

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-358/83-02(OSC)

Docket No. 50-358

License No. CPPR-88

Licensee: Cincinnati Gas and Electric Company  
139 East 4th Street  
Cincinnati, OH 45201

Facility Name: Wm. H. Zimmer Nuclear Power Station

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

Inspection Conducted: February 1 through April 15, 1983

Inspectors: *E. R. Schweibing*  
W. F. Christianson *for* 07-22-83  
Date

*E. R. Schweibing*  
T. P. Gwynn *for* 07-22-83  
Date

*E. R. Schweibing*  
E. H. Nightingale *for* 07-22-83  
Date

*D. E. Keating*  
D. E. Keating 07-22-83  
Date

*E. R. Schweibing*  
C. H. Scheibelhut *for* 07-22-83  
Date

*E. R. Schweibing*  
R. N. Gustafson *for* 07-22-83  
Date

Approved By: *R. F. Warrick for*  
D. R. Hunter, Chief 7-22-83  
Section 1, Zimmer Date

Inspection Summary

Inspection during the period February 1 through April 15, 1983 (Report No. 50-358/83-02(OSC))

Areas Inspected: Routine and reactive, unannounced inspection and review by NRC resident and regional inspectors of fuel receipt and storage; welder qualification review; plant tours; NRC Evaluation Team support; nonconformance report review; QCP Tasks I, II, III, IV, V, and VII; welding inspector qualifications; followup of headquarters and regional requests; bolted steel connections; and corrective action reports. The inspection involved a total of 1466 inspector-hours onsite by three resident inspectors and three NRC regional inspectors including 16 inspector-hours onsite during off-shifts.

Results: Of the eight 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: D. R. Hunter, Chief, Section 1, Zimmer

1. Personnel Contacted

Cincinnati Gas and Electric Company

\*+B. K. Culver, Generation Construction Department Manager  
\*H. R. Sager, Quality Assurance Manager  
+D. J. Schulte, Quality Engineering Director  
+J. C. Herman, Technical Coordinator  
\*J. F. Shaffer, Quality Confirmation Program Director  
W. Tobler, Generation Construction Department (GCD)  
F. Lautenslager, Security Supervisor, Nuclear Production Dept. (NPD)  
T. Busch, Reactor Engineer, NPD  
S. Osborne, Coordinator, QCP Task VII

Henry J. Kaiser Company

+W. Hedzik, Quality Assurance Manager  
+M. Albertin, Project Manager  
+M. Goedecke, Welding Department Manager  
R. Prewitt, Records Department Manager  
M. Bussel, Records Review Supervisor  
J. Flaherty, Manager Current Welding Operations  
M. Butterworth, Manager Historical Welding Operations

And others of the station and construction project staffs.

+Attended meeting concerning welder qualification review on April 8, 1983.

\*Attended exit meeting on April 15, 1983.

2. 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 found that the watchmen present were alert and knowledgeable of the procedures in effect.

Discussion with the CG&E Security Supervisor and review of the unescorted access list for the refuel floor indicated that procedural changes had effectively eliminated the lag time between personnel termination and updating of the access list discussed in Inspection Report No. 50-358/82-10.

No items of noncompliance or deviations were noted.

### 3. Welder Qualification Review

#### a. Introduction/Description

The purpose of this task was to review the qualification file of each welder listed as active July 9, 1982 and October 18, 1982 to enable the NRC to respond to questions concerning welder qualification records and the H. J. Kaiser special welder qualification program.

The scope of the review consisted of reviewing the qualification files of 535 welders and resolving individual or generic Corrective Action Requests (CARs) and Nonconformance Reports (NRs) pertaining to welder qualifications.

The review was performed by five persons, part or full time. The total time expended on the task, including preparations, inspection, and final resolutions of concerns was approximately 500 hours. The licensee expended a similar number of hours supporting the review.

The review of welder qualifications was performed in four phases, as follows:

- (i) Phase I of the review consisted of the preparation of a data sheet for each of five hundred thirty-five welders whose qualifications were reviewed. From references 3.b(i), (iii), (vi), (vii), (v), and (ii), respectively, the inspectors recorded the welder qualifications status on July 9, 1982; the status of the H. J. Kaiser Records Management review of welder qualification records; the H. J. Kaiser Weld Engineering status of the welder qualifications, based on their disposition of the records management review findings; any information pertinent to the participation of the welders in the H. J. Kaiser Special Welder Qualification Program; and the welder qualifications status on October 18, 1982.
- (ii) Phase II of the review consisted of a review of the H. J. Kaiser welder qualification documentation files and the preparation of a phase II review data sheet for each of five hundred thirty-five welders reviewed under phase I.

