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

December 10, 1981

MEMORANDUM FOR: File

FROM: David H. Gamble, Investigator
Office of Inspector and Auditor

SUBJECT: ZIMMER NUCLEAR POWER STATION

During the course of the OIA investigation into the adequacy of the earlier IE investigation of Thomas Applegate's allegations regarding Zimmer, it was suggested that OIA interview Terry Harpster. The first suggestion came from William Ward, Chief, Investigations Branch, Enforcement and Investigations Staff (EI), IE Headquarters. The second suggestion came from Ward's supervisor, Dudley Thompson, Director, EI. It was said that Harpster, who had previously been the principal NRC Inspector for Zimmer, had information including a personal file which would expose a lot of problems at Zimmer.

OIA asked Harpster to bring whatever files or documents he had with him to his March 6, 1981, interview. After reviewing them with OIA, he left them for copying. These copies are included as Enclosures A-1 through A-11. Enclosures B and C are a complete draft and final version, respectively, of Enclosure A-8, furnished subsequently by IE Investigator Peter Baci. Enclosure D contains the results of the March 6, 1981, OIA interview of Harpster.

Enclosures:
As Stated

cc: A. Schnebelen, OIA
J. Cummings, OIA

File: 81-39
81-18 w/o attach

LIST OF ENCLOSURES

A. File Transfer Record to Terry Harpster, IE, fm Dave Gamble, OIA, dated 3/9/81, transmitting Harpster's personal file re Zimmer.

1. Memo G. Gower fm J. Keppler, re Zimmer - Report of Investigation into Licensee Statements at ACRS Subcommittee Meeting, dated 7/31/79. Attachment: a. Letter Borgmann fm Keppler, dated 7/31/79, re investigation by IE re accuracy of statements re staffing of Zimmer made by licensee during meeting with ACRS, w/attach. Region III Report No. 50-358/79-21, for Investigation May 21-24, 1979.

2. Memo Thompson fm Keppler, re Erroneous Statements Provided By Applicant at Zimmer ACRS Subcommittee Meeting (AITS F30488H6), dated 4/10/79, w/Attach: Statement of Facts re Erroneous Info Given by Applicant at Zimmer ACRS Subcommittee Meeting.

3. Memo Keppler fm Thompson, re Apparent False Statements by Applicant at Zimmer ACRS Subcommittee Meeting (AITS F30488H6), dated 5/2/79, w/Attach: Ltr Keppler fm Borgmann re Region III wishes to interview CG&E re statements made to ACRS, dated 5/18/79.

4. Transcript of Testimony of Mr. Schott before Mr. Bender (ACRS) 4 pp only, undtd.

5. Transcript of Testimony of Mr. Borgman before ACRS - 20 pp only, undtd.

6. NRC, Region III, Press Release #79-12, dated 3/22/79. Attachment: Ltr Hendrie fm Carbon, re Report on William H. Zimmer Nuclear Power Station, Unit 1, dtd 3/13/79.

7. Package containing:

   a. Terry L. Harpster Statement, dtd 5/22/79
   b. John E. Menning Statement, dtd 5/21/79
   c. One page note containing names beginning with "Monday- Peter Baci"

8. Draft Investigation re Apparent False Statements by Cincinnati Gas and Electric Company, Investigator: Peter E. Baci. DN:50-358. (missing p. 14).

9. Ltr Borgmann fm Keppler, re inspection conducted by T. Harpster and to discussions of our findings with Borgman, Salay, Schott and others, dated 8/2/78. Attachment: Region III, Report No. 50-358/78-11, for inspection on May 23-26 and June 22-23, 1978, by Inspector T. Harpster, dated 7/31/78.

10. Ltr Borgman fm Fiorelli re inspection conducted by T. Harpster February 28 and March 1-3, 1978, dated March 22, 1978. Attachment: Region III Report 50-358/78-06 at William H. Zimmer site, conducted by T. L. Harpster on Feb. 28 and March 1-3, 1978.

11. "Attachment 13A, Table of Contents"

B. Draft Investigation re Apparent False Statements by Cincinnati Gas and Electric Company, Investigator Peter E. Baci, No. DN:50-358. (w/conclusions).

C. Ltr Borgmann fm Keppler, re investigation conducted by P. Baci on May 21-24, 1979, at Zimmer Plant, dated August 3, 1979. Attachment: Region III, Report No. 50-358/79-21, Investigation on May 21-24, 1979, at Zimmer (w/conclusions deleted).
w/attachments: Statements by T. Harpster; J. Menning; J. Schott and letter Borgmann to Keppler, dated May 18, 1979.

