispositioned "Accept-As-Is" because evidence was available to indicate that the pull back and repull of the cable in question had been accomplished as corrective action to a previously closed H. J. Kaiser nonconformance report.
- (x) NR Q-QAD-82-1734-E: This NR was accepted by the inspector on June 28, 1983. The NR identified seismic separation criteria violations associated with pipe/pipe hangers and cable tray/hangers in the Reactor Building. This NR was dispositioned "Accept-As-Is" because the conditions identified had been previously dispositioned on a properly closed H. J. Kaiser nonconformance report.

- (xi) NR Q-QAD-83-0333-E: This NR was accepted by the inspector on June 28, 1983. The NR identified a cable reel containing class 1E cable which had been damaged through improper storage in the reactor building. This NR was dispositioned "Accept-As-Is" because evidence indicated the condition was corrected in 1978 even though the NR was improperly voided.
- (xii) NR Q-QAD-83-0334-E: This NR was reviewed by the inspector to a degree sufficient to determine that only nonessential/nonsafety-related items were included in the NR. These were items over which the NRC exercises no regulatory jurisdiction.

No items of noncompliance or deviations were noted.

5. Plant Tours

The inspector conducted frequent plant tours throughout the inspection period. These tours included verification of licensee action under the NRC Show Cause Order dated November 12, 1982, observation of maintenance activities, verification of security controls, fire protection, and cleanliness controls. The following activities were observed:

- a. The inspector observed licensee activities associated with removal of the reactor vessel head in preparation for a General Electric Company technical evaluation of vessel internals installation (reference NUREG-0969, Report of the NRC Evaluation Team on the Quality of Construction at the Zimmer Nuclear Power Station; paragraph 1.6(3)) which had been performed by Reactor Controls, Inc.
- b. The inspector observed licensee activities associated with the teardown of the Reactor Core Isolation Cooling System Turbine drive. This activity was performed by the licensee in order to determine the status of the equipment after in building storage over several years. Nonconforming items identified were documented by the cognizant quality control (QC) inspector. This inspector noted that the Construction Inspection Plan (CIP) (No. M-033 dated June 14, 1983), item number 2 remarks required notification of the (ANI) Authorized Nuclear Inspector for ASME related items prior to proceeding. This requirement was annotated "ANI notification not required" and initialed by the QC inspector. This annotation appeared to represent an unauthorized change to the CIP and was brought to the attention of the CG&E Quality Assurance Manager for his resolution.

CG&E QA review of this item indicated that the change to the CIP (ANI notification not required) was in fact made prior to issuance of the CIP on June 14, however, the change had not been initialed and dated by the cognizant approving authorities (H. J. Kaiser Quality Engineering and the Authorized Nuclear Inspector).

No items of noncompliance or deviations were noted.

6. Welder Qualification Program - Review of Draft CG&E Response

The licensee requested that the resident inspectors review and comment on a draft response to an NRC Region III letter requesting information concerning welder qualifications (NRC letter dated May 17, 1983).

The resident inspectors reviewed the draft response and met with licensee representatives (denoted by a plus sign in paragraph 1 of this details section) on June 22, 1983 to discuss NRC comments. Those comments were as follows:

a. Detailed Accounting

The draft response did not always provide a detailed accounting of the times for each individual for the periods specified. In many instances the only information provided for a given day consisted of "RT pending" or "Awaiting visual inspection" which did not provide an accounting of the welders' time.

b. Special Training

The draft response only identified that certain welders were provided training. The draft response did not clearly identify if this training was training provided in accordance with H. J. Kaiser procedure WCP-2, Appendix B, or if this was special training. The draft response did not identify whether the training was provided onsite or offsite, and it did not state that no special training was provided where that was the case.

c. Oath or Affirmation

The draft response did not provide for submittal under oath or affirmation as requested in the NRC Region III letter.

d. Incomplete Details

The draft response included backup documentation in the form of records of accepted welder qualification test results. The inspectors noted that these records were not specifically requested by the NRC, however, if they were to be included in the response, they should include all records of welder qualification test results (ie, accepted and rejected test results) rather than just the accepted test results.

No items of noncompliance or deviations were noted.