The H. J. Kaiser welder qualification documentation files generally consisted of the following documentation:

- (1) A documentation checklist prepared by the H. J. Kaiser records review group and checked by CG&E Quality Confirmation Program (QCP) Task II personnel per CG&E QCP procedure 19-QA-21, "Quality Confirmation of Welder Qualification Records".
- (2) A documentation checklist prepared by the H. J. Kaiser records review group per H. J. Kaiser Quality Records

Management (QRM) procedure 1, "Review and Control of Quality Assurance Documentation".

- (3) H. J. Kaiser form Q-1G (Manufacturer's Record of Welder Performance Qualification Tests).
- (4) State of Ohio form Q-1G (Manufacturer's Record of Welder Performance Qualification Tests).
- (5) Depending upon the Quality Assurance Program requirements at the time the performance qualification test was performed, an H. J. Kaiser Weld Data Sheet or an Inprocess Welders Qualification Surveillance Data Sheet may be included in the file to document Quality Control monitoring of the performance qualification testing.
- (6) If the qualification test specimen (coupon) was radiographically examined for acceptance, then a radiographic test report (reader sheet) was generally included in the file.

In addition to the normal welder qualification documentation file, most documentation files reviewed included a "pink file" (a file folder color-coded with a pink marking pen) which segregated additional documentation related to the welders qualification testing obtained from the H. J. Kaiser Weld Engineering files (reference NRC Inspection Report No. 50-358/82-12 and 50-358/82-17, followup on item 358/82-10-05(B)).

The NRC reviewers documented, for each procedure to which the welder had been shown qualified in references 3.b(i) and (ii), the most recent qualification test date from the review procedure (19-QA-21) checklist; the H. J. Kaiser QA Document Status from the review procedure (QRM-1) checklist; and all nonconformance reports (NRs) and corrective action reports (CARs) reflecting conditions noted by the H. J. Kaiser document reviewers. If an update test was required (based on information contained in the document file) and the requirements for an update test had been met (per ASME Section IX, paragraph Q-26) then this information was reflected on the phase II review data sheet. Nonconformance reports and corrective action reports which were resolved by information contained in the "pink" file were denoted on the phase II review data sheet by cross-through of the NR or CAR number. Hire and termination dates were recorded on the phase I review data sheet and information provided in reference 3.b(vii) was verified by the NRC reviewers using information from the welder qualification files during the phase II review.

- (iii) Phase III, which was performed concurrently with the phase II review, consisted of the review of several H. J. Kaiser Corrective Action Reports related to the H. J. Kaiser review

of welder qualification records, and of a review of CG&E and H. J. Kaiser Quality Control Inspector certification files. These reviews are documented in Details II of this report.

- (iv) Phase IV consisted of determining that proper (or conservative) action had been taken by CG&E and H. J. Kaiser for each of the welders whose qualifications were in question as a result of the H. J. Kaiser review of welder qualification records. This was accomplished by verifying, for each procedure to which a welder was actively qualified, that all nonconformance and corrective action reports had been properly resolved, or that the welder had been requalified under the H. J. Kaiser Special Welder Qualification Program. In addition, the phase IV review developed a summary of information related to welder qualification problems and their resolution for presentation to NRC management.

Several aspects of the H. J. Kaiser welder qualification review remain to be resolved through activities assigned to other NRC organizational units.

b. Documentation Reviewed

- (i) H. J. Kaiser Active Welders List dated July 9, 1982
- (ii) H. J. Kaiser Current Welders List dated October 18, 1982
- (iii) H. J. Kaiser QA Document Review Welder Status Report (no date)
- (iv) Qualification Records for 535 H. J. Kaiser Welders
- (v) H. J. Kaiser Inter-Office Memorandum - Albertin to Culver dated January 14, 1983
- (vi) H. J. Kaiser Inter-Office Memoranda - Flaherty to Discipline Superintendents dated August 10, 1982
- (vii) H. J. Kaiser Inter-Office Memoranda - Flaherty to Discipline Superintendents dated August 5, 10, and 11, 1982
- (viii) Welder Qualification Nonconformance Report Status Summary dated March 29, 1983

c. Results of Review

- (i) This review indicated that corrective actions taken by CG&E and H. J. Kaiser during the period July 9 - October 18, 1982 with respect to the qualifications of active welders onsite were conservative and consistent with quality assurance program requirements, with the following minor exceptions:
  - (1) H. J. Kaiser Corrective Action Report No. 85, corrective action followup and verification states: "In the case of missing forms, either KE-1s or surveillance sheets, QA shall verify all essential test data has been recorded on existing forms in the applicable qualification package. Discrepancies shall be evaluated on a case by case basis. Since the intent of these forms was to document the Q. C.