D. Interview of Terry Harpster.

Paul Barrett A-42
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Docket No. 50-358

Cincinnati Gas and Electric
Company
ATTN: Mr. Earl A. Borgmann
Senior Vice President
Engineering Services and
Electric Production
139 East 4th Street
Cincinnati, OH 45201

Gentlemen:

This refers to the meeting held in the Region III office in Glen Ellyn, Illinois, by Mr. R. F. Warnick and others of this office with Mr. W. D. Waymire and others representing CG&E on April 30, 1981. The purpose of the meeting was to discuss CG&E's proposed corrective action program for deficiencies identified to date in the current NRC investigation and the measures being taken to assure acceptable quality of ongoing activities at the Zimmer project. The enclosed copy of the report of the meeting identifies areas discussed.

Based on our understanding of the meeting held, you will revise your proposed measures for confirming quality of completed work to further incorporate actions outlined by the Regional staff.

In accordance with 10 CFR 2.790 of the Commission's regulations, a copy of this letter and the enclosed meeting report will be placed in the NRC's Public Document Room. If this report contains any information that you or your contractors believe to be exempt from disclosure under 10 CFR 9.5(a)(4), it is necessary that you (a) notify this office by telephone within seven (7) days from the date of this letter of your intention to file a request for withholding; and (b) submit within twenty-five (25) days from the date of this letter a written application to this office to withhold such information. Section 2.790(b)(1) requires that any such application must be accompanied by an affidavit executed by the owner of the information which identifies the document or part sought to be withheld, and which contains a full statement of the reasons on the basis which it is claimed that the information should be withheld from public disclosure. This section further

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requires the statement to address with specificity the considerations listed in 10 CFR 2.790(b)(4). The information sought to be withheld shall be incorporated as far as possible into a separate part of the affidavit. If we do not hear from you in this regard within the specified periods noted above, a copy of this letter and the enclosed inspection report will be placed in the Public Document Room.

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

James G. Keppler
Director

Enclosure: IE Meeting
Report No. 50-358/81-16

cc w/encl:
J. R. Schott, Plant
Superintendent
DMB/Document Control Desk (RIDS)
Resident Inspector, RIII
Harold W. Kohn, Power
Siting Commission
Citizens Against a Radioactive
Environment
Helen W. Evans, State of Ohio

RIII	RIII	RIII	RIII	RIII	RIII	RIII
Barrett/so 5/26/81	Warnick	Spessard	Fiorelli	Norelius	Davis	Keppler

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

REGION III

Report No. 50-358/81-16

Docket No. 50-358

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

Facility Name: Wm. H. Zimmer Nuclear Power Station

Meeting Location: Region III Office in Glen Ellyn, IL

Meeting Date: April 30, 1981

P. C. Barrett

Prepared By: P. A. Barrett — May 27, 1981

R F Warnick

R. F. Warnick — May 27, 1981

G. Fiorelli

Approved By: G. Fiorelli, Chief — May 27, 1981
Reactor Projects Branch 2

Meeting Summary

Meeting on April 30, 1981 (Report No. 50-358/81-16)
Meeting Subject: Discussion of CG&E's proposed corrective action program for deficiencies identified to date in the current NRC investigation of the Zimmer project and the measures to be taken to assure acceptable quality of future activities.

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DETAILS

1. Persons In Attendance

Cincinnati Gas and Electric Company

W. D. Waymire, Manager, General Engineering
W. W. Schweirs, Manager, Quality Assurance
B. K. Culver, Manager, Generation Construction
M. F. Rulli, Nuclear Engineer
D. J. Frederick, Mechanical Engineer

Kaiser Engineers, Inc.

