



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

September 26, 1983

MEMORANDUM FOR: Chairman Palladino  
Commissioner Gilinsky  
Commissioner Roberts  
Commissioner Asselstine  
Commissioner Bernthal

FROM: *[Signature]*  
John E. Zerbe, Director  
Office of Policy Evaluation

SUBJECT: COMMENTS ON TORREY PINES ZIMMER REPORT

OPE has reviewed the final report by Torrey Pines Technology (TPT) entitled, "Independent Review of Zimmer Project Management", dated August, 1983, and we offer the following summary of results and our comments in preparation for the briefing scheduled for September 28, 1983.

BACKGROUND

In accordance with the Commission's November 17, 1982 order to show cause and immediately suspend construction (CL1-82-33), Cincinnati Gas & Electric (CG&E) engaged Torrey Pines Technology (TPT) to perform an independent review of the Zimmer project management to determine measures needed to ensure that construction of the Zimmer plant will be completed in conformance with regulations and construction permit requirements. TPT submitted the final report to CG&E and the NRC on August 17, 1983 and identified deficiencies in the CG&E organizational structure, staffing, policies and procedures that have kept the project from satisfying the requirements for design, construction, and procurement. Recognizing these causes, TPT evaluated alternative management structures to determine the organizational changes needed to satisfactorily complete the Zimmer project.

SUMMARY OF RESULTS

Problems Identified by TPT:

The factors identified by TPT that have inhibited successful completion of the Zimmer project include:

1. CG&E and HJK had insufficient experience in order to respond in an effective manner to NRC requirements:

Contact:  
Gene Gallagher, OPE  
X-43295

2. CG&E did not have an integrated, comprehensive set of project management procedures to ensure all elements of the project were coordinated.
3. Staffing for both CG&E and the subcontractor organizations was inadequate in size, experience, and training for design and construction.
4. CG&E management for the Zimmer project was not located on-site resulting in impaired visibility of the project to top management.
5. CG&E did not establish definitive policies concerning QA at Zimmer and provide a strong management message in support of quality and QA.
6. CG&E top management lacked adequate involvement in and commitment toward QA at Zimmer.
7. A comprehensive qualification and certification program of quality personnel was not accomplished; and there was little evidence of training in advance of commencing specific work.
8. CG&E lacked effective control over the design function.
9. CG&E did not provide sufficient direction and support of a comprehensive audit program.
10. CG&E did not assure that quality documentation was complete, accurate, valid or retrievable.
11. The corrective action system was not effective from beginning until present.
12. The preoperational test program was unsatisfactory due to release of systems prior to the completion of construction, and due to significant design changes imposed during the preoperational program.
13. In spite of improved management there is still inadequate definition of the Quality Confirmation Program itself.

TPT-Proposed Solutions:

TPT evaluated some 16 alternative organizational structures that might accomplish the main goals of establishing corporate credibility, verification of design and construction to date, rectify any deficiencies and, finally, complete construction and startup. The key consideration TPT identifies to accomplish these goals is an improved policy and attitude of management towards QA, not because CG&E is forced to do so, but because it makes good business and management sense.

## The Commission

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In light of the problems identified, TPT recommends an organizational structure such as shown in Figure 1, attached. This would include establishing a Zimmer Project Oversight Committee (ZPOC). It would strengthen and reorganize the Zimmer project organization within CG&E, having the Zimmer Project Manager (someone with no prior involvement with Zimmer) direct all aspects of the Zimmer project. In addition, construction management and management of the Quality Verification Program would be performed by an outside organization.

TPT also concluded "that the President of CG&E is capable of completing the job, notwithstanding the errors of the past and the widespread criticism of CG&E and its management." TPT also endorsed the Senior vice president, Nuclear Operations as an "appropriate selection to manage the activities of the Zimmer plant."

In addition to these more basic organizational recommendations, TPT also recommended to CG&E the following:

1. An independent design review should be initiated immediately.
2. The Board of Directors should become more involved and knowledgeable regarding key policy issues.
3. The Board of Directors should carefully evaluate the capabilities of all CG&E officers with direct line management responsibilities for Zimmer.
4. An experienced external architect-engineer/constructor (A-E/C) should be hired to perform construction management and replace the present CG&E construction management.
5. H. J. Kaiser (constructor) should be retained to perform all construction activities under the management of the new A-E/C.
6. All QA activities should be centralized under the QA group, including those activities related to the QVP, construction completion, preoperational testing, start-up, and operations. The head of the quality group should reflect a strong QA management background and report to the Executive Vice President (Zimmer Project Manager).
7. Administrative activities should also be centralized under a single manager.
8. A qualified external organization independent of the A-E/C should be retained to perform review/audits in the areas of design, implementation of the QVP, and records management.

CG&E must now submit to Region III their recommended course of action based on TPT independent review. The licensee's recommendation is then subject to approval by the Regional Administrator per the November 12, 1982 show-cause order.

OPE COMMENTS

It appears that the organizational structure recommended by TPT addresses the problems identified during the course of the management review, problems which were fairly well known and previously identified by the NRC prior to the TPT independent review. The key consideration as stated by TPT is the Zimmer project management's policy, and attitude toward QA. The fundamental question then becomes whether the new ingredients will provide this commitment to quality and whether the previously responsible line managers who continue to be involved in the project have been successfully rehabilitated. TPT does not address this point but does endorse the existing President and the recently appointed Senior Vice President/Project Manager. We note that the TPT recommendation closely resembles the current organization in place, in that Mr. J. Williams has been appointed Senior Vice President and Zimmer Project Manager, and in that construction management and management of the QVP is being performed by Bechtel.