monitoring of test, QA shall verify Q.C. did in fact monitor the tests in question, and document means of verification on applicable 19-QA-21 form. Packages which cannot be verified shall be evaluated on a case by case basis. This CAR will be referenced on all applicable 19-QA-21 forms."

Review of records for welders symbols LJP (SPPM 3.1. 62), KTM (SPPM 3.1.21), NIO (SPPM 3.1.21), NHH (SPPM 3.1.21), KGB (SPPM 3.1.37), and PCO (SPPM 3.1.28) revealed that CAR 85 was closed without regard to the above verification requirements. These deficiencies were identified to the H. J. Kaiser Records Review Supervisor. Subsequent followup by H. J. Kaiser QA Document Review resulted in the initiation of nonconformance reports E-12,012 through E-12,016 for evaluation of the condition on a case by case basis. Discussion with the records review supervisor indicated that ongoing rereview of welder qualification records would eliminate any additional discrepancies. The licensee corrective action was considered adequate for this item.

- (2) Three welders were identified who had open nonconformance reports (NRs) written against their qualification record and who were identified as having current qualifications on the October 18, 1982 Current Welders List; welder symbols TEI (SPPM 3.1.51), MKD (SPPM 3.1.51) and LQT (SPPM 3.1.51). Subsequent followup by H. J. Kaiser Weld Engineering showed that the NRs in question (H. J. Kaiser Nonconformance Report E-9306, E-8539, and E-9294, respectively) did not adversely affect the welder's current qualification and that the welder was properly qualified prior to October 18, 1982. No further information is required concerning this matter at this time.
- (3) Qualification records for six welders listed on the October 18, 1982 Current Welders List were not located in the welder's qualification file; welders symbols KUE (SPPM 3.1.1), PBE (SPPM 3.1.7), UAP (SPPM 3.1.6), LSA (SPPM 3.1.56), KGB (SPPM 3.1.24, 3.1.80, 3.1.86), FBW (SPPM 3.1.59). These were resolved by H. J. Kaiser Weld Engineering as follows:
  - (a) "Symbol KUE qualified to SPPM 3.1.34 on October 13, 1976 and SPPM 3.1.37 on August 24, 1978. With the combination of the two (2) procedures, KUE would be qualified to weld with SPPM 3.1.1 using SPPM 3.1.37 for the root (which was an insert) and the remainder with SPPM 3.1.34 (which covers the thickness range in excess with GTAW process). During this time frame the project was using welder qualifications in the

combination to establish the welder's maximum qualification range. This would then have been recorded on his qualification card and the Active Welders List."

(b) PBE (SPPM 3.1.7):

"Qualification to SPPM 3.1.7 for symbol PBE is not reflected on his Welder Qualification Card nor on the Active Welders List as of July 16, 1982."

"This qualification did, however, appear on the October 18, 1982 computer printout of Active Welders. This information can only be attributed to a data entry error based upon PBE qualifications. His Qualification Card is used for the basis of rod withdrawal and Q.C. verification of his certification."

(c) UAP (SPPM 3.1.6):

"The placing of welder symbol UAP on the Active Welders List (dated July 9, 1982 and showing him qualified to SPPM 3.1.6) was apparently done in error. R. Dollard was qualified on July 29, 1982 to 3.1.5 which can be verified by review of the Weld Test Shop Surveillance Log dated July 26, 1982, the inprocess welder's qualification data sheet also dated July 26, 1982, the Radiographic Report dated July 29, 1982, and the record of welder performance test dated July 29, 1982. SPPM 3.1.6 is a GTAW process procedure. Review of the weld withdrawal log indicated that no GTAW filler metal was issued to Symbol UAP for production welding during the entire month of July, which includes the dates in question, July 9, 1982 to July 29, 1982."