7. New Program Implementation

The following are new licensee programs implemented this report period:

a. Seismic Interaction Clearance Program

A comprehensive program which includes the physical gathering of seismic interaction data, the engineering evaluation of seismic interaction phenomena, and measures to assure that the installation, modification, and/or repair of all (both existing and new) seismically designed structures, systems, and components meet seismic interaction clearance design criteria in accordance with 10 CFR 50, Appendix A, Criterion II.

b. Pilot Statusing Program (PSP)

A program to arrive at an estimate of the total number of man-hours required to implement verification of construction program for the Zimmer Station.

The program consists of determining the status of construction, including both hardware and documentation of a single typical plant system. Based on this information, this will provide a man-hour estimate for the completion of all safety-related systems of the plant.

c. Integrated Project Plan Task Force

A plan to prepare an integrated project schedule and cost estimate for the completion of the Zimmer Station.

d. Quality Confirmation Program (QCP)

The QCP originally had eleven tasks defined to confirm the quality of construction completed before April, 1981. Based on the results of the NRC Evaluation Team (NET) report NUREG 0969, the QCP has been expanded to include the following additional tasks:

- (i) Boltings
- (ii) Masonry Wall Construction
- (iii) Seismic Columns

e. Electrical Cable Separation

CG&E provided a presentation to the NRC (represented by Region III, NRR and the site resident staff), to explain the separation criteria, to demonstrate compliance to the regulatory requirements, address findings of the NRC Evaluation Team assessment (NUREG-0969), and describe verification programs.

In order to demonstrate and assure that the design and installation at the Zimmer Station does not compromise electrical and physical independence and therefore does not degrade safety related circuits below acceptable levels, numerous inspection, walkdowns, reviews, and analyses are being performed by Sargent & Lundy and/or CG&E.

The results of the analyses and the methodology used will be provided to the NRR staff for review.

No items of noncompliance or deviations were noted.

8. Open Items

Open items are matters which have been discussed with the licensee, which will be reviewed further by the inspector, and which involve some action on the part of the NRC or licensee or both. Open items disclosed during the inspection are discussed in Paragraphs 5.b(i), 5.b(vii), 5.b(x).

9. Exit Meeting

The inspector met with licensee representatives (designated by an asterisk in paragraph 1 of this details section) at the conclusion of the inspection on July 29, 1983. The inspector summarized the scope and findings of the inspection.

Details II

Prepared By: E. H. Nightingale, Resident Inspector
Reviewed By: W. L. Forney, Chief, Section 1, Zimmer

1. Personnel Contacted

Cincinnati Gas and Electric Company

*J. F. Shaffer, Quality Confirmation Program (QCP) Director
H. R. Sager, Quality Assurance Department (QAD) Manager
D. J. Schulte, Quality Engineering Department (QED) Director
*G. C. Ficke, Nuclear Licensing Department (NLD) Manager
*D. J. Chamberlain, NLD Director, RIII Interface
E. O. McVae, QCP Task III and V Coordinator
R. Roe, Level III RT
C. Keller, Technical Staff Lead Engineer
R. nderman, QCP Task X and XI Coordinator
P. Wilson, QCP Task II and IV Coordinator

National Board of Boiler and Pressure Inspectors

C. Allyson, Field Representative
M. Sullivan, Consultant
R. Holt, Consultant

Bechtel Power Corporation

G. B. Jones, Project Manager
T. Altum, Welding Engineer
B. D. Hackney, Materials and Quality Services (Walnut Creek)
F. C. Breismeister, Weld Engineering Supervisor

Henry J. Kaiser Engineering (HJK)

W. Hedzik, Quality Assurance Manager
R. A. Davis, Quality Engineering Manager

And others of the station and construction staffs.

*Denotes those attending the exit meeting on July 29, 1983.

2. Nonconformance Report Review

The inspector continued to monitor the performance of the Quality Confirmation Program (QCP) and to review all dispositioned nonconformance reports generated by QCP (Task II, III, IV, and V) and by the H. J. Kaiser document review group. A summary of the review is as follows:

<u>QCP</u>	<u>DISPOSITIONED</u>
II	26
III	41
IV	0
V	9

During this inspection period several NRs were identified by the inspector as having problems. These concerns were in the following areas: (1) dispositioning of NRs, (2) descriptions of the NRs, (3) corrective action to prevent recurrence and (4) cause.