*E. V. Knox, Manager of Corporate Quality Assurance

Pullman Power Products

*E. F. Gerwin, Vice President, Quality Assurance
*T. Daniels, Director, Quality Assurance
*A. Bair, Manager, Quality Assurance

Sargent and Lundy

*M. E. Schuster, Assistant Head, Quality Control Division
*J. D. Rudins, Quality Control Engineer (Level III)

Nuclear Engineering Services

*G. T. Hamilton, Jr. Vice President
*R. L. Burns, General Manager, Construction Services
*L. Ludwig, Level III Certified Inspector

NUTECH

*R. F. Reedy, Chief Consultant
*D. Pitcairn, Chief Consultant

Hartford Steam Boiler Inspection

*R. H. Wertz, Manager, Authorized Nuclear Inspectors
*D. R. Young, Manager, Authorized Nuclear Inspectors

National Board of Boiler and Pressure Vessel Inspectors

*R. E. Jagger, Assistant Director of Inspection

State of Ohio

*D. M. Milan, Division Chief, Department of Industrial Relations

Nuclear Regulatory Commission

*H. W. Roberds, Vendor Inspector, RIV
*A. B. Davis, Deputy Director, RIII
R. F. Warnick, Chief, Reactor Projects Section 2B
*D. H. Danielson, Chief, Materials and Processes Section
P. A. Barrett, Principal Inspector, Zimmer
*K. D. Ward, Reactor Inspector
*J. F. Schapker, Reactor Inspector
F. T. Daniels, Senior Resident Inspector, Zimmer
*C. C. Williams, Chief, Plant Systems Section

*Attended only the first part of the meeting - a discussion of radiographs of welds when the penetrameter was not shimmed.

2. General

The meeting was held in the NRC Region III office in Glen Ellyn, Illinois, to discuss Cincinnati Gas and Electric Company's proposed corrective action program for the deficiencies identified to date in the current NRC investigation, and the additional measures to be taken to assure acceptable quality of future activities.

Deficiencies had been identified in the following areas: Structural welds, contractor QA program, traceability of materials, cable and weld inspections, nonconformances, FSAR commitments, design control of cable systems, corrective actions, audits, and design change control.

3. Discussion of Radiographs

The meeting began with a discussion of Paragraph IX-3334.4 of the ASME Code, Section III-1971, regarding the use of shims under the penetrameter when making weld radiographs. Following the discussion, the licensee indicated additional time would be needed to define CG&E's program for confirming quality of the welds documented on the radiographs in question.

4. Measures For Confirming Quality of Completed Work

The licensee presented a second draft of their proposed Quality Confirmation Program. The program requires extensive and timely inspections of plant hardware and complete detailed reviews of quality documentation. The inspection and review efforts will be performed by qualified personnel and closely monitored by CG&E's upper management. The efforts will be documented to show the root causes for the deficiencies; the extent and significance of the deficiencies considering the basic causes; and the corrective actions taken with regard to both the causes and the effects.

The proposed program was discussed in detail. NRC comments were given and they are to be factored into another draft that will be provided to the NRC for detailed review.

5. Immediate Action Letter

Licensee representatives discussed the status of the implementation of CG&E's program to assure the quality of ongoing and future work. The corrective measures are described in the NRC's Immediate Action Letter dated April 8, 1981 (copy attached). The status of each item is summarized below:

a. Concerning QA Staffing

CG&E has increased their site QA staff by employing 18 contract personnel on a temporary basis and by adding eight technicians or engineers from within the company. These are in addition to the existing staff of ten. Recruiting of permanent CG&E employees is continuing. The increased QA staff has or will have experience in non-destructive testing, metallurgy, welding, documentation, procedure reviews, quality assurance, and other technical areas.

b. Concerning Independence and Separation Between Kaiser Construction and Kaiser QA/QC

Kaiser Engineers, Inc. restructured its Corporate Organization April 1, 1981. The Manager of Corporate Quality Assurance now reports directly to the President. This change was made to reinforce the independence and separation of QA/QC from construction. This action was not a result of the NRC investigation or the Immediate Action Letter.

The site QA/QC organization is being restructured to strengthen the management and supervision of QA/QC activities. A Manager of Documentation position has been added to manage all quality related documents. He will be supported by three Document Engineers. Each of these engineers will be supported by a staff of engineers, technicians and clerks as required to review adequacy and accuracy of past documents and assemble required documents to confirm that the actual installation of equipment and materials conforms to the engineers drawings and specifications and NRC requirements. The Document Engineers will also be responsible for review and adequacy of documents covering ongoing construction activities prior to entry into the central document center.

The QA/QC Site Manager will be supported by an outside management consultant specialized in QA/QC.