(d) LSA (SPPM 3.1.56):

"Qualification 3.1.56 for Symbol LSA, is not reflected on his Welder Qualification Card nor on the Active Welders List as of July 16, 1982."

"The qualification, did, however, appear on the computer printout of October 18, 1982 for Active Welders."

"This information can only be attributed to a data entry error based upon Symbol LSA qualifications and his welders Qualification Card. This card is used for the basis of rod withdrawal and Q.C. verification of his certification."

(e) KGB (SPPM 3.1.24, 3.1.80, 3.1.86):

"As entered on Weld Engineering Active Welders List of July 9, 1982, the following qualifications are listed: SPPM 3.1.24, 3.1.80, 3.1.86, 3.1.6, 3.1.7, 3.1.8, 3.1.11, 3.1.18, 3.1.21H, 3.1.45, 3.1.19, and 3.1.37. Also the same listing appeared on July 16, 1982. When the Active Welders List was changed over to a computer printout, Symbol KGB was listed for the SPPMs 7, 37, 19, 71, 62H, and 18. Also on the October 26, 1982 printout he had the same listing. This is also what is shown on his Welder's Card dated October 8, 1982."

"SPPM 3.1.18 performance qualification test will cover performance qualification for SPPM 3.1.24."

"For SPPM 3.1.24, 3.1.25, 3.1.80, and 3.1.86 a post dated KE-Q-1G is being prepared per procedure qualification as symbol KGB was the welder for qualification of these procedures or a portion of them."

(f) PBW (SPPM 3.1.59):

"SPPM 3.1.59 was an entry error on the October 18, 1982 Active Welders List which was subsequently deleted."

This deletion is verified by the absence of SPPM 3.1.59 on the Welder Qualification Card dated October 27, 1982 and by the next computer printout of November 9, 1982. By review of the rod withdrawal for this time period it is shown that Symbol PBW was welding to SPPM 3.1.28H only."

No further information is required concerning these matters at this time.

- (4) One welder Symbol MFI was listed on the October 18, 1982 Current Welders List as having current qualification to SPPM 3.1.57, however, the records for this procedural qualification had not been reviewed by QA Records Management. The qualification test date (May 16, 1982) and the date of signature on the record (October 11, 1982) indicated that a significant amount of time had elapsed between the welder's qualification date and the date the record was received by QA Records Management.

Because this procedure (SPPM 3.1.57) was deactivated on April 14, 1982, its inclusion for welder MFI on the October 18, 1982 Current Welders List was of no significance and this item was not pursued.

- (5) One welder Symbol MEA was listed on the October 18, 1982 Current Welders List as having current qualifications to SPPM 3.1.51, however, the welder appeared (based on the records reviewed) to have been missing an update test. H. J. Kaiser Weld Engineering resolved this item as follows:

"Welder Symbol MEA qualified to SPPM 3.1.51 on May 1, 1979. This qualification was in accordance with ASME Section IX. On March 25, 1982 this welder was given renewal of qualification in accordance with ASME Section IX Q-26 which states in part: qualification need be made in only a single test joint (plate or pipe) on any thickness, position, or material to re-establish the welder's or welding operator's qualification for any thickness, position, or material for which he was previously qualified."

"Test data is now being transmitted from Welding Engineering to Q.A."

No further information is required concerning this matter at this time.

- (6) Welder Symbol NHN was qualified to SPPM 3.1.28 on February 21, 1981. A surveillance data sheet dated October 6, 1981 indicated a retest was given to SPPM 3.1.28 and was rejected. Welder Symbol NHN was listed as having current qualifications to SPPM 3.1.28 on the October 18, 1982 Current Welders List. This item was resolved by H. J. Kaiser Weld Engineering as follows:

"Welder Symbol NHN was initially hired as a Carpenter on May 24, 1979, and terminated thirty-eight (38) days later on August 3, 1979. Approximately fourteen (14) months later on October 14, 1980, he was rehired as an Ironworker Welder and on February 21, 1981, was qualified to SPPM 3.1.28. On May 8, 1981, he terminated employment. Approximately three months later on August 14, 1981, he was rehired again as a Carpenter. On October 1, 1981, he was given a renewal test to SPPM 3.1.28 but the test was rejected. From October 2, 1981, through October 5, 1981, he received eight (8) hours of training for welding in the 6G position and on October 14, 1981, was given a performance qualification to SPPM 3.1.11, which he passed. At the same time in accordance with ASME Section IX, Q-26, this test would have renewed his 3.1.28 qualification. On June 28, 1982, Symbol NHN terminated employment. Nine (9) days later on July 6, 1982, he rehired as a Carpenter and terminated on March 18, 1983. During his employment period of July 6, 1982, through March 18, 1983, his qualification would have consisted of SPPM 3.1.28 and SPPM 3.1.11."