These concerns were addressed to Charles Keller, CG&E Quality Engineering, with the resulting corrective action:

- a. OPP 7.2 was revised to identify and address Draft NR cancellation by contractors. In addition Corrective Action Report (CAR) 83-74 addresses Draft NRs.
- b. CAR 82-117 was written to address the condition where there was no verification of NR corrective action in the HJK QA Program.
- c. A letter is being prepared by Quality Engineering to address NRC's concern about those NRs that were unsatisfactorily closed. These NRs will need to be reviewed and revised or rewritten as required to adequately address the identified concern. CG&E QAE will then evaluate those revised or rewritten NRs. This item is open pending NRC review of actions taken to resolve the concern (358/83-09-04).

No items of noncompliance or deviations were noted.

3. QCP Task II, III, IV, V, X, and XI Progress

A summary of QCP Task II, III, IV, V, X and XI (as of June 30, 1983) is as follows:

Task II Weld Quality - This task is currently staffed with 7 people working final small bore weld rod heat traceability and welder qualification reviews. This task is estimated to be 66% complete.

Task III Heat Number Traceability - This task is currently staffed with 9 people working mostly on the Purchase Order and small bore documentation reviews. This task is estimated to be 37% complete.

Task IV No change in status since the last report period.

Task V No change in status since the last report period.

Task X Subcontractor/QA Program - This task is currently staffed with 4 people working on the evaluations of past audits of subcontractors. This task is currently estimated to be 60% complete.

Task XI Audits - This task is staffed with the same personnel as Task 10. The preliminary audit review has been completed and final reviews are being done. This task is currently estimated to be 52% complete.

No items of noncompliance or deviations were noted.

4. Bechtel Material & Quality Services (M&QS), Walnut Creek California (June 27, 1983).

The inspector reviewed available documents pertaining to the review of H. J. Kaiser Weld Procedure Specifications (WPS) at the office of Bechtel Power Corporation in Walnut Creek, California for the purpose of monitoring the progress of the review and to ascertain the qualifications of those personnel who were performing this technical review.

The task force for the review of WPS and Procedure Qualification Records (PQR) was made up of Bechtel Materials and Quality Services (M&QS), acting as a technical consultant to the Quality Confirmation Program (QCP) Task II and H. J. Kaiser Quality Engineering (QE) (assisted by H. J. Kaiser Engineering). This report consists only of Bechtel M&QS efforts.

Task A - This task included a review of all available documentation of PQR and WPS for accuracy, completeness, and code and specification compliance. The final documentation of deficiencies will be by CG&E Quality Assurance Department (QAD) as a Management Corrective Action Request (MCAR) for transmittal to Task B.

Task B - This task includes resolution of the deficiencies noted on each MCAR supplement, evaluation of hardware impact, and planning of any special tests necessary to resolve deficiencies. Any deficiencies affecting hardware shall be reported on a nonconformance report (NR).

Task C - This task includes those activities necessary to resolve and close out any NRs generated in Task B.

Task D - This task includes conduct of any special tests resulting from Task B and the conduct of new procedure qualification tests necessary to support the resumption of work.

The review of ninety-one (91) WPS was completed June 8, 1983 with approximately eighty-five (85) WPS having an unsatisfactory result for various reasons, most of which were of a minor nature. The most unsatisfactory concern was in the WPS pertaining to large bore impact tests.

The inspector reviewed the certification of the following individuals who were qualified by QCP to review the WPS for technical completeness and accuracy:

M. Bernasek	M. L. Murchison
F. C. Breismeister	R. D. Sargent
L. Hom Lee	E. V. Sullivan
S. R. Morgan	

5. General Electric Internals Evaluation Plan

The inspector performed surveillance of the evaluation of the reactor internals by GE during the week of July 11, 1983.

This plan was developed to determine the adequacy of the reactor pressure vessel internals installation performed by Reactor Controls, Incorporated (RCI). General Electric provided the reactor pressure vessel and internals and RCI installed the internals under direct contract with Cincinnati Gas & Electric.

The plan consisted of a combined onsite records and documentation review, together with an actual visual evaluation of the installed internals within the reactor pressure vessel.

The team consisted of four engineering experts in the technical areas of Reactor Assembly Design, Reactor Installation, Materials and Welding Processes and Quality Assurance.