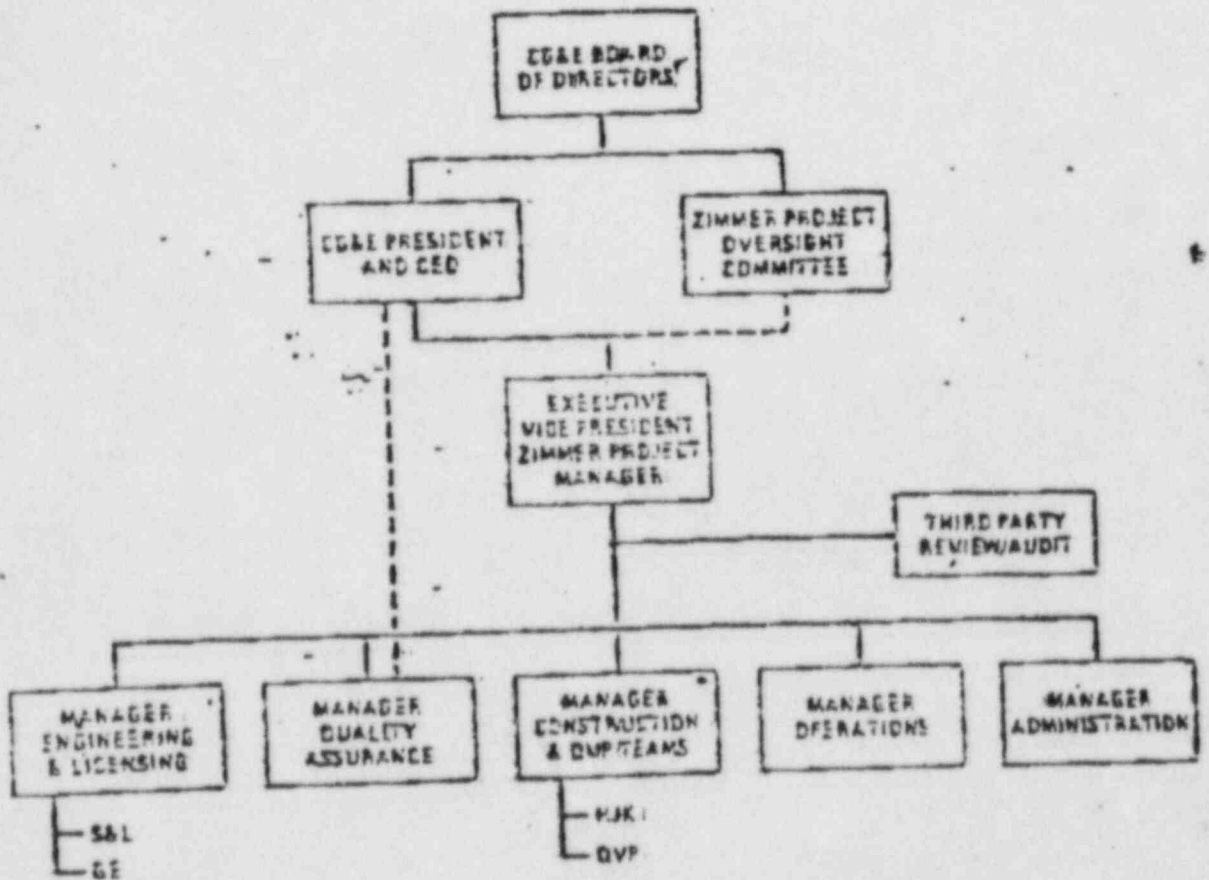
OPE believes that the focus of the planned September 28, 1983 briefing by TPT might include the following:

1. The steps CG&E top management have taken or plan to take to establish a clear policy, attitude, and commitment towards quality throughout the organization that provides TPT confidence that CG&E can successfully complete the job.
2. The basis for concluding the current President of CG&E is "capable of completing the job" and the current Zimmer Project Manager "is the appropriate selection to manage activities" in a manner consistent with regulations and requirements.
3. Whether CG&E has obtained the required preoperational test and startup staff to conduct adequate programs once construction is completed.

Attachment:

As stated

cc: Herzel Plaine  
Samuel Chilk  
William Dircks  
Victor Stello  
Harold Denton  
James Keppler



\*EXPERIENCED EXTERNAL ORGANIZATION.

Fig. 1. Recommended Zimmer project management organization

Should be in PDR

~~Wanted~~  
2 File  
**EBASCO**

**EBASCO SERVICES INCORPORATED**

Two World Trade Center, New York, N.Y. 10048

January 19, 1984

PRINCIPAL STAFF		
RA	✓	DPRP
D/RA		DE
A/RA		DRMSP
RC		DRMA
PAO		SCS ✓
SGA		ML
ENF		File ✓

orig

Mr. G. F. Cole  
The Cincinnati Gas & Electric Co.  
P.O. Box 960  
Cincinnati, Ohio 45201

Subject: Independent Audit of the Program to Verify the  
Quality of Construction and the Continuation of  
Construction Plans

Dear Mr. Cole:

Attached are two (2) copies of Ebasco's proposed contract for the subject services. This contract is intended to replace the interim contract which was concluded on December 7, 1983. We believe that it is in accordance with our understanding of the work to be performed.