No further information is required concerning this matter at this time.

(ii) In addition to the above, the following items which did not impact Current Welder Qualifications of October 18, 1982, but which did impact welder qualifications historically, were identified and addressed during this review:

- (1) The qualification record file of welder symbol LPM contained a radiographic test report dated June 6, 1978, which indicated the welder had passed a qualification test to SPPM 3.1.6, however, no KE-Q-1G (record form) existed in the file. This item was resolved by H. J. Kaiser Weld Engineering as follows:

"Welder Symbol LPM was hired on December 8, 1977, and terminated on November 22, 1978. During his time of employment he was qualified to procedure SPPM 3.1.18, SPPM 3.1.19, and SPPM 3.1.21. Between the time of the SPPM 3.1.6 Reader Sheet (June 6, 1978) and the time of his termination he did not draw any weld rod to SPPM 3.1.6. All rod withdrawal log books indicate only procedures he was qualified to. After his rehire on January 28, 1982, he was qualified to SPPM 3.1.28H. All records indicate that this was the only procedure he was qualified to (per his Qualification Card and Active Welder Lists from February 1982 to November 1982)."

No further information is required concerning this matter at this time.

- (2) Welder symbol PDM (SPPM 3.1.28) had no record (KE-Q1G form) of his qualification, however, available backup documentation indicated the welder had qualified on January 30, 1982. This item was resolved by H. J. Kaiser Weld Engineering as follows:

"Hire Date: January 26, 1982  
Test Number: K-001 Procedure: 3.1.28  
Position: 6G Date: January 29, 1982  
Q.C. Surveillance: January 29, 1982 R.T.  
Reader Sheet: January 30, 1982 Stamp Issued:  
February 2, 1982  
Drew weld rod on February 3, 4, 8, 9, 10, and 11,  
1982 - night shift. HJK Q-1G is being transmitted  
to the vault and State of Ohio, dated February 1, 1982."

"Terminated: February 19, 1982  
He was on the February 4, 1982 and February 22, 1982  
Active Welders Lists."

No further information is required concerning this matter at this time.

- (3) H. J. Kaiser Corrective Action Report No. 84, concerning the radiographic acceptability of welder qualifications, had not received an accepted corrective action statement at the time of this inspection. However, several welders who had CAR No. 84 indicated as applicable to their qualifications, welder Symbols KCJ (SPPM 3.1.14), KKB (SPPM 3.1.21, 3.1.50, 3.1.53), KAM (SPPM 3.1.19, 3.1.45), KNW (SPPM 3.1.19, 3.1.21, 3.1.45), and KLI (SPPM 3.1.21), had CAR No. 84 closed. These closures were based on the signature of one individual (Mr. V. Cech) certifying the H. J. Kaiser Q-1G (Welder Performance Qualification Record) form. The basis for acceptability of this action was not clearly defined, in view of the lack of an accepted corrective action statement. This item remains unresolved pending acceptance of H. J. Kaiser CAR No. 84 and subsequent NRC followup inspection. (358/83-02-01)

d. Additional Observations

- (i) The inspectors attempted to quantify and categorize documents listed as "MISSING" in item 3.b(iii) above. Approximately 253 items were listed as "MISSING" with an additional number of items identified by this review, for a total of 272 "MISSING" items. The inspectors found that these items generally fit into three categories as follows:
- (1) Category 1 - Items for which documentation could not be located in a welders qualification file.
  - (2) Category 2 - Items which were located in a welders qualification file but which had not been expeditiously transmitted to H. J. Kaiser QA Records Management by H. J. Kaiser Welding Engineering (these items required from one to twelve months transmittal time from the date of a welder performance qualification test to the date of receipt by H. J. Kaiser QA Records Management.)
  - (3) Category 3 - Items listed as "MISSING" which were not missing because they were not required per ASME Section IX, paragraph Q-26

Category 1 included 55 items, category 2 included 56 items, and category 3 included 161 items: Six of the items in category 1 were discussed in paragraph c(i)(3) above, since they impacted the qualifications of welders who were active on October 18, 1982. The other 49 items impacted the qualifications of historical welder qualifications and will be addressed under Phase II of the H. J. Kaiser Welder Qualification Program. Categories 2 and 3 had no impact on the welder's qualification.