QA/QC procedures are presently being reviewed to ensure that QA/QC requirements are clearly indicated. All Field Construction Procedures (FCP) presently included in Quality Assurance-Construction Methods Instruction (QACMI) are being removed and specific QA/QC requirements are being substituted for these FCPs.

c. Concerning QC Inspections

CG&E is conducting 100% reinspection of QC inspections conducted by Kaiser and other contractors by utilizing the increased QA

staff described in Item a. above. It was necessary for CG&E to stop some construction activities while inspection procedures were reviewed and CG&E inspectors were trained.

d. Concerning QC Inspection Procedures

The licensee has identified 106 procedures that are applicable to QC inspections. They have completed both the technical and the quality reviews of 17 of the 106 quality control procedures. Based on feedback received from CG&E and Kaiser QC inspectors who have used the 17 procedures, the licensee has made additional changes to some of the inspection procedures.

The construction activities controlled by the QC inspection procedures are not being performed until the QC inspection procedures are reviewed and approved.

e. Concerning Training

QA/QC personnel are receiving training on new procedures and practices resulting from the actions taken to fulfil the provisions of the Immediate Action Letter prior to implementation of the procedures. In addition, the procedures governing nonconformances, deficiencies, and problems are being revised to inform the identifying individuals of the resolution and the avenue of appeal should the identifying individual disagree with the adequacy of the resolution. The licensee indicated these procedures will be revised and approved, and training given prior to June 1, 1981.

f. Concerning Deviations From Codes And FSAR Statements

The utility reviewed their Project Procedures such as the design document change procedure and the nonconformance reporting procedure to make sure they contained adequate provisions for the identification and disposition of deviations from codes and FSAR statements. QC inspection procedures are being reviewed as described in Item d. and part of the review is to assure that deviations from codes and FSAR statements are identified and acted upon.

Organizations responsible for design of safety-related equipment will be audited to assure that they have sufficient procedures and training to identify deviations from codes and FSAR statements.

The FSAR is being re-reviewed for correctness and consistency with respect to the design. The review is scheduled for completion by July 1981.

A new project procedure will be written by Sargent and Lundy establishing the requirement to submit corrections to the FSAR as changes are identified. Formal submittal of the FSAR changes will be made at least semiannually.

Sargent and Lundy will revise their project instructions to include a requirement to identify changes or deviations from industry codes and standards when applied categorically in the design.

Sargent and Lundy is reviewing on a company generic basis the adequacy of the procedure which assures that design calculations are performed to control design deviations. This review is scheduled for completion by June 1, 1981.

g. Concerning the Voiding of Nonconformance Reports

The licensee has reviewed Quality Assurance-Construction Methods Instruction G-4, Nonconforming Material Control, governing nonconformance reporting. Action has been taken to change the procedure to assure the proper closeout and dispositioning of each nonconformance report. They will no longer be "Voided." CG&E must be in the review cycle regardless of how a nonconformance report is dispositioned.

The licensee has also spent approximately 100 man hours reviewing 739 voided nonconformance reports. The licensee estimates an additional four man months of efforts will be required to resolve or properly disposition each of these voided documents.

h. Concerning QA/QC Records

The transcribing of information from the KEI-2 form to the KEI-1 form has been stopped.

All Kaiser QC records were moved to a protected, centralized location at the Zimmer Site on April 7, 1981. These records will remain under the care, custody, and control of CG&E Quality Assurance Department.

A program has been established to provide more effective and efficient management of QA/QC records. The program will include the following:

(1) Improve the physical facilities for record handling and storage.

(2) Establish procedures that provide for improved receipt, control and maintenance of QA documentation.

(3) Involve CG&E and HJK interactively for improved communication, surveillance, audit and control of records.

(4) Develop commitment control program to effectively "Close the loop."

(5) Staff this activity sufficiently to allow orderly progress in a well controlled environment.

i. Concerning Conditions Adverse to Quality

CG&E took action on April 7, 1981 to assure receipt of a copy of each nonconformance report and each surveillance report prepared. A procedure requiring CG&E management to perform a 100% review of nonconformance reports and surveillance reports will be developed.

j. Concerning the Audit Program

The audit schedule has been reviewed and revised to include technical audits. The number of audits scheduled per month is a minimum of five and a maximum of six. The new audit schedule has been increased in numbers by approximately 50%. The licensee plans to have a minimum of six qualified auditors.

Under development is another audit schedule that will address required audits for suppliers who are still supplying essential materials for the Zimmer project.