After you have had an opportunity to review this proposed contract, we would be pleased to sit down and discuss any comments you might have. If you should have any questions in the meantime, please contact me at (212) 839-2714.

Very truly yours,

*J. W. Smith Jr.*  
J. W. Smith Jr.  
Manager, Quality Assurance  
Sales

JWS/rz

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JAN 23 1984

DISTRIBUTION:

cc: D. G. Eisenhut  
W. M. Hill  
J. G. Keppler ✓  
L. L. Kintner  
J. Lieberman  
E. R. Schweibinz  
J. Taylor

*Requested report draft  
Not in PDR*

Docket No. 50-358

Cincinnati Gas and Electric  
Company

ATTN: Mr. E. J. Wagner  
Assistant Vice President  
Engineering

139 East Fourth Street  
Cincinnati, Ohio 45201

Gentlemen:

This refers to the routine safety inspection conducted by Messrs. W. M. Hill, T. P. Gwynn, and E. H. Nightingale of this office on January 7, 1984, through February 1<sup>3</sup>, 1984, of activities at Wm. H. Zimmer Nuclear Power Station authorized by NRC Construction Permit No. CPPR-88 and to the discussion of our findings with Mr. G. C. Ficke and others of your staff at the conclusion of the inspection.

*Bulirplate*

- 2a*
- 6*
- 8e*
- 9h*



Sincerely,

R. F. Warnick, Director  
Office of Special Cases

Enclosure: Inspection Report

No. 50-358/84-01(OSC)

*Standard Bailorplate Distribution*

[U. S. Nuclear Regulatory Commission]

[Region III]

Report No. 50-358/84-01(USC)

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 Nuclear Site, Moscow, Ohio

Inspection Conducted: January 7, 1984, through February 10<sup>3</sup>, 1984

Inspectors: T. P. Gwynn

\_\_\_\_\_  
DATE

E. H. Nightingale

\_\_\_\_\_  
DATE

Reviewed: W. M. Hill, Jr.

Resident Site Supervisor

\_\_\_\_\_  
DATE

13?

Approved: W. L. Forney, Chief

\_\_\_\_\_  
DATE

Section 1, Office of Special Cases

Inspection Summary

Inspection during the period January 7, 1984, through February 13, 1984

(Report No. 50-358/84-01(OSC)).

Areas Inspected: Routine and reactive, unannounced inspection by the resident inspectors of licensee action on previous inspection findings, licensee action on 10CFR50.55(e) items, Quality Confirmation Program nonconformance report review, maintenance program review, H. J. Kaiser personnel indoctrination and certification training program, personnel and organizational changes, control of site documents, maintenance/preservation of plant equipment, fuel storage, <sup>security</sup> accidental firearm discharge, and plant tours. This inspection involved a total of 215 inspector-hours onsite by two resident inspectors and a resident site supervisor including 9 inspector-hours onsite during off-shifts.

Results: Of the eleven areas inspected, no items of noncompliance or deviations were identified.

*The NRC inspectors reviewed those site activities following the January 21, 1983, announcement to convert Linn to coal use.*

[Details]

1. Persons Contacted

Persons contacted are noted in Report Section I.

2. Licensee Action on Previously Identified Items

The licensee action on previously identified items <sup>is</sup> ~~are~~ noted in Report Section I.

3. Wm. H. Zimmer Owners Decision

On January 21, 1984, the licensee announced a joint decision of the plant owners (Cincinnati Gas and Electric, Dayton Power and Light, and Columbus and Southern Ohio Electric) to convert the Zimmer Station to coal use rather than completing the station as a nuclear unit. NRC Region III was verbally notified of the Owners decision on January 20, 1984, and was formally notified by correspondence dated January 27, 1984. This inspection report is presented in two sections. Section I denotes those inspection activities of the NRC resident inspectors prior to the announcement on January 21. Section II provides the details of those inspection activities after January 21 until the conclusion of the report period.

4. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. An unresolved item disclosed during the inspection is discussed in Details Section I, paragraph 6.

5. 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. An open item disclosed during the inspection is discussed in Details Section I, paragraph 2.a.

6. Exit Interview

The inspectors met with licensee representatives (denoted in paragraph 1) throughout the month and at the conclusion of the inspection on February 13, 1984. The inspectors summarized the scope and findings of the inspection activities. The licensee acknowledged the inspectors' findings.

[Details]

[Section I]

1. Personnel Contacted

Cincinnati Gas and Electric Company

J. Williams, Jr., former Senior Vice President - Nuclear Operations  
G. Cole, Assistant Vice President - Nuclear Projects  
\*D. Cruden, Assistant Vice President - Nuclear Operations  
E. Wagner, Assistant Vice President - Engineering  
B. Scott, former Assistant Vice President - Quality Assurance  
\*G. Ficke, Manager, Nuclear Licensing Department (NLD)  
D. Hyster, Manager, PVQC and Nuclear Support Services  
J. Pearson, former Manager, Nuclear Construction Department (NCD)  
\*J. Schott, Manager, Nuclear Production Department (NPD)  
\*J. Shaffer, Manager, Quality Assurance Department (QAD)  
C. Foster, Manager, Administration and Training  
D. Chamberlain, former Director, Region III Interface, NLD  
G. Orlov, Director, Quality Confirmation Program (QCP)  
D. Spence, Director, Quality Engineering, QAD  
D. R<sup>n</sup>strom, former Director, Corrective Action and Trending, QAD  
J. Jones, Coore<dinator, QCP Task VII  
D. Hale, former Director, Maintenance, Testing, and Turnover, NCD  
D. Schulte, Director, Codes and Standards Compliance, NCD

