

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION



Before the Atomic Safety and Licensing Board

In the Matter of)
)
The Cincinnati Gas & Electric) Docket No. 50-358
Company, et al.)
)
(Wm. H. Zimmer Nuclear Power)
Station))

MVPP's MOTION FOR LEAVE
TO FILE NEW CONTENTIONS

Pursuant to 10 C.F.R. 2.714 and based on recent Nuclear Regulatory Commission ("NRC") reports and testimony; as well as affidavits from witnesses and documentation not previously available on the public record, Miami Valley Power Project ("MVPP") moves for the admission of eight new contentions on two fundamental issues yet to be considered by the Atomic Safety and Licensing Board ("Board" or "ASLB") -- (1) the serious quality assurance breakdown with broad repercussions at Zimmer; and (2) the lack of corporate character and competence of the Applicant Cincinnati Gas and Electric ("CG&E") to run a nuclear plant.

I. HISTORY OF BREAKDOWN OF
QUALITY ASSURANCE PROGRAM

The NRC reports supporting intervenor's new contentions include the Special Inquiry re: Adequacy of IE Investigation 50-358/80-9 at the William H. Zimmer Nuclear Power Plant, Office

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of Inspector and Auditor, U.S. Nuclear Regulatory Commission (Aug. 7, 1981) ("OIA Report"), the IE Report No. 50-358/81-13 (Nov. 2, 1981) ("IE Report"), and other reports issued by the NRC Office of Inspection and Enforcement. The OIA and IE Reports were both released in November 1981. Each report contained significant findings after investigations into misconduct at Zimmer and ordered major reforms.

The OIA Report evaluated NRC Region III's ("RIII") own 1980 investigative response to allegations raised by "whistle-blower" Thomas Applegate. OIA concluded,

Clearly, IE Investigation No. 50-358/80-9 did not satisfy ... generally accepted investigative standards of other government agencies.... Fundamentals basic to all investigations were simply not observed in this instance.

(October 9, 1981 memorandum from James J. Cummings to Nunzio J. Palladino, attached and incorporated herein as Exhibit 1). On November 19, 1981 Chairman Palladino wrote to Congressman Morris Udall (D.-Ariz.): "I agree with OIA's finding that OIE's original investigation should have been more comprehensive. The Commission is ordering the necessary internal reforms.... [When] a full investigation is called for, as for example in the case of possible criminal conduct, NRC needs to conduct that investigation consistent with fundamental standards that govern investigations by any agency." Palladino letter is attached and incorporated herein as Exhibit 2.

The IE Report was equally significant. RIII presented this report on November 24, 1982 as the interim findings of a massive reinvestigation into the allegations of Mr. Applegate

and others. The IE Report identified 40 new noncompliances based on nearly 1000 examples that involved 12 of the 18 criteria contained in 10 CFR Part 50, Appendix B, which establishes the requirements for an adequate quality assurance program. The findings of the IE Report are attached with a November 24, 1981 cover letter as Exhibit 3.

The NRC's corrective action program is best understood in light of the Commission's assessment of the causes for the QA breakdown. In the November 24, 1981 cover letter to CG&E President William Dickhoner, NRC I&E Director Richard DeYoung explained, "The cause of the breakdown was your failure to exercise adequate oversight and control of your principal contractors to whom you had delegated the work of establishing and executing quality assurance program" (see Exhibit 3).

The NRC proposed a \$200,000 fine, the largest in history for a nuclear power plant under construction. The basis of the fine was as follows - (1) \$50,000 for false QA records; (2) \$50,000 for harassment of and retaliation taken against QC inspectors; and \$100,000 for failure adequately to document and implement the quality assurance program at Zimmer. On February 26, 1982 CG&E paid the fine.

In addition to this fine, the NRC required completion of a Quality Confirmation Program ("QCP"). RIII originally ordered the QCP in an April 8, 1981 Immediate Action Letter. CG&E proposed and administered the QCP on a day-to-day basis, with RIII approval. In publicly describing the QCP, RIII Director James Keppler stated that it would be a 100% reinspection of

safety systems. HE explained, "'All' means 100%," ... "no more spot checks." (A November 21, 1981 Cincinnati Enquirer article is attached as Exhibit 4.)

In releasing the IE Report, Mr. Keppler characterized the Quality Assurance Program at Zimmer as "totally out of control." (The relevant news article is enclosed as Exhibit 5.) Further, in March 1981 congressional testimony, Executive Director for Operations William Dircks identified Zimmer as one of five nuclear plants under construction nationally that have "serious quality assurance breakdowns with broad repercussions." Testimony of Chairman Palladino and Mr. Dirck is attached as Exhibit 6.

It appeared that the regulatory system had identified and taken adequate corrective action against fundamental quality abuses at Zimmer. Recently, however, MVPP has learned that -- (1) the OIA and IE Reports revealed only a small portion of the QA breakdown and resulting hardware damage; (2) the causes and responsibility for the QA breakdown rest squarely with high-level CG&E management; and (3) neither CG&E nor RIII have followed through with adequate corrective action. As a result, the RIII-imposed Quality Confirmation Program may further exacerbate the previous QA breakdown, while providing the public with false reassurances that a "final solution" has been achieved at Zimmer.

Throughout these developments the NRC staff has sat silently on the sidelines. In recommending an operating license the NRC staff failed to mention the OIA and IE reports, which were

a topic at numerous congressional hearings and received close scrutiny by the Commissioners. Before making this recommendation the staff did not even wait for RIII to finish its reinvestigation sometime between August and September 1982.

The staff's silence may have been reasonable had RIII and CG&E in fact fully disclosed and corrected the QA breakdown. In light of newly discovered evidence, however, MVPP raises the contentions summarized below. These issues must be resolved if the Zimmer plant is to operate safely. If the NRC grants an operating license without fully considering these challenges it would be responsible for tolerating an unacceptable risk to public health and safety.

II. MVPP's PROPOSED NEW CONTENTIONS

MVPP submits the following additional contentions for litigation in this phase of the operating license proceedings:

1. CG&E and Kaiser Engineering, Inc. ("KEI") have failed to maintain sufficient quality assurance controls to ensure that the as-built condition of the plant reflects the final version of a design that complies with all applicable regulations and requirements for public health and safety, as required by 10 CFR Part 50, Appendix B.

To illustrate, installation has proceeded on the basis of construction aids rather than final drawings approved by the architect/engineer, Sargent and Lundy ("S&L"). Further, design revisions have not been fully incorporated and distributed to all relevant

construction and QA personnel. As a result, the as-built condition of the plant does not match the approved final design. Even if the specified equipment were installed in the designated locations, however, S&L approved erroneous Design Document Changes ("DDC").

The basis for this contention includes IE Report §§ 4, 7, and Attachment A; affidavits from witnesses about the suppression pool, large-bore and small-bore piping, and hangers in the primary containment; interviews with current or former employees willing to testify; and internal CG&E and KEI documents.

2. CG&E and KEI have failed to maintain adequate material traceability to identify and document the history of all material, parts, components and welds, as required by 10 CFR Part 50, Appendix B, Criterion VIII.

To illustrate, it is impossible to identify and trace the history of items due to flaws such as inaccurate or overgeneralized blueprints; installation damage to materials; missing, incomplete, or unreliable records; and lack of identifying markings on equipment.

As a result, there exists little basis to rely on the existing traceability system. Guessing and unproven assumptions undermine the traceability records

that do exist.

The basis for this contention includes IE Report §§ 4 - 7 ; affidavits that demonstrate that methods are inadequate to identify and control large and small bore piping, flanges, and welds, as illustrations that prove a breakdown throughout the plant; examples supplied by current or former employees; and internal CG&E and KEI documents.

3. CG&E and KEI have failed to maintain an adequate quality assurance program for vendor purchases, as required by 10 CFR Part 50, Appendix B, Criterion VII.

The QA breakdown for vendor purchases has been systematic, from selection of individual vendors to toleration of hardware defects uncovered after installation. To illustrate, vendors have been accepted for the approved vendors list on the most superficial basis, such as unsupported memoranda from CG&E and/or KEI management, or a review of vendor QA manuals unsupported by on-site surveys. As a result, unqualified vendors have been placed on the Approved Vendors List ("AVL"). Once on the AVL list, it has been unreasonably difficult to remove the vendors despite poor performance.

CG&E has improperly made vendor purchases and then directed KEI to assume quality assurance

responsibility for the purchases. KEI receipt inspection was improperly restricted to a check for transit damage and completeness. CG&E denied permission to KEI to conduct necessary source inspections of vendors. CG&E and KEI did not maintain reliable, comprehensive identification records and documentation packages, which resulted in uncertain traceability.

After receiving vendor purchases, the items frequently were upgraded from "non-essential" to "essential" status. As a result, items were installed in critical safety systems without first meeting the corresponding safety requirements. When QA/QC inspectors found defects in vendor hardware, they were instructed not to write up Nonconformance Reports ("NR").

The vendor QA breakdown spilled over into the rest of the plant. Inadequate traceability has led to confusion over which items are vendor purchases and which are not. Vendor purchases at Zimmer are not covered by on-site QA inspectors. As a result, in a significant number of cases items fabricated on-site have been erroneously defined-out of the CG&E and KEI QA systems.

The flaws described above are illustrative, not exhaustive. This contention applies to safety systems throughout the plant. Tens of thousands of purchase

orders are questionable.

The basis for the contention includes IE Report \$7; affidavits from current or former plant employees; interviews with current and former plant employees willing to testify; and internal CG&E and KEI documents.

4. CG&E and Kaiser have failed to maintain an adequate quality assurance program, to identify and correct construction deficiencies, as required by 10 CFR Part 50, Appendix B, Criterion XVI. This contention challenges the structure and premises of the QA program at Zimmer, rather than specific inspection hardware deficiencies.

To illustrate, traditionally there has not been a comprehensive quality assurance manual for either CG&E and KEI QA/QC personnel. Training procedures for QA/QC personnel have been inadequate, and some classes were taught by instructors with few qualifications. Until establishment of the Quality Confirmation Program, the KEI QA/QC program was severely understaff at CG&E's direction. Mandatory inspections did not occur of safety-related items. Necessary audits were not conducted for unjustifiable long periods. CG&E and KEI management have not always made good faith efforts to comply with audit recommendations. Corrective action procedures for identified construction

defects have looked to correct QA defects prospectively while failing to reinspect for the damage that may have been previously overlooked. Underpinning all these structural flaws has been the core of the QA breakdown at Zimmer -- the lack of independence for QA/QC departments and personnel from their construction counterparts, in both the CG&E and KEI organizations. The absence of even a minimally acceptable QA program casts a shadow over all safety-related systems at Zimmer.

The basis for this contention includes the congressional testimony and public statements of NRC officials, Exhibits 1-6; IE Report §§ 4-7 and Attachment A; affidavits from and interviews with current and former employees; and internal CG&E and KEI documents.

5. CG&E and KEI officials failed to maintain adequate controls to process and respond to internal Nonconformance Reports identifying violations of internal or government requirements. To illustrate the scope of the problem, the IE Report analyzed in-depth 26 reports of nonconforming conditions out of over 1000 that were voided between 1978 and 1981. The IE Report concluded that 25 out of the 26 reports were voided erroneously. Potentially thousands of NR's have been improperly voided or discarded under the QA program.

To illustrate, KEI QA inspectors in practice have been ordered not to write NR's on procedural or "software" deficiencies. A convoluted system of multiple approvals

makes it unreasonably difficult to issue NR's. CG&E has developed a bewildering system of reports on non-conforming conditions including Surveillance Reports, Inspection Reports, Corrective Action Recommendations ("CAR") and In-Process Inspection Deficiency Reports, punch lists and exception lists. These QA report categories avoid the accountability and NRC oversight of the NR system, and thus violate Appendix B.

Many NR's have been eliminated entirely from the QA system. For example, NR's have been voided as "not issued," and so expunged from the QA records' system. In a significant number of cases, NR's voided as "Not Issued" cannot now be found.

Due to this high ratio of improperly voided NR's Zimmer contains an unknown number of dormant, identified deficiencies which were found and later lost or dispositioned without correcting the identified defects. Any decision to license Zimmer is premature until all QA reports on nonconforming conditions are located, entered into the NR system and properly dispositioned through adequate corrective action.

The basis for this contention includes IE Report SS 4-7; the OIA Report; affidavits and interviews with current and former Zimmer employee witnesses; and internal CG&E and KEI documents.

6. CG&E and KEI have engaged in illegal retaliation against QA/QC personnel who attempt diligently to

perform their duties or who disclose QA problems to the NRC. This retaliation violates 10 CFR Parts 19 and Part 50, Appendix B, Criterion I. Harassment occurred on all levels. Both CG&E and KEI openly tried to discourage or neutralize QA/QC initiatives, internal disclosures through this retaliation, or employee disclosures to the NRC.

To illustrate, construction personnel on at least one occasion physically attacked, and repeatedly intimidated QA inspectors. QC personnel attempting to conduct inspections were doused with buckets of water and scattered with high-pressure fire hoses. Management officials did not pursue and discipline the offenders, nor did they deter repeat harassment.

KEI top management berated QC inspectors and supervisors for writing up nonconformances. Both CG&E and KEI management retaliated against employees who pursued significant corrective action programs for QA violations, or disclosed serious violations to the NRC during its 1981 reinvestigation. These reprisals included dismissal, demotions and job transfers.

Employees who retracted or modified their NRC statements, after interviews with CG&E counsel, kept their supervisory positions. This pattern stretches from the mid-1970's to 1982.

CG&E removed Butler Services, Inc. and Peabody Magnaflux, Inc., from responsibilities for QC inspection

and radiographs, respectively, in an effort to destroy the independence of this portion of the QA program.

On both the individual and institutional level, reprisal victims were replaced with substitutes whose qualifications and commitments to sound QA practices are open to serious challenge. These examples are illustrative, not exhaustive, of an environment where it takes repeated acts of courage for QA/QC personnel to do their jobs right. QC inspections and findings that arose out of fear and pressure are an inadequate basis to satisfy public health and safety requirements.

The basis for this contention includes IE Report §§ 4 and 6; CG&E letter concerning fine, attached and incorporated herein as exhibit 7; affidavits from and interviews with witnesses; and additional documents.

7. The CG&E Quality Confirmation Program ("QCP") is inadequate to mitigate or remedy the serious consequences of QA breakdown at Zimmer. On April 8, 1981 RIII imposed on the Zimmer QA program the QCP as a structural reform intended to neutralize the previous abuses. CG&E obtained NRC approval for the QCP and administers it on an ongoing basis. The ACP has led to a welcome increase of QA personnel. However, the QCP is fundamentally deficient in that its scope is too narrow and its implementation spotty.

To illustrate, the QCP plan presented as Exhibit 17 of the IE Report gives broad discretion to CG&E, instead of clearly defined specific duties. This fails

to guarantee a full solution for a quality assurance program "totally out of control."

To illustrate further, the QCP is only a review and sampling program of individual deficiencies, not a 100-percent reinspection of all safety-related systems. CG&E has the discretion to select small samples for reinspections that may give a clean bill of health to large safety systems which remain shot through with structural deficiencies.

The QCP applies only to deficiencies identified by the NRC. New information obtained by MVPP evidences potential QA and hardware problems ranging far beyond those disclosed in the IE Report and demonstrates the need for a 100-percent reinspection of all safety equipment installed on-site. A review based on the public record to date and the even smaller sampling reinspection program is a hopelessly inadequate response to a near-decade of substandard quality control at Zimmer.

This list does not claim to be comprehensive, but represents merely a few structural flaws in the QCP based on information currently available to MVPP. Additional weaknesses will be identified as the details of the QCP are made available.

The basis for this contention includes IE Report Exhibit 17; conversations with RIII management officials;

and affidavits and interviews with witnesses willing to testify.

8. CG&E lacks the necessary character and competence to operate a nuclear power plant. In Houston Lighting and Power Company (South Texas Project, Units 1 and 2), CC1-80-32, 12 NRC 281 (1980), the Commission held that abdication of responsibility for construction to its contractor or abdication of knowledge about construction activities by a prospective licensee is an independent, sufficient basis to deny an operating license: "In large part, decisions about licenses are predictive in nature, and the Commission cannot ignore abdication of responsibility or abdication of knowledge by a license applicant when it is called upon to decide if a license for a nuclear facility should be granted." 12 NRC at 291.

The most charitable explanation for the massive QA breakdown is that CG&E abdicated its duty to devise a technically competent QA program and to monitor that program. This generous assessment of CG&E's performance during the construction phase is consistent with the conclusions of the IE Report, and certainly sufficient to deny Applicant an operating license.

In fact, CG&E has been well aware of KEI's QA program. CG&E management made key decisions about the QA program and has had a cominant role since at least 1974. (Examples of internal memoranda confirming this relationship are attached and incorporated herein as Exhibit 8.) On the public record, the IE Report references over a dozen examples of CG&E knowledge of or participation in activities covered by the RIII investigation, despite its conclusions. (See, e.g., IE Report Exhibits 4, 5 and 52, attached and incorporated herein as Exhibit 9 by reference.) According to Exhibit 52 of the IE Report, former CG&E QA manager William Schwiers said that CG&E suffers the same lack of independence from construction as Kaiser. He also admitted that CG&E management was responsible for refusing to increase KEI's requests for additional QA/QC personnel.

CG&E also denied Kaiser authorization to spend funds for adequate QA staff and training, and the CG&E construction department generally dominated the Applicant's QA program. CG&E has adopted the same philosophy the NRC attributed ti KEI -- the perspective that QA activities are an unwanted impediment to construction. CG&E made the key decisions in the

construction. CG&E made the key decisions in the QA program for vendor purchases, on occasion despite objections from Kaiser's QA personnel. CG&E mishandled QA/QC records and sustained clearly inadequate QA procedures equivalent to those of KEI.

CG&E activities in other context raise serious concerns about its character. A comparison of the public record, and CG&E correspondence with a church shareholder organization of American Electric Power, a co-owner of Zimmer, is illustrative. An attached CG&E letter sent to the shareholder organization is undeniably inaccurate in its description of the RIII reinvestigation, despite the NRC's prior notice to CG&E of serious deficiencies. The NRC's "early" findings were so significant that the Quality Confirmation Program orders instituted on April 8, 1981, over 7 months before the IE Report was released. (Compare CG&E letter of April 3, 1981 with the IE Report at 155-57, attached and incorporated herein as Exhibit 10.)

Similarly, in November and December 1981, CG&E representatives publicly made blanket statements denying hardware problems in general and any single defective weld in particular, despite a previous notice of NRC laboratory tests that demonstrated these deficiencies. Compare IE Report No. 50-358/81-27 at 7-8, with a November 26, 1981 news article, attached and enclosed herein as Exhibit 11. On November 16, 10 days before

CG&E President Dickhoner's assertions of a clean hardware bill of health, the NRC informed the Applicant, inter alia:

The visual examination of piping welds that were conducted revealed six welds which exceeded the ASME Code allowable reinforcement height on the outside surface of the weld.

For each of the above inaccurate self-serving statements by CG&E, evidence was not publicly available at that time to refute the Applicant's misrepresentations.

In Houston Power and Lighting, supra, the Commission emphasized that false statements to the NRC, and particularly intentional false statements, are grounds to deny an operating license. There is evidence that records relating to such basic QA defects as material traceability and personnel qualifications were intentionally falsified. Similarly the OIA Report disclosed that construction crews made informal, undocumented repairs on welds. These repairs were made concurrently with the NRC inspectors' review of inaccurate paperwork on the very same welds. Although MVPP does not claim at the present time that CG&E officials were responsible for any deliberate falsification, such significant misconduct evidences applicant's failure to supervise the QA program to ensure its independent and proper operation.

In some instances KEI employees engaged in deceptive conduct toward the NRC. For example, when RIII requested copies of all essential, and later nonessential voided nonconformance reports, KEI personnel did not include voided NR's improperly filed with Inspection reports. Their excuse was that RIII had not asked for voided NR's filed with Inspection Reports.

Any remaining doubts about the necessity for a full hearing on CG&E's character and competence should be resolved by a currently-suspended criminal investigation of QA abuses, as well as the congressional call to pursue the probe more aggressively. Last summer OIA began a criminal investigation into falsified QA reports and failure to conduct mandatory inspections. However, the OIA criminal probe has been suspended until some time between August and October 1982, when Part II of the RIII reinvestigation will be completed. The issues addressed in Exhibit 52 of the I Report, the interview with CG&E QA manager William Schwiers, suggest that CG&E officials may have been targets of the investigation. NRC investigators inquired into the role of CG&E Vice President Earl Borgman. This criminal investi-

gation was so significant that on October 27 and 28, 1981 the NRC Commissioners considered the ongoing law enforcement proceedings in a closed meeting on Zimmer.

A March 19, 1982 letter from Intervenor's counsel to the United States Attorney for the Southern District of Ohio is attached and incorporated herein as Exhibit 12, along with the accompanying original exhibits.

Evidence of harassment and retaliation toward employees coupled with criminal falsification of records has led to calls from Congress for a criminal investigation. As Representative Toby Moffett (D-Conn.) explained:

Such harassment, as this Subcommittee has already found through previous investigations and as the NRC has now admitted in its own investigation, are precisely the sort of actions that occurred at the Zimmer site near Cincinnati.

These new criminal penalties were not placed in the Atomic Energy Act as window-dressing. The Congress provided for criminal penalties for utility failures to obey NRC safety rules for a very important reason: the public health can be endangered by nuclear crimes just as surely as it can be by street crimes.

Congressman Moffett's December 14, 1981, opening statement at congressional hearings is attached and incorporated herein as Exhibit 13.

Evidence of non-QA related criminal and non-criminal misconduct must also be examined before this Board in granting Applicant an operating license. Witnesses have identified on-site criminal misconduct including diversion of nuclear materials to underground businesses that sell belt-buckles manufactured on-site. Witnesses have also provided affidavits detailing widespread illegal gambling including horse-racing bets placed from the security guard's desk on the seventh floor where nuclear fuel is kept. Dangerous alcohol and narcotics use on-site further demonstrates CG&E's abdication of its duties. (See, e.g., a January 16, 1981 affidavit from Jeffrey Hyde, attached and incorporated herein as Exhibit 14.)

The above overview helps explain why previous QA/QC retaliation and failure to respond adequately to identified deficiencies continues to date. The same management organizations are making the decisions. Through the CG&E-led Quality Confirmation Program, RIII in effect may have ordered the fox to strengthen its control over the henhouse. It is imperative that an operating license not be granted without a full hearing into Applicant's character and competence.

The basis for this contention is the OIA Report at 33-5; IE Report in general; and documentation, affidavits and interviews with witnesses willing to testify at hearings.