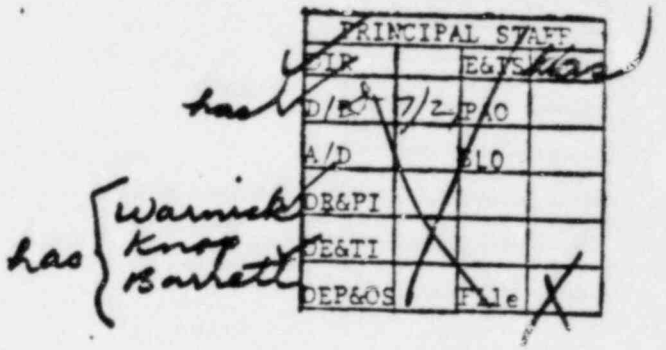
On May 4, 1981, a review shall be started of audits conducted at Sargent and Lundy, CG&E Electrical Production Department, CG&E Electric Operating Test Department General Electric, and Kaiser to determine if all QA program aspects were covered.

Enclosure: Immediate Action
Ltr dtd 4/8/81, to CG&E from
J. G. Keppler

GOVERNMENT ACCOUNTABILITY PROJECT
Institute for Policy Studies
901 Que Street, N.W., Washington, D.C. 20009
(202) 234-9382

A-43 Barrett

July 22, 1981



Mr. James Keppler
Director, Region III
Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

Thank you for this opportunity to assist in your investigation of the Zimmer nuclear power plant by submitting a list of components to be included in your upcoming independent tests of the plant. I realize that you are taking a relatively rare step by extending the investigation to include these tests, instead of the normal "walking tour and paperwork review" approach. Your initiative demonstrates that Mr. Applegate was right when he predicted that his charges represent only the tip of the iceberg of safety problems at Zimmer.

Please also excuse my delay in responding. GAP has had pressing deadlines on a series of cases, and Mr. Streator informed me last month that there would be a time lag before the tests began.

You may find it helpful to understand the background for these recommendations. When Mr. Streator invited GAP's assistance, I contacted all of the previous witnesses and groups who have helped our probe. I asked their assistance in making their criticisms specific enough so that you could conduct outside tests on individual components. I also asked that each source offer to pass along evidence from other workers who may be nervous about speaking with me directly.

I am pleased to report that your offer of working with GAP produced a surprising amount of new information. Many workers at Zimmer are reluctant to speak out because of cynicism and fear of retaliation. As one former Zimmer employee explained, the day he made disclosures to NRC inspectors he was relieved of all duties. He was fired within a few days. His sacrifice produced a "walk-through" by inspectors who did not appear to understand the technical nature of his charges. Nothing was accomplished, and the utility threatened to sue him after he was fired. Every public whistleblower at Zimmer has been attacked viciously by the utility at CG&E, so workers are afraid to talk. They responded to your creative initiative, however, and several new witnesses agreed to speak with your investigators on an anonymous basis.

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The witnesses provided the data to prepare a list of 28 parts of the plant that should be tested. In several instances, the information was still too general to identify specifics, so I contacted scientific and engineering experts to identify the most vulnerable components that the generalized allegations could be describing. The results follow with as much specific information as I received:

I. CONCRETE

1) Reinforcement bars and concrete in the lining of the plant's suppression pool.

2) Concrete and foundation for the cooling tower support structure, to test for sinking.

3) Quality of the concrete, specifically for three pours made during January and February, 1981, and generally through spot checks for post-1977 pours. The January and February, 1981 powers were approximately 300-400 yard jobs with holes 2 feet by 3 feet. Witnesses can describe where to locate the relevant records for the following problems --

a) The pours needed to be done within an hour after leaving the mixing plant to maintain acceptable strength. But due to transportation difficulties, it took up to four hours before the pours were completed.

b) Large quantities of water were added to concrete to stretch it and help it to flow due to hardening during the long time lags.

c) Due to leaky valves on the trucks in the January and February runs, still more water may have mixed with the concrete inadvertently.

d) The chutes were not clean on the trucks.

e) During a labor dispute the concrete company hired 48 new employees off the street, many whom were not experienced mixer-drivers. Some had never even driven a truck before. As a result, they might mistakenly mix an improper amount of water into the concrete, or obey an order not to record extra water added improperly.

f) The Kaiser inspector would only look at the first load and then leave the inspection ticket for one of the mixer-drivers to complete.

II. WELDS

4) Prefabricated welds on the Residue Heat system. The relevant witness will share more specifics with your inspectors.

5) Prefabricated welds on the large bore piping.