Bechtel Power Corporation

- J. Laspa, former Deputy Project Director
- S. Bernsen, <sup>former</sup> Manager of Quality
- G. Bell, former Project Quality Assurance Engineer

National Board of Boiler and Pressure Vessel Inspectors (NBBI)

- C. Allyson, Field Representative, *NBBI*
- M. Sullivan, Consultant, NBBI
- R. Holt, Consultant, NBBI

The inspectors also interviewed other licensee and contractor personnel during the course of the inspection.

\*Denotes those personnel attending the monthly exit meeting.

2. Licensee Action on Previous Inspection Findings

- a. (Open) Noncompliance (358/83-12-02) and (358/83-12-03): Failure to follow procedure in the processing of corrective action requests and failure to assure that the cause of deficiencies identified in Management Corrective Action Report 8~~7~~<sup>2</sup>-12 was determined and corrected.

The inspector reviewed licensee actions described and committed to in their letter responding to these items of noncompliance dated October 21, 1983. Those actions were not complete at the time of this inspection.

In particular, the inspector reviewed records of training for CG&E Quality Engineers to the requirements of the corrective action reporting procedure; reviewed records of training and qualification for reverification group (RG) personnel; reviewed activities associated with the reverification of corrective action documents (ie, Condition Evaluation Requests (CERs), etc); reviewed a licensee audit of RG activities; and reviewed the new licensee program for the handling of Corrective Action Requests (CARs) and Management Corrective Action Reports (MCARs)

(1) Documentation Reviewed

(a) CG&E Field Audit Report No. 484

(b) Procedure ZPM.QA.501, "Corrective Action Requests", revision 0, dated January 12, 1984



- (c) Training records for two CG&E QA Engineers
- (d) Training and certification records for two RG Quality Engineers
- (e) Random sample of RG (M) CAR review packages for the following:

- . MCAR 82-01 (rev. 1)
- . CAR 81-12 (rev. 0)
- . CER 82-268 (rev. 0)
- . CER 82-103 (rev. 0)
- . CAR 82-11 (rev. 0 and rev. 1)

~~CAR 81-05 (rev. 0)~~  
~~CAR 82-11 (rev. 0 and rev. 1)~~

(2) Observations

(a) The CG&E Field Audit Report indicated the need for refinement of the reverification checklist and identified several administrative deficiencies which were in the process of being corrected at the time of this inspection.

(b) Review of training and certification records indicated licensee compliance with WQA<<QA program requirements and commitments.

(c) Review of ZPM.QA.501 resulted in several items requiring resolution by the licensee as follows:

• The licensee response to noncompliance 358/83-12-03 states in part:

"The revised program and procedures will clarify the characteristics of problem description, disposition review for acceptability, review for reportability and verification of proper implementation."

The inspector noted that the present procedure did not provide for disposition review for acceptability as committed. The procedure placed the responsibility for review for reportability under 10CFR21 and 10CFR50.55(e) with the CG&E Manager, Quality Assurance, but did not provide such a review for corrective action requests.

- The inspector observed an inconsistency between a procedural requirement and the instructions provided on the Corrective Action Request form.
- The inspector requested clarification of the action statement "necessary verification activities" as used in step 5.4.4 of the procedure.

The above items were discussed with licensee personnel in a meeting on January 19, 1984. The CG&E Assistant Vice President - Quality Assurance committed to reviewing and responding to the above items in a timely manner. Procedure ZPM.QA.501 had not been implemented at the time of this inspection. These items remained open at the conclusion of the inspection period.

(358/84-01-01)

- (d) Review of a random sample of (M)CAR reverification packages resulted in a number of minor comments X

which were resolved by the licensee. No significant deficiencies were identified.

b. (Closed) Open Item (358/82-01-~~35~~<sup>11</sup>): The inspector had the following concerns regarding the Quality Confirmation Program (QCP):

(1) Inspections by CG&E to procedures involving ASME Code activities. Procedures failed to address or include interfaces with the "N" stamp holder (HJK) and ANI (Authorized Nuclear Inspector).

(2) QCP procedure interfaces were not well defined.

(3) Procedure 10-QA-03 states that only qualified personnel will be utilized, but not clearly evident complied with in QCP.

(4) QCP elements were not included in QCP Procedures.

Successful implementation, verified on a daily basis, of the QCP Program as well as successful completion of several of the tasks involved in the program warrants closing of these concerns. This item is closed.

c. (Closed) Unresolved Item (358/81-32-09): The inspector found a container of alcoholic beverage, empty beer cans, and

empty wine bottle, orange juice, beds, pillows, etc., above the turbine building ventilation system intake plenum (Auxiliary Building elevation 567'.<). This area had previously been noted by the inspector on several occasions to be littered with empty beer cans. This area was brought to the attention of the H. J. Kaiser Construction Project Manager who discussed the situation with the appropriate supervisors.