III. MVPP'S NEW CONTENTIONS HAVE MET CRITERIA
OF 10 CFR 2.714 FOR LATE ADMISSION

Although recognizing the late date of its eight new contentions, MVPP contends that all five criteria of 10 CFR 2.714(a)(1) for admission of late contentions have been satisfied. Further, these contentions so seriously challenge the safety of the Zimmer plant that this Board should properly exercise its discretion to admit them even if one or more of the requirements for late submission of contentions is not met.

The following requirements of 10 CFR 2.714:
must be balanced to determine if late contentions may be admitted:

- (i) Good cause for failure to file these contentions on time;
- (ii) The availability of other means whereby the petitioner's interest will be protected;
- (iii) The extent to which the petitioner's participation may reasonably be expected to assist in developing a sound record;
- (iv) The extent to which the petitioner's interest will be represented by existing parties;
- (v) The extent to which the petitioner's participation will broaden the issues or delay the proceeding.

Intervenor MVPP has good cause for late submission of these contentions since it obtained the information about the total quality assurance breakdown at the Zimmer plant only after the

NRC issued its second IE Report and MVPP communicated with CG&E and KEI employees who remained dissatisfied and frightened by the continuing, inadequate quality assurance program at Zimmer and the NRC's apparent inability to impose significant reforms on CG&E.

Only within the last few months, when CG&E and KEI employees saw that the NRC had not in fact initiated the necessary scope of reforms and overhaul of the Zimmer QA program, were many such workers willing to speak to MVPP or counsel -- even anonymously or through intermediaries in some instances -- about the problems they believe threaten its safe operation. Because of the serious nature of the charges outlined above, MVPP's counsel carefully investigated all information received with other workers and obtained corroborating documents. MVPP submitted these new contentions as soon as it could obtain the necessary affidavits and documentation to support contentions that the quality assurance program at Zimmer threatened the safe operation of the plant, and CG&E lacked the character and technical competence to operate the plant.

Counsel is continuing to receive evidence at an accelerated rate. MVPP is only moving to admit these contentions now due to the NRC staff's precipitous recommendation that the Board immediately grant an operating license.

It is well-settled law that the availability of new documentary information is good cause justifying the admission of new contentions filed out of time. Indiana and Michigan Electric Company (Cook Nuclear Plant, Units 1 and 2),

CCI-72-25, 5 AEC 13, 14 (1972). As the Commission explained, "Unless special considerations dictate otherwise in specific circumstances, new information appearing in previously unavailable documents would generally constitute good cause for amendment...."

Secondly, only by full litigation of these issues before the Board can the Board and the public be assured that the Zimmer plant can run safely and be operated by a licensee competent to manage a nuclear plant. The repeated comments of employees that they want to move their families at least 100 miles away if Zimmer goes on line is a sober warning if the operating license is granted prior to resolution of these QA and "character and competence" issues. Just as with the South Texas Project, the Zimmer project has undergone two extensive NRC investigations, one of which led to an unprecedented \$200,000 fine against the utility, a requirement of a massive Quality Confirmation Program of CG&E, and consideration of criminal prosecution. Illegal on-site activities, unsubstantiated charges of harassment, intimidation and threats of QA/QC personnel, falsified reporting practices, massive and improper voiding of nonconformance reports, and the construction of the plant without regard for any basic, integrated design plan are base level problems that must be examined.

MVPP is in the midst of an intensive investigation spurred by disclosures from CG&E and KEI personnel, and enhanced by numerous internal documents produced by these workers. By contrast, it is obvious that Region III does not intend to pursue

vigorously so-called Part II of its reinvestigation. The NRC has established no priorities for the second phase five months after the completion of Phase I. Region II representatives were unable to tell intervenor's counsel the number of affidavits taken to date in the reinvestigation. Mr. Jim Foster, who now heads Region III's reinvestigation, opposed reopening the investigation of Zimmer from the beginning, according to a memorandum he wrote on September 3, 1981 to James G. Keppler. See Foster Memorandum, attached and incorporated herein as Exhibit 15. This memorandum not only protests reopening the investigation but further attempts to rebut the QA Report. It is no surprise, therefore, that in published news reports, attached and incorporated herein as Exhibit 16, Region III has already predicted that it will make no significant new findings.

The NRC staff has similarly abdicated its responsibilities to bring these serious issues into contest before this Licensing Board. The staff has already recommended an operating license and remains in unqualified support of CG&E even after the IE and OIA Reports outlined, in part, the serious breakdown in the QA program at Zimmer. NRC staff has done no more than inform the Board that these two critical reports are in the Public Documents Room. Certainly this is in violation of the staff's clear duty to inform the Board about any significant discovery, regardless of whether the record is open or closed. As the Commission wrote in Virginia Electric and Power Company (North Anna Power Station, Units 1 & 2), CLI-76-22, 4 NRC 480, 492 n. 11 (1976), "The Licensing Board, the parties and the public have a right to be promptly informed of a discovery of this magnitude,

before staff evaluation of that discovery ... No other policy is consistent with the staff's obligations to help the Commission fulfill its statutory mandate." Since the Licensing Board has only the information the parties bring before it, "disclosure ... goes to the very heart of the adjudicatory process. Its sacrifice for the sake of expediency cannot be justified and will not be tolerated." Duke Power Company (McGuire Nuclear Station, Units 1 and 2), ALAB-143, 6AEC 623, 626 (1973).

Additionally, MVPP can make a unique contribution to the development of these hearings since it represents the principal grass roots organization in the Cincinnati area concerned about the safety of the Zimmer plant. In 1980 Intervenor's counsel conducted a long investigation at Zimmer which led to Thomas Applegate's whistleblowing disclosures and later served as a major catalyst for the NRC's OIA and IE Reports. At this point MVPP is the uncontradicted expert on the QA breakdown at the Zimmer nuclear plant. MVPP has collected affidavits, received offers by other witnesses to testify, and received internal documents that the NRC in its multiple investigations shunned. At this point the quality assurance and "character and competence" problems are so severe that only through a direct challenge to CG&E's license before this licensing board can these issues be adequately addressed and hopefully resolved.

Litigation of these new contentions would not delay the licensing proceeding since other investigations, already set in motion, must be completed prior to grant of a license to CG&E.

For example, the criminal investigation that may already have focused on CG&E management personnel -- "suspended" at the present time -- must be completed before the licensing board can issue a license with any assurance that CG&E is qualified to operate Zimmer. OIA, because of institutional delays will not activate this criminal investigation at least until August, 1982. The United States Attorney's Office, of course, may take up to a year to pursue a prosecution depending on the recommendation of NRC investigators.

Although these new contentions will broaden the scope of the licensing proceeding, they cannot be ignored. The massive breakdown of the QA program at Zimmer, acknowledged by the NRC, and the NRC's abortive attempts to take corrective action mandate that this licensing board formally consider the quality assurance contentions. CG&E's false statements and the falsification of records during construction at Zimmer require this Board to consider the character of the licensee prior to issuing a license. As the Commission wrote in Houston Lighting and Power Company (South Texas Project, Units 1 and 2), CLI-80-32, 12 NRC 281, 291 n. 4 (1980), "[T]he Commission cannot ignore false statements in documents submitted to it," and "abdication of knowledge, whether at the construction or operating phase, could form an independent and sufficient basis for revoking ... or denying a license 42 U.S.C. 2232a." Id. at 291.

The licensing board, as the ultimate decisionmaker, alone bears responsibility at this stage for ensuring that the Zimmer plant will operate safely and that the licensee is technically

competent and has the requisite character to run a nuclear plant. Therefore, the Board should exercise its descretionary authority to accept these contentions regardless of whether or not intervenor has met all criteria of 10 CFR 2714. See Virginia Electric and Power Company (North Anna Power Station, Units 1 and 2), ALAB-363, 4 NRC 631 (1976).

The United States Congress, CG&E shareholders and the Cincinnati City Council are disturbed about the serious safety problems at Zimmer and concerned that even after two lengthy NRC investigations, there is no assurance that the quality assurance program at Zimmer is "under control." It is imperative that the Board admit MVPP's contentions and establish a discovery schedule for full examination of the Applicant's QA program, and most importantly CG&E's character and competence.

IV. MVPP MOTION FOR PROTECTIVE ORDER

MVPP, by separate motion, will request a protective order to protect the identity of those employees who have submitted affidavits and/or evidence that provides, in part, the basis for these contentions. Because of the history of harassment and intimidation of QA/QC personnel at Zimmer, MVPP will ask that the identify of these employees be kept confidential from all except the Board.

Counsel has already attached or cited sufficient documentation to support these contentions and to demonstrate CG&E's significant role in the QA breakdown at Zimmer. The full basis for the contentions will be available through discovery and after confidentiality for affiants and other witnesses is assured.

V. CONCLUSION

For the foregoing reasons MVPP respectfully requests this Board to admit its new contentions that the quality assurance program at Zimmer cannot ensure the operation of the plant so not to endanger the public's health and safety and that CG&E lacks the requisite character and technical competence to operate a nuclear plant.

Respectfully submitted,

Government Accountability Project

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Counsel for the Intervenors

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Mr. John H. Frye III
Judge Stanley M. Livingston
Dr. Frank F. Hooper

In the Matter of :
:
CINCINNATI GAS AND ELECTRIC :
COMPANY, ET AL, : DOCKET NO. 50-358
(William H. Zimmer Nuclear : APPLICATION FOR
Power Station) : OPERATING LICENSE.

CERTIFICATE OF SERVICE

I hereby certify that copies of MVPP's Motion for Leave
to File New Contentions

_____ in the above-captioned proceed-
ing have been served on the following persons by posting the same
in the U.S. Mails, postage prepaid, this 18 day of May
1982.

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Atomic Safety and Licensing Board Panel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

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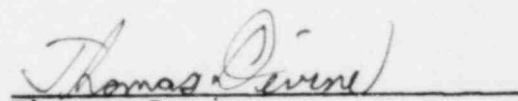
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* SERVED THROUGH INTERNAL
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

EXHIBIT #1

OCT 8 1981

MEMORANDUM FOR: Chairman Palladino

FROM: James J. Cummings, Director
Office of Inspector and Auditor

SUBJECT: OIA REPORT DATED AUGUST 7, 1981, "ADEQUACY OF IE
INVESTIGATION 50-358/80-09 AT THE WILLIAM H. ZIMMER
NUCLEAR POWER STATION"

Your memorandum of October 2, 1981, requested that the Office of Inspector and Auditor (OIA) review EDO comments on the subject report. OIA has completed a review of the EDO's memoranda dated September 17, 1981, and our responses are as follow:

EDO Comment (First EDO memorandum - Attachment 1)

"The OIA findings and supporting arguments contained in the August 7, 1981 memorandum, J. Cummings to the Commissioners, disturb me deeply. I am forced to conclude that OIA may not clearly understand the NRC mission or priorities, nor the processes and controls involved in the construction of a nuclear power plant. I am unable to conclude that the OIE investigation of Applegate's allegations was unsatisfactory.

"Our goal for plants under construction is to ensure that they are constructed in a manner to provide adequate public protection after they are licensed to operate. We attempt to ensure that all potential construction defects, irrespective of how they are identified, are adequately corrected prior to the operation of a nuclear power plant. To that end, the optimal use of our resources is achieved when identified defects are verified to be in a utility's corrective action system. The potential for further reduction of risk to the public is not commensurate with the incremental resources required to broaden the depth and breadth of this type of investigation as suggested in the OIA report.

-REC'D CHANN-

9 OCT 81 9:54

"I have been informed there are factual inaccuracies in the OIA report. I will be forwarding our detailed comments on the OIA report in a separate memorandum."

OIA Response

The above EDO comment attempts to obfuscate the real issues by questioning OIA's understanding of NRC programs and suggesting that the public health and safety would not have been served if IE had conducted a detailed investigation in this and similar type cases.

First, the issue is whether IE conducted an adequate investigation of Mr. Applegate's original allegations, not whether OIA understands the NRC's mission and priorities. An investigation is defined on page 4, Chapter 8 of the IE Inspector's Manual as follows:

"An investigation can be defined as an activity conducted as a result of an incident, accident, reportable occurrence, allegations or complaint reported by a licensee or others which involves licensable materials or activities to gather, correlate and evaluate information indepth for the purpose of establishing the cause, nature, extent, and circumstances of a condition or an occurrence.

"An investigation differs from an inspection in that it is not a scheduled activity but is a response to an outside stimulus. It focuses on a specific matter and examines it in detail. The goal of an investigation is to obtain all pertinent information available regarding a specific subject or event. Investigations are conducted to determine what happened, to identify causes, to determine compliance or noncompliance, and to provide the information necessary to evaluate the significance of the matter. In some instances the results of an investigation may identify the need for a change in NRC regulations or policy. The term investigation does not carry with it the implication of criminality, wrongdoing or dishonesty. A given investigation may, however, involve these matters." (Emphasis added.)

Clearly, IE Investigation 50-358/80-9 did not satisfy the above standards or generally accepted investigative standards of other Government agencies. It should clearly be understood that OIA did not evaluate IE's investigation based on FBI or other criminal law enforcement investigative procedures and/or standards. Fundamentals basic to all investigations were simply not observed in this instance. The investigative file contained no results of interview at all nor was there any detailed record of copies of the documentation reviewed.

Second, the EDO's position that the potential for further reduction of risk to the public would dictate that investigations of this

type not be broadened-is without merit in this instance. In this case the IE investigation did not even review the weld data packages relative to the specific welds alleged to be defective, nor did the IE investigation pursue logical leads on the issue of whether the CG&E QA Manager ordered the alteration of the NR which allowed the pipe spool pieces to be released for installation. OIA believes that the minimal additional resources required to adequately address these issues would have been more than justified by the potential benefit to the public health and safety.

Third, OIA believes that the EDO's statement "I have been informed there are factual inaccuracies in the OIA report" is not supported by the EDO's detailed comments.

Finally, over the past several years IE has conducted numerous investigations and inspections of the Zimmer plant. Despite this presence it is only recently that the dimension of the licensee's paperwork problem associated with the QA welding program in some areas has surfaced. A contributing factor to the delay in identifying this defect might have been that these inspections and investigations were not sufficiently comprehensive to identify this issue in a timely manner.

EDO Comment (Second EDO memorandum - Attachment 2)

"Enclosed are the OIE comments relative to the OIA investigative findings. I would like to specifically direct your attention to the enclosed weld chronologies. Clearly, these welds had been identified and placed in a corrective action system prior to Applegate's involvement.

"I believe the OIA report summary (page 2) best characterizes the safety issue.

'One of Applegate's main allegations was that defective welds in safety-related systems have been accepted,... By virtue of prior IE inspections..., it is clear that Region III was well aware of the chronic and long history of welding problems at Zimmer: specifically, that unacceptable welds in safety-related systems had for all intents and purposes been accepted by both the contractor and, in some cases, the licensee. Based upon these inspections, Region III required the licensee to rereview radiographs and reports of all welds which had been accepted for turnover prior to operation; this review started in October 1979 and portions of this review are still being studied by Region III.'

"It appears to be irrelevant to debate whether or not the welds had been accepted; the pertinent fact is that the welds were in a system to obtain corrective action.

"I am confident that the aggregate of licensee and NRC actions would have resulted in adequate welds prior to the operation of this plant, irrespective of Applegate's involvement."

OIA Discussion

Enclosure 1 to the second EIO memorandum is Office of Inspection and Enforcement Comments entitled "Replies to OIA Findings." This document lists seven OIA findings and discusses each of these findings. Unfortunately, this IE document is not responsive to the four reasons listed by OIA as the justification for OIA's finding. Rather, it is a selection of seven portions from the summary section of the OIA report. Enclosure 2 to the same letter is Weld Chronologies and relates to the three welds in question.

The basis upon which IE attempts to dispute the "seven OIA findings" is based to a large degree on information which was not known to IE until after the OIA report was issued and after IE had conducted a reinvestigation of the facts. Nevertheless, the following is an OIA response to the seven comments.

IE REPLIES TO OIA Findings

"1. OIA Finding

OIA review of investigative files disclosed inadequate documentation.

Discussion

The OIA comment on documentation (page 2) refers to the RIII investigative file, rather than the investigation report itself. They noted that no "results of interview" or copies of weld documentation reviewed were in the file. On page 13, it is pointed out that no identification key was generated for the investigative file.

Neither NRC, IE, nor RIII procedures require a "results of interview" to be generated for each interview, and all interviews are not required to be portrayed in detail in an investigation report. Investigation reports should contain all pertinent information, whether obtained through observations, records or interviews, concerning the matter investigated.

There is no need for retention of copies of all documentation obtained during an investigation. If a document appears to be relevant to the case, it is often reviewed onsite, and no copy is obtained. If a document appears central to an allegation,

it is then copied, and may be made an attachment to the report, if warranted by the issue involved."

OIA Response

See OIA response, page 2, paragraphs 3 and 4 (continued on page 3) of this memorandum.

"2. OIA Finding

IE investigative report did not identify the dates on which the welding rework was conducted on weld K-811.

Discussion

Although the IE investigation report did not identify the date when weld K-811 was removed (approximately January 16, 1980), the report did correctly identify that the weld had been removed as provided by the disposition of NR No. E-2138R1. Thus, the weld alleged to be improper was nonexistent, having been removed eighty-two days prior to the investigation team's arrival at Zimmer. Determination of the date of rework was not necessary in our view."

OIA Response

The rework on weld K-811 was done in mid January 1980. This was after Applegate had been hired by CG&E - approximately mid December 1979 - and after Applegate had brought information of potential weld defects in weld K-811 to the attention of CG&E officials - early January 1980. Thus the question of exactly why and when weld K-811 was replaced should have been fully resolved. Despite IE's review of NR No. E-2138R1, (this document indicated a cut out and replacement date between January 14, 1980, and January 22, 1980), IE neither resolved the question nor reported this information in their investigative report.

"3. OIA Finding

The IE investigation report did not identify that a nonconformance report (NR) on weld K-811 had initially been closed with the notation "accept as is," and was later voided and reopened to order the weld cut out.

Discussion

The finding as stated is incorrect. The "accept as is" statement on the NR was conditional in that it only applied if a radiograph showed the weld to be acceptable. Apparently the OIA investigator misunderstood the NR."

OIA Response

Weld K-811 was welded in January 1979 and accepted by Kaiser in January 1979 according to the Kaiser weld data sheet. Some 10 months later, October 1979, NR No. E-2138 was generated by Kaiser noting that the ANI hold point had been missed and directed that the weld be radiographed and, if the radiograph were acceptable, the weld was to be accepted as is. The NR further categorized the problem as a "procedural" one. The IE investigation never reviewed (or even attempted to locate) this original version of NR No. E-2138; therefore the IE investigation failed to determine that Kaiser had proposed accepting the weld without the approval/waiver of the ANI. More importantly the IE investigation relied on a revision of this NR, NR No. E-2138R1, which contained bogus information both as to the date of the weld, October 1977, and the date a decision was made to cut out the weld, October 1979.

"4. OIA Finding

The investigation did not determine that weld RH-42 had been cut out and replaced after initiation of the investigation.

Discussion

The finding is correct. The investigation did, however, properly determine that weld defects had been identified and corrective action was planned. The actual date of corrective action is not significant."

OIA Response

OIA believes IE's failure to determine the fact that weld RH-42 was in fact cut out after the investigation was initiated is indicative of the shallowness of the investigation. IE's bottom line statement that "the NES level II radiographer found some discrepancies that have not been resolved, and the weld has not been given final acceptance" (IE Report at page 8) is a far cry from the true status of this weld.

"5. OIA Finding

None of the welds alleged to have been deficient were inspected by the investigation team nor was all pertinent weld documentation reviewed.

Discussion

The finding is correct but considered irrelevant. The investigators did not inspect the welds but did review the radiographs, which was the correct method of evaluation. Visual examination of the weld would not identify internal defects. The investigators did not review all weld documentation but did review the pertinent documentation to establish proper weld disposition."

OIA Response

If a visual inspection had been conducted, IE would have discovered that weld RH-42 was non-existent and that weld CY 606 was covered by concrete - despite its NES review status. These facts are hardly irrelevant.

"6. OIA Finding

The IE investigators did not fully investigate or accurately report on the alteration of a nonconformance (NR) related to spool pieces containing defective welds. The IE report only identified an individual as a "CG&E official" vice "QA Manager," thus obscuring that this was the licensee's senior person responsible for the site QA program who ordered improper voiding of a NR.

Discussion

Investigator Phillip indicates that the matter was discussed with his supervisor, and the pursuit of who directed the lining-out was seen as having little significance. This was because a separate NR had been opened, providing tracing of the nonconformance. Finally, neither OIE nor OIA could substantiate the allegation."

OIA Response

As a result of IE's investigation Region III cited CG&E - infraction - for release of the pipe spools "...This release was achieved through unauthorized removal of the noted exceptions on the NR." (Item a., paragraph 2 of the Notice of Violation, Appendix A to letter from Keppler (NRC) to Borgmann (CG&E) dated July 2, 1980.) IE also had received information

that the CG&E QA manager was the individual who directed this unauthorized action. If the action in question was considered serious enough to warrant a citation against the licensee then how can it now be rationalized as "having little significance" with respect to identifying the individual who was responsible for this action. Furthermore, IE was unable to produce any results of interview of the parties involved. Significant information simply cannot be arbitrarily withheld from investigative reports.

"7. OIA Finding

The IE report found Applegate's allegations on defective welds was "not substantiated" because welds had not been finally accepted. This is a question of semantics and not consistent with the facts.

Discussion

The use of the term "not substantiated" was linked with the RIII view of the status of the acceptance of welds. RIII was, through previous inspection findings, well aware that nondestructive examination techniques had been found to be deficient. Based on the NRC findings and related concerns, a consultant had been hired by the licensee to review weld radiographs. That action negated any previous "acceptance" of plant weld radiography. The previous inspection findings and status of the welds in question are correctly stated in the IE report. As such, it should be clear that the licensee had not given final acceptance to the welds in question and a system was in place to assure that defective welds would be identified and corrected prior to final acceptance. As shown in the chronologies, decisions to grind out and replace two of the welds in question (WR-K-811 and RH-42) had been made prior to initiation of the RIII investigation."

OIA Response

Applegate alleged that defective welds had been accepted - among them CY 606, RH-42 and K-811. CY 606 was accepted by Kaiser in August 1976 and again in June 1977. RH-42 was accepted by Kaiser in August 1976 and K-811 was accepted by Kaiser in January 1979. Furthermore, until 1979 acceptance and turnover of a weld by Kaiser, for all practical purposes, amounted to acceptance by CG&E.