6) Welds done on the C level of the plant's suppression pool. The vertical and overhead welds are especially suspect. The source also discussed the failure to inspect these welds before they were grounded. He explained how unqualified welders who couldn't pass the tests were falsely certified on the basis of test coupons performed by others. He can identify specific welders and has drawings and photographs demonstrating how identification markings for welds were altered on test plates to accomplish the coupon-switching scheme.*

7) Prefabricated welds in the main steam relief system piping.

III. CONTAINMENT

8) Leak tightness of the wetwell/drywell vacuum breakers in the primary containment system. The vacuum breakers prevent fluid from getting into the drywell of the containment.

9) Downcomers that discharge water into the wetwell of the containment system.

10) Lining of the containment suppression pool for bowing of the plates and quality of the metal.

11) Vibrations around the suppression pool. There should be tests for pressure vessel pedestal acceleration to insure that pressure waves from the suppression pool do not lead

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* This source added a tip for future NRC investigators. He stated that whenever NRC inspectors entered the premises for unannounced inspections, the front guards would communicate that the NRC was in the plant. Hurried efforts followed to give the plant a shipshape appearance for the walking tour inspections.

to unsafe vibrations above the seismic design basis at Zimmer for vessel pedestal support. The tests can be conducted by mounting accelerometers during a test run and opening the safety relief valves to measure how the blowdown affects vibrations.

IV. ELECTRICAL SYSTEM

12) Sealants at the grids where electrical cables penetrate walls. The witness claimed that excessive cables have prevented proper installation of sealant at grids where cables penetrate the walls, resulting in damaged cables and installation.

13) Electrical penetration seals around conductor rods and nozzles for electrical power and instrumentation cables which breach the plant's containment. The significance is that inadequate epoxy sealant results in gross leakage paths and inadequate electrical insulation of the penetrations. As a result, the containment could be breached and control cables shorted out. Experts have described this flaw as the weak link in Mark II containment systems.

14) Power drawers at supervisory locations for the electrical system.

15) Vertical cable trays from the top of the plant down to the containment area. The trays should be tested for questionable manual welds and overloading. The witness, Mr. Ed Hofstadter, has a diagram to assist whomever conducts the tests.

V. CONTROL RODS, PUMPS AND VALVES

16) Environmental qualifications of heat exchangers to see if the tubes can withstand accident conditions.

17) Rod worth tests to check whether boron has been lost from control rods.

18) Safeguards against control rod drop accidents (where the rod becomes disconnected and remains stuck in the inserted position after the control rod drive is withdrawn). In particular, the inspectors should test whether Zimmer has Rod Sequence Control as a patch.

19) Control rod drive pump.

20) Primary recirculation pumps.

21) Environmental qualifications test under accident conditions for both valves and load minimizers on safety relief valves. These components control pressure vessel pedestal acceleration (see #11, supra), and stuck valves can lead to blowdowns into the suppression pool.

22) The Nash Condensor used on the Terry Turbine. Full tests should be conducted for core shifts that weaken its ability to withstand accidents. If the condensor cracks during the stress of an accident, the safe shutdown of the reactor would be threatened. The witness for this item, Mr. Vic Griffin, has drawings and photographs to illustrate the targets for the tests.

VI. PIPING

23) Feedwater spargers -- the large, heavy-walled pipes designed to distribute fluid uniformly through vessels.

24) Vessel safe ends and attachments to large and small bore piping systems.

VII. MISCELLANEOUS COMPONENTS

25) Plates on the seventh floor fuel pool, to test whether they are stainless steel or cheap carbon steel plates covered with a thin layer of stainless steel.

26) Steel plates, shapes, I-beams and channels purchased from outside vendors for critical areas. Tests should be conducted on parts that have been identified in Inspection Reports but not in NRC Nonconformance Reports. The witness, Mr. Vic Griffin, can tell NRC representatives how to locate the suspect components.

27) Seismic hangars in the spreader room, as well as redundant conduit systems on hangars.

28) Instrument panels at 570 foot elevation. The witness stated that the panels have inadequate drains, which should be checked. The panels themselves also should be tested and calibrated.

It is important to emphasize that this list is illustrative, rather than exhaustive, of the Zimmer components that should be tested. Witnesses told GAP that even more employees complain about safety defects at Zimmer than are willing to cooperate with your current investigation.