Numerous plant tours have been conducted by the inspector since this concern was brought to the attention of the HJK Construction Project Manager and it appears that corrective action implemented has been effective. There has been no ~~evidence~~<<evidence observed that indicates that alcoholic beverages are being consumed on the plant site. This item is closed.

d. Unresolved Item (358/82-01-12): The implementation of the QCP program was verified through observation of activities and record reviews. Some problems were denoted as follows:

(1) The records being prepared as a result of inspection activities to Procedure 19-QA-02, "Quality Confirmation of Small Bore Piping Socket Weld Engagement",<, were noted to contain the inspector's<sup>S</sup> printed name in lieu of applying his signature as evidence of acceptance/rejection.

(2) Radiographic film being generated as required by Procedure 19-QA-02 was being ~~stora~~<<stored in desk drawers and

filing cabinets in field office trailers.

- (3) Nonconformance Reports were not being properly dispositioned in accordance with Procedure 15-QA-01, "Control of NRs Corrective Action".

Continuous monitoring of the QCP Program verified the successful implementation and completion of the tasks which were of concern to the inspector. This item is closed.

No items of noncompliance or deviations were identified.

5. Licensee Action of <sup>N</sup> 10CFR50.55(e) Items

- a. (Open) Item M-19 (358/80-02-EE): The licensee identified a potential deficiency concerning operation of the RHR Heat Exchanger in the shutdown cooling mode under certain conditions. Inboard isolation valve, Tag No. 1E12F009, is motor operated and energized from a single electrical ~~dis~~<<division. This valve is required to be remotely operated because it is located within the primary containment and must open before full shutdown cooling can be initiated. To be in compliance with the Criterion of redundancy and separation, supply of power for this valve from a second electrical de<ivision must be resolved. The licensee reported that some of the material to cr<orrect this situation has been received onsite. Installation and testing is to be accomplished after all material has been received and the ~~lifting of the Stop Work Order. This item remains open.~~

Lifting of the Stop Work Order. This item remains open.

- b. (Open) Item M-53 (358/82-21-EE): Limitorque valve operators with SMB-000 torque switches were found to be defective. Whenever the striker hits the plastic cam, the cam breaks resulting in torque switch failure. ~~The~~ <sup>↑</sup>rework will consist of replacing the switches with switches with brass cams. 126 new switches were receipt inspected (4 were damaged) and the replacement activity was scheduled to start with the release of the Stop Work Order. This item remains open pending licensee completion of rework.
- c. (Open) M-42 (358/82-12-EE): The antirotational devices on Anchor Darling valves are subject to operational failure in that under vibration conditions the antirotational collar will loosen and slip downward. The keys providing the lock of the collar and stem would then fall out. The stem would then be free to rotate rendering the valve inoperable. The licensee performed rework activities consisting of staking ~~the~~ set screws to prevent them from vibrating loose and completed these actions by December 31, 1982. Subsequently, it was determined that the set screws were improperly staked and nonconformance report #0-NED-83-2549-E was initiated. This item remains open pending further review of licensee actions.

- d. (Open) M-44 (358/82-07-EE): During a review of an engineering change request (ECR) it was revealed that a section of piping located between two normally closed isolation valves in the residual heat removal system would be subject to temperature variations of up to 350 degrees F and possibly subjected to overstress conditions as a result of the expansion of trapped water in the isolated section of piping. The licensee intends to install relief valves upon release of the Stop Work Order. This item remains open.

No items of noncompliance or deviations were identified.

4. Quality Confirmation Program Nonconformance Report Review

a. QCP Task VII Nonconformance Report (NR) Review

The inspector reviewed three QCP Task VII NRs which reopened items previously identified on voided H. J. Kaiser NRs. These NRs had been forwarded by QCP Task VII to the resident inspector for NRC review of the disposition prior to rework or closure of the NR.

- (1) NRs Q-QAD-83-0921-N and Q-QAD-83-1759-N: These NRs were reviewed by the inspector to a degree sufficient to determine that only nonessential/nonsafety-related items were included in the NR. The inspector had no further questions relative to these NRs.



(2) NR Q-QAD-83-1319-E: This NR identified an instrument piping hanger which previously exhibited workmanship deficiencies. The deficiencies had been reworked without documentation and were presently of indeterminate status due to rerouting of the instrument piping. The NR was dispositioned "reject" to remove the unused piping hanger from the building. This disposition was accepted by the inspector on January 26, 1984.

b. QCP Tasks I, II, and III NR Review

A total of 99 nonconformance reports pertaining to QCP Task I, II, and III were reviewed during this report period. The attachment to this report lists the NRs reviewed. The inspector identified no unsatisfactory conditions.

5. Maintenance Program Review

On January 13, 1984, the NRC inspectors attended a meeting with representatives of CG&E (NCD, NPD, NED, and QAD) and Bechtel. X  
~~Construction~~ During that meeting the status of development and implementation of the Preventive/Corrective Maintenance and System Layup program was discussed in detail. The following summarizes the highlights of the discussion:

- Current preventive maintenance activities were being controlled under Owners Project Procedure 8.2 and NPD procedure RE.SAD.03, "Preventive Maintenance". A Zimmer project procedure (ZPM) was in the developmental stage with implementation scheduled for April 1, 1984. To date, approximately 850 work instructions and 300 component layup worksheets had been prepared.
  
- Technical requirements for system layup were specified by NED engineers, utilizing manufacturers recommendation<sup>s</sup> and good engineering practice. Of 39 systems total, 37 had been reviewed for layup requirements and 2 were still under review. System layup worksheets for six systems had been approved and were in the process of being implemented. Those six systems included the fire protection system, the main power system, the control rod drive hydraulic system, the reactor core isolation cooling system, the switchgear heat removal system, and the service water pump structure ventilation system. Work packages for layup of those six systems were in preparation at the time of this meeting.