Weld Chronologies
(See Attachment 2)

OIA Response

OIA fails to see the EDO's point in asterisking items in the weld chronology with the notation "significant information not in OIA's chronology." If the point is that OIA's investigation was deficient/incomplete because it also failed to document the complete history and status of the welds in question then it should be pointed out that OIA's job was not to conduct a comprehensive reinvestigation but rather to evaluate the work done by IE. The additional field work done by IE to determine the correct status and history of the welds in question is precisely the type of field work that should have been done by IE in their initial investigation. OIA's determination that the IE investigation failed to determine the correct status and history of several welds is valid, i.e., weld RH 42 was cut out in April 1980, weld K 811 was not welded on November 9, 1977 but on January 29, 1979.

Attachments:
As stated.

cc: Commission (4)
W. Dircks
V. Stello

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

EXHIBIT #2

November 16, 1981



The Honorable Morris K. Udall
Chairman
Subcommittee on Energy and the Environment
Committee on Interior and Insular Affairs
United States House of Representatives
Washington, D. C. 20515

Dear Mr. Chairman:

You recently inquired about the adequacy of the investigation by our Office of Inspection and Enforcement (OIE) into quality assurance/quality control problems at the William H. Zimmer Nuclear Power Station. The OIE investigative effort at Zimmer is not yet complete. However, a recent report of our Office of Inspector and Auditor (OIA) was critical of an earlier OIE investigation. My own inquiry into this matter convinces me that, while there are inadequacies in the initial OIE investigation of Zimmer and in its investigatory program generally, the findings presented to the Commission to date do not indicate that these problems have contributed to an adverse public health and safety situation at the plant. The pertinent documents are enclosed.

Early last year, OIE investigated and reported on allegations of improprieties in quality assurance/quality control activities at the Zimmer plant. OIA was asked to evaluate the adequacy of that OIE investigation. In its report of August 7, 1981, OIA concluded that the OIE investigation was unsatisfactory. OIA's fundamental criticisms were that OIE failed to adequately document its investigation and failed to follow through on significant leads. I requested interactive comments from OIA and OIE and, thereafter, met with the main participants on October 9, 1981. My conclusions are as follows:

1. I agree with OIA's finding that OIE's original investigation should have been more comprehensive. The Commission is considering the necessary internal reforms.

I believe we need criteria to determine the instances which require such full-scale investigations. The NRC does not have the resources to conduct in-depth investigations in all instances, and such in-depth investigations are not called for by the circumstances of every case. However, when a full investigation is called for, as for example in the case of possible criminal conduct, NRC needs to conduct that investigation consistent with fundamental standards

that govern investigations by any agency. I have requested the Executive Director for Operations to develop guidelines for determining when to conduct investigations, and to establish more formal investigative standards and procedures for such investigations.

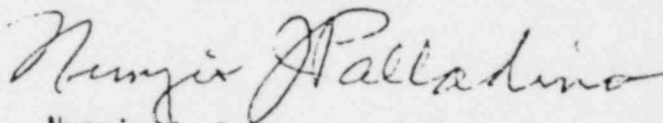
2. I am satisfied with the steps we are taking at the Zimmer Nuclear Power Plant to protect public health and safety. A follow-up OIE investigation is nearly complete. OIE's final report should be available shortly. In addition, I note that the licensee has recently committed to a Quality Confirmation Program to address the problems that have been found at the Zimmer plant.

In summary, shortcomings in the earlier OIE investigation of Zimmer reveal a generic problem. Steps are being taken to remedy that problem. In addition, OIE will shortly release its final report on the Zimmer plant. The Commission will look closely at that report. Finally, the licensee is committed to a verification program to provide further assurances to public health and safety.

The Commissioners have been informed and do not disagree with the conclusions set forth in this letter.

If you have further questions on this matter, please do not hesitate to contact me.

Sincerely,


Nunzio J. Palladino

Enclosures:

1. Memo fm James J. Cummings, IA, to Commission dtd August 7, 1981 transmitting OIA report: "Adequacy of IE Investigation 50-358/80-9 at the William H. Zimmer Nuclear Power Station"
2. Memo fm William J. Dircks, EDO, to the Commission dtd September 17, 1981
3. Memo fm William J. Dircks, EDO, to the Commission dtd September 17, 1981
4. Memo fm James J. Cummings, IA, to the Commission dtd October 8, 1981

cc: Representative Manuel Lujan



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

EXHIBIT #3

NOV 24 1981

Docket No. 50-358
Construction Permit No. CPPR-88
EA 82-12

Cincinnati Gas and Electric Company
ATTN: Mr. W. H. Dickhoner
President
139 East 4th Street
Cincinnati, OH 45201

Gentlemen:

This refers to the investigation conducted by Region III during the period January 12 to October 9, 1981, of construction activities at the Wm. H. Zimmer Nuclear Power Station. The details of that investigation are described in Region III investigation report No. 50-358/81-13. The violations described in Appendix A to this letter are cross-referenced to that report in accordance with Appendix B to this letter.

The investigation was initiated as a result of allegations made to the NRC by a Quality Control Inspector who formerly worked at the Zimmer site and by the Government Accountability Project of the Institute for Policy Studies (a non-governmental agency) on behalf of Mr. Thomas Applegate. The results of the continuing investigation reveal a widespread breakdown of your quality assurance program as evidenced by numerous examples of noncompliance with twelve of the eighteen different criteria for a quality assurance program as set forth in 10 CFR 50, Appendix B. The cause of the breakdown was your failure to exercise adequate oversight and control of your principal contractors to whom you had delegated the work of establishing and executing quality assurance programs. You thereby failed to fulfill your vital responsibility as described in Criterion I of 10 CFR 50, Appendix B, to assure the execution of a quality assurance program. The potential safety concern of your quality assurance program breakdown was discussed during an enforcement conference at our Region III office in Glen Ellyn, Illinois, on August 5, 1981, attended by you and members of your staff and the NRC Region III staff.

Two of the violations (Items A and B of Appendix A of this letter) are of particular concern to us because of the very essential role they play in the execution of an effective quality assurance program. These two violations relate to false records and to harassment/intimidation of quality control inspectors.

With regard to false records, the examples we identified raise serious questions as to the accuracy of quality records at the site. Our concern in this area served as a major factor in requiring the conduct of a confirmation program to be completed by you to furnish evidence of plant quality.

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Because the NRC inspection program is a sampling program, the importance of accurate quality records cannot be overemphasized. Accordingly, we have addressed this matter as a separate violation and assessed a separate civil penalty for it.

With regard to harassment/intimidation of quality control inspectors, we have also addressed this matter as a separate violation and assessed a separate civil penalty for it. We determined that your construction contractor took some action to stop the water dousing of quality control inspectors; however, those actions did not stop the activity. Harassment/intimidation of quality control inspectors is clearly a barrier to effective implementation of a quality assurance program and results in loss of the organizational independence described in Criterion I of 10 CFR 50, Appendix B. The importance of this matter is reflected in the recent amendment (Public Law 96-295, June 30, 1980) to the Atomic Energy Act of 1954, which added Section 235 relating to protection of nuclear inspectors such as your quality control inspectors.

The impact of the identified quality assurance deficiencies on the actual construction has yet to be determined. Limited independent measurements were performed by the NRC in selected areas of concern in an attempt to characterize the actual safety significance of these deficiencies. Although a few problems requiring corrective action were identified (i.e., four unacceptably installed pipe hangers), the majority of the NRC independent measurements did not disclose hardware problems. However, recognizing that significant construction deficiencies could have resulted from the quality assurance problems identified during this investigation, the NRC has required the establishment of a comprehensive quality confirmation program to determine the quality of plant systems important to nuclear safety. The NRC will confirm the adequacy of the program and may make additional independent verifications. Deficiencies identified by these programs will require resolution prior to issuance of an Operating License.

Notwithstanding the fact that serious construction deficiencies have not been identified, in order to emphasize the need for licensees to have complete and accurate records, to maintain a work atmosphere where quality assurance personnel are not harassed or intimidated, and to assure implementation of an effective quality assurance program which identifies and corrects construction deficiencies, we propose to impose civil penalties in the cumulative amount of Two Hundred Thousand Dollars for the matters in the Notice of Violation. We expect that this penalty will result in an adequate deterrent against future similar violations by you and other licensees of plants under construction.

Some of the examples in the Notice of Violation occurred subsequent to the issuance of the revised enforcement policy and some prior to that time. In arriving at the amount of the proposed civil penalties we have exercised discretion, considered changes in the enforcement policy and considered the amount of the civil penalties that have been issued to licensees of other plants under construction as well as the number of examples found of each violation and when they occurred. We have for convenience and clarity categorized the items in the Notice of Violation at the Severity Levels described in accordance with the Interim Enforcement Policy published in the Federal Register, 45 FR 66754 (October 7, 1980).

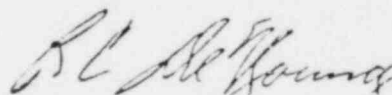
The results of this investigation and our review of your 10 CFR 50, Appendix B, noncompliance history reveal an additional matter which is of significant concern to us. This matter concerns inadequate corrective actions. The results of our normal inspection program for the construction and testing of Zimmer indicate you were found in noncompliance forty-four times since December 1979 with thirteen of the eighteen different criteria of Appendix B to 10 CFR 50. During our Systematic Assessment of Licensee Performance review on December 16, 1980, we expressed concern with your relatively poor performance in this area. This poor history of compliance with 10 CFR 50, Appendix B, when considered with the recent findings of the investigation indicates that your corrective actions only addressed individual problems and not underlying programmatic causal factors. Consequently, we request that you review your history of noncompliance with 10 CFR 50, Appendix B, for the past two years and in your response to this letter provide those steps you have taken to address and correct the underlying programmatic causal factors related to the noncompliances.

You are required to respond to the Notice of Violation and in preparing your response you should follow the instructions in Appendix A. You should give particular attention to those actions designed to assure continuing compliance with NRC requirements. Your written reply to this letter and the results of future inspections will be considered in determining whether further enforcement action is appropriate.

In accordance with Section 2.790 of the NRC's "Rules or Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and the enclosed Appendix A are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

Sincerely,



Richard C. DeYoung, Director
Office of Inspection and Enforcement

Enclosures:

1. Appendix A - Notice of Violation and
Proposed Imposition of Civil Penalties
2. Appendix B - Cross References:
Noncompliances to Report Details

cc:

See next page

Cincinnati Gas and Electric
Company

- 4 -

cc w/encl:

E. A. Borgmann, Senior Vice President,
Engineering Services and Electric Production
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
Thomas Applegate
Louis Clark, Director, GAP
Institute for Policy Studies

Appendix A

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTIES

Cincinnati Gas and Electric Company
Wm. H. Zimmer Nuclear Power Station

Docket No. 50-358
Construction Permit No. CPPR-88
EA 82-12

As a result of the investigation conducted at the Wm. H. Zimmer Nuclear Power Station in Moscow, Ohio, on January 12 - October 9, 1981, the violations listed below with multiple examples were identified. The numerous examples of the violations demonstrate your failure to exercise adequate oversight and control of your principal contractors, to whom you had delegated the work of establishing and executing quality assurance programs, and thereby fulfill your responsibility of assuring the effective execution of a quality assurance program. Your failure manifested itself in a widespread breakdown in the implementation of your quality assurance program and caused the NRC to require an extensive quality confirmation program to provide confidence that safety-related structures, systems, and components will perform satisfactorily in service. Included in the breakdown were findings we consider to be particularly disturbing relating to false records and harassment and intimidation of quality control inspectors.

Because of the significance of not having complete and accurate records, not maintaining a work atmosphere where quality assurance personnel are not harassed or intimidated, and not assuring implementation of an effective quality assurance program which identifies and corrects construction deficiencies, and in accordance with the Interim Enforcement Policy, 45 FR 66754 (October 7, 1980), the Nuclear Regulatory Commission proposes to impose civil penalties pursuant to Section 234 of the Atomic Energy Act of 1954, as amended, ("Act"), 42 U.S.C. 2282, and 10 CFR 2.205 in the amounts set forth for the violations listed below.

- A. 10 CFR 50, Appendix B, Criterion XVII states, in part, "Sufficient records shall be maintained to furnish evidence of activities affecting quality."

Contrary to the above, records were identified that did not furnish evidence of activities affecting quality in that they were false. Examples of false records are as follows:

1. Isometric drawings, weld inspection records, or other records did not furnish evidence of the actual piping components installed in the 11 pipelines in the diesel generator cooling water, starting air and fuel oil systems, in that the heat numbers recorded on the drawings or weld inspection records did not match the heat numbers or color coding marked on the respective components. The 11 pipelines were:

1DG28AB1
1DG27AB1
1DG01AB1
1DGF2AA1/2

1DGC5AA3/4
1DGF6AA1/2
1DGC5BA3/4
1DGF6BA1/2

1DG28AE1
1DG25AC2
1DG11AA3

2. The Kaiser Nonconformance Reporting Log did not reflect all reports initiated as evidenced by the following:
 - a. The original entry for a report (CN-4309) initiated by a QC Inspector on January 7, 1981, relating to deficient weld fit-up was obliterated by the use of white correction fluid and there was no other record of this report in the Noncompliance Report (NR) system.
 - b. The original entry for a report (CN-5412) initiated by a QC Inspector on February 3, 1981, and relating to violation of a hold tag was obliterated by the use of white correction fluid and there was no other record of this report in the NR system.
 - c. A report (NRC-0001) initiated by a QC Inspector on February 11, 1981, relating to excessive weld weave was not assigned a number and there was no other record of this report in the NR system.
3. Written statements as to planned actions which were made to justify voiding reports E-1661 (voided 11/11/80), E-1662 (voided 11/11/80), and E-2466 (voided 6/30/80) were not taken.
INVOLVED 124 NONCONFORM TYPE HANGAR ACAGE.
4. Written statements relating to the availability of records which were made to justify voiding reports E-1777 (voided 4/30/79) and E-5108 (voided 6/20/80) were false.
5. Reports CN-5476, CN-5477, and CN-5479 were knowingly improperly voided (2/27/81) and copies deleted from the NR system at the direction of the Kaiser QA Manager.

This is a Severity Level III violation (Supplement II).
(Civil Penalty - \$50,000).

- B. 10 CFR 50, Appendix B, Criterion I states, in part, "The persons... performing quality assurance functions shall have sufficient...organizational freedom to identify quality problems...including sufficient independence from cost and schedule."

The Wm. H. Zimmer QA Manual, Section 1.2.3 describes QC Inspectors as members of QAD (Quality Assurance Division) and Section 1.2.4 states, in part, "QAD has been assigned sufficient...organizational freedom to identify quality problems..."

Contrary to the above, QC Inspectors did not have sufficient freedom to identify quality problems and were not sufficiently independent from cost and schedule. The results of interviews indicate that some QC Inspectors were: (a) harassed by construction workers and supervisors; (b) not always supported by QC management; and (c) intimidated. The following are examples of insufficient freedom of QC Inspectors, including insufficient freedom from cost and schedule, which occurred between Summer 1978 and March 11, 1981:

1. Five QC Inspectors interviewed executed signed sworn statements wherein they claimed they were doused with water (while engaged in the performance of inspection duties) by construction personnel. Two other QC Inspectors made similar statements.
2. A QC Inspection supervisor claimed that over his objections qualified QC Inspectors who were doing thorough jobs were re-assigned by QC management because of complaints by construction personnel.
3. Two QC Inspectors executed signed sworn statements wherein they claimed they had been harassed by being searched for alcohol by security personnel at the request of construction supervisory personnel. One other QC Inspector made a similar statement.
4. A QC Inspector executed a signed sworn statement wherein he claimed the QA Manager had threatened to fire him after construction personnel complained he had used a magnifying glass to visually inspect a weld when in fact he was using a mirror and either device was an acceptable tool.
5. A QC Inspector executed a signed sworn statement wherein he claimed he was struck by a stream of water from a fire extinguisher while performing an inspection.
6. A QC Inspector executed a signed sworn statement wherein he claimed he was threatened with bodily harm by a construction person if he did not pass a weld.
7. A Lead QC Inspector executed a signed sworn statement wherein he claimed:
 - a. He was accused by the QA Manager for holding up a concrete pour when in fact the delay was caused by the concrete trucks being late.
 - b. Construction management frequently approached QC Inspectors and challenged their inspection findings and questioned their judgement.

- c. The QA Manager said things like, "our job here is to accept, not reject, and we are here to get this plant built."
8. A Lead QC Inspector executed a signed sworn statement wherein he claimed he was relieved of his inspection duties because he continued to submit legitimate nonconformance reports over construction management objections for deficient welds on pipe support hangers. He also stated that QA management had previously told QC Inspectors to not write anything to make Kaiser look bad.
9. A QC Inspector executed a signed sworn statement wherein he claimed he was told by QA management to accept inspected items that were unacceptable.

This is a Severity Level III violation (Supplement II).
(Civil Penalty - \$50,000).

- C. 10 CFR 50, Appendix B, Criterion II requires holders of construction permits for nuclear power plants to document, by written policies, procedures, or instructions, a quality assurance program which complies with the requirements of Appendix B for all activities affecting the quality of safety-related structures, systems, and components and to implement that program in accordance with those documents.

Contrary to the above, Cincinnati Gas and Electric Company and its contractors did not adequately document and implement a quality assurance program to comply with the requirements of Appendix B as evidenced by the following examples:

1. 10 CFR 50, Appendix B, Criterion XV states, in part, "Nonconforming items shall be reviewed and accepted, rejected, repaired or reworked in accordance with documented procedures."

Kaiser Procedure QACMI G-4, "Nonconforming Material Control," provides detailed instructions for the review and disposition of reports (Nonconformance Reports) of nonconforming items. Contrary to the provisions of QACMI G-4, the sample of NRs reviewed indicate significant deficiencies with the nonconformance reporting system in the areas of voiding of reports, not entering reports into the system, improper dispositioning of reports, and incomplete report files. The deficiencies identified were as follows:

- a. Two NRs related to documentation deficiencies had been improperly voided in that records used to justify the voiding did not provide evidence necessary for proper voiding. (NR-E-2233 voided 1/24/80, NR-E-2237 voided 12/19/79)

- b. One NR related to nondestructive examination of a T-quencher weld had been erroneously closed (not voided) by administrative error. (NR-E-2996 closed 3/17/81)
- c. Two NRs related to nondestructive examinations of service water system welds had been incorrectly dispositioned (not voided). (NR-E-2836 closed 11/13/80, NR-E-2596 closed 4/16/80)
- d. Five reports had been voided by personnel other than the QA Manager. (CN-5122 voided 1/2/81, CN-5476 voided 2/27/81, CN-5477 voided 2/27/81, CN-5479 voided 2/27/81, CN-4389 voided 12/02/80)
- e. In one case during revisions of the report some nonconforming items were removed from a NR without adequate justification. (NR-E-2466 voided 6/30/80)
- f. The following nine reports had not been issued NR numbers and/or copies of the reports had not been retained in the Site Document Center:

CN-4389	CN-4957
CN-4930	CN-4958
CN-4931	CN-4959
CN-4955	CN-5122
CN-4956	

2. 10 CER 50, Appendix B, Criterion XVI states, in part, "Measures shall be established to assure that conditions adverse to quality, such as... deviations... and nonconformance are promptly identified and corrected."

The Wm. H. Zimmer QA Manual, Section 15.2.2 states, "HJK is responsible for identifying and reporting nonconformances in receiving inspection, construction, or testing activities which are delegated to HJK Quality Assurance Procedures to assure that nonconforming items are conspicuously marked to prevent their inadvertent use or installation."

AWS Code D1.1-1972, Section 3 and 8.1.5 define requirements for weld quality and address slag, weld profiles, blowholes, porosity, and undercut.

AISC, Seventh Edition (1969), Page 4.113 requires 1/2 inch minimum radius for re-entrant corners.

Contrary to the above, the following nonconforming conditions were not identified and corrected:

- a. Based on an inspection of the 25 structural hanger support beams described in Item C.4 below:

- (1) Several welds on nine beams did not conform with AWS D1.1-1972 requirements in that they contained unacceptable slag, weld profiles, blowholes, porosity, and/or undercut.
 - (2) Five beams did not conform with AISC requirements in that the re-entrant corners were notched, creating potential stress risers, instead of being rounded with required radii.
 - (3) Four beams, two of which had unacceptable welds as described in Item C.2.a.(1) above, did not conform with design documents in that they were not specified on any design document.
- b. Based on an inspection of about 100 cable tray hangers in the Cable Spreading Room, four did not conform with AWS D1.1 1972 requirements in that the welds contained unacceptable slag, weld profiles, blowholes, porosity, and/or undercut.
3. 10 CFR 50, Appendix B, Criterion XVI states, in part, "Measures shall be established to assure that conditions adverse to quality, such as...deviations...and nonconformances are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition."

The Wm. H. Zimmer QA Manual, Section 16.5 states, in part, "Vendors, contractors, and subcontractors are required to determine cause and corrective action to prevent recurrence of errors which could result in significant conditions adverse to quality."

ASME Code, Section III-1971 Edition, Article NB-3661.5(b) states, in part, "...a gap of approximately 1/16 in. shall be provided between the end of the pipe and the bottom of the socket before welding."

ASME Code, Section III-1971 Edition, Winter 1972 Addenda, Articles NA-4130(a), NA-4420, NA-4510, NA-4442.1, NB-4122, NA-4451, NB-4230, and NB-3661.5(b) require, in part, in-process inspections for pipe fitup, weld procedure, weld filler metal traceability, and welder qualifications...

Contrary to the above, the NRC inspectors identified the following nonconforming conditions that had not been corrected and action had not been taken to preclude their repetition:

- a. Licensee records indicate that the socket engagement (fitup) for more than 439 socket welds was not verified in accordance with ASME Code, Section III-1971 Edition, Article NB-3661.5(b) and the condition was not corrected in that the corrective action was not commensurate with the ASME Code. The welds date back to 1979.
 - b. Licensee records indicate that the in-process inspections for more than 22 welds in the diesel generator cooling water, starting air, and fuel oil piping systems were not performed by Kaiser in accordance with ASME Code, Section III-1971 Edition, Article NB-3661.5(b), et al., and the condition was not corrected in that the corrective action was not commensurate with the ASME Code. The welds date back to 1978.
 - c. Five licensee QA audits (audit performed 8/8-9/74 - no number, and Audit Nos. 78/07, 78/09, 78/10, 80/04) of Sargent & Lundy identified repetitive problems concerning S&L not performing certain design calculations, reviews, and verifications and action was not taken to preclude repetition.
4. 10 CFR 50, Appendix B, Criterion VIII states, in part, "Measures shall be established for the identification and control of materials... These measures shall assure that identification of the item is maintained..."

The Wm. H. Zimmer QA Manual, Section 8.2 states, in part, "H. J. Kaiser Company procedures provide that within the H. J. Kaiser Company jurisdiction the identification of items will be maintained by the method specified on the drawings, such as heat number, part number, serial number, or other appropriate means. This identification may be on the item or on records traceable to the item. The identification is maintained throughout fabrication, erection, and installation. The identification is maintained and usable in the operation and maintenance program."