Further, the NRC inspection reports cited in GAP's May 11, 1981 petition identified numerous repeat noncompliances on safety components. Those items are particularly ripe for testing. It is hard to underestimate the potential extent of poor workmanship at Zimmer. For example, NRC inspectors recently have found the debris from a drinking session and in another case a sleeping worker, littering up the cable trays at the nuclear plant!

In light of this contruction sloppiness and your own preliminary oral confirmation for some of Mr. Applegate's original charges, I am disturbed at several aspects of the current investigation. Since you have told Mr. Applegate that the first NRC report on his charges may be released at the end of July, I am especially concerned that the groundrules we established in February will be respected.

First, several witnesses Mr. Applegate referred to you report that NRC investigators still have not contacted them. At the February meeting, you explicitly promised to meet with all witnesses referred by Mr. Applegate. In my opinion, the witnesses involved should be the starting point for your investigation, rather than apparently forgotten just a few weeks before release of your first report. For example, Mr. Vic Griffin was of invaluable assistance in helping to prepare this list and he can identify the records that will permit your investigators to expand greatly on GAP's suggestions. Mr. Tom Martin's detailed disclosures on problems with the control rods prophesized eventual Stop Work orders and Immediate Action letters this year. He remains willing to speak with the NRC. We at GAP do not understand why your team has overlooked these witnesses.

Second, your investigators reported to me that Mr. Aldredge, the President of Peabody Magnaflux, now claims that Mr. Applegate's literal transcription of their conversation is accurate. But Aldredge goes on to state that Applegate misunderstood. That explanation is hard to swallow, since Mr. Applegate did most of the talking and Aldredge responded, "Well, you're right." It is also hard to explain how Applegate could have misunderstood Aldredge's explanation why he couldn't admit the retaliatory dismissal publicly: "When you work for a closed industry, it is very tight. . .. I'll be off every major fabricator within 30 days. The computer all of a sudden won't have us in the bidding bank."

Further, your staff suggested that I reread the Aldredge transcript from the perspective that Applegate was a friendly Cincinnati Gas and Electric ("CG&E") representative contacting the leader of a company thrown off the job for poor work. Quite frankly, that suggestion raised questions whether your staff understood the context of the call. Mr. Applegate had long been released from CG&E's service when he called Aldredge. Mr. Applegate made it clear during the conversation that he was investigating the utility, not representing them.

The Aldredge tapes are a key aspect to Mr. Applegate's charges that the utility has covered up safety problems and even engaged in institutional retaliation against PM, the radiograph company which "blew the whistle" by doing its job and reporting x-ray results. The Aldredge transcript has been examined from every possible angle, but none of the twisting has been able to explain away the obvious: He agreed with Mr. Applegate's charges in private but could not admit to that position publicly due to fear of blackballing. If your staff disagrees with this conclusion, I urge you to consider my offer to jointly interview Mr. Aldredge with an NRC representative. I will be in Houston soon and could participate without expense to the NRC.

Finally, I was concerned that your staff was reassured that foul play may not have occurred in the PM trailer break-in, which they confirmed occurred. They explained that the PM trailer was broken into frequently, since it had the only toilet on that part of the construction site.

The explanation is considerably more shocking than the original charge. This explanation confirms that -- for want of an outdoor portable toilet -- there is virtually no security for key safety records. NRC reports have blasted the licensee (and PM indirectly) for x-ray discrepancies and missing radiographs. It is not surprising that the x-ray records were a mess, if workers frequently broke into the PM trailer "to go to the bathroom."

These criticisms and suggestions are offered in the spirit of cooperation you have observed throughout the renewed Zimmer investigation. Both GAP and Mr. Applegate wish that your reports will resolve the lingering mystery about safety problems at Zimmer, rather than sparking a new conflict about the NRC investigation. As a result, it is important to share these concerns with you before your reports begin to be released.

I tentatively plan to be in Chicago on Friday, July 24 and would be glad to meet with you or a representative. At that time, I can answer questions you may have on our list of suggested

components for testing, discuss the above concerns, and turn in the paperwork for my earlier trip to Chicago.