(ii) The inspectors verified the information provided in reference 3.b(v) above. In addition to the provided information, the inspectors found that 9 individuals identified in reference 3.b(v) had one or more additional qualification attempts (a total of 14 additional coupons given). This additional information did not adversely affect the findings documented in Inspection Report No. 50-358/82-17 concerning the H. J. Kaiser Special Welder Qualification Program.

(iii) The inspectors noted that of the 535 welders reviewed, holding a total of 1,024 active qualifications, approximately 124 welders were decertified to a total of 226 active qualifications. These decertifications were the result of both QA document review activities and changing project welding requirements. In addition, 103 welders were tested under the H. J. Kaiser Special Welder Qualification Program as a result of QA document review activities.

No items of noncompliance or deviations were noted.

#### 4. QCP Task VII

The inspectors reviewed five QCP Task VII nonconformance reports (NRs) which reopened items previously identified on either voided H. J. Kaiser nonconformance reports or H. J. Kaiser Surveillance 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.

- a. NR Q-QAD-82-1640-E: This nonconformance report was accepted by the inspector on February 22, 1983. The NR identified a weld in the reactor water cleanup (RT) system which had been welded to completion with no evidence of Quality Control inspection. This NR was dispositioned "Accept As Is" based on the fact that the weld in question had been properly dispositioned (reworked) under the previously existing quality assurance program.
- b. NR Q-QAD-82-2180-E: This nonconformance report was returned to CG&E QCP Task VII for clarification of the disposition.
- c. NRs Q-QAD-82-2044-E and Q-QAD-82-3493-E: These NRs were turned back to QCP Task VII. The NRs were based on the review of H. J. Kaiser surveillance reports rather than previously voided nonconformance reports. In accordance with QCP Task VII, only those NRs which are based on previously voided H. J. Kaiser NRs need be reviewed by NRC prior to action being taken on the disposition.
- d. NR Q-QAD-82-1385-E: This nonconformance report was returned to QCP Task VII for verification of corrective actions. The NR, which was dispositioned "Accept as Is" included a statement that "the changes required by NR E-504 were made using S&L drawings approved for construction. Since the rework shown on NR E-504 has been completed, the NR signed and closed, there are no open items." An attempt by

this inspector to verify the rework had been completed for item #2, drawing #E-1303 revision B, revealed that only one of two nameplates addressed had been corrected per the latest approved drawing. This condition did not give an adequate level of confidence that the rework required by NR E-488 had in fact been completed.

5. Electrical Conduit Threads

The inspector inquired into a concern that conduit was being threaded in the field using pipe dies rather than conduit dies and that long tapers were being used to remove burrs on conduit end cuts.

The results of the inquiry were as follows:

- a. Conduit arriving on site from a vendor were pipe threaded on one end as per the S&L specification, H2173. Conduit thread and pipe thread were considered identical.
- b. Field threading conduit using pipe dies was in accordance with S&L specification H2173 and matched the conduit vendors thread.
- c. For conduit two (2) inches and less, the end-cut burrs were removed by a taper which was an integral part of the "Rigid" pipe threading machine and appeared proper.
- d. For conduit greater than two (2) inches a bastard file was routinely used to remove burrs and appeared proper.
- e. Straight threaded couplings (no taper) were received from the vendor attached to the threaded end of the conduit. No conduit couplings were fabricated onsite.
- f. S&L Specification, H2173, did not permit using a pipe cutting machine to cut conduit due to the sharp rolled edge caused by the machine. All conduit was saw cut onsite, thereby eliminating the sharp edge.

No items of noncompliance or deviations were noted.

6. Plant Tours

The inspectors 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, and verification of security controls, fire protection, and cleanliness controls.

No items of noncompliance or deviations were noted.

7. NRC Evaluation Team Support

The NRC resident inspector acted as administrative coordinator for the NRC Evaluation Team during the period of its activities onsite. The results of that evaluation are the subject of a separate report.

8. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of non-compliance, or deviations. One unresolved item disclosed during this inspection is discussed in paragraph 3.c(ii)(3) of this report section.