Contrary to the above, based on an inspection by NRC inspectors in March 1981 of approximately 25 structural hanger support beams located in the Blue Switchgear Room and the Cable Spreading Room, the identification of the material in nine of those beams was not maintained to enable verification of quality.

5. 10 CFR 50, Appendix B, Criterion III states, in part, "Measures shall be established to assure that applicable regulatory requirements and the design basis...are translated into...drawings..."

The Wm. H. Zimmer FSAR, Section 8, provides the design basis for electrical cable separation that includes the following:

Associated cables (Green/White, Blue/White, and Yellow/White) from more than one Division cannot be routed in the same raceway. (FSAR Paragraph 8.3.1.13.2)

Vertical separation of three feet or more must be maintained between cables from different Divisions. (FSAR Paragraph 8.3.1.11.2.1.d)

Instrument (low-level signal) cables cannot be routed in the same raceway with power and control cables. (FSAR Paragraph 8.3.1.12.1.3)

The Wm. H. Zimmer QA Manual, Section 3.3.2. states, "Composite... drawings are prepared, translating the design concepts into layouts of structures, systems, and components necessary for the construction of the plant."

Contrary to the above, as of March 1981, the FSAR design basis for electrical cable separation had not been translated into drawings and this resulted in the following cable installation deficiencies in the Cable Spreading Room:

- a. Associated Cable (Yellow/White) No. RE053 for Division 1 was routed in the same raceway (two-inch conduit and Class IE Sleeve No. 79) as Associated Cable (Blue/White) No. RE058 for Division 2. Also, Associated Cable No. RE053 was routed so that in places there was only a vertical separation of four inches between it and cables in Blue Tray No. 2072C for Division 2.
- b. Instrument Cable (Green) No. WS714 and others for Division 3 were routed in the same raceway (Tray No. 4638B) as Associated Control Cables (Yellow/White and Blue/White) for Divisions 1 and 2. This deficiency was due, in part, to a design which specified the installation of a Green Instrument Tray (No. 3029K) inside a White Control Tray (No. 4638B).
- c. Many Associated Cables from all three Divisions were routed in the same raceway (White Tray No. 4080K) including Cable (Blue/White) No. TI192, Cable (Yellow/White) No. RR781, and Cable (Green/White) No. TI816.
- d. Associated Cables (Yellow/White) No. TI942 and No. TI943 for Division 1 were routed in the same raceway (White Tray Riser No. RK4627) as Associated Cables (Blue/White) No. TI808 and No. TI760 for Division 2.
- e. Many Associated Cables (Yellow/White) for Division 1 were routed in the same raceway (White Tray Riser No. 4139) as Associated Cables (Blue/White) for Division 2.

6. 10 CFR 50, Appendix B, Criterion III states, in part, "Design control measures shall be applied to...the delineation of acceptance criteria for inspections and tests."

The Wm. H. Zimmer QA Manual, Section 3.13.1 states, in part, "Design control measures also apply to delineation of acceptable criteria for inspections and tests."

Weld acceptance criteria are required by the ASME Code, Section III-1971 Edition and the AWS D1.1-1972 Code.

Contrary to the above:

- a. The weld acceptance criteria used by H. J. Kaiser Company from July 1980 to January 1981 were not applied to weld inspections during that period in that the weld acceptance criteria for such items as the drywell support steel were deleted.
 - b. The acceptance criteria for Weld 55H (isometric drawing PSK-1WS-32) performed on Service Water System Line No. 1WS17A18 by H. J. Kaiser Company in November 1979 were not applied in that they were designated as not applicable.
7. 10 CFR 50, Appendix B, Criterion XI states, in part, "Test results shall be evaluated to assure that test requirements have been satisfied."

The Wm. H. Zimmer QA Manual, Section 11.1 states, in part, "Test programs to assure that essential components, systems, and structures will perform satisfactorily in service are planned and performed in accordance with written procedures and instructions at vendor shops and at the construction site."

ASME Section III-1971 Edition, Winter 1972 Addenda, Appendix IX, Paragraph IX-3334.4 states, in part, "The shim thickness shall be selected so that the total thickness being radiographed under the penetrameter is the same as the total weld thickness..."

M. W. Kellogg Co. (pipe manufacturer and agency performing the prefabricated pipe weld radiography in question) Radiographic Procedure No. ES-414, dated September 26, 1972, Paragraph 4.1.8, states, "Wherever required, shims shall be used to produce a total thickness under the penetrameter equal to the nominal thickness of the base metal plus the height of the crown or reinforcement."

Contrary to the above, the licensee's review of 187 radiographs did not assure that test requirements were satisfied in that the licensee failed to detect that the penetrameter shimming was insufficient to satisfy the requirements of M. W. Kellogg Procedure

No. ES-414 or the ASME Code. This deficiency was identified during the NRC review of approximately 800 radiographs involving 206 pre-fabricated pipe welds in such systems as main steam, feedwater, and diesel generator support systems.

8. 10 CFR 50, Appendix B, Criterion III states, in part, "These measures [design control] shall include provisions to assure that appropriate quality standards are specified and included in design documents and that deviations from such standards are controlled...The design control measures shall provide for verifying or checking the adequacy of design."

The Wm. H. Zimmer QA Manual, Section 3.4 states, in part, "Design reviews are conducted to assure that the appropriate quality standards are specified and included in design documents."

The Wm. H. Zimmer QA Manual, Section 3.6 states, "Measures are established to assure that any deviations from the applicable standards are controlled."

The Wm. H. Zimmer QA Manual, Section 3.11.2 states, in part, "At S&L, design verification reviews are performed...."

The Wm. H. Zimmer FSAR Section 8.3.3.1.1 states that cable ampacity is based on IPCEA Publication No. P-46-426. An additional limitation on cable ampacity as stated in Section 8.3.3.1.3 is that "the summation of the cross-sectional areas of the cables shall not exceed 50% of the tray usable cross-sectional area or two layers of cables, whichever is larger, but not to exceed 60% of the cross-sectional area in any case."

AWS D1.1-1972 Code, Section 3.6.4, states, "For building and tubular structures, undercut shall be no more than 0.01 inch deep when its direction is transverse to primary tensile stress in the part that is undercut, nor more than 1/32 inch for all other situations."

Contrary to the above:

- a. As of March 1981, design control measures had not been established to assure that deviations from design conditions (quality standards) identified by Sargent & Lundy engineers were controlled. For example, Sargent & Lundy noted on a calculation sheet dated December 27, 1979, that the design thermal loading for two power cables (VC016 and VC073) in Yellow Tray No. 1057A would allow the cables to be thermally overloaded and no program existed to control those design deviations.

- b. As of March 1981, design control measures had not been established by Sargent & Lundy to provide for verifying or checking the adequacy of the design for the thermal loading of power cable sleeves and the physical weight loading of cable trays.
 - c. As of March 1981, the cable ampacity design by Sargent & Lundy was not based on IPCEA P-46-426 and the FSAR limit on cross-sectional area.
 - d. As of March 1981, the design allowable undercut on cable tray hanger welds was not based on AWS D1.1-1972 Code (appropriate quality standard). The design undercut was instead based on Sargent & Lundy Specification H-2713, Supplement 7, Sargent & Lundy Standard EB-117, and H. J. Kaiser Procedure SPPM No. 4.6, "Visual Examination," Revision 8, Paragraph 5.2.9, allowed up to 1/16 inch undercut.
9. 10 CFR 50, Appendix B, Criterion X states, in part, "A program for inspection of activities affecting quality shall be established and executed by or for the organization performing the activity to verify conformance with the documented instructions, procedures, and drawings for accomplishing the activity."

The Wm. H. Zimmer QA Manual, Section 10.1.2 states, in part, "Inspections are performed in accordance with written procedures which include requirements for check lists and other appropriate documentation of the inspections and tests performed."

AWS D1.1-1972 Code, Section 3.10.1, requires work to be completed and accepted before painting.

Contrary to the above:

- a. As of March 1981, a QC inspection program had not been established to require verification of separation of electrical cables routed from the Cable Spreading Room to the Control Room. An example of a nonconforming condition that should have been identified by such a program was Blue Cables RI103 and CM111 that had been routed into Tray Riser (Green) No. 3025A, which extended from Tray (Blue) No. 2077A in the Cable Spreading Room to the Control Room.
- b. The programs established for in-process and final inspections of welds on 180 cable tray hangers located in the Cable Spreading Room were not executed as required in the AWS D1.1-1972 Code. Specifically, the final weld inspections were made after the welds were painted (Galvanox).

10. 10 CFR 50, Appendix B, Criterion V states, in part, "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings."

The Wm. H. Zimmer QA Manual, Section 5.1 states, "Construction, fabrication, and manufacturing activities which affect the quality of the facility are accomplished in accordance with written instructions, procedures, and drawings which prescribe acceptable methods of carrying out those activities."

The Wm. H. Zimmer QA Manual, Section 3.12 states, in part, "Design changes...including field changes, are subject to design change control measures commensurate with those applied to the original design."

Contrary to the above:

- a. Kaiser Procedure QACMI G-14, "Surveillance Reports," (SR) was not appropriate to the circumstances in that it allowed in-process nonconformances which constitute field changes to be dispositioned within 30 days without being subjected to design control measures commensurate with those applied to the original design. Examples of nonconformances so dispositioned were identified in SRs F-2899, F-2903, and F-2914.
- b. Kaiser Procedure QACMI G-14 was not followed in that SRs F-2909, F-3070, F-3071, F-3072, F-3073, F-3074, F-3075, F-3076, F-3083, and F-7019 were not dispositioned within 30 days and were not transferred to Nonconformance Reports as required by Paragraph 5 of QACMI G-14.
11. 10 CFR 50, Appendix B, Criterion VII states, in part, "The effectiveness of the control of quality by contractors and subcontractors shall be assessed by the applicant or designee...."

The Wm. H. Zimmer QA Manual, Section 7.3.1 states, in part, "As part of the vendor selection process, S&L makes an independent evaluation of the bidders' QA programs as a part of their total bid evaluation."

Contrary to the above, as of March 1981, neither the licensee nor designee (Sargent & Lundy) had assessed the effectiveness of the control of quality by vendors who had supplied structural beams. Specifically, evaluations of the vendor (U.S. Steel Supply, PBI Steel Exchange, and Frank Adams Company) quality assurance programs for control of mill certifications and structural beams were not performed.

12. 10 CFR 50, Appendix B, Criterion XVII states, in part, "Sufficient records shall be maintained to furnish evidence of activities affecting quality. The records shall include...monitoring of work performance, and...include closely-related data such as qualifications of personnel, procedures, and equipment."

The Wm. H. Zimmer QA Manual, Section 17.1.4 states, in part, "Documentation of all performance surveillance includes personnel identification and qualification, procedure, type observation, date of performance, person or organization monitored, results and corrective action if required."

Contrary to the above, the Bristol Steel and Iron Works Quality Control Steel Erection Report, which was a generic form for monitoring in-process steel erection, did not identify closely related data such as weld procedure numbers, types of welding material, welder identification, and specific welds inspected.

13. 10 CFR 50, Appendix B, Criterion XVIII states, in part, "A comprehensive system of planned and periodic audits shall be carried out to verify compliance with all aspects of the quality assurance program and to determine the effectiveness of the program."

The Wm. H. Zimmer QA Manual, Section 18.1 states, in part, "QA Division conducts a comprehensive system of planned and periodic audits of S&L, HJK...to verify compliance with all aspects of the quality assurance program."

Contrary to the above, during the past 9 years the licensee's QA Division did not perform an audit of the Sargent & Lundy nonconformance program.

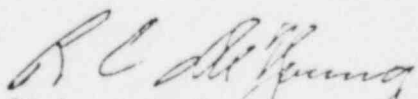
This is a Severity Level II violation (Supplement II).
(Civil Penalty - \$100,000).

Pursuant to the provisions of 10 CFR 2.201, Cincinnati Gas and Electric Company is hereby required to submit to this office within 30 days of the date of this Notice a written statement or explanation, including for each alleged violation: (1) admission or denial; (2) the reasons for the violation if admitted; (3) the corrective steps which have been taken and the results achieved; (4) the corrective steps which will be taken to avoid further violations; and (5) the date when full compliance will be achieved. Any statement or explanation may incorporate by specific reference (e.g., giving page and paragraph numbers) the provisions of your quality confirmation program and your actions in response to our Immediate Action Letter of April 8, 1981. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, Cincinnati Gas and Electric Company may pay the civil penalties in the cumulative amount of Two Hundred Thousand Dollars or may protest imposition of the civil penalties in whole or in part by a written answer. Should Cincinnati Gas and Electric Company fail to answer within the time specified, this office will issue an Order imposing the civil penalties in the amount proposed above. Should Cincinnati Gas and Electric Company elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalties, such answer may: (1) deny the violations listed in this Notice in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the penalties should not be imposed. In addition to protesting the civil penalties in whole or in part, such answer may request remission or mitigation of the penalties. Any answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate by specific reference (e.g., giving page and paragraph numbers) to avoid repetition. Cincinnati Gas and Electric Company's attention is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing civil penalties.

Upon failure to pay any civil penalties due, which have been subsequently determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalties, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282.

FOR THE NUCLEAR REGULATORY COMMISSION


Richard C. DeYoung, Director
Office of Inspection and Enforcement

Dated at Bethesda, Maryland
this 24 day of November 1981

Appendix B

CROSS REFERENCES: NONCOMPLIANCES TO REPORT DETAILS

<u>Noncompliance</u>	<u>Criterion</u>	<u>Report Section</u>
A.1	XVII	4.3.3.7 and 4.3.3.8
A.2	XVII	4.1.3
A.3	XVII	4.1.3
A.4	XVII	4.1.3
A.5	XVII	4.1.3
B.1	I	6.1.3
B.2	I	6.1.3
B.3	I	6.1.3
B.4	I	4.4.4
B.5	I	6.1.3
B.6	I	6.1.3
B.7	I	6.1.3
B.8	I	6.1.3.
B.9	I	6.1.3
C.1	XV	4.1.3
C.2.a	XVI	7.1.3.2
C.2.b	XVI	5.10.3.2
C.3.a	XVI	4.3.3.6
C.3.b	XVI	4.3.3.6
C.3.c	XVI	7.3.3
C.4	VIII	7.1.3.3
C.5.a	III	7.2.2
C.5.b	III	7.2.2
C.5.c	III	7.2.2
C.5.d	III	7.2.2
C.5.e	III	7.2.2
C.6.a	III	6.2.2
C.6.b	III	6.2.2
C.7	XI	5.8.3.10
C.8.a	III	5.10.3.3.6
C.8.b	III	5.10.3.3.5
C.8.c	III	5.10.3.3.3.b
C.8.d	III	5.10.3.2
C.9.a	X	7.2.2
C.9.b	X	5.10.3.2

C.10.a	V	6.3.1
C.10.b	V	6.3.1
C.11	VII	7.1.4
C.12	XVII	7.1.5
C.13	XVIII	7.3.1

Senate Republican Caucus

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Zimmer Scrutiny Ordered By NRC

BY BEN L. KAUFMAN
Enquirer Reporter

Unprecedented inspections of safety systems at Zimmer nuclear power station are being carried out under Nuclear Regulatory Commission (NRC) orders.

James G. Keppler, head of NRC's Midwestern Region III, said Friday "all safety systems" are being checked by Cincinnati Gas & Electric Co. (CG&E).

"All means 100%," Keppler said. "No more spot checks."

Exceptions will be rare, Keppler said, adding, "They haven't asked for any."

It is limited, however, to "non-destructive" tests. CG&E is not tearing out concrete structures or cutting apart its stainless steel reactor.

A utility spokesman called the new inspections a "confirmation program."

IT'S WHAT critics have been demanding for years.

They never accepted NRC's explanation that federal inspectors function mostly as auditors, checking a sample of work while relying on quality assurance documents provided by CG&E and its contractors.

Today, however, there is a growing consensus within NRC that its paperwork system for identifying, tracking and correcting nuclear facility construction flaws is itself flawed.

Top NRC officials conceded as much before Congress this week, citing Zimmer and Marble Hill nuclear power station near Madison, Ind., as two places the system hasn't worked well enough.

Keppler, in a telephone interview from his Chicago office, said CG&E can handle the inspections today.

THIS CONFIDENCE contrasts with his characterization of CG&E's program for the decade when contractors did most quality assurance. "They were ineffective in carrying out their assignments," he said.

Recently, however, NRC had enough and forced CG&E to shake up and expand its quality assurance staff so it could do the job.

If NRC has any doubts about CG&E's performance, outside consultants will be ordered in, Keppler said. Those costs would be included in Zimmer bills on which rate increases eventually will be computed.

Keppler said the new inspections need not delay Zimmer's start-up.

Tuesday, Keppler is coming to Cincinnati to tell CG&E about his staff's latest investigation. It was one of at least two provoked by private investigator Thomas Applegate's complaints of dangerously shoddy work at Zimmer.

WHATEVER THE probe found, it will not require CG&E to halt construction, Keppler said.

Applegate also said CG&E and its contractors hid faulty work and documentation from NRC inspectors.

Was there a cover-up by CG&E? "Not that I'm aware of," Keppler said. The contractors? "That's in the report."

Keppler would not say if his staff's investigation recommended new fines for errors at Zimmer. He wants to present the report to utility officials before commenting publicly.

CG&E spokesman Bruce Stoecklin said the new "confir-

(See NRC,
back of this section)

mation program" at Zimmer involves only safety systems whose documentation was questioned.

CG&E INSPECTORS are reviewing welds, metal cable trays, radiographs of pipes and welds, nonconformance reports on known problems, etc.

Stoecklin could not explain why CG&E officials told him checks are limited to systems which were challenged while Keppler said all safety systems were being reviewed.

The thoroughness of the costly and time-consuming new inspections also will be new to NRC inspectors, William J. Dircks, executive director of NRC's national operations, said.

Investigators will trace systems right down to individual components and their serial numbers, Dircks said, because NRC wants to know if what was installed "matches the design" in the documents.

"We're going beyond the paperwork to the hardware in the plant," Dircks said. "Now, we're going to grab a file folder and trace the whole thing back . . ."

NRC IS going back because of "quality assurance breakdowns with broad repercussions" at Zimmer, Marble Hill and three other unfinished plants.

"Essentially, we have found too much wrong."

Most NRC reviews involve "skimming across" work and documentation, Dircks conceded, but now, inspectors will "bore in."

Dircks, who oversees NRC inspection and enforcement programs, said he will be surprised if major flaws are found at Zimmer. Whatever documenta-

tion problems have bedeviled the project, "We haven't uncovered real hardware problems."

WHAT ABOUT Applegate's charges of false or altered documents?

"I don't think we found any," he said. "We found sloppiness."

"We don't see any evidence of a cover-up."

In an interview from his Bethesda, Md., office, Dircks said most of the blame falls on the utilities, "but I'm not exonerating us."

For too long, CG&E delegated too much responsibility for quality assurance, Dircks said, "and that's not good practice." New to nuclear power, CG&E should have stayed on top of events or hired someone to do so, he added.

Dircks agreed that the new inspections needn't delay Zimmer's start-up, but he left open the possibility that new findings could force a halt to work on the billion-dollar facility.

"I DON'T think it will be required but we'll just have to see," he said.

Despite their concessions about problems with NRC oversight of quality assurance at Zimmer, Keppler and Dircks both are optimistic about improving NRC's performance as the project nears completion.

That agreement is no surprise. Earlier this week, Dircks and Keppler rebutted in-house criticism of the way Region III is handling Zimmer and Applegate's complaints about quality assurance there.

NRC's Office of Inspector & Auditor concluded that Region III's top inspector botched the probe into Applegate's charges by relying too much on documentation and failing to check welds identified in the complaint.

Piqua's Ghost A-Plant

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Moeller's Littlest Crusader

Page C-1

NNATI ENQUIRER

THURSDAY, NOVEMBER 26, 1981

A GANNETT NEWSPAPER

Zimmer Incurs \$200,000 Fine Over Foul-Ups

BY BEN L. KAUFMAN
Enquirer Reporter

The Nuclear Regulatory Commission (NRC) Wednesday confirmed it will fine Cincinnati Gas & Electric Co. (CG&E) a record \$200,000 for foul-ups at Zimmer nuclear power station.

The sum is open to negotiation, but James G. Keppler, administrator of NRC's midwestern Region III, made his feelings clear when he announced the violations and civil penalty: "In terms of quality assurance, Zimmer was totally out of control."

The penalty, which Keppler told a news conference was the highest against an unfinished facility, reflected NRC findings since January. The probe is not complete.

The results of the NRC investigation and unprecedented fine were a "setback" to the troubled commercial nuclear power industry, he conceded.

CG&E President William H. Dickhoner responded, calling the fine excessive, unjustified and unnecessary, but he said the "unusually high degree of scrutiny" will assure Zimmer meets the highest safety standards.

CG&E will talk with its Zimmer partners—Dayton Power & Light and Columbus & Southern Ohio Electric—before telling the NRC whether it will contest any part of the penalty.

"In the event we pay the fine," Dickhoner said, "no portion of it will be charged to our customers."

Keppler grouped the violations into "false quality assurance documents, harassment and intimidation of quality control personnel, and numerous examples of failure to implement an adequate quality assurance program."

(See ZIMMER, back of this section)

TESTIMONY OF
NUNZIO J. PALLADINO
UNITED STATES NUCLEAR REGULATORY COMMISSION
BEFORE THE
SUBCOMMITTEE ON ENERGY AND THE ENVIRONMENT
OF THE
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS
UNITED STATES HOUSE OF REPRESENTATIVES
WASHINGTON, D.C.
NOVEMBER 19, 1981

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE, I AM PLEASED TO APPEAR BEFORE YOU THIS MORNING TO DISCUSS QUALITY ASSURANCE FOR NUCLEAR POWER PLANTS.

I BELIEVE THAT AN EFFECTIVE QUALITY ASSURANCE (QA) PROGRAM IS A VITAL ELEMENT IN THE MANAGEMENT OF ACTIVITIES THAT MUST BE ACCOMPLISHED DURING THE DESIGN AND CONSTRUCTION OF EACH NUCLEAR POWER PLANT. QUALITY ASSURANCE SHOULD BE USED AS A FORMAL MANAGEMENT TOOL TO ATTAIN THE MUTUALLY COMPLEMENTARY GOALS OF ASSURING THAT THE DESIGN IS CORRECT AND THAT THE PLANT IS CONSTRUCTED IN FULL ACCORD WITH THE DESIGN. TO BE EFFECTIVE, A QA PROGRAM MUST HAVE THE FULL SUPPORT AND ATTENTION OF THE NUCLEAR INDUSTRY MANAGERS RESPONSIBLE FOR DESIGN AND CONSTRUCTION.