The GE evaluation team identified undersized fillet welds on two (2) of the eight (8) feedwater sparger brackets. This was verified by the NRC inspector as were undersized welds on the steam dryer seismic/support blocks. The amount of undersize of the fillet welds were from 1/16" to 1/32". Along with the visual examination there also was an evaluation of dimensional concerns. Of the areas evaluated it was a general consensus of the team that the installation of the internals were of good industry practice. There were a few areas that suggested a more detailed inspection would be in order. It was also suggested that a weld inspection program be initiated to further identify or resolve weld visual inspection attributes to acceptance/reject criteria.

Those welds which were reported as undersized were checked to see what the documents pertaining to their inspection history was. It was revealed that these undersized welds had a VT and PT record that reported these welds as acceptable. There had been no Field Deviation Disposition Requests generated for these particular welds.

No items of noncompliance or deviations were noted.

6. Plant Tours

The inspector conducted plant tours throughout the inspection period. These tours included observation of ongoing nonessential construction activities, maintenance activities, cleanliness control, radiographic film review efforts, task II, III, IV, V, X and XI monitoring activities and safety and fire control efforts.

No items of noncompliance or deviations were noted.

7. Open Items

Open items are matters which have been discussed with the licensee, which will be reviewed further by the inspector, and which involve some action on the part of the NRC or licensee or both. One open item disclosed during the inspection is discussed in Paragraph 2.c.

8. Exit Meeting

An exit meeting was held with licensee representatives (designated by an asterisk in paragraph 1 of this section) at the conclusion of the inspection on July 29, 1983.

DETAILS III

Prepared By: D. Keating, Reactor Inspector
Reviewed By: D. Danielson, Chief, Materials and Processes Section

1. Persons Contacted

Cincinnati Gas and Electric Company (CG&E)

H. Sager, Manager, QA
J. Shaffer, Director, QCP
C. Vincent, Civil/Structural, QCP
D. Stringer, Coordinator, QCP Task I
B. Gott, Senior Civil/Structural Engineer, GCD

Henry J. Kaiser Company (HJK)

D. McCauly, Quality Engineering Supervisor
D. Cepluch, Quality Engineering Supervisor, Piping/Hangers

2. (Open) 10 CFR 50.55(e) Report (358/83-01-EE) (Licensee Designated No. E-35) Inadequate Electrical Foundation Welds

The contractor (HJK) has completed the re-inspection and evaluation of foundation welds for five electrical panels. The data accumulated has been prepared in inspection packages and turned over to Foothill Electric Company for their information and use in conducting additional inspections on the remaining essential electrical panels. These packages include new Construction Inspection Plans (CIP) for removing paint to inspect the welds and to inspect the overall mounting detail.

Sargent and Lundy is re-evaluating the existing mounting criteria and issuing new criteria. HJK will review their existing procedures and CIP's against this new criteria and make any necessary revisions to these documents.

This item remains unresolved.

3. (Open) 10 CFR 50.55(e) Report (358/82-27-EE) (Licensee Designated No. E-29) lack of Inspection Records for Nelson Studs

The status of this item was reviewed with cognizant licensee personnel. A draft of a proposed inspection method was presented which incorporates a sampling plan based on Military Standard MIL-STD-414, "Inspection by Variables for Percent Defective." Similar methods of inspection have been suggested previously.

Pending further review, this item will remain unresolved.

4. Status of Concrete Repairs

The licensee and the contractor are writing procedures for the repair and the inspection of the concrete repairwork necessitated by, but not limited to, the inspections performed at the request of the NRC's Nuclear Evaluation Team. Sargent and Lundy will revise the concrete specifications to cover these major repairs.

Repair work necessitated by such modifications as pipe hanger/snubber relocations, etc. is adequately covered by the existing procedures and specifications.

This item is considered an open item to be reviewed during a future inspection. (50-358/83-09-05)

5. QCP Task I

Task I is in the process of re-writing inspection and implementing procedures to cover the addition of four more tasks that have been added. These are:

- . Task XII - Bolting
- . Task XIII - Masonry Walls
- . Task XIV - Seismic Columns
- . Task XV - Coatings

These procedures will be reviewed as they become available. This is being pursued as an open item and will be reviewed during a future inspection. (358/83-09-06)

6. Review of Nonconformance Reports (NR's)

During the inspection period a total of 100 NR's were reviewed for completeness and proper signatures. Twenty-five were initial issue. Twelve NR's regard structural steel items, and warrant further review during a future inspection.

7. Items of Noncompliance or Deviations

No items of noncompliance or deviations were identified during this inspection.