

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report No. 50-358/81-17

Docket No. 50-358

License No. CPPR-88

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

Facility Name: William H. Zimmer Power Station

Inspection At: Zimmer Site, Moscow, Ohio
Licensee Corporate Office, Cincinnati, Ohio

Inspection Conducted: June 1-3, and 9, 1981

Inspector: *D. H. Danielson*
for I. T. Yin

6/23/81

Approved By: *D. H. Danielson*
D. H. Danielson, Chief
Materials and Processes Section

6/23/81

Inspection Summary

Inspection on June 1-3, and 9, 1981 (Report No. 50-358/81-17)

Areas Inspected: Review of safety related piping suspension system procedures; licensee actions on previously identified items of non-compliance. The inspection involved a total of 30 inspector-hours onsite by one NRC inspector.

Results: No items of noncompliance or deviations were identified.

DETAILS

Persons Contacted

Principal Licensee (CG&E) Personnel

- * E. A. Borgmann, Senior Vice President
- * B. K. Culver, Manager, General Construction
- * S. C. Swain, Site Construction Manager
- * W. D. Waymire, Acting QA Manager
- * D. Schulte, Senior Quality Engineer
 - R. P. Ehas, Quality Engineer
 - R. N. Taylor, Quality Engineer

Henry J. Kaiser Company (HJK)

- * C. Stanfield, Acting Project Manager
- J. Watkins, Quality Engineering Manager
- C. A. Burgess, Inspection Manager
- P. Kyner, Site QA Manager
- P.S. Gittings, Deputy QA Manager
- G. Benfer, QA Engineer

* Denotes those attending the exit interview on June 9, 1981.

Licensee Action on Previously Identified Items

(Closed) Noncompliance (358/80-25-01): The S&L Specifications H-2832 did not provide necessary design criteria, methods, and interfaces for the RCI design of the CRD systems. The inspector reviewed the S&L Specification H-2832, Supplement 5, dated May 5, 1981, and had no adverse comment. The implementation of design requirements by RCI will be audited by the inspector during a future RCI inspection.

(Closed) Noncompliance (358/80-25-02): RCI QA manual did not identify and describe organizational interfaces and personnel authorities and responsibilities. The inspector reviewed the RCI QAI-1, "Organization," Revision 0, dated December 4, 1980; and QAI-3 series of work procedures in the areas of work interface and design control and considers the items to be resolved.

(Closed) Noncompliance (358/80-25-03): There were incomplete procedures, instructions, and drawings for installing the CRD system. In conjunction with the review of RCI revised QAI's, and the fact that future construction or modification of the CRD system will be performed by HJK personnel using HJK installation and inspection procedures, the inspector had no further question at this time.

(Closed) Noncompliance (358/80-25-04): Inadequate QC inspection of the installed CRD system. The present licensee program includes 100% reinspection of all installed safety related pipe suspension system components including welding, anchor bolt, system configuration, orientation, and locations. Followup on CRD system QC inspection will be a part of the Region III routine inspection at the site.

(Closed) Noncompliance (358/80-25-05): Lack of RCI welding procedure and qualification records for the welding of Unistruct P-1000, an ASME Code Case 1644-8 material. In review of the ASME Code Case N-71-9, approved by Council on January 7, 1980, which superseded Code Case 1644, Revision 9, it was noted that Table 3 listed A-570-75, Grade C as a S-1 material. In conjunction with provisions prescribed in Code Case N-71-9 Paragraph 3.0 and Paragraph 4.0 it was determined that a WPS qualified for P-1 materials can be used for welding S-1 materials without requalification. This matter is considered resolved.

(Open) Noncompliance (358/80-25-06): Failure of licensee to conduct comprehensive audits to determine the effectiveness of the RCI QA program. The inspector reviewed the licensee audit of RCI, Audit No. 81-02, on January 29-30, 1981, including the correspondence relative to the corrective actions responding to the audit findings, and had no adverse comment. Audits of RCI design control relative to procedural provisions, verification and approval have not been scheduled by the licensee. See Paragraph 3.c for details.

(Closed) Noncompliance (358/80-25-07): Licensee corrective actions in the areas of safety related suspension system design and installation were not considered to be adequate. Presently, the licensee and HJK have gone through major organizational changes, including reassignment of top management personnel and increasing the hanger QA/QC inspection staff. The licensee corrective actions and commitments to reverse the adverse trend in conditions, appears to be sufficient.