THE NRC LICENSING AND INSPECTION AND ENFORCEMENT PROCESSES ARE AIMED AT ASSURING THAT AN EFFECTIVE QA PROGRAM IS ESTABLISHED AND IMPLEMENTED TO PROVIDE THE NECESSARY CONFIDENCE THAT EACH NUCLEAR POWER PLANT FULLY SATISFIES NRC REQUIREMENTS.

AFTER REVIEWING BOTH INDUSTRY AND NRC PAST PERFORMANCE IN QA, I READILY ACKNOWLEDGE THAT NEITHER HAVE BEEN AS EFFECTIVE AS THEY SHOULD HAVE BEEN IN VIEW OF THE RELATIVELY LARGE NUMBER OF CONSTRUCTION-RELATED DEFICIENCIES THAT HAVE COME TO LIGHT. HOWEVER, RECOGNIZING THAT THERE IS A PROBLEM IS THE FIRST STEP TO FIXING IT. I HOPE THAT OUR TESTIMONY TODAY WILL DEMONSTRATE NRC'S RESOLVE TO DEAL FORCEFULLY WITH CONSTRUCTION RELATED DEFICIENCIES AND THE QA PROBLEMS THEY REVEAL.

MR. CHAIRMAN, ACCOMPANYING ME TODAY IS MR. WILLIAM DIRCKS, EXECUTIVE DIRECTOR FOR OPERATIONS, MR. HAROLD R. DENTON, DIRECTOR OF THE OFFICE OF NUCLEAR REACTOR REGULATION, MR. RICHARD DEYOUNG, DIRECTOR OF THE OFFICE OF INSPECTION AND ENFORCEMENT, MR. JAMES G. KEPPLER, REGIONAL ADMINISTRATOR OF NRC REGION III, AND MR. JOHN COLLINS, REGIONAL ADMINISTRATOR OF NRC REGION IV. MR. DIRCKS WILL PRESENT THE REST OF NRC'S WRITTEN TESTIMONY, AFTER WHICH WE WILL BE PREPARED TO ANSWER ANY QUESTIONS YOU MAY HAVE.

TESTIMONY OF WILLIAM J. DIRCKS

BEFORE THE

SUBCOMMITTEE ON ENERGY AND THE ENVIRONMENT

OF THE

COMMITTEE ON INTERIOR AND INSULAR AFFAIRS

UNITED STATES HOUSE OF REPRESENTATIVES

WASHINGTON, D.C.

QUALITY ASSURANCE FOR NUCLEAR PLANTS UNDER CONSTRUCTION

THIS TESTIMONY ADDRESSES THE ADEQUACY OF QUALITY ASSURANCE AS IT APPLIES TO NUCLEAR POWER PLANTS UNDER CONSTRUCTION, WHY IDENTIFIED CONSTRUCTION OR QUALITY ASSURANCE DEFICIENCIES HAVE NOT BEEN DETECTED ON A MORE TIMELY BASIS, AND ACTIONS BEING TAKEN TO SOLVE RECOGNIZED PROBLEMS.

THE NRC LOOKS TO THE POWER PLANT OWNERS, THE UTILITIES THEMSELVES, TO TAKE THE LEADERSHIP ROLE IN ASSURING THE QUALITY OF THEIR PLANTS AND OPERATIONS. THIS REQUIRES HEAVY EMPHASIS AND ACTIVE INVOLVEMENT OF TOP LICENSEE MANAGEMENT IN QA PROGRAMS. CAREFUL ATTENTION IS REQUIRED IN THE SELECTION OF ENGINEERING SPECIFICATIONS AND QA PROCEDURES AND PRACTICES FOR EACH TASK AND THEIR IMPLEMENTATION BY THE WORKERS ON THE JOB. MOST IMPORTANTLY, THERE MUST BE ADEQUATE RESOURCES OF QUALIFIED PERSONNEL AT MANAGEMENT, OPERATING, AND STAFF LEVELS.

NRC ASSESSES THE PERFORMANCE OF THE UTILITIES AND THEIR MAJOR CONTRACTORS DURING THE DESIGN AND CONSTRUCTION PHASES. THE NRC DOES NOT ATTEMPT TO REDO THIS WORK OR INSPECT IT COMPLETELY SINCE THE NRC RESOURCES ON A PARTICULAR PLANT ARE ONLY A SMALL FRACTION OF WHAT WE REQUIRE A UTILITY TO DEVOTE TO INSPECTION, QUALITY CONTROL, AND QUALITY ASSURANCE. THE NRC'S REGIONAL OFFICES CARRY OUT A SAMPLING INSPECTION PROGRAM AIMED AT DETERMINING COMPLIANCE WITH THE PROGRAMMATIC COMMITMENTS. THE REGULATORY REQUIREMENTS PLACE THE MAJOR INSPECTION RESPONSIBILITIES FOR QUALITY ASSURANCE

ON THE LICENSEE'S CONTRACTORS, WHICH ARE IN TURN INSPECTED AND AUDITED BY THE LICENSEE'S STAFF. THE NRC'S EFFORT IS AN AUDIT AND OVERVIEW OF THE LICENSEE'S AND ITS CONTRACTORS' QUALITY ASSURANCE ACTIVITIES. IN CARRYING OUT THESE INSPECTION ACTIVITIES, NRC INSPECTIONS COVER APPROXIMATELY 1-5 PERCENT OF THE INSPECTION ACTIVITIES PERFORMED BY THE LICENSEE AND ITS CONTRACTORS.

THE NRC'S QUALITY ASSURANCE REQUIREMENTS ARE CONTAINED IN APPENDIX B TO PART 50 OF TITLE 10 OF THE CODE OF FEDERAL REGULATIONS, "QUALITY ASSURANCE CRITERIA FOR NUCLEAR POWER PLANTS AND FUEL REPROCESSING PLANTS." THESE CRITERIA PROVIDE A BASIS UPON WHICH THE NRC JUDGES THE ACCEPTABILITY OF QA PROGRAMS. THE CRITERIA OF APPENDIX B APPLY TO ALL ACTIVITIES AFFECTING SAFETY-RELATED FUNCTIONS OF NUCLEAR POWER REACTOR STRUCTURES, SYSTEMS, AND COMPONENTS.

QUALITY ASSURANCE IS DEFINED IN OUR REGULATIONS AS "ALL THOSE PLANNED AND SYSTEMATIC ACTIONS NECESSARY TO PROVIDE ADEQUATE CONFIDENCE THAT A STRUCTURE, SYSTEM, OR COMPONENT WILL PERFORM SATISFACTORILY IN SERVICE." WHAT THIS MEANS IS THAT - FOR ITEMS HAVING SAFETY SIGNIFICANCE IN A NUCLEAR POWER PLANT:

- 0 THE DESIGN IS VERIFIED TO BE CORRECT AND TO INCLUDE APPROPRIATE REGULATORY REQUIREMENTS;

- O PROCUREMENT DOCUMENTS CONTAIN ADEQUATE INFORMATION AND ARE VERIFIED;
- O INSPECTION OF PARTS, MATERIALS, AND PROCESSES ARE TIMELY AND ADEQUATE;
- O DEFICIENCIES IN DESIGN, CONSTRUCTION AND INSTALLATION ARE IDENTIFIED AND APPROPRIATELY REMEDIED;
- O THE QA PROCESS IS AUDITED AND REPORTED TO AN ORGANIZATIONAL LEVEL CAPABLE OF ASSURING EFFECTIVE CORRECTIVE MEASURES;
- O RECORDS ARE KEPT WHICH CLEARLY DEMONSTRATE SUFFICIENCY OF ACTIVITIES AFFECTING QUALITY; AND
- O THE ORGANIZATIONS PERFORMING QA FUNCTIONS HAVE SUFFICIENT INDEPENDENCE AND AUTHORITY TO IMPLEMENT THESE ACTIVITIES.

THIS DISCUSSION WILL FOCUS ON SOME EXPERIENCES THAT HAVE AND CONTINUE TO GENERATE WIDESPREAD PUBLIC INTEREST. SPECIFICALLY, THERE HAVE BEEN SOME SERIOUS QUALITY ASSURANCE BREAKDOWNS WITH BROAD REPERCUSSIONS AT THE MARBLE HILL, MIDLAND, ZIMMER, SOUTH TEXAS, AND DIABLO CANYON CONSTRUCTION SITES.

MARBLE HILL

IN 1979, WEAKNESSES WERE IDENTIFIED IN THE PROGRAM FOR THE PLACEMENT OF CONCRETE AND RELATED QUALITY ASSURANCE MEASURES AT THE MARBLE HILL NUCLEAR PLANT CONSTRUCTION SITE IN SOUTHERN INDIANA.

WE INVESTIGATED THESE PROBLEMS WHEN A CONCRETE WORKER RAISED ALLEGATIONS THAT HONEYCOMBING, VOIDS AND SURFACE DEFECTS WERE BEING IMPROPERLY PATCHED. THESE ALLEGATIONS, WHICH WERE SUBSEQUENTLY SUBSTANTIATED, LED TO A BROADER INVESTIGATION THAT ADDRESSED OTHER AREAS OF WORK AT THE SITE. ABOUT THE SAME TIME, CODE COMPLIANCE PROBLEMS WERE IDENTIFIED BY THE INDIANA BOILER CODE INSPECTOR AND THE NATIONAL BOARD OF BOILER AND PRESSURE VESSEL INSPECTORS.

THESE EVENTS LED TO A HALTING OF ALL SAFETY-RELATED WORK AT THE SITE IN AUGUST 1979 -- A MOVE TAKEN BY THE UTILITY AND CONFIRMED BY AN NRC ORDER. WORK WAS NOT PERMITTED BY THE NRC TO RESUME UNTIL DECEMBER 1980, SOME 16 MONTHS LATER, WHEN THE UTILITY'S QUALITY ASSURANCE PROGRAM --AND THAT OF ITS CONTRACTORS -- HAD BEEN SUBSTANTIALLY UPGRADED AND THE ADEQUACY OF COMPLETED CONSTRUCTION WORK HAD BEEN VERIFIED. DELAYS IN CONSTRUCTION AND EFFORTS TO CORRECT THESE AND OTHER PROBLEMS ARE ESTIMATED TO HAVE COST THE UTILITY HUNDREDS OF MILLIONS OF DOLLARS.

MIDLAND

IN THE CASE OF THE MIDLAND FACILITY IN MICHIGAN, EXCESSIVE SETTLEMENT OF THE DIESEL GENERATOR BUILDING WAS OBSERVED IN 1978. THE UNEXPECTED SETTLING WAS SUBSEQUENTLY ATTRIBUTED TO INADEQUATE AND POORLY COMPACTED SOIL UNDER THE BUILDING. FURTHER INVESTIGATION BY THE LICENSEE REVEALED THAT OTHER SAFETY-RELATED SYSTEMS AND STRUCTURES WERE AFFECTED. ALL OF THESE SYSTEMS AND STRUCTURES WERE NEARING COMPLETION AT THE TIME THE PROBLEM WAS DISCOVERED. THE NRC'S INVESTIGATION DETERMINED THAT DESIGN AND CONSTRUCTION SPECIFICATIONS HAD NOT BEEN FOLLOWED DURING PLACEMENT OF THE SOIL FILL MATERIALS AND THAT THERE WAS A LACK OF CONTROL AND SUPERVISION OF THE SOIL PLACEMENT ACTIVITIES BY THE UTILITY AND ITS CONTRACTORS. THE COSTS ASSOCIATED WITH ASSURING PROPER SOIL COMPACTION AND DEMONSTRATING THE ADEQUACY OF THE PLANT DESIGN ARE SIGNIFICANT. THE MATTER HAS STILL NOT BEEN RESOLVED AND THE ISSUES ARE CURRENTLY BEING LITIGATED BEFORE AN NRC HEARING BOARD.

ZIMMER

AT THE ZIMMER FACILITY IN SOUTHERN OHIO, THE NRC HAS BEEN INVESTIGATING ALLEGED QUALITY ASSURANCE IRREGULARITIES SINCE JANUARY OF THIS YEAR. THIS INVESTIGATION EFFORT, WHICH IS STILL ONGOING, STARTED WITH ALLEGATIONS FROM A COUPLE OF SOURCES, BUT SOON BROADENED TO MANY WORKERS AND EX-WORKERS. TO DATE WE HAVE

INTERVIEWED APPROXIMATELY 100 INDIVIDUALS AND EXPENDED OVER 250 MAN-DAYS ONSITE PURSUING THESE ALLEGATIONS.

THE CURRENT INVESTIGATION HAS IDENTIFIED A NUMBER OF QUALITY ASSURANCE-RELATED PROBLEMS AT THE ZIMMER SITE. THE MAJORITY OF THE PROBLEMS IDENTIFIED TO DATE FOCUS ON THE INEFFECTIVENESS OF CONTROLS IMPLEMENTED BY THE LICENSEE AND ITS CONTRACTORS FOR ASSURING THE QUALITY OF WORK PERFORMED. IN THAT REGARD, NUMEROUS DEFICIENCIES HAVE BEEN FOUND CONCERNING TRACEABILITY OF MATERIALS, HANDLING OF NONCONFORMANCE, INTERFACE BETWEEN CONSTRUCTION AND QUALITY CONTROL, QUALITY RECORDS, AND THE LICENSEE'S OVERVIEW OF ONGOING WORK.

THE IMPACT OF THE IDENTIFIED QUALITY ASSURANCE DEFICIENCIES ON THE ACTUAL CONSTRUCTION HAS YET TO BE DETERMINED. AN EXTENSIVE REVIEW OF THE AS BUILT PLANT IS CURRENTLY BEING PERFORMED. LIMITED INDEPENDENT MEASUREMENTS WERE PERFORMED BY THE NRC IN SELECTED AREAS OF CONCERN IN AN ATTEMPT TO CHARACTERIZE THE ACTUAL SAFETY SIGNIFICANCE OF THESE DEFICIENCIES. ALTHOUGH A FEW PROBLEMS REQUIRING CORRECTIVE ACTION WERE IDENTIFIED, THE MAJORITY OF THE TESTS AND EXAMINATIONS DISCLOSED NO HARDWARE PROBLEMS.

BEFORE THE PLANT CAN BE LICENSED A COMPREHENSIVE QUALITY CONFIRMATION PROGRAM WILL HAVE TO BE CONDUCTED AND IDENTIFIED PROBLEM

AREAS RESOLVED. BY ITSELF, WITHOUT FACTORING IN ANY REWORK, THE QUALITY CONFIRMATION PROGRAM WILL BE BOTH COSTLY AND TIME CONSUMING. THE EFFECT OF THIS ON THE CONSTRUCTION SCHEDULE OF THE PLANT REMAINS TO BE DETERMINED.

SOUTH TEXAS

IN JANUARY 1981, HOUSTON LIGHTING AND POWER COMPANY (HL&P) INITIATED A DESIGN REVIEW OF THOSE PORTIONS OF THE ENGINEERING DESIGN WORK PERFORMED BY BROWN AND ROOT, INC., (B&R) FOR THE SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION (STP). THE PURPOSE OF THIS REVIEW WAS TO ASCERTAIN THE OVERALL ADEQUACY OF THE STP DESIGN. QUADREX CORPORATION WAS ASKED TO ASSIST HL&P IN A REVIEW OF THE FOLLOWING B&R TECHNICAL DISCIPLINES:

- CIVIL/STRUCTURAL
- COMPUTER PROGRAMS AND CODES
- ELECTRICAL/INSTRUMENTATION AND CONTROL
- GEOTECHNIC
- HEATING, VENTILATING AND AIR CONDITIONING
- MECHANICAL
- NUCLEAR ANALYSIS
- PIPING AND SUPPORTS/STRESS AND SPECIAL STRESS
- RADIOLOGICAL CONTROL

THE LICENSEE MET WITH QUADREX CORPORATION FOR THE FIRST TIME ON JANUARY 16, 1981, AND SEVERAL OTHER TIMES IN JANUARY AND FEBRUARY 1981, TO PLAN THE REVIEW. THE REVIEW BY QUADREX INVOLVED 12 ENGINEERING CONSULTANT PERSONNEL WHO SPENT MORE THAN SIX WEEKS IN AUDITING B&R DESIGN ENGINEERING DOCUMENTS AND INTERVIEWING VARIOUS B&R DISCIPLINE ENGINEERS. THE REPORT ON THE QUADREX EFFORT DATED MAY 1981, WAS SUBMITTED BY THE LICENSEE TO THE NRC LICENSING HEARING BOARD ON SEPTEMBER 28, 1981. BRIEFLY, THE QUADREX REPORT FOUND THAT BROWN & ROOT APPARENTLY FAILED TO PROPERLY IMPLEMENT THE QA PROGRAM IN THE DESIGN AREA BUT ALSO FAILED TO PROPERLY IMPLEMENT AN OVERALL DESIGN PROCESS CONSISTENT WITH THE NEEDS OF A NUCLEAR POWER PLANT. AS A RESULT VERIFICATION OF DESIGN INFORMATION WAS APPARENTLY NOT PERFORMED IN A TIMELY MANNER, AND REGULATORY COMMITMENTS FOR SAFETY DID NOT APPEAR TO BE FULLY OR PROPERLY IMPLEMENTED TO SATISFY NRC REQUIREMENTS FOR LICENSABILITY.

NRC INSPECTION REPORTS DATING BACK TO 1979 FOUND PROBLEMS AT THE SOUTH TEXAS PLANT SIMILAR TO THOSE IDENTIFIED IN THE QUADREX REPORT. HOWEVER, THE AGENCY'S AUDITS DID NOT SURFACE THE NUMBER OF PROBLEMS SUGGESTED BY THE QUADREX REPORT. THOUGH WE WERE AWARE OF QA PROBLEMS AT SOUTH TEXAS AND HAD CITED THE LICENSEE FOR A BREAKDOWN IN THEIR QA PROGRAM IN APRIL 1980, THE MAGNITUDE OF POTENTIAL PROBLEMS WAS NOT FULLY APPRECIATED UNTIL WE FIRST REVIEWED THE REPORT IN AUGUST OF 1981.

IN LATE SEPTEMBER THE LICENSEE ANNOUNCED THAT BROWN AND ROOT WAS BEING REPLACED BY BECHTEL POWER CORPORATION AS ARCHITECT-ENGINEER. WE INTEND TO CAREFULLY MONITOR HOW BECHTEL INVESTIGATES AND DISPOSES OF THE PROBLEMS SURFACED BY THE QUADREX REPORT.

DIABLO CANYON

AT DIABLO CANYON, THE PACIFIC GAS & ELECTRIC COMPANY (PG&E) PROVIDED INCORRECT INFORMATION TO A EXPERT CONSULTANT, WHO USED THE INFORMATION IN DEVELOPING THE SEISMIC RESPONSE SPECTRA FOR THE DESIGN OF CERTAIN SEISMIC PIPING AND EQUIPMENT RESTRAINTS. OUR INVESTIGATORS HAVE FOUND THAT THERE WAS A LACK OF RIGOR AND FORMALITY IN THE PROCEDURES USED FOR VERIFYING THE ACCURACY OF INFORMATION TRANSFERRED BY PG&E TO ITS CONSULTANTS. THESE PROCEDURES DID NOT COMPLY WITH OUR REQUIREMENTS CALLING FOR VERIFICATION OF DESIGN INFORMATION AT EACH STAGE OF THE PROCESS BY AN INDEPENDENT PERSON QUALIFIED IN THE PERTINENT DISCIPLINES. PROPER QUALITY ASSURANCE CONTROLS WERE NOT EMPLOYED IN TECHNICAL AND PROCUREMENT COMMUNICATIONS WITH SERVICE-TYPE CONTRACTORS. NOR WERE DOCUMENT CONTROLS ADEQUATE TO ASSURE THAT THOSE INVOLVED IN DESIGN HAD READY ACCESS TO THE MOST RECENT INFORMATION AVAILABLE. BECAUSE OF THE INADEQUACY OF QA CONTROLS OVER DESIGN VERIFICATION, PROCUREMENT AND THE TRANSMITTAL OF DOCUMENTS TO SERVICE CONTRACTORS, THE ACCEPTABILITY OF THE DESIGNS BASED ON THEIR ANALYSES IS NOW IN QUESTION.

AS A RESULT, THE STAFF HAS DECIDED THAT THERE IS SUFFICIENT REASON TO REVIEW THE ENTIRE PROCESS FOR SEISMIC DESIGN; TO REVIEW THE ADEQUACY OF OTHER PLANT DESIGN ASPECTS, PARTICULARLY THOSE THAT WERE BASED ON ENGINEERING INFORMATION DEVELOPED UNDER OTHER SERVICE-TYPE CONTRACTS; AND TO REVIEW THE IMPLEMENTATION OF THE UTILITY QA PROGRAM IN THESE AREAS.

IN LOOKING AT THE MARBLE HILL, MIDLAND, ZIMMER, SOUTH TEXAS, AND DIABLO CANYON PROBLEMS, QUESTIONS HAVE BEEN RAISED AS TO WHY THE LICENSEE'S QUALITY ASSURANCE PROGRAM AND THE NRC INSPECTION PROGRAM HAD NOT IDENTIFIED THE PROBLEMS SOONER. CLEARLY, IN EACH CASE, THERE WAS AN OVERRELIANCE BY THE UTILITY ON ITS CONTRACTORS FOR MAINTAINING A THOROUGH QUALITY ASSURANCE PROGRAM. THE UTILITY'S OWN QA STAFF WAS TOO SMALL TO MAINTAIN SUFFICIENT SURVEILLANCE OVER THE WORK OF CONTRACTORS. IN TWO OF THE CASES WE SAW INSTANCES WHERE THE CONSTRUCTION MANAGEMENT DOMINATED OR CONTROLLED THE QUALITY ASSURANCE PROGRAM AND PERSONNEL. AND, IN EACH OF THE CASES WHERE PROBLEMS HAD BEEN IDENTIFIED, THE CORRECTIVE ACTION TAKEN WAS NOT SUFFICIENTLY BROAD. TOO FREQUENTLY, THE RESPONSE WAS ONE OF TREATING THE SYMPTOM, RATHER THAN FINDING THE BASIC CAUSE AND CORRECTING IT.