- . The preventive maintenance program was being controlled via the prime computer system onsite.
- . The transfer of responsibility for preventive maintenance from H. J. Kaiser to Bechtel was in progress.
- . The organizational relationships for the preventive maintenance program were discussed in detail.

As a result of this discussion, the NRC inspectors made several modifications concerning the development of the preventive maintenance program and requested to be notified prior to the performance of any work involving disassembly of components for system d~~e~~layup (ie, low pressure core spray pump, residual heat removal pump, containment isolation valves, etc.). The licensee agreed to notify the NRC resident inspector.<sup>S</sup><sub>A</sub>

No items of noncompliance or deviations were identified.

6.<<

6. H. J. Kaiser Personnel Indoctrination and Certification Training Program

On September 30, 1983, an individual working in the H. J. Kaiser records review program contacted the CG&E QA Manager and described two concerns related to the H. J. Kaiser QA indoctrination and certification training program. The NRC resident inspectors have been following licensee activities undertaken to address those concerns.

The licensee completed a special audit of the H. J. Kaiser Indoctrination and Certification Training program on October 27, 1983 (CG&E Field Audit Report No. 479). That audit resulted in three findings which were translated to a Management Corrective Action Report (MCAR) and which are indicated as follows:

- (1) Missing or incomplete education/experience verification.
- (2) Lack of adequate control of forms.
- (3) Grading errors on formal certification examinations.

The H. J. Kaiser response to the MCAR included commitments to do the following:

- (1) Determine the status of each certified individual's education/experience verification and complete the verification when found to be incomplete.

(2) Establish a forms control program which would meet the

requirements of the new Zimmer Procedures Manual.

- (3) Perform a 100% review of examinations previously graded to detect grading errors and take any necessary corrective actions.

The NRC inspectors conducted a preliminary review of the audit finding related to missing or incomplete education/experience verification, especially with regard to contract employees. The following summarizes the status of that review as of January 21, 1984:

- . H. J. Kaiser QA records management prepared personnel requisitions, detailing the necessary level of education/experience and QA program requirements. These were forwarded to H. J. Kaiser purchasing.
- . The NRC inspectors reviewed several purchase documents (orders) for subcontracted personnel services. These documents did not identify specified education/experience and QA program requirements.
- . Discussion with cognizant H. J. Kaiser personnel and a representative of one contract personnel agency revealed that a list of "Requirements for QA Document Review Personnel Supplied By Contract Agencies" was supplied in writing by H. J. Kaiser to the contract agency but that those requirements were not a part of the purchase orders. That list specified, in part, that all personnel supplied must meet the requirements of ANSI N45.2.6

level II that they have 3 years of nuclear QA experience and that a background check would be performed by the contract agency and supplied to H. J. Kaiser within two weeks of the individual's arrival onsite

- Contracts with several personnel agencies were terminated in late 1983 and the background checks by those agencies had not been completed at the time of contract termination. Since the background checks were not a requirement of the purchase orders, the background checks were never completed.

Since ANSI N45.2.6 requires a minimum level of education/experience in order to meet the level II requirements and since the verification of that minimum education/experience (background check) was never completed, the work performed by those unverified personnel is of indeterminate quality. Verification by H. J. Kaiser had not been completed at the conclusion of this report period. This matter remains unresolved. (358/84-01-02)

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8.

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, cleanliness, <sup>verification of document controls and record storage,</sup> postings, and observation of CG&E Joint Test Group activities. The inspectors observed the following:

a. CG&E/Contractor Exit Interviews

The NRC resident inspectors requested to speak with all terminating QA/QC and records review personnel after their employment exit interviews and prior to leaving the site, in other than group exit situations. This request was made in order to provide an opportunity for each individual to discuss their views and concerns with an NRC inspector, if they so desire.

Prior to their leaving the site, 11 individuals were interviewed during this inspection period by the NRC resident inspectors. All concerns identified during these interviews will be evaluated by the NRC. This evaluation will consist of a review of the acceptability of the licensee's actions regarding concerns provided to them and an evaluation of those items that were only presented to the NRC. In addition, one individual who expressed concerns to H. J. Kaiser and CG&E management at this exit interview declined to speak with the NRC.

As a result of the January 21, 1984 announcement by CG&E a group exit situation developed. None of the individuals exiting the site after the January 21, 1984 announcement were interviewed by the NRC inspectors.

b. Overview of the CG&E Joint Test Group

The NRC senior resident inspector observed the activities of the CG&E Joint Test Group (JTG) in the preparation of a new Wm. H. Zimmer Startup Manual (SUM). The JTG is the approving authority for activities conducted under the Preoperational and Startup Test Program. The SUM represents the Quality Assurance Program for the Preoperational and Startup Test programs.

During this report period, the JTG made substantial progress toward the approval of the new SUM. The CG&E announcement of January 21, 1984 precluded completion of those activities.

No items of noncompliance or deviations were identified.