Sincerely,

Thomas Devine
Associate Director

/kmp

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

Barrett
A-44

APR 23 1981

Docket No. 50-358

Cincinnati Gas and Electric
Company
ATTN: Mr. Earl A. Borgmann
Vice President
Engineering Services
and Electric Production
139 East 4th Street
Cincinnati, OH 45201

Gentlemen:

This letter confirms the phone conversation of April 16, 1981 between Mr. W. W. Schweirs and Mr. W. D. Waymire of your staff and Mr. R. F. Warnick, Mr. K. D. Ward, and Mr. P. A. Barrett of this office. During the conversation, this office's interpretation of two nondestructive examination (NDE) concerns relating to the April 8, 1981 Immediate Action Letter, was stated as follows:

(1) CG&E is required to perform an additional review, after April 8, 1981, of all QC procedures which include NDE procedures. This additional review will be performed by qualified/certified personnel from an organization other than the organization responsible for the activities covered by the procedures.

(2) CG&E or CG&E's NDE contractor is required to provide only one qualified/certified individual to verify the set-up and performance of radiography. This may be the same individual who performs the radiography. CG&E is required to provide a second independent interpretation of all radiographs made during the effective period of the applicable IAL requirement.

APR 23 1981

If you have any questions regarding these matters, please feel free to call me.

Sincerely,

James G. Keppler
Director

cc: J. R. Schott, Plant Superintendent
Central Files
Reproduction Unit NRC 20b
AEOD
Resident Inspector, RIII
PDR
Local PDR
NSIC
TIC
Harold W. Kohn, Power Siting Commission
Citizens Against a Radioactive Environment
Helen W. Evans, State of Ohio

RIII	RIII	RIII	RIII	RIII
PB	PB for	DW	D	D
Barrett/jp	Ward	Warnick	Davis	for Keppler
4/22/81			4/22	4/22

A-45

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

JUL 24 1981

MEMORANDUM FOR: C. E. Norelius, Director, Division of Engineering and Technical Inspection
R. L. Spessard, Director, Division of Resident and Project Inspection
J. F. Streeter, Acting Director, Enforcement and Investigation Staff

FROM: A. Bert Davis, Deputy Director

SUBJECT: MEETING TO DISCUSS ZIMMER INDEPENDENT VERIFICATIONS, JULY 14, 1981

Reference: Memorandum dated May 12, 1981 from A. B. Davis, Title: Independent Verifications at Zimmer

A meeting was held to discuss the status of the independent verifications at Zimmer and to further elaborate on our plans for these verifications. In attendance were A. B. Davis, C. E. Norelius, R. F. Warnick, P. A. Barrett, R. L. Spessard and D. H. Danielson.

The following conclusions/actions resulted from this meeting:

1. DRPI will develop an action plan which will define in detail, schedule, and indicate personnel/organization assignments for completion of the independent verifications and for all inspection efforts related to the licensee's Quality Confirmation Program and the Immediate Action Letter followup.

2. For Item 1 of the referenced memorandum, DRPI will determine the licensee's schedule for inspection of structural beam welds and in conjunction with DETI personnel determine the welds which should be independently verified by RIII personnel. Based on this schedule and weld selection, DETI will schedule and perform the independent verifications.

3. For Item 2 of the referenced memorandum, DRPI will select the systems for which welds will be independently verified. DRPI, in conjunction with DETI personnel, will then select the welds which will be based upon the total population in the combined systems and will be sufficient in number to provide 95% confidence/95% reliability. The sample selection will be made to assure that welds made by a variety of welders are examined. The sample selected will be biased toward field welding, but will include some shop welds. DRPI is responsible for obtaining the contractor who will perform the radiographs.

4. For Item 3 of the referenced memorandum, DETI will prepare an evaluation of the suitability of the Texas Nuclear Alloy Analyzer for resolving material and weld metal traceability/composition questions. If this evaluation requires a trip to Texas Nuclear to assure that the evaluation is correct, such a trip is authorized.

5. For Item 4 of the referenced memorandum, DRPI will determine the licensee's schedule for evaluating socket weld fitups. Based on this schedule, DRPI in conjunction with DETI personnel, will select the socket welds to be independently verified by RIII personnel. DETI personnel will then schedule and perform the independent verifications or assure that the Resident Inspector is adequately trained to do so. For those observations of licensees verification of socket welds, it is acceptable to determine that the licensee is performing this properly by unannounced observation of a sample of the licensee's verifications.

6. For Item 5 of the referenced memorandum, it will be handled in the same manner as Item 2 above.

If you have any questions or comments on the information provided above, please contact me.

A. Bert Davis
Deputy Director

cc: J. H. Sniezek
J. B. Anderson
R. F. Warnick
P. A. Barrett
J. B. McCarten
R. L. Spessard