IN ANALYZING THE IDENTIFIED PROBLEMS AREAS, ONE CAN COME UP WITH A LIST OF IMMEDIATE CAUSES -- SUCH AS UNQUALIFIED WORKERS OR QC INSPECTORS, FALSIFIED RECORDS, INTIMIDATION OF QUALITY

CONTROL INSPECTORS, LACK OF AUTHORITY, LACK OF COMMUNICATION, INADEQUATE STAFFING LEVELS, INADEQUATE CORRECTIVE ACTION SYSTEMS, LACK OF SUPERVISION, POOR TO NONEXISTENT PROCEDURES, POOR DESIGN AND CHANGE CONTROL, DESIGN ERRORS, INADEQUATE ANALYSES, POOR QUALITY COMPONENTS, AND SO ON. MOST OF THESE CAN BE TRACED TO FAILURE OF QUALITY ASSURANCE DUE TO INEFFECTIVE MANAGEMENT CONTROL OF THE QA PROGRAM. THERE ARE A MYRIAD OF EXCUSES AND REASONS WHY MANAGEMENT FAILS. SOME ARE EXPLICIT FAILURES OF PERFORMANCE OR LACK OF ATTENTION. OTHER FAILURES ARISING FROM POOR ATTITUDES AND PERCEPTIONS ARE DIFFICULT TO IDENTIFY. THE NRC CANNOT TOLERATE THESE DEFECTS BECAUSE OF THEIR POTENTIAL IMPACT IN TERMS OF PUBLIC RISK. IT IS SURPRISING THAT SOME LICENSEES ARE INSUFFICIENTLY CONCERNED ABOUT QUALITY ASSURANCE NOT ONLY BECAUSE OF THE SAFETY IMPLICATIONS BUT ALSO BECAUSE OF THE IMMENSE COST OF MISTAKES AND OF THE RESULTING DELAY IN CONSTRUCTION.

GIVEN THESE INSTANCES OF BREAKDOWNS IN MANAGEMENT CONTROL OF CONSTRUCTION QUALITY AND THE COMMISSION'S DISSATISFACTION, THE ISSUE IS "WHAT ARE WE DOING ABOUT IT?"

WITHOUT DOUBT, THERE HAVE BEEN SHORTCOMINGS IN THE NRC INSPECTION PROGRAM AT CONSTRUCTION SITES. THERE HAVE BEEN CASES WHERE WE HAVE FAILED TO SEE THE BREADTH OR DEPTH OF A PROBLEM. WE IDENTIFIED SPECIFIC VIOLATIONS OF REQUIREMENTS WITHOUT REQUIRING THE CORRECTION OF THE BASIC CAUSE OF THE PROBLEM. ADDITIONALLY,

WE MAY HAVE SPENT TOO LITTLE TIME WITH QUALITY CONTROL INSPECTORS AND CONTRUCTION WORKERS TO GET THEIR VIEWS ON THE IMPLEMENTATION OF QUALITY ASSURANCE ACTIVITIES AT THE SITE. HOWEVER, WE ARE TAKING STEPS TO ASSURE ATTENTION TO CONSTRUCTION QA INCLUDING DESIGNATION OF RESIDENT INSPECTORS AT ALL CONTRUCTION SITES.

THE COMMISSION HAS MADE OR IS CONSIDERING A NUMBER OF CHANGES OF ITS INSPECTION AND ENFORCEMENT PROGRAM TO INCREASE THE EMPHASIS ON IMPLEMENTATION OF QA PROGRAMS. LET ME ADDRESS SIX SPECIFIC ACTIVITIES:

1. AS INDICATED ABOVE, NRC RESIDENT INSPECTORS HAVE BEEN OR WILL BE STATIONED AT ALL CONSTRUCTION SITES WHERE ACTIVE CONSTRUCTION IS PRESENTLY UNDER WAY AND THE PROJECT IS AT LEAST 15 PERCENT COMPLETE. BASED ON OUR EXPERIENCE WITH THE RESIDENT INSPECTION PROGRAM TO DATE, WE BELIEVE RESIDENT INSPECTORS ENHANCE THE NRC'S ABILITY TO MONITOR QUALITY ASSURANCE ACTIVITIES AND IDENTIFY THE SYMPTOMS OF BREAKDOWN IN MANAGEMENT CONTROL.
2. THERE HAS BEEN A TOUGHENING OF THE NRC'S ENFORCEMENT POSTURE OVER THE PAST COUPLE OF YEARS AND THE NRC'S REVISED ENFORCEMENT POLICY HAS PLACED EMPHASIS ON DEALING WITH POOR REGULATORY PERFORMANCE IN THE CONSTRUCTION AREAS.

3. WE HAVE COMPLETED A TRIAL PROGRAM OF TEAM INSPECTIONS WHEREBY SEVERAL NRC INSPECTORS GO TO A CONSTRUCTION SITE FOR TWO TO THREE WEEKS TO DO A BROAD, INTENSIVE INSPECTION OF THE QUALITY ASSURANCE PROGRAM FOR ONGOING WORK. THIS APPROACH ENABLES NRC TO GAIN A TOTAL PROJECT PERSPECTIVE TO A GREATER EXTENT THAN PAST PRACTICE. THE ADVANTAGE OF THIS DETAILED "SNAPSHOT" IS AN ENHANCED ABILITY TO EVALUATE MANAGEMENT EFFECTIVENESS. THE USE OF SUCH INSPECTION TEAMS IS EXTREMELY LIMITED BY THE AVAILABILITY OF INSPECTORS AND FUNDS FOR THIS PURPOSE. WITH ADDITIONAL RESOURCES, WE COULD SEND INSPECTION TEAMS TO EACH CONSTRUCTION SITE TO DO MORE COMPREHENSIVE INSPECTIONS
4. THE NRC CONSTRUCTION INSPECTION PROGRAM IS UNDER REVISION TO ACCOMPLISH SEVERAL OBJECTIVES. WE ARE RECASTING INSPECTION PROCEDURES TO DELETE INSPECTION ACTIVITIES OF LESSER IMPORTANCE AND TO REDUCE DUPLICATION OF EFFORT BY RESIDENT AND REGIONAL-BASED SPECIALIST INSPECTORS. IN SITUATIONS WHERE INSPECTOR RESOURCES LIMITATIONS PRECLUDE COMPLETING THE ENTIRE INSPECTION PROGRAM, WE ARE ORDERING OUR PRIORITIES SO THAT THE MOST IMPORTANT INSPECTIONS WILL BE COMPLETED.

5. FORMALIZED PERFORMANCE APPRAISALS OF LICENSEE REGULATORY PERFORMANCE ARE BEING CONDUCTED ANNUALLY BY THE NRC (SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE PROGRAM). THE APPRAISALS, WHICH REVIEW THE COLLECTIVE NRC EXPERIENCE WITH EACH POWER REACTOR, BRING THE BROAD ISSUES OF PERFORMANCE EFFECTIVENESS TO THE ATTENTION OF SENIOR LICENSEE OFFICIALS.
6. WE ARE NOW USING OUR OWN MOBILE LABORATORY FOR NONDESTRUCTIVE EXAMINATION (NDE) AT CONSTRUCTION SITES. THIS NDE VAN HAS MULTIPLE CAPABILITIES THAT INCLUDE RADIOGRAPH DEVELOPMENT, METALLURGICAL ANALYSIS, AND HARDNESS, ULTRASONIC, DYE PENETRANT AND MAGNETIC PARTICLE TESTING. THE EXAMINATIONS THAT WE PERFORM ARE INTENDED TO CONFIRM QUALITY BASED ON A SELECTIVE SAMPLING APPROACH.

THE COMMISSION IS CONTINUING TO REVIEW ITS RESPONSIBILITIES IN THE NUCLEAR QA AREA IN ORDER TO DEVELOP IMPROVEMENTS IN DEFINING REQUIREMENTS, REVIEWING LICENSEE QA PROGRAMS, AND INSPECTION PRACTICES WHERE THEY ARE CALLED FOR.

THE CINCINNATI GAS & ELECTRIC COMPANY

W. H. DICKHONER
PRESIDENTFebruary 24, 1982
QA-1632

Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Mr. Richard C. DeYoung, Director

RE: WM. H. ZIMMER NUCLEAR POWER STATION-UNIT 1
NRC NOTICE OF VIOLATION AND PROPOSED
IMPOSITION OF CIVIL PENALTIES DATED
NOVEMBER 24, 1981. NRC INVESTIGATION
REPORT 81-13 - DOCKET NO. 50-358,
CONSTRUCTION PERMIT NO. CPPR-88, W.O. 57300,
JOB E-5590, FILE NO. NRC-1

Gentlemen:

This letter constitutes our response in accordance with 10 CFR 2.205, relative to the subject Proposed Imposition of Civil Penalties, and our response in accordance with 10 CFR 2.201, relative to the Notice of Violation and Investigation Report.

We have concluded an investigation of each of the allegations set out in Appendix A to your letter dated November 24, 1981. Our review has been informative and useful in proving the quality of the Zimmer construction. With our Quality Confirmation Program, our enhanced Quality Assurance staff, and our overall Quality Assurance Improvement Program, additional insight into the quality of the Zimmer Nuclear Project has been provided. All of this will provide additional assurance as to the safety of the Wm. H. Zimmer Nuclear Power Station.

The results of this investigation lead us to the following conclusions:

- a) Although some records examined by the NRC were incomplete or inaccurate, we do not believe any of these records are "false" with regard to either the commonly understood or legal meaning of the word.
- b) Even though there were some dousing and water spraying incidents, we found no evidence that QC inspectors were selectively doused and

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thereby "harassed." In any event, prompt and vigorous corrective action was taken to prevent any potential influence on QC inspector performance.

- c) Reassignment of inspection personnel was based on management assessment of project needs and not the result of construction complaints.
- d) Threats of firing, searches, and the single threat of bodily harm all appear to lack substance when evaluated in light of the total circumstances.
- e) QA Management communications with QC inspectors may not have sufficiently addressed and resolved quality concerns raised by QC inspectors, but this did not cause QC inspectors to be relieved from duties, nor were QC inspectors encouraged to accept unacceptable work.
- f) Prior to the development of the Quality Confirmation Program, our quality documentation program was not sufficiently implemented, nor was retrievability sufficient, to preclude the existence of some inaccurate records or to provide the total documentation for a given component or system in every case.
- g) Until recently, the Quality Assurance Program was not sufficiently understood by some quality personnel, which led to misunderstandings and conclusions by the NRC Investigators which differ from our own.
- h) The work in process relating to hanger weld, beam weld, and socket weld inspections was not accurately documented or controlled in all instances, but not all items of noncompliance listed in Violation C are well founded.

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While in the Applicants' opinion there is nothing in the Investigation Report to support the allegation of "false" records, the existence of inaccurate and incomplete documents is acknowledged. Although some misunderstanding may have existed as to the Applicants' position at the time of the NRC's review, it is our view that such documents had not received final acceptance approval by H. J. Kaiser Company and were not, therefore, quality "records" within the meaning of Reg. Guide 1.88.

We do not agree that the statements made by the contractor's inspectors, when taken in the context of the events, constitute harassment, intimidation, or a lack of effective QA management support. However, the basic facts describing these events are more or less accurate. We do not agree that all of the facts show noncompliance with the specific criteria of 10 CFR 50, Appendix B.

We do agree, as previously stated, that deficiencies existed with the implementation of our Quality Assurance Program and in exercising sufficient control over our principal construction contractor, but we believe that our overall Quality Assurance Improvement Program has fully corrected these deficiencies.

We are sincerely interested in assuring the continued quality of construction and moving forward with our Quality Confirmation Program and the completion of the plant. This has been demonstrated by the prompt implementation of our Quality Assurance Improvement Program in response to the Immediate Action Letter of April 8, 1981 and our progress on the Quality Confirmation Program.

Our conclusions do not agree with your findings in every aspect. In our opinion, your investigation mischaracterized our Quality Assurance effort in several instances, as noted above. In view of our ultimate decision, we have elected not to raise certain legal objections to the Notice of Violation and to the Investigation Report. Rather than dwell on our differences at this point we believe it is important that we be free to devote our full resources and attention toward the positive goal of completing the Wm. H. Zimmer Nuclear Power Station in a quality manner.

Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission

February 24, 1982
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RE: WM. H. ZIMMER NUCLEAR POWER STATION-UNIT 1
NRC NOTICE OF VIOLATION AND PROPOSED
IMPOSITION OF CIVIL PENALTIES DATED
NOVEMBER 24, 1981. NRC INVESTIGATION
REPORT 81-13 - DOCKET NO. 50-358,
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JOB E-5590, FILE NO. NRC-1

With this view in mind, and recognizing at the same time the need for improving the implementation of our Quality Assurance Program in several areas, we will submit to the assessment of the civil penalties for Violations A, B, and C as set forth in Appendix A to your November 24, 1981 letter. A check in the amount of \$200,000 is enclosed as payment for the assessed penalties.

Your letter also requested a review of the history of noncompliance with 10 CFR 50, Appendix B for the past two years, and a statement of the steps taken to address and correct the underlying programmatic causal factors related to the noncompliance. The specific history and actions taken are provided as Attachment A of this response to be forwarded under separate cover. A general overview indicates that the action taken to correct the programmatic causal factors related to the noncompliance was provided in our May 18, 1981 response to the Immediate Action Letter of April 8, 1981.

Our response to the specific items included in the three violations cited in Appendix A to your letter of November 24, 1981, is provided as Attachment B of this response to be forwarded under separate cover. Included in Attachment B as part of our specific response for Violations A, B, and C are the histories of the alleged items of noncompliance including the basis for our agreement or disagreement with the items, the apparent reason for the violation, the specific corrective steps taken and results achieved, and the corrective steps to avoid further noncompliance.

We believe the corrective action stated in our response to the Immediate Action Letter of April 8, 1981 is sufficient to preclude further noncompliance, particularly in light of our Quality Confirmation Program. The date when full compliance will be achieved is tied to completion of that program, currently scheduled for July, 1982. Full compliance will occur shortly thereafter and, in any event, prior to fuel load.

Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission

February 24, 1982
Page 5

RE: WM. H. ZIMMER NUCLEAR POWER STATION-UNIT 1
NRC NOTICE OF VIOLATION AND PROPOSED
IMPOSITION OF CIVIL PENALTIES DATED
NOVEMBER 24, 1981. NRC INVESTIGATION
REPORT 81-13 - DOCKET NO. 50-358,
CONSTRUCTION PERMIT NO. CPPR-88, W.O. 57300,
JOB E-5590, FILE NO. NRC-1

We trust the above will constitute an acceptable
response to the subject Proposed Imposition of Civil Penalties,
Notice of Violation, and Investigation Report.

Very truly yours,

THE CINCINNATI GAS & ELECTRIC COMPANY

By W. H. Dickhoner
W. H. Dickhoner, President

Enclosure

cc: James G. Keppler, NRC Region III
NRC Resident Inspector at Zimmer
Attn: W. F. Christianson
Zimmer Project Inspector
NRC Region III

State of Ohio) ss.
County of Hamilton)

Sworn to and subscribed before me this 24th day
of February, 1982.

Virginia P. Muhlhofer
Notary Public

VIRGINIA P. MUHLHOFER
Notary Public, State of Ohio
My Commission Expires July 28, 1992

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

KAISER
ENGINEERS

EXHIBIT #8

KAISER ENGINEERS, INC.
P O BOX 201
MOSCOW, OHIO 45153

August 19, 1974

Mr. E. A. Borgmann, Manager
General Engineering Department
The Cincinnati Gas & Electric Co.
139 East Fourth Street
Cincinnati, Ohio 45202

Attention: E. C. Pandorf, Principal Engineer

Subject: Pipe Inspection

Gentlemen:

In letter KEM-13 from R. L. Dirr to D. R. McSparrin dated August 9, 1974, KEI has been requested to inspect pipe on delivery trucks prior to unloading.

The type of defect which initiated this request is difficult to detect during receiving inspection. We suggest that source inspection is the best way to avoid rework and attending delays.

Very truly yours,

KAISER ENGINEERS, INC.

W. J. Friedrich
Site Quality Assurance Manager

CAS:abc

THE CINCINNATI GAS & ELECTRIC COMPANY

March 8, 1976
KEB-43

Kaiser Engineers, Inc.
P.O. Box 201
Moscow, Ohio 45153

Attention: Mr. W. J. Friedrich

RE: WM. H. ZIMMER NUCLEAR POWER STATION -
UNIT 1 - INSPECTION PERSONNEL,
W.O. 57300-957, JOB E-5590

Gentlemen:

This is in response to your letter of February 10, 1976 requesting 10 additional inspectors for the Quality Assurance Staff. Our people have done extensive evaluations on the need for additional inspectors. The request for 10 additional people seems rather high at this time and I do not like the idea of giving you blanket approval for 10 personnel requisitions.

I would like you to proceed with adding 2 mechanical welding inspectors, 1 instrumentation inspector and 2 electrical inspectors to your staff if these people are required immediately in your opinion. I also ask you to consider the transferring of some of the structural inspectors to electrical work in lieu of hiring these 2 additional electrical inspectors.

Over the next few months, as we see the workload demands in the field, we will re-assess the need for additional personnel. Quantity is not always the answer in getting satisfactory inspection. The need is for qualified and dedicated personnel and this is our objective.

I certainly am amenable to your reviewing the situation on a month to month basis and when the situation warrants, I will certainly review any request that you might make for personnel subject to the advice of my staff.

Very truly yours,

THE CINCINNATI GAS & ELECTRIC COMPANY

By

E. A. BORGMANN

Vice President - Engineering

EAB:dew

cc: C. C. Gray
B. K. Culver
E. C. Pandorf
W. W. Schwiers

C
O
P
Y

INTER-DEPARTMENT CORRESPONDENCE

FROM:		DATE:	
C. C. GAT			
V.P.		DATE	
MANAGEMENT	<input type="checkbox"/> CCB <input type="checkbox"/> CCM <input type="checkbox"/> CCH <input type="checkbox"/> CCS <input type="checkbox"/> CFS		
DATE	June 24, 1976		
SUP.	<input type="checkbox"/> JEP <input type="checkbox"/> WBR <input type="checkbox"/> FEN <input type="checkbox"/> CCS <input type="checkbox"/> WBS		
ENG.	<input type="checkbox"/> EOC <input type="checkbox"/> ESE <input type="checkbox"/> EJP <input type="checkbox"/> EBN <input type="checkbox"/> EBN <input type="checkbox"/> EBN		
CON.	<input type="checkbox"/> ENE <input type="checkbox"/> EFG <input type="checkbox"/> EGC, CGE		

MR. R. D. SAHLBERG

TO: WHOM IT MAY CONCERN

FROM: E. A. BORGMANN

SUBJECT:

WM. H. ZIMMER NUCLEAR POWER STATION -
UNIT 1 - SITE PROJECT MANAGER



*None of CO
any other people?*

Effective July 12, 1976, we will take a more direct role in the construction management of Wm. H. Zimmer Nuclear Power Station Unit 1 through the appointment of Mr. H. B. Gear as Site Construction Manager reporting directly to Mr. B. K. Culver, Principal Construction Engineer. Kaiser Engineers will remain the Constructor and Mr. R. D. Sahlberg will continue to function as their Project Manager.

Mr. Gear will be in direct charge of the construction site having the responsibility for all construction activities. These will include the activities of Kaiser Engineers, all subcontractors, and CG&E field personnel.

Mr. Gear has had considerable nuclear construction experience with Commonwealth Edison Company and has now formed his own construction management company. He will perform this function for us on a contract basis for the duration of the Zimmer Project.

This is being done in an effort to give CG&E more direct control over all phases of the Zimmer Project and to effect efficiencies in the construction operations.

Your cooperation with Mr. Gear is solicited in the interest of moving the Zimmer Project forward to a successful conclusion.

E. A. Borgmann



INTER-OFFICE MEMORANDUM

TO : R. Sahlberg
AT : Moscow, Ohio

DATE February 8, 1977

FROM W. J. Friedrich

AT Moscow, Ohio

JOB NO. 7070

COPIES TO

SUBJECT ELECTRICAL PROBLEM AREAS
(Reference letter, E. A. Borgmann to D. H. Williams, dated
2/1/77, KEC-3)

Mr. Borgmann's letter to D. H. Williams implies that QA is causing delays in the completion of work. It may appear that way from his vantage point but let me assure you that everything is being done by inspection to keep the work moving. The cooperation between construction supervision and inspection could not be better. To prove my point, a new system has been initiated in the Reactor Building to expedite cable pulling. This system consists of informing the inspector that the conduit system and cable pan erection is complete and scheduled for cable pulling. The inspector verifies it is complete and releases the system. This generally happens two (2) weeks in advance of cable pulling.

The delays incurred have been caused by design definition or lack of design, such as the case of seismic hangers and separation criteria. Another potential problem or delay will be the minimum bend radius of .07" for control cable which cannot be met by the field.

In order to improve production, the QA Department has requested additional manpower to support the anticipated build-up of electricians to pull and terminate the 2,000,000 ft. of cable to meet the fuel load date of April 1978.

WJF:sbg

THE CINCINNATI GAS & ELECTRIC COMPANY

CINCINNATI OHIO 45201

March 7, 1977
KEQ-112

Kaiser Engineers, Inc.
P. O. Box 201
Moscow, Ohio 45153

Attention: Mr. W. J. Friedrich

RE: WM. H. ZIMMER NUCLEAR POWER STATION -
UNIT I - REQUEST FOR ADDITIONAL INSPECTION
PERSONNEL - W.O. #57300-957. JOB E-5590

Gentlemen:

This is in reply to your letter, KC-9128-Q, which requests that additional inspectors be added to the KEI Quality Assurance staff. In connection with that request, we have reviewed future construction scheduling. We have also reviewed with you the requirement for additional inspection personnel that an expanded construction program would require.

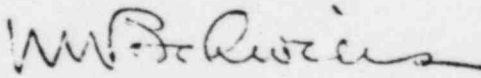
It was concluded that the request for additional inspection personnel was intended to cover an expanded construction program, particularly in the electrical area. After review, however, it appears that the craft work force will not be increased such that the addition of Quality Assurance inspection personnel will be required.

In view of the above, it is felt that no additional inspectors will be required as requested by your letter.

We will continually review anticipated increases in craft personnel and will again review with you possible future additions to KEI Quality Assurance inspection personnel.

Very truly yours,

THE CINCINNATI GAS & ELECTRIC COMPANY

By 
W. W. SCHWIETERS
PRINCIPAL QUALITY ASSURANCE
AND STANDARDS ENGINEER

JHH:pa

cc: E. A. Borgmann
B. K. Culver
H. B. Gear
E. V. Knox - Oakland
R. D. Sahlberg
QA File

13 January 1980

EXHIBIT #9

I Rex Baker do hereby make the following voluntary statement to
Mr. J.B. McCarren who has identified himself to me as an Investigator
with the U. S. Nuclear Regulatory Commission. I make this statement freely with
no threats or promises of reward being made to me.