(Open) Noncompliance (358/80-25-08): Voiding of NRs by the HJK QC Manager. Licensee corrective action has not been completed. See Paragraph 3.a for details.

(Open) Noncompliance (358/80-25-09): Voiding of NRs by DDCs. Licensee corrective action has not yet been completed. See Paragraph 3.b for details.

Functional or Program Areas Inspected

1. Procedure Review

On June 1-2, 1981, the inspector reviewed the following HJK procedures:

- . QACMI No. M-12, R.13, "Inspection Instructions for Pipe Hangers, Supports, and Restraint Installation," dated April 14, 1981.
- . SPPM No. 4.6, R.9, "Visual Examination," dated April 14, 1981.

QACMI No. C-13, R.5 (draft), "Expansion Anchor and Through Bolt Inspection."

QACMI No. G-4, R.12, "Nonconforming Material Control," dated May 29, 1981.

QACMI No. M-13, R.1, " Piping Cold Pull Allowances," dated April 27, 1981.

During the review, licensee QA personnel stated that the procedures have undergone complete update and verification. The present Phase I program that included technical and quality review will be completed by mid-June, 1981. The Phase 2 procedure review scheduled by mid-June, 1981 will consist of checking for uniformities, proper document references and coordination. The Phases 1 & 2 program for procedure review did not meet the completion date committed to NRC Region III. See Paragraph 3.e for details.

2. Licensee Actions Initiated During Inspection

- a. The inspector commented that QACMI C-13 should consider anchor bolt edge distance and bolt pattern changes that could affect uniform load distributions on the bolts. The licensee representatives committed to review the matter. There was no installation or inspection of concrete expansion anchor bolts in progress.
- b. Relative to QACMI M-12, there were two significant issues identified by the inspector.

Paragraph 4.2 stated, "Welding inspection shall be performed using the criteria specified in Special Process Procedure 4.6, Paragraph 4.0 and applicable drawings and specifications."

The inspector stated that SPPM 4.6 should be utilized for the entire QC inspection program. The licensee agreed.

Paragraph 7.2 stated, "Inspection shall apply to the modified portion of previously inspected hangers (only)."

The inspector stated that this requirement was not in compliance with the licensee commitments discussed during the management meeting held at the site on January 18, 1980 and documented in Region III Report No. 50-358/79-37. During this meeting it was stated that the licensees revised pipe suspension program will include "100% installation verification of welding and anchor bolts," and "100% QC inspection on hanger and restraint configuration and location"

Meetings were held by the inspector to discuss these matters with the licensee and HJK management staff. The meetings resulted in the following actions being taken by the site QA/QC departments:

- (1) Since the lifting of the hanger inspection stop work order on May 13, 1980, there were approximately 450 safety related piping suspension system components that were QC inspected and accepted. Among which, 62 components included hangers and restraints that consisted of portions of installations that had not been modified or reworked by the new design instructions. The HJK QC department will re-inspect all weldments on the 62 items that had not been visually examined per the revised QC program. The CG&E QA will verify the HJK QC inspection findings. The licensee committed to complete this reinspection program by June 30, 1981. The licensee further committed to inform Region III of any significant findings and any change in the completion date.
 - (2) A training session, for the CG&E and HJK inspection personnel was held by the HJK Deputy QA Manager on June 2, 1981. Topics of the discussion included: (a) the reinspection program for the 62 partially revised hangers and restraints, (b) the 100% inspection requirement on hangers and restraints installed prior to May 13, 1980, (c) only the modified portions of the accepted hangers, which had been QC inspected and accepted based on the revised program since May 13, 1980, will require QC inspection and verification, (d) the use of SPPM 4.6 for visual examination of welding, (e) the need to write NR's for all identified nonconformances during QC in-process work surveillance, and (f) some of the items that will be included in the forthcoming M-12 procedure revision. The inspector attended the training sessions and considers that the presentation adequately addressed the problems.
- c. During discussions with the HJK quality engineers, it was not clear that the controls for DDCs and NRs were fully understood by the licensee contractor staff. Based on the inspector's request, three separate training sessions in areas of issuance and control of DDCs and NRs were held on June 9, 1981 at the site for CG&E and Contractor Engineers, Construction Engineers, Quality Engineers, Record Analysts, and Lead Inspectors. These training sessions were conducted by the CG&E Quality Engineer. The inspector attended the two morning sessions, and considers that the presentation and the discussions adequately addressed the problems.