9. Management Exit Meeting

The inspectors met with licensee representatives (designated by an asterisk in paragraph 1 of this section) at the conclusion of the inspection on April 15, 1983. The inspectors summarized the scope and findings of this inspection.

DETAILS II

Prepared By: E. H. Nightingale, Resident Inspector  
Approved By: D. R. Hunter, Chief, Section 1, Zimmer

1. Personnel Contacted

Cincinnati Gas and Electric Company

H. R. Sager, Quality Assurance Manager  
E. O. McVae, Task III and Task V Coordinator  
R. Vannier, Level III RT  
R. Roe, Level III RT  
D. J. Schulte, Quality Engineering Director

H. J. Kaiser

M. L. Goedecke, Project Welding Manager

National Board

R. E. Jagger, Assistant Director  
C. Allison, Field Representative  
M. Sullivan, Consultant  
R. Holt, Consultant

State of Ohio

D. M. Milan, Chief of Boiler Division

And others of the station and construction staffs.

2. Nonconformance Report Review

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

<u>QCP TASK</u>	<u>INITIAL ISSUE</u>	<u>DISPOSITIONED</u>
II	48	7
III	39	105
IV	15	0
V	51	9

There were no significant discrepancies observed by the inspector in the dispositioning of the Nonconformance Reports (NRs).

No items of noncompliance or deviations were noted.

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

The status of QCP Task II, III, IV, and V (as of February 28, 1983) is as follows:

- Task 2 Weld Quality - This task is currently staffed with 6 people working on final small bore weld rod heat number traceability and weld procedure reviews. This task is estimated to be 70% complete.
- Task 3 Heat Number Traceability - This task is currently staffed with 8 people who are working on the Purchase Order Review and Gamma Plug Inspections. This task is estimated to be 46% complete.
- Task 4 Socket Weld Disengagement - This task is currently staffed with 2 people who are working on the Review of Document Packages. This review is continuing and is currently estimated to be 98% complete.
- Task 5 Radiographs - This task is being supported by Task III personnel. The final report for this task was submitted to the National Board and is pending final approval. This task is essentially complete.

No items of noncompliance or deviations were noted.

4. Welding Inspector Certification

The NRC inspectors reviewed the Welding Inspector Certifications and Qualifications of those inspectors involved in the H. J. Kaiser Special Welder Qualification program of the 103 welders who were considered indeterminate in their qualifications.

Of the twenty-one (21) inspectors from CG&E and the fifteen (15) inspectors from HJK only one individual, a Level II Mechanical Inspector, had any part of his certification or qualifications in question. The inspector was scheduled to have an eye examination in November 1982 but did not receive the examination until February 1983. Inasmuch as the Special Welder Qualification Program was conducted during the months of July through October, 1982, the date of the eye examination was not a concern during this review.

Those inspectors involved from CG&E were as follows:

A. C. Ashworth	W. H. Horsey	G. W. Orterry
R. D. Brown	G. L. Jodrey	R. S. Page
R. S. Bruner	F. C. McKelvey	W. R. Pickering
G. W. Creager	D. E. McLaughlin	L. B. Remsnyder
C. A. Daley	T. D. McMillian	T. L. Ricks
F. G. Dennis	J. A. Mudd	R. S. Turner
L. Q. Hendley	B. M. Newcomb	

Those inspectors involved from HJK were as follows:

B. Castiglia	H. J. Gray, Jr.	D. F. Suloff
J. Commerford	T. A. Holcombe	T. R. Tackett
G. Conner	D. H. Lowe	D. Vigies
K. W. Douglas	F. J. McCrystal	M. White
P. Glisson	C. Nichols	R. Wright

No items of noncompliance or deviations were noted.

5. Corrective Action Reports (CARs)

The inspectors reviewed thirty-three (33) Corrective Action Reports (CARs) pertaining to welder qualification for corrective action and/or corrective action follow-up and verification.

CAR Numbers 084, 172, 182, 209, 252, and 256 had corrective action statements which left the conclusion open tentatively until May 1, 1983, in order that an outside consultant will be able to review the report generated for the purpose of identifying and categorizing the deficiencies and recommend a disposition and resolution of the deficient conditions.

CAR Number 260 was closed as a draft CAR on February 1, 1983, by someone other than the originator. The originator was terminated on January 14, 1983, which precluded involvement to agree or disagree with the decision made by the Q.E. Manager that the CAR be closed.