[Details]

[Section II]

1. Personnel and Organizational Changes

- a. After the January 21, 1984 licensee decision to convert Zimmer to coal use, the resident inspectors observed significant personnel and management changes. By the conclusion of the report period, management changes as a result of this decision are indicated in the following:

<u>Position</u>	<u>Status</u>
Senior Vice President - Nuclear	Vacant
Assistant Vice President - Quality Assurance	Vacant
Manager, Nuclear Construction Department	Vacant
Manager, Startup and Test Department	Vacant

On January 27, 1984 Mr. E. J. Wagner, Assistant Vice President - Engineering, was designated as the senior CG&E representative onsite. No further management changes were indicated to the NRC resident inspectors by the conclusion of the report period.

- b. As a result of the above decision, CG&E and site contractors took immediate steps to reduce the site work force. The total

number of site personnel was reduced from 2,564 on January 21, 1984, to 522 at the conclusion of the inspection period as indicated in the following:

	<u>1/20/84</u>	<u>2/10/84</u>
CG&E	436	189
<u>Site Contractors</u>	<u>2,128</u>	<u>333</u>
Total	2,564	522

This action represents a net reduction of 247 CG&E personnel and 1,795 contractor personnel. Further details were not available to the NRC inspectors at the conclusion of the report period; however, additional reductions were anticipated.

2. Control of Site Documents

On January 23, 1984, the NRC ~~resident~~ resident inspectors received a report about shredding of documents at the plant site. This report was made following CG&E's January 21, 1984 announcement. The inspectors ~~conducted~~ conducted a ~~trou~~ tour of the area where the shredding of paper was reported to have taken place. No improper activities were observed. S-11

The NRC inspectors then reviewed the reported concern with CG&E management who took immediate steps to control the destruction of paper/

documentation onsite and to control further use of the shredder.

It was later determined by CG&E Management that one box of personal notes and correspondence belonging to the CG&E Manager, Nuclear Production Department and a former CG&E Security Supervisor had been shredded, and that Bechtel Power Corporation had been shredding personnel related ~~co~~ documents. The NRC inspectors were unable to confirm <sup>but</sup> and had no reason to believe that quality related documents or records had been destroyed.

Subsequent CG&E management action taken to address this concern included the following:

- (1) On January 24, 1984, an immediate halt was called to the disposal of all site documents, memoranda, copies of correspondence, etc.
- (2) A sitewide audit of all trash receptacles (including dumpsters) was conducted. That audit was observed by the NRC resident inspectors.
- (3) The disposal of all trash onsite was stopped pending the development of a sitewide procedure to control the handling and disposal of Zimmer site documents.
- (4) Several drafts of a procedure were prepared per item (3) above and were reviewed by the NRC resident inspectors. The final

program was not approved at the conclusion of the inspection period.

- (5) Because of the moratorium on disposal of trash pending the development of an approved procedure for handling and disposal of Zimmer site documents, the site has experienced a problem with storage of trash. The licensee notified the NRC resident office on February 6, 1984 of their intention to bale trash for storage onsite. *built*

The NRC inspectors are monitoring licensee activities concerning the control and handling of Zimmer site documents.

No items of noncompliance or deviations were identified.

*3*  
*p.*

Maintenance/Preservation of Plant Equipment

The NRC inspectors questioned the licensee's plans with regard to the maintenance/preservation/disposition of nuclear safety-related equipment. Preliminary plans being formulated by the licensee include placing the entire plant in a dry layup condition and performing a minimal amount of routine maintenance. The licensee has discussed the possibility of selling both equipment and nuclear fuel, however, no specific plans were provided. *X*

At the conclusion of the inspection period, the licensee had not

*(27)*

provided detailed ~~programs~~ relative to their intentions. X

The NRC resident inspectors discussed their areas of concern and their <sup>continued</sup> presence onsite with licensee personnel. They acknowledged same. *delete*

No items of noncompliance or deviations were identified.

4  
3. Fuel Storage (Refuel Floor, 627' Elevation, Reactor Building)

The inspector frequently verified the integrity of security controls for the new fuel storage area, and the integrity of provisions for control of the new fuel storage environment. The inspector found that the security officers present were alert and knowledgeable of the procedures in effect.

On January 26, 1984, the NRC inspector observed that monthly checks of fire protection equipment on the refuel floor had not been performed since November 1983. This deficiency was corrected by CG&E personnel. Discussion with the CG&E B<building services supervisor indicated that changing roles and responsibilities (imposed in part by the owners decision of January 21, 1984) had caused t< the noted condition.

The inspector observed a portion of a CG&E QA audit (Field Audit Replr)<<Report #492), related to the physical inventory of 10 new fuel assemblies, and subsequently reviewed the audit report. No deficiencies were identified by the audit.

No items of noncompliance or deviations were identified.

5  
A. Security  
Accidental Firearm Discharge

On February 10, 1984, the licensee notified the NRC resident inspectors of an accidental firearm discharge which occurred February 7, 1984.

*a security incident involving*

According to the licensee's incident report, a ~~contractor~~ contractor security guard was demonstrating a technique for firing a weapon to another guard when the weapon accidentally discharged. (This was prohibited by the licensee's procedure for control and use of firearms.) The round fired completely penetrated the west wall of the reactor building at approximately the 635' elevation. There were no personnel injuries. The area was thoroughly checked and no further damage was apparent. The security guard violated the licensee's procedure SS-DPP-22, "Standard Operating Procedure - Weapons Policy", revision 0, paragraph 2.1.7 which states, "Side arms shall not be drawn from their holster except during shift changes, or for use in self defense, or in accordance with Section 2.3.2 and 2.4.3 of this procedure." and paragraph 2.1.10 which states, "Unsafe handling of weapons (horseplay) or other violations of this procedure shall be a cause for immediate discharge of person(s) involved." Following an immediate investigation by the site security supervisor, the security guard was terminated.