3. Management Exit Interview

The inspector met with the CG&E Senior Vice President and his management staff on June 9, 1981, and discussed their failure to timely implement their commitments and program improvements. The inspector stated that he recognized the on going extensive site and corporate re-organization and their efforts to increase the number of QA/QC working level personnel; however, he also recognized their need to satisfy commitments made to the NRC. The specific matters discussed during the meeting included:

a. Voiding of NRs by the HJK QC Manager

The licensee letter dated March 26, 1981, responding to non-compliance item 358/80-25-08, stated that the procedure QACMI G-4 was revised and that "The HJK in response to a CG&E audit (Audit No. 340) has initiated a complete review of voided NRs. A report to CG&E QA on this review is expected by April 30, 1981. Full compliance will be achieved by May 15, 1981."

The findings described in the CG&E Audit No. 340, performed on December 15-19, 1980 and January 5, 1981, had not been closed even though the findings were requested to be completed by February 16, 1981. The HJK audit response letter, KC-15340-Q, dated February 23, 1981 stated that 352 NRs were being reviewed to verify that the voiding was handled properly and that the review will be completed on April 15, 1981. The letter did not provide a detailed description on how the work was being handled and the acceptance basis and criteria for review; furthermore, the work had not been completed to the date of the inspection.

The issue of voided NRs is also part of the current NRC investigation being conducted at Zimmer. As a result, a comprehensive review of all NRs will be completed by CG&E and all previously voided NRs will be properly dispositioned.

b. Voiding of NRs by DDCs

The licensee letter dated March 26, 1981, responding to noncompliance item 358/80-25-09, stated that, "HJK QACMI G-4 has been revised, approved and issued. Instructions have been issued to prohibit the disposition of NRs by issuance of DDCs. During the review of voided NRs, those which were voided by issuance of DDCs will be evaluated and appropriate action implemented. Full compliance will be achieved by May 15, 1981."

The inspector found (1) QACMI G-4 has not been revised to prohibit the disposition of NRs by issuance of DDCs, (2) the status of evaluation was not documented, (3) "appropriate action" was not defined and (4) a full compliance date had not been determined.

Voiding of NRs by DDCs is also a subject of the current NRC investigation being conducted at Zimmer.

c. Lack of CG&E Audit of RCI

The licensee letter dated March 26, 1981, responding to non-compliance item 358/80-25-06, stated that, "RCI will be added to the QA audit schedule, which shall be reviewed to assure that audits of applicable vendors are scheduled. Full compliance will be achieved by June 1, 1981 upon completion of review of the audit schedule."

The inspector was told by the responsible licensee QA Engineer that the audit of RCI depended on QA lifting the Stop Work Order (SWO) issued against RCI. Since the SWO had not been lifted for RCI's remaining design verification work, no audits have been scheduled or planned to the date of this inspection.

d. 100% Installation Verification of Hanger Welding

A Region III meeting was held at the site with the CG&E management on January 18, 1980. During the meeting, the licensee QA committed "100% installation verification of welding, and anchor bolts" to be carried out during implementation of the new hanger program. The commitment was documented in Region III Inspection Report No. 50-359/79-37.

The inspector found that HJK QACMI M-12, R.13 required that, "Inspection shall apply to the modified portion of previously inspected hanger only." Among the 450 finally inspected suspension system components, 62 hangers had not been completely changed by the latest S&L design. Welding performed on these 62 hangers before the improved hanger program, had not been verified in accordance with the licensee's commitment.

e. Inadequate Procedure Review

The lack of licensee review of the quality work procedures was discussed in Region III Inspection Reports No. 50-358/80-16, Paragraph 3, and No. 50-358/80-25, Paragraph 3.d. In responding to Region III Report 50-358/80-16, the licensee's first letter, QA-1367, dated December 4, 1980 specified that the CG&E QA procedures requiring revision would be completed by January 15, 1981, and that the HJK QA Manual revision would be completed by December 15, 1980. A second letter, QA-1389, dated February 2, 1981, revised both the CG&E and HJK procedure review completion dated to April 15, 1981. A third letter, QA-1415, dated April 14, 1981, stated that these procedures will not be completely modified until May 15, 1981.

The inspector found that despite 11 months of procedure review and modification conducted by CG&E and HJK responsible personnel, the program still had not been completed and deficiencies were continuing to be identified.

The matters discussed in 3.a, 3.b, and 3.e above are all problems identified in the current NRC investigation being conducted at Zimmer. Enforcement and corrective action followup will be included in the investigation effort.