The remaining twenty-six (26) CARs indicated proper corrective action statements in compliance to the requirements of the section of the code or standard called out in the description of the adverse condition.

No items of noncompliance or deviations were noted.

6. Plant Tours

The inspectors conducted plant tours throughout the inspection period. These tours included observation of ongoing nonessential construction activities, maintenance activities, cleanliness control, and radiographic film review efforts.

No items of noncompliance or deviations were noted.

### DETAILS III

Prepared By: D. E. Keating  
Reviewed by: D. H. Danielson, Chief  
Materials and Processes Section

D. R. Hunter, Chief  
Section 1, Zimmer

Inspection period for March 8-11 and April 12-15, 1983

1. Persons Contacted

Cincinnati Gas and Electric Company

D. Schulte, Director, Quality Engineering  
J. Shaffer, Director, Quality Conformation  
C. Vincent, Quality Engineer, Quality Assurance Department  
B. A. Gott, Senior Structural Engineer, Generation Construction  
Division  
C. Ashworth, Quality Engineer  
D. Stringer, Coordinator, QCP Task I

2. Licensee Action on Previous Inspection Findings

(Closed) Open Item (358/82-06-15): Expansion and friction connections in Reactor Containment Building. No additional bolting rework has taken place since October 1982. This open item is closed as it is combined with the following unresolved item.

All the resinspection activities of bolting have been assumed by QCP Task I. This also includes all work at El. 525'-0" previously performed by H. J. Kaiser. QCP Task I is reinspecting all bolted connections as well as other types of bolted configurations and attachments that the prime contractor had been inspecting prior to rework or repair. The reason for the assigning of QCP Task I to complete this activity was a breakdown of the prime contractor's QC inspection efforts. This was identified and documented by the licensee's QC activities which revealed an inordinate number of unacceptable conditions identified during surveillance of the contractor concerning control of work activities.

This matter is considered an unresolved item and will be reviewed further during a future inspection (358/83-02-02).

3. Task I Quality Confirmation Program

Discussions were held with the licensee personnel listed in Section 1 above regarding the status of Task I.

Task I has now been expanded to include all Category I seismic structural steel work. This will include the 525'-0" elevation of the Reactor Building and all Category I supports and restraints. Prior to the expansion of Task I, the inspection of the 525'-0" elevation of the Reactor Building was being performed by H. J. Kaiser under CG&E QC surveillance, and Task I included only Category I seismic structural steel framing.

The expansion of the task will include a 100% reinspection of all Task I and contractor inspections performed to date; because, initially, Task I was only identifying general conditions for rework/repair. The contractor QC personnel were then required to quantify and detail the general deficiencies identified by QCP Task I. Within the expanded QCP Task I program the inspections will be performed to the latest design configuration and will include welding, fitup, and bolting of all Category I structural steel work.

The inspector noted that Sargent and Lundy was re-evaluating the entire Task I program at the direction of CG&E. This was discussed with the licensee QCP personnel directly associated with this activity. The discussion included the fact that the initial intent of QCP was to inspect and document the existing as-built conditions in order to repair/rework as necessary to meet the requirements of the PSAR/FSAR, Sargent and Lundy specifications, applicable work and inspection procedures, and AWS D1.1-1972. It was noted that any changes to this approach would be reviewed critically based on the approved license commitments before concurrence would be considered.

This matter is considered to be an unresolved item pending review during future inspections (358/83-02-03).

4. Nonconformance Report (NR) Review - QCP Task I

Approximately 310 nonconformance reports were reviewed for proper sign-offs and date sequences for the review activities performed. Approximately 60 nonconformances were initial issue and were reviewed for content and initial disposition only.

The dispositions of 30 nonconformance reports were pursued further. These NRs involved essential whip restraint heat number traceability. The disposition, in part, required the contractor's QC personnel to verify and record the heat number of those pieces which had to be replaced because of lack of traceability during installation.

The review of the NRs indicated that this activity was performed satisfactorily.

The review of nonconformances will be continued further during routine inspections of Task I activities.

5. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of non-compliance, or deviations. Two unresolved items disclosed during this inspection were discussed in paragraphs 2 and 3 of this report section.

6. Exit Interview

There was no formal exit interview held, however, the licensee was apprised of findings during the inspection periods.