I am currently employed as a Quality Control Inspection Supervisor
for the Henry J. Kaiser Co. at the Wm. Zimmer Nuclear Power Station in
Moscow Ohio. I have been working in the Quality Control Department since April
of 1980. In late August or early September 1980 I was called into the
Quality Control Manager's office, Phillip Gittings the QC Manager, Kaiser
was there, he ^{said} ~~said~~ Robert Marshall, Kaiser, Site Project Manager had told him
that ~~he~~ had found one of my inspectors using a magnifying glass to look at a weld.
The Inspector was Indiv. I, who was assigned to inspect pipe support hangers.
Mr. Gittings told me to fire Indiv. I that day for this action. I became upset
with this action and told Gittings, that according to the American Welding
Society Code, that we were inspecting by, we could use a magnifying glass to look
at a weld. I said we really cannot terminate the man for this, the code allows him
to use a magnifying glass. I then said there could be legal ramifications
if we terminated him for this. After this comment Gitting ^{said} told me that he would
get back with me later that afternoon.

Later that afternoon, he told me to keep him on as an inspector but to transfer Ind. I
from his current duties as a hanger inspector to a structural inspector.

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Statement of Rex Baker Page two of ~~two~~^{three} pages

I then transferred Ind. 1 to other duties. I felt I was asked to transfer Ind. 1 from hanger inspection to another area because at this time the inspectors in the hanger area were finding a lot of errors and writing nonconformance reports, and had been accused of nitpicking by the construction side of Kaiser. I also feel that my object^{ive} to Mr. Gittings saved Ind 1 his job.

In regards to another area of the Quality Control program at Zimmer, shortly after the previous incident, there was another problem in the hanger ~~area~~^{and} inspection area. Phil Gittings called me into his office he had ten to fifteen nonconformance reports in his hand and he said lets go look at these nonconformance reports. Myself, Dave Painter and Phillip Gittings went out to the locations where the nonconformance reports had been found. I had already looked at the welds and agreed with the QC inspector that they were not acceptable to American Welding Society AWS D. 1.1. code. Gittings looked at the areas and he looked at each area where the inspector had previously identified a discrepancy. He returned to the office and Gittings said lets void these seven nonconformance reports that he felt were acceptable and he handed me the seven nonconformance reports that he wanted voided. He knew I disagreed and so I handed them to Mr. Oaks and said Phil wants these voided and I would not do it. I later got copies of these seven Nonconformance reports with Phillip Gittings signature on them, in which he had voided the nonconformance reports.

I felt that this action by Gittings hurt the Quality Control Inspection program at Zimmer, the Inspectors at Zimmer knew that ~~there~~^{an inspectors} opinion could be easily

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13 January 1980

EXHIBIT #1

I Rex Baker do hereby make the following voluntary statement to Mr. J.E. McCarten who has identified himself to me as an Investigator with the U. S. Nuclear Regulatory Commission. I make this statement freely with no threats or promises of reward being made to me.

I am currently employed as a Quality Control Inspection Supervisor for the Henry J. Kaiser Co. at the Wm. Zimmer Nuclear Power Station in Moscow Ohio. I have been working in the Quality Control Department since April of 1980. In late August or early September 1980 I was called into the Quality Control Manager's office, Phillip Gittings the QC Manager, Kaiser was there, he ~~also~~ ^{said} Robert Marshall, Kaiser, Site Project Manager had told him that he had found one of my inspectors using a magnifying glass to look at a weld. The Inspector was Indiv. I who was assigned to inspect pipe support hangers. Mr. Gittings told me to fire Indiv. I that day for this action. I became upset with this action and told Gittings, that according to the American Welding Society Code, that we were inspecting by, we could use a magnifying glass to look at a weld. I said we really cannot terminate the man for this, the code allows him to use a magnifying glass. I then said there could be legal ramifications if we terminated him for this. After this comment Gitting told me that he would get back with me later that afternoon. Later that afternoon, he told me to keep him on as an inspector but to transfer Ind. I from his current duties as a hanger inspector to a structural inspector.

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Statement of Rex Baker Page two of ~~two~~ ^{three} pages

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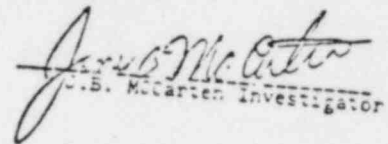
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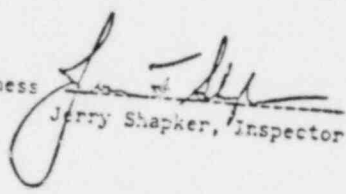
Statement of Rex Baker Cont Page three of three pages
voided by the QC Manager.

I have read the above statement made the necessary corrections and it is
true and correct.


Rex Baker

Subscribed to before me on this 13 th Day of January 1981 in Moscow Ohio.


J.B. McCarten Investigator

Witness 
Jerry Shapker, Inspector NRC

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STATEMENT

PLACE:

DATE:

FEB 2 (ER)

1. PETER E FACI hereby make the following voluntary statement to PETER E FACI who has identified himself to me as an Investigator with the U. S. Nuclear Regulatory Commission. I make this statement freely with no threats or promises of reward having been made to me. Investigator FACI is writing this statement for me at my request.

I am a Level 1 Quality Control (Q/C) Inspector employed by _____ company which is a subcontractor at the _____ Nuclear Power Station. I have been employed with _____ since 12/22/82 doing Q/C work in the area of welding, piping and non-destructive examination (NDE). Prior to this, I worked as a Q/C inspector at the Zimmer Nuclear Power Station in Moscow, Ohio. While at Zimmer, I was employed first by the BILTZER SERVICE GROUP and from 10/1/89 through 12/1/89, and then for the first 2 weeks in December 1989 directly to KAISER ENGINEERING, the construction firm at the Zimmer site. Before I came to work at Zimmer, I was employed at the Cape Breton Park Nuclear Station by Brown & Root (B+R). B+R employed me as a Q/C inspector and I went through the company training program for Q/C. Before joining B+R, I attended the Texas Technical Institute for almost 2 years where I took courses in welding technology, metallurgy, chemistry, technical writing and procedures, etc. These all gave me background and training for my work as a Q/C inspector. _____ has a contract with _____ and I am currently staying at the _____ address is _____ and my local mailing address is _____. I am aware of a number of problems with _____

7. The GRC is a committee (G/C) composed of the
Zimmerman Committee. Now, Zimmerman's report (NCR's)
prepared by me and other G/C members
would not be voided without an investi-
gation and explanation. For example, I'll note
several NCR's concerning pipe. Zimmerman
and supports because the things did not
meet American Welding Society (AWS) spec-
ifications D11 or Kaiser procedures as set
forth in the Special Program Procedures Manual
(SPPM) No. 4.6 (Revision 8). The welding was
done by strikers and there was
a possibility of materials. But the letter
said that they could not tell. But there was
a "1" under "fanger" and "fanger"
ready been "know it is" or a "fanger" and "fanger"
The chart concerned the claim that it
fanger (of course other items) which had dis-
crepancies with a vendor fanger and we
couldn't prove otherwise. Because this was
no documentation. In the case I am referring
to Phillip GITTINGS, the G/A Manager. He
said that Rex BAKER, the G/C Supervisor,
said we are responsible for items of fanger
already rejected. This was done, even though
no corrective action had been taken. Con-
cerning the discrepancies, GITTINGS said that
under his interpretation the fanger was OK
and he would not reject the NCR. GITTINGS
would not remarks on the NCR to the effect that
charts "outstanding." All the Project Managers
voiced, GITTINGS said he wanted the NCR
"as is" or send it back to me to have me
sign off on the voided NCR. Of course, I
that 20 to 28 of my NCR's were voided.

I worked as a G.I. - inspector at
 Zimmer. G.I.A. was just a gimmick to keep
 the side going and the moral compass in it
 with all sorts of things that it had copies
 of some NCR's written by me as well as
 documents concerning the G.I.A. program
 at Zimmer. There was a man, Jimmie in Cin-
 cinnati and I will provide them with the 175
 the mid-Century at 1990, it visited some
 houses separately. I think it had visited some
 other had visited before. It did then with
 Mr. MARSHALL had said that it was the "church
 list" (an in-house document) that the "church
 were and. Some work had been done on them
 as belonging to the earlier NCR's but this
 was still done and was not right. It was
 Mr. MARSHALL the church list back and forth
 not sure if on the wall. Ray CAMPBELL and
 (aka FAND) had Kaiser engineering, were then
 after their exchange took place.
 (about a week later I was working in the
 mechanical room. Marshall and Seth Swan
 (works for CG&E) were following me around
 and watching while I was working the
 location and taking structural observations
 of some spaces. I had a flashlight and a
 mirror with me which I stood on since
 I was introducing them at the moment. Mr.
 MARSHALL picked up the mirror and showed
 it to Mr. SWAN. Shortly afterwards then
 later. After lunch, head inspector Chuck
 BELCHER told me that Rex BAKER, G.I.
 supervisor wanted to see me. BAKER said
 he was told by FITTINGS that MARSHALL and
 SWAN had told FITTINGS that I was using
 a magnifying glass in my final inspection.

EXHIBIT 5. 3-67

7. I spoke to me and a man named
GITTINGS, at the request of MARSHALL
and SWAIN, to terminate and audit me
at the site. GITTINGS confirmed this during
my exit interview at Zimmer. I explained
to BAKER exactly what had happened. I told
him that I did not have a magnifying glass
but rather a mirror and that I thought that
SWAIN was there. Further, I told him that
MARSHALL had picked up the mirror and
showed it to SWAIN. I also pointed out
that even if I had been using a mirror
magnifying glass, both the GAMS rule
(DAP section 2.5.5) and SPPM 4G (Rev. 2)
recognize and require the procedure. I
told him that I had written much time to
the site and told him that before I did, I
wanted them to place in writing that
I was being fired for the reason that I
related to him. I then told him that I
would get a lawyer and fight it. BAKER said
that I should quit and he would pay me
again. When I next saw BAKER, he told
me GITTINGS had changed his mind and
I could stay. However, he wanted me
out of the Ranger program and put into
another area. I said that that was fine
with me and I went into structure
B/C where I worked for 2 weeks before
I learned that the BUTLER contract was
going to be terminated.
I discussed about the termination of the
"slappers" contracts at a meeting held by
GITTINGS in November 1990. He said that
Oakland (corporate offices for Kaiser) had 2

me
but

4087

7 | Told them to terminate the contract but the
| mess would be made to them & was
| directly for KAISER. Eugene KAY was the
| man KAISER although he didn't see much.
| CITINGS said he would need to know
| who wanted a job by Nov 28th since
| those who didn't would have to be let
| out by December 1st. He said he wanted
| a couple of more people to get the job
| on 1st by October 1st. I said I didn't
| saying anything at that time was "best
| insurrection than anything" but that would
| like what he would. I never said
| I wasn't professional. I was a work for
| Kaiser but I was especially disappointed with
| the "insurrection" which was called out con-
| siderably less experience and training. I
| offered much more money. I decided
| to leave because of the unhappiness of the
| structure and because of the constant
| harassment by the C/A Manager (GOTTENBERG),
| the District Manager (MARSHALL), and the
| Chief Engineer (KAY). I said I did not
| work, then and some of the engineers would
| tell me - "Man, you don't know what
| you're looking at!"
| I was caught in the harassment of other C/A
| inspectors too. All the case of JIM MULKIE
| and MIKE DE PUCCIO, their harassment took
| the form of water being dumped on them &
| credit problems. This happened to Jan about
| 3 times and to Mike about 3 or 4 times. I
| didn't actually see it happen but I saw them
| afterwards and they were soaked wet.
| The two inspectors went to MARSHALL and
| complained. He said he would terminate

6
6

"Nathan's" was not done though. Thinking
 would spend all for a few weeks and then
 it would start again. The General Foreman
 Walt HAMM knew who was involved but
 he never did mention it. There were all these
 members and potentially one another. It was
 just a pipe-bitter welder nicknamed "Frankie"
 was involved. "Frankie" was a pipe-bitter
 and he was "Fat Frankie". There was
 also a welder known as "Skinner Frankie"
 and a pipe-fitter known as "Jock-Biv".
 who were supposed to have been involved.
 I do not know their real names.
 There are a lot of problems at Zimmer. The
 craft personnel do not follow procedures and
 it is not like being told by C/O that what
 they're doing is wrong. They feel that a
 lot of G. procedures are unrealistic and
 tell C/O that "your procedures suck" or
 "you don't know what you're doing" or "we
 don't know the code". There is definite
 criticism toward C/O in particular. The
 craft personnel and it shows in excellent
 like the water dumping. Site manage-
 ment does little or nothing to correct the
 situation since they seem to share the
 same opinion of C/O. The overall work per-
 formed at Zimmer is very sloppy, inefficient
 in which values, actual safety, that been
 welded into systems have occurred, dis-
 site NCR's following been written. Now that
 the contractors with Shoppers such as the
 Butler Service Group have been terminated,
 the problem of the lack of independence of
 G/C as it relates to construction will be

EXHIBIT 5 6 of 7

7
I certify with respect to the disclosure
of my notes in connection with the in-
formation provided to the NRC by me.

I have read the foregoing statement consisting of 7 handwritten pages.
I have made and initialed any necessary corrections and have signed my name in
in the margin of each page. This statement is true to the best of my knowledge
and belief.

INTERVIEWEE: _____
Name: _____

Subscribed and sworn to me the 20th day of FEB, 1981 at _____

INVESTIGATOR: Peter E. Baci 1:03 AM
Name: Peter E. Baci

WITNESS: Edward C. Gilbert 1:04 A.M.
Name: EDWARD C. GILBERT

EXHIBIT 5, 7 of 7

Mr. William H. Schwiers, former Quality Assurance Manager, Cincinnati Gas and Electric (CG&E) was interviewed on July 9, 1981, by Albert B. Puglie and John R. Sinclair, Investigators, Office of Inspector and Auditor (OIA), U.S. Nuclear Regulatory Commission (NRC). Prior to any questioning, Mr. Schwiers was provided the opportunity of reviewing appropriate credentials and advised that the areas being investigated pertained to intentional alteration of Quality Control (QC) Records and willful omissions regarding QC records.

Mr. Schwiers began the interview by providing a brief description of his duties while assigned to the Zimmer Construction Project. Schwiers stated that he first began working at Zimmer in the 1973 time frame as a representative for Cincinnati Gas and Electric and that continued until approximately 1975. At that time Schwiers stated he became the Senior Field Project Engineer in the Quality Assurance Organization which lasted for the next year. In 1976 Schwiers was reassigned to the functions of Quality Assurance Manager for the project. Schwiers stated that at that time the Quality Assurance Manager for Kaiser was Bill Friedrich. Schwiers further stated that the CG&E Quality Assurance group at the site consisted of four other CG&E employees plus himself. According to Schwiers, it was his responsibility to audit and monitor the Kaiser QA program.

Schwiers continued by explaining that it was his perception that the Kaiser QA program, at the time he (Schwiers) took over QA for CG&E, "did not have sufficient independence from the Construction Group." Schwiers stated that at some point Kaiser QA Manager Friedrich, was replaced by another Kaiser supervisor Bob Turner. The exact date of the change could not be recalled, however, Schwiers did state there was a period in which an individual from Kaiser Headquarters, Gene Knox, was acting in the capacity of Kaiser QA Manager.

Schwiers stated that Knox was commuting to the Zimmer Site from the Oakland, California area and although he was the QA Manager for the site, he (Knox) would not relocate to the Cincinnati, Ohio area. Schwiers explained that he, as well as CG&E found the situation with Knox commuting to the site unacceptable because it did not demonstrate the commitment

required to the Quality Assurance Program. Schwiers further explained that Turner finally was placed in the position as Kaiser QA Manager which lasted until approximately October 1979. Schwiers stated that as he recalled, there was a problem with QA documentation within Kaiser and that Turner was replaced by another QA Manager.

Schwiers stated that part of the problem identified with the Kaiser QA documentation was discovered through a CG&E QA audit. Schwiers added that the Kaiser documentation problem is still being reviewed by a contractor to CG&E, Science Application, Incorporated (SAI).

Schwiers continued by stating that he believed Phil Gittings, the most current Kaiser QA Manager, was hired by Kaiser from a position in "corporate" at Cleveland Electric Illuminating (CEI). Schwiers also stated that he believed that Gittings had formerly worked for a Kaiser Project in Florida pertaining to a transportation project.

In response to questions, Schwiers responded that "on paper" he was in control of the project. Schwiers also stated that initially all of CG&E QA was located at the site. Subsequently, however, the QA organization expanded and some QA functions were located at CG&E corporate in Cincinnati. Schwiers then stated as the QA representative part of the responsibility was to monitor Kaiser's QA/QC activity by conducting independent audits. Schwiers continued by stating that he had "some authority" in relation to denying requests for additional Quality Control inspections submitted by Kaiser QA.

Schwiers was then advised that OIA had interviewed personnel at the Zimmer site, including Kaiser QA personnel and as a result, information was developed which indicated that Kaiser QA supervisors had made repeated requests to CG&E for additional staffing of the QC department in order to meet the requirements of federal regulations, specifically 10 CFR 50, Appendix B.

Schwiers was also advised that the requests had been made in writing by Kaiser and that each of the requests has been denied by him (Schwiers). Schwiers stated that he believed that he had honored all of the requests submitted by Kaiser QA and stated that as far as he could recall, all of the requests submitted by the current Kaiser QA, Phil Gittings, were honored. Schwiers was apprised that his statement concerning requests submitted by Gittings had been confirmed, however, the specific requests and time frame alluded to occurred at the time Bob Turner was the Kaiser QA Manager. Schwiers repeated that he believed that all requests were considered and honored. He (Schwiers) was informed that NRC had requested supporting documentation from Kaiser and believed that it was going to be provided in the near future.

Schwiers continued by stating that if there are such requests as described by NRC and responding correspondence denying the requests, they probably contain his signature. Schwiers was then questioned as to the extent of his authority as site QA Manager for CG&E in either "staffing" or denying requests for additional staff. Schwiers stated that he had "some authority" and repeated that he probably would have been the CG&E official whose name appeared on the paperwork. However, he believed that the decisions specifically addressing the described Kaiser requests were probably made in a CG&E management meeting.

Schwiers responded to questions regarding the "management meeting" by stating that he believed the attendees at the meeting were himself, supervisors from the CG&E Generation and Construction Departments and the Project Manager (Barney Culver). Schwiers added in response to questioning if any other CG&E officials were present by stating that he could not remember. Schwiers stated that he organizationally reported to Earl Borgmann, Vice President, CG&E, however, he could not recall if he was present at the meeting.

Schwiers then responded to questions concerning CG&E's QA organizational structure by stating that as the senior site QA Supervisor he reported directly to Earl Borgmann, Vice President for CG&E. Schwiers added that other departments within CG&E (Generation, Construction, Design) also reported directly to Borgmann. Schwiers stated that although he stated in the beginning of the interview that he believed Kaiser's QA/QC organization lacked independence in performing its function he could not say there was any significant difference in the QA/QC organization within CG&E.

Schwiers was reportedly asked if he had the authority to deny staffing requests pertaining to Kaiser QA/QC at which time he (Schwiers) would continually state that "his name was probably on the paper" and he could not remember if his supervisor, Earl Borgmann, was in attendance at any meeting. Schwiers was also reluctant to state unambiguously that he had the authority to deny Kaiser QA staffing requests and would only state that the decisions were a result of CG&E management meetings.

Schwiers stated that CG&E had been conducting audits of the Kaiser QA program and that was one of the methods which disclosed QA problems. Schwiers was then questioned as to how his statement coincided with the fact that NRC Region III Inspectors had conducted a thorough inspection of the audit function of CG&E's QA program and found that there had been no audits done for extended periods of time and in some areas no audits at all. Schwiers stated he was aware of the inspection referred to, but did not have an answer regarding the violations cited by NRC pertaining to the QA audit requirements.

Schwiers was queried as to the type of contract with Kaiser. Schwiers replied that he believed it was a "cost-plus-a-fixed-fee". Schwiers added that he was not familiar with the specifics of the contract, however, he was aware that Kaiser had to get "authorizations" for contract changes from CG&E. Schwiers agreed that under the normal cost-plus-a-fixed-fee contract Kaiser would not have to have had CG&E's approval for staffing, however, he was unable to explain the contract restricts which required Kaiser to submit staffing requests to CG&E.

Schwiers explained that during his assignment as QA Manager at Zimmer he was under "tremendous pressure". When asked to elaborate Schwiers declined to comment on what type of pressure he was referring to. Schwiers concluded the interview by advising OIA that he was going to retire from CG&E in the October-November time frame. Schwiers also stated that if there were any additional requests to interview him, he was going to have to limit his responses to "yes" or "no" answers.

7.3.5 Items of Noncompliance

Two examples of two items of noncompliance were identified (failure to perform a comprehensive audit of the S&L nonconformance program, and failure to determine the cause and preclude repetition of a recurring problem).

8. 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. Unresolved items are identified in paragraphs 4.1.3, 4.2.2.3, 5.2.3.6, 5.5.3.4, 5.10.3.2, 5.10.3.3, 7.1.3, 7.2.4, and 7.3.2. Items which are not considered "unresolved" but which are considered to be "open" and which will receive followup inspection are identified in paragraphs 5.2.3.2, 5.3.4, 5.11.3, and 7.2.3.

9. Other Open Items

When this investigation was initiated, the NRC interviewed numerous quality control inspectors, construction craftsmen, and management personnel who provided information that deserved review by the NRC. The information provided was prioritized with the highest priority given to the initial four allegations received from a former Zimmer contractor QC Inspector (Section 4), the 19 allegations received from GAP/Applegate (Section 5), and the most significant statements and allegations received from contractor employees and ex-employees (Section 6). Other allegations and statements were given lower priority. These lower priority concerns will be investigated and/or inspected and the findings and conclusions will be documented in future reports until the investigation is complete.

As noted in Section 3, GAP provided a number of affidavits from various individuals. In those cases where an individual's concerns or allegations have previously been reviewed by NRC, those individuals will be contacted to determine:

1. If they have information not previously provided.
2. If they have significant details to add to information previously provided.

If future inspection findings (either by the licensee or the NRC) reveal significant construction deficiencies, these will be addressed in revisions to the licensee's Quality Conformation Program as appropriate.

10. Exit Interview

In addition to the management meetings and enforcement conferences held as described in Section 11, the inspectors and investigators met with licensee representatives periodically during the investigation and on March 26, 1981. Attendees at the March 26 meeting are designated in Section 1, Personnel Contacted, and at the end of this section. At that meeting the NRC investigation team described the reasons for the investigation; the findings regarding each completed allegation; and safety concerns identified during

the investigation, which are described below. The team leader indicated that the investigation was not yet complete, that the findings would be reviewed with NRC Regional and Headquarters Management, and that enforcement action would be discussed in subsequent enforcement meetings. At the NRC's request, the licensee agreed to meet with Region III representatives on April 10, 1981, in the Regional Office to discuss identified concerns and proposed corrective actions.