All contractor security guards were subsequently <sup>retrained</sup> rebriefed on the weapons policy procedure, with special emphasis on the above incident and paragraphs 2.1.7 and 2.1.10 of procedure SS-DPP-22. X

The NRC resident inspectors <sup>re</sup>viewed the incident with licensee management, observed the damage created by the incident, and discussed firearms policy with several contractor security guards to assure that licensee corrective actions <sup>taken</sup> were effective. Region III <sup>delete</sup> was notified of this incident.

No items of noncompliance or deviations were identified.

<sup>6</sup>  
# Plant Tours

The inspectors conducted frequent plant tours throughout the inspection period. These ~~tour~~ tours included verification of security controls, fire protection, cleanliness, postings, observation of document <sup>control</sup> ~~control~~, and verification of record and document retention. The <sup>VAD HANDLING</sup> ~~inspector~~ observed the following: X

- a. Random checks of trash receptacles revealed that no quality affecting documentation was being discarded. Discussion with responsible personnel indicated that QA documentation/records would continue to be handled in accordance with QA procedures.

b. The inspector observed the plant operations staff during operation of the control rod drive hydraulic system. The system was operated to enable withdrawal of all control rods to position 48 (fully withdrawn) in p<sup>re</sup>paration for removal of control rod blade guides from the reactor vessel. The control rod blade guides had been temporarily installed to provide lateral support to the control rod blades during control rod testing and were no longer needed. The licensee stated that the blade guides were on loan ~~from~~ <sup>would</sup> be returned to General Electric Company. X

No items of noncompliance or deviations were identified.



(See Section I)

[Attachment to Inspection Report 50-358/84-01]

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The following Cincinnati Gas and Electric Task I nonconformance reports (dispositioned) were reviewed during this report period:

Q-QAD-82-4423-E	Q-QAD-82-4441-E R1	Q-QAD-82-4443-E
Q-QAD-82-4455-E	Q-QAD-82-4456-E	Q-QAD-82-4508-E
Q-QAD-82-4523-E R1	Q-QAD-82-4557-E	Q-QAD-82-4562-E
Q-QAD-82-4565-E	Q-QAD-82-4568-E	Q-QAD-82-4574-E
Q-QAD-82-4594-E	Q-QAD-82-4596-E	Q-QAD-82-4597-E
Q-QAD-82- <sup>664</sup> 4597-E	Q-QAD-82-4624-E	Q-QAD-82-4625-E
Q-QAD-82-4626-E	Q-QAD-82-4627-E	Q-QAD-82-4628-E

The following Cincinnati Gas and Electric Task I nonconformance reports (closed) were reviewed during this report period:

Q-QAD-82-4422-E	Q-QAD-82-4435-E R1	Q-QAD-82-4436-E R2
Q-QAD-82-4476-E	Q-QAD-82-4493-E	Q-QAD-82-4558-E
Q-QAD-82-4559-E	Q-QAD-82-4560-E R1	Q-QAD-82-4561-E R2
Q-QAD-82-4563-E	Q-QAD-82-4564-E	Q-QAD-82-4566-E
Q-QAD-82-4569-E	Q-QAD-82-4592-E	Q-QAD-82-4593-E
Q-QAD-82-4595-E	Q-QAD-82-4598-E	Q-QAD-82-4599-E
Q-QAD-82-4600-E	Q-QAD-82-4601-E	Q-QAD-82-4604-E
Q-QAD-82-4605-E	Q-QAD-82-4606-E	Q-QAD-82-4607-E
Q-QAD-82-4608-E	Q-QAD-82-4622-E	

The following H. J. Kaiser Task II nonconformance reports (dispositioned) were reviewed during this report period:

E-4717            E-8396 D            E-9199 QD            E-10,482 QD            E-12,771

The following H. J. Kaiser Task II nonconformance reports (closed) were reviewed during this report period:

E-4294 R1            E-4588 QD R1            E-4708 R1            E-4842            E-4887  
E-8095 D            E-8395 QD R1            E-8450 D            E-8468 D            E-8496 D  
E-8540 D            E-8559 D            E-8577 D            E-8620 D            E-8728 D  
E-8741 QD            E-9412 QD            E-9424 QD R1            E-9464 QD            E-9471 QD  
E-9595 QD            E-9678 QD            E-9680 QD            E-9701 QD            E-9752 QD  
E-9929 QD            E-9941 QD            E-9942 QD            E-9989 QD R1            E-10,038 QD  
E-10,201 QD            E-10,202 QD            E-10,294 QD            E-11,212 Q            E-11,215 Q  
E-11,<sup>3</sup>209 QD            E-11,353 QD            E-11,610 Q            E-12,432 Q R1            E-12,581 Q  
E-13,009 Q            E-13,017

The following H. J. Kaiser Task III nonconformance reports (dispositioned) were reviewed during this report period:

E-5287            E-11,427 Q            E-12,085 QD

The following H. J. Kaiser Task III nonconformance reports (closed) were reviewed during this report period:

E-8828 QD            E-<<<C/N-9164

Definition of Symbols:

D = Identified by H. J. Kaiser document R<review

Q = Related to the CG&E QCP

R = Revision