The inspectors identified the following concerns:

- a. Steel beams with unacceptable welds and re-entrant corners with notches.
- b. Inadequacies in the QA program of the structural steel erector (Bristol).
- c. Lack of traceability of material in steel beams, small bore piping, and weld rod.
- d. Surveillance reports not being converted to nonconformance reports in 30 days.
- e. Structural welds inspected after painting.
- f. Radiograph technique inadequate on 25% of the prefabricated welds reviewed by NRC. (Penetrameters were not adequately shimmed.)
- g. Nonconformance reports being improperly voided.
- h. Cable designed and installed in violation of the cable separation criteria.
- i. Lack of inspection control to verify cable separation. (Three examples of failure to maintain cable separation were identified.)
- j. Lack of design controls by Sargent and Lundy to require verification calculations for thermal loading of power sleeves and dead weight loading of all trays, to document design deviations identified by engineers, and to document deviations from the FSAR.
- k. Inadequate action taken by CG&E to obtain correction of repetitive problems identified by CG&E in audits of Sargent & Lundy.
- l. Lack of audits of the Sargent & Lundy nonconformance program.
- m. Weld inspection criteria was deleted from the weld data sheet (KEI-1 form) from approximately July 1980 to February 1981.
- n. Lack of socket weld fitup verification on numerous small bore pipes.
- o. Installation of structural hanger beams which were not required on any design documents.
- p. Doubts about the accuracy of weld records. Information from the weld rod issue slips was being transferred to the weld data sheets.

- q. Lack of control of design document changes.
- r. Site procedures allowed more weld undercut than AWS D1.1-1972.

NRC Personnel Attending Exit Interview March 26, 1981

P. A. Barrett, Reactor Inspector
R. M. Burton, Investigator
F. T. Daniels, Senior Resident Inspector
E. C. Gilbert, Investigator, IE:HQ
T. P. Gwynn, Resident Inspector
F. A. Maura, Reactor Inspector
J. B. McCarten, Investigator
J. F. Schapker, Reactor Inspector
K. D. Ward, Reactor Inspector
R. F. Warnick, Chief, Reactor Projects Section 2B

11. Management Meetings

In addition to the exit meeting held at the site on March 26, 1981, meetings involving licensee and RIII senior and/or middle management were held on March 31, April 1, April 30, June 2, June 3, and August 5, 1981. These meetings are summarized below.

Following the exit meeting held at the Zimmer site on March 26, 1981, Mr. E. A. Borgmann met with J. G. Keppler and R. F. Warnick on the afternoon of March 31, 1981, in the Region III office to discuss the significance of the NRC investigation findings and required corrective actions. As a result of this meeting, Region III sent an Immediate Action Letter (IAL) dated April 8, 1981 to the licensee documenting ten corrective measures that CG&E had initiated or were planning to take concerning the problems identified by the NRC investigation team. The ten measures were established to provide assurance that similar problems do not recur during ongoing and future construction activities. The IAL and the required corrective measures are described in Section 12, NRC Actions and Licensee Commitments.

An enforcement conference was held in the Region III office on April 10, 1981, between E. A. Borgmann and others of his staff and J. G. Keppler and other NRC personnel to discuss CG&E's proposed corrective action program for deficiencies identified in the NRC investigation and the measures to be taken to assure acceptable quality of future activities. This enforcement conference is documented in IE Inspection Report No. 50-358/81-14.

A followup meeting was held in the RIII office on April 30, 1981, between W. D. Wymire and others representing CG&E and R. F. Warnick and others of the NRC staff, to discuss the status of measures being taken to assure acceptable quality of ongoing activities at the Zimmer project and to discuss the latest draft of the licensee's proposed corrective action program for deficiencies identified. Details of this meeting are documented in IE Meeting Report No. 50-358/81-16.

THE CINCINNATI GAS & ELECTRIC COMPANY



WILLIAM J. MORAN
GENERAL COUNSEL

April 3, 1981

Mr. A. Joseph Dowd
Senior Vice President and General Counsel
American Electric Power Service Corporation
2 Broadway
New York, New York 10004

RE: WM. H. ZIMMER NUCLEAR POWER STATION
LETTER FROM UNITED PRESBYTERIAN CHURCH

Dear Mr. Dowd:

Reference is made to your letter dated March 13, 1981, pertaining to a letter American Electric Power received from Mr. John M. Fife, Chairperson of the Committee on Mission Responsibility through Investment of the United Presbyterian Church. The following are CG&E's comments pertaining to Mr. Fife's letter.

The Wm. H. Zimmer Nuclear Power Station represents an effort of more than ten years of engineering and construction time. Throughout this period, the Atomic Energy Commission and now the Nuclear Regulatory Commission have mandated various changes in order to effect a final design consistent with improvements in available technology. All design changes are made with the goal of improving plant safety and reliability.

For the purpose of responding to some of the concerns in Mr. Fife's letter, it should be noted that a comprehensive pre-operational testing program of all plant systems must be successfully completed prior to placing the plant in service and it is not unusual for some modifications and changes to be made as a result of such testing. The following items were identified during pre-operational testing and appropriate corrective measures have been implemented, in addition to retesting the system affected.

1. Waste drain clogged: This problem was discovered during routine testing of the system. It was repaired and placed into service. Occasionally, drains become clogged during the construction phase of work. Because of the test program, this system could not have been placed in service with a clogged drain.

To: Mr. A. Joseph Dowd

April 3, 1981

Re: Wm. H. Zimmer Nuclear Power Station
Letter from United Presbyterian Church

Page #2

2. Silt buildup in the Service Water Intake Structure: The NRC was notified of this problem in a letter dated July 23, 1979, and is a matter of public record. CG&E stated in the letter that the silt will be removed, and during operation of the plant, a sedimentation removal and monitoring program will be implemented to assure that excess sedimentation is not accumulated in the Intake.
3. Service Water Pump failure: This item was reported to the NRC in a letter dated December 17, 1980, as reportable under 10CFR50.55(e). Corrective action is in progress and consists of adding flow measuring elements and minimum flow control valves. New impellers which are more rugged and less susceptible to internal recirculation are also being installed.
4. Water-tight door frames leaked: During the early phase of testing, the door frames did leak. Minor modifications were made to the frames, and all of the doors have subsequently passed the leak test. The doors will be checked periodically during the life of the plant. The NRC Office of Inspection and Enforcement has reviewed and signed off on this matter.
5. There were some radiographers dismissed for valid reasons, not from vindictiveness or to cover up defective work.
6. Some argon gas leakage may have occurred at times from bottles used for welding on the site but there were no instances of anyone being overcome.

At the Atomic Safety and Licensing Board (ASLB) hearing in Cincinnati during June, 1979, a former worker at the Zimmer construction site testified about rough control rod seals, metal fragments, and oversized control rods. These matters were checked immediately by CG&E as well as by the NRC. No problems with the control rod seals were determined and the matter was explored in depth during the testimony at the hearing.

The electrical design and electrical cables for the Zimmer Station are different from the TVA Brown's Ferry Plant. The Wm. H. Zimmer Nuclear Power Station Unit 1 - Fire Protection Evaluation Plan is a large and detailed public document that can be reviewed in detail if desired. This report incorporates all fire protection requirements for the Zimmer Station as a result of the NRC revised fire protection regulations dated May 3, 1976. Cable tray design and cable tray fire protection were also explored by the ASLB.

To: Mr. A. Joseph Dowd

April 3, 1981

Re: Wm. H. Zimmer Nuclear Power Station
Letter from United Presbyterian Church

Page #3

CG&E hired a private investigating firm to check on time card cheating. The investigator worked for about one month at the site. As a result of the investigation, three employees were discharged for time card cheating. During the course of his investigation, the investigator submitted four confidential reports that contained many rumors, hearsay, and other unsubstantiated information. The investigator, for reasons of his own, made public part of the information contained in the reports and took some of the information to the NRC in the summer of 1980. The NRC submitted its report on July 3, 1980, which did not substantiate any of the investigator's charges. The NRC is presently at the site reinvestigating the same complaint. At present, the NRC has not issued a formal report on their findings but has indicated verbally to us that they are basically unsubstantiated.

The following listed items are the remainder of those referenced in Mr. Fife's letter:

1. Approximately 20% of shop welds are defective.
2. Diversion of labor and materials for personal use.
3. Theft of materials.
4. Unreported fires.
5. Lax worker supervision.

These are all in the category of rumor and hearsay. They have all been investigated and cannot be substantiated. These were developed by the investigator through conversations at the site with persons lacking direct knowledge of the subject matter and simply passing along rumors. With regard to Item 1 above, it should be noted that safety related shop welds are subject to a stringent quality assurance program meeting NRC requirements.

To: Mr. A. Joseph Dowd

April 3, 1981

Re: Wm. H. Zimmer Nuclear Power Station
Letter from United Presbyterian Church

Page #4

We trust that this response will answer the questions contained in Mr. Fife's letter.

Sincerely,

William J. Moran

WJM:mjl

Nuclear panel seeks fine from Ohio firm

EXHIBIT #11

By Terry Kinney
Associated Press

CINCINNATI — The Nuclear Regulatory Commission proposed a fine of \$200,000 yesterday against the Cincinnati Gas & Electric Co. for sloppy quality assurance during construction of a \$1.25 billion nuclear power plant.

James Keppler, NRC regional administrator, said the proposed fine was meant as a warning to other utilities that they must keep complete records and fully document safety inspections during construction, he said.

"I can't tell you there aren't other Zimmers out there," Keppler said.

The plant is located on the Ohio River at Moscow, Ohio, roughly halfway between Cincinnati and Maysville, Ky.

CG&E president William Dickhoner said the owners of the unfinished plant have not decided whether to appeal. They have until Dec. 24 to protest the fine. If the utility protests and the NRC decides to impose the fine anyway, a hearing would have to be scheduled.

The NRC in 1979 proposed a \$450,000 fine against Consumer Power Co. of Jackson, Mich., for alleged mechanical violations at its Palisades nuclear power plant near South Haven, Mich. The NRC and the utility later agreed to halve the fine to \$225,000, and it was paid four months ago, utility spokesman Robert Wischmeyer said late yesterday.

"While we strongly disagree with the proposed civil penalty, we concur with the NRC's main point surrounding this action, that no major hardware problems have been identified," Dickhoner said. "We are confident

that the construction of Zimmer is sound.

"There never has been a defective weld found at the plant. We have looked at some 18,000 X-rays of welds ... and can find no evidence that there is a faulty weld."

The NRC did not allege that the Wm. H. Zimmer Nuclear Power Station at Moscow was unsafe, and did not order construction halted.

Rather, it said construction and testing were not adequately documented by the Henry J. Kaiser Co. of Oakland, Calif., the contractor hired by CG&E.

(Turn to NUCLEAR, back page)

Lexington Herald
Nov. 26, 1981
p. A1 - following

Nuclear panel proposes fine over work at Zimmer

From Page One

"The investigation identified a widespread breakdown in the utility's quality assurance program," Keppler said, adding CG&E is responsible for all aspects of construction.

"The breakdown resulted from the company's failure to exercise adequate oversight and control of its principal contractors in the area of quality assurance."

In discussing CG&E's fine, he cited investigative findings of false, misleading and doctored records.

"The fine is proposed for three violations: false quality assurance documents, harassment and intimidation

of quality control personnel and numerous examples of failure to implement an adequate quality assurance program," Keppler said.

Work on the plant began a decade ago and is 95 percent complete. It will have a generating capacity of 840,000 kilowatts and is scheduled to begin commercial production of electricity in 1983.

CG&E, which serves about 1.5 million people in southwestern Ohio and Northern Kentucky, is the licensee, principal owner and operating partner. The Dayton Power and Light Co. and Columbus and Southern Ohio Electric Co. each own about 30 percent.

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3-27
JAN. 22 1982

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 special safety inspection involving independent verification of certain construction activities at William H. Zimmer Nuclear Power Station conducted by Mr. D. H. Danielson and other NRC technical staff and contract personnel on August 24-28, September 1-23, October 5, and November 2-5, 1981. This inspection also included an assessment of examinations conducted at Franklin Research Center in Philadelphia, PA. On November 16, 1981, Mr. J. G. Keppler and others of the Region III office met with Mr. B. R. Sylvia and others of the CG&E staff to discuss the findings of the inspection.

The enclosed copy of our inspection report identifies the areas examined during the inspection. Within these areas, the inspection consisted of nondestructive examination of selected piping welds and adjacent base materials, safety related structural welds, framing members, and hanger beams; selective examination of records; and interviews with personnel.

No items of noncompliance with NRC requirements were identified during the course of this inspection. However, some instances which did not fully meet code requirements in piping welds and adjacent base materials were identified. These findings are specifically identified in Paragraph 2.d of the enclosed report.

With regard to the findings noted in Paragraph 2.d, please inform this office in writing within 30 days of receipt of this letter of the actions you have taken or plan to take to correct specific findings and to assure that similar conditions do not exist in other areas of the plant which may be detrimental to intended service. In responding, you may reference your Quality Confirmation Program to the extent applicable.

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JAN 22 1982

In accordance with 10 CFR 2.790 of the Commission's regulations, a copy of this letter, the enclosures, and your response to this letter 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 ten (10) 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. If your receipt of this letter has been delayed such that less than seven (7) days are available for your review, please notify this office promptly so that a new due date may be established. Consistent with Section 2.790(b)(1), 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 which are the bases for the claim that the information should be withheld from public disclosure. This section further 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, the enclosures, and your response to this letter will be placed in the Public Document Room.

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

Sincerely,

"Original Signed by C.E. Norelius"

C. E. Norelius, Director
Division of Engineering and
Technical Inspection

Enclosure: Inspection Report
No. 50-358/81-27

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

DAN
Danielson/so

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1/12/82

RIII

Williams

RIII

Norelius
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1/15/82

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-358/81-27

Docket No. 50-358

License No. CPPR-88

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

Facility: William H. Zimmer Nuclear Power Station

Inspection At: William H. Zimmer Site, Moscow, OH
Franklin Research Center, Philadelphia, PA

Inspection Conducted: August 24-28, September 1-23, October 5,
November 2-5 and 16, 1981

Inspectors: *D. H. Danielson*
D. H. Danielson, Chief
Materials and Processes Section, RIII

1/12/82

W. J. Key
W. J. Key
Reactor Inspector, RIII

1/12/82

P. A. Barrett
P. A. Barrett
Reactor Inspector, RIII

1/12/82

K. D. Ward
K. D. Ward
Reactor Inspector, RIII

1/15/82

Dale E. Keating
D. E. Keating
Reactor Inspector, RIII

Jan. 12, 1982

G. A. Walton
for G. A. Walton
Reactor Inspector, RI

1/12/82

W. F. Sanders
for W. F. Sanders
Reactor Inspector, RI

1/12/82

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PDR ADOCK 05000358
PDR

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

1/12/82

C. C. Williams
C. C. Williams, Acting Chief
Engineering Inspection Branch

1/13/82

Inspection Summary

Inspection on August 24-28, September 1-23, October 5, November 2-5, 16, 1981
(Report No. 50-358/81-27)

Areas Inspected: Radiographic examination, ultrasonic examination, liquid penetrant examination, thickness measurement, hardness measurement, and chemical and metallographic analyses on safety related piping welds and adjacent base materials; visual examination, magnetic particle examination, and hardness measurement on safety related structural welds, framing members, and hanger beams. The inspection onsite involved a total of 717 hours by Region I and III NRC technical specialists, 40 hours by a technician from Parameters, Inc., (NRC contractor) and 600 hours by technicians from Wisconsin Industrial Testing Inc. (NRC contractor)

Results: No items of noncompliance were identified; however, this independent verification inspection did identify some potential defects in safety related piping welds and adjacent base materials.

- . Thirty (30) visual examinations of fitup and approximately one hundred and thirty (130) visual examinations of related welds were performed on the hanger beams which support cable tray hanger assemblies. These welds had been painted and the examinations were conducted using NRC Procedure NDE-14, Revision 0.
- . Forty (40) hardness tests were performed on selected beams in five areas. The tests were performed using an Equotip Portable Hardness Tester in accordance with NRC Procedure NDE-12, Revision 0.
- . Fifty-six (56) magnetic particle examinations were performed on selected structural and hanger beam welds in two areas in accordance with NRC Procedure NDE-6, Revision 0. These magnetic particle examinations were conducted on painted beam welds and were performed to supplement the above visual examinations. Magnetic Particle Examination is a method of nondestructive examination used for locating discontinuities in ferromagnetic materials. This method utilizes the leakage from an established magnetic field to attract and hold finely divided magnetic particles in or at the discontinuities.

An objective of the independent verification program was to verify onsite the type and elemental composition of selected piping and beams. The portable analyzer planned for use was inoperable due to mechanical problems and as a result, verification of material composition was limited to the samples sent to Franklin Research Center.

d. Findings

- . The visual examinations of piping welds that were conducted revealed six welds which exceeded the ASME Code allowable reinforcement height on the outside surface of the weld.
- . The liquid penetrant examinations that were performed revealed what appeared to be lack of penetration in the full penetration weld for hanger LP-K-114.
- . The ultrasonic thickness measurement of welds and adjacent base materials revealed a wall thickness of .758 inches in the base material adjacent to weld HP-12A. The minimum wall thickness in accordance with commercial design tables is .862 inches thick.
- . When reviewing the film of the safety related welds that were radiographed (47 carbon steel and 5 stainless steel) the following was noted:
 - (1) On several films the inside of the pipe contained foreign particles. The particles appeared to be a combination of dirt, rust, and loose scale.

- (2) A slag indication 1-1/2 inches long in the radiographic film for weld HP-20.
- (3) On several films a condition that appears as a straight line (one side being darker than the other) on the radiographic film. The most severe condition involved carbon steel weld HP-6A and stainless steel weld FC-100, which were cut out and sent to Franklin Research Center to characterize and document the potential defects found in the root of these welds.

3. Details of Indepth Independent Assessment

a. Piping Material Traceability - Diesel Generator Rooms

(1) Objective

For pipe not marked with a heat number, select three pipes at random and have them analyzed for material type, material composition, and hardness. For pipe identified with heat numbers not on the list of acceptable heat numbers, select three pipes and have them analyzed for material type, material composition, and hardness. For all pipe sections sent to Franklin Research Center for analysis, also analyze each with a portable analyzer.

(2) Discussion

The following pipe sections were removed from the Diesel Generator rooms for shipment to Franklin Research Center.

Diesel Generator Room "A"

<u>Line No.</u>	<u>Pipe Diameter</u>	<u>Length Removed</u>	<u>Location</u>
1DG-26-AA-2	2"	2'	Between elbow off tank 1DG15TA and valve 1DG009A (air reservoir) M-428-6-DG-71
1DG-11-AA-3	3"	11.2"	Off cooling water expansion tank 1DG14TA PSK-1DG-24

Diesel Generator Room "B"

<u>Line No.</u>	<u>Pipe Diameter</u>	<u>Length Removed</u>	<u>Location</u>
1DG-01-AD-1	1"	1"	Off tank 1DG07TB between coupling to tank and 90° elbow M-428-9-DG-65

GOVERNMENT ACCOUNTABILITY PROJECT

Institute for Policy Studies

1901 Que Street, N.W., Washington, D.C. 20009

(202) 234-9382

March 19, 1982

Mr. Christopher K. Barnes, Esq.
United States Attorney for the Southern
District of Ohio
United States Post Office Building and Courthouse
Room 220
1st and Walnut Streets
Cincinnati, OH 45202

Dear Mr. Barnes:

On behalf of Mr. Thomas Applegate, I am writing to inquire about the status of possible criminal investigations by the United States Attorney's Office ("USAO") into alleged criminal misconduct at the William H. Zimmer nuclear power plant. The relevant issues for criminal investigation include alteration or falsification of quality assurance documents; failure to conduct required quality assurance investigations; and street crimes such as theft and gambling.

The Government Accountability Project ("GAP") is a nonprofit, nonpartisan public interest organization that assists federal and corporate employees who report illegal, wasteful or improper activities by their agencies. GAP also monitors governmental reforms, offers its expertise about personnel issues to Executive Branch offices and agencies, responds to Congressional requests for analysis of issues related to accountable government and disseminates significant information about problems to appropriate places within the government.

Mr. Applegate was a private detective hired by Cincinnati, Gas and Electric ("CG&E") to investigate time cheating by workers at the Zimmer nuclear power plant. When he uncovered massive theft and black markets, as well as possible compromises to the quality control program for vendor welds and piping, CG&E promptly terminated his contract. Mr. Applegate's subsequent whistleblowing disclosures to the Nuclear Regulatory Commission ("NRC") and the Office of the Special Counsel ("OSC") of the Merit Systems Protection Board led to an August 7, 1981 report by NRC's Office of Inspector and Auditor ("OIA Report") that condemned the adequacy of the NRC's initial review of Mr. Applegate's charges. In the aftermath of the OIA report, the NRC has committed itself to a fundamental shift in its investigative techniques, with an increased emphasis on witnesses and laboratory tests of components. NRC's Region III also reopened its

investigation into Mr. Applegate's charges. The resulting probe led to the discovery of widespread harassment of quality control inspectors, as well as alteration and manipulation of quality control records and inspections. The preliminary results, released in a November 25, 1981 report of Region III's Office of Inspection and Enforcement ("IE Report"), led to a \$200,000 fine, the largest in history for a nuclear power plant under construction. Region III also required the utility to reinspect 100% of the safety-related parts in a Quality Confirmation program.

The IE Report was limited to civil violations of the Atomic Energy Act. Mr. Applegate's charges, however, also covered criminal activity. His allegations included --

1. sale of stolen guns on the site;
2. diversion of labor and materials for the personal benefit of a construction superintendent, at a cost to CG&E of more than \$30,000;
3. fabrication and sale over seven years of belt buckles constructed from nuclear grade steel worth millions of dollars in labor and materials intended for use in pipes, braces and components at the plant;
4. theft of two thousand pounds of copper cable smuggled in small lots and resold within a week for \$15,000 on the black market by 30 plant personnel, to finance a Christmas party; and
5. an entrenched system of time card padding, implicitly sanctioned by the construction company, Kaiser Engineering Incorporated, and CG&E, wasting significant amounts of time and money.

To date there has been no apparent investigative effort by law enforcement agencies. These are charges with serious implications. For example, if a black market exists at Zimmer, high quality pipes or components could be switched with shoddy substitutes. The IE Report revealed numerous instances where safety-related piping could not be traced back to the original supplier.

There is also evidence that the reports generated by Mr. Applegate's disclosures led to two criminal referrals to the Department of Justice, and one other criminal investigation. Initially, a January 7, 1982 letter from CG&E's Donald Blum to the Securities and Exchange Commission revealed that the IE investigation produced a criminal referral against Kaiser management personnel. Mr. Blum explained, "The information contained in the November 1981 NRC letter has been referred by the NRC to the Justice Department for one possible Justice Department action

against management personnel of the contractor."

A considerable amount of indirect evidence confirms a substantial investigation and referral by OIA into criminal issues that may explain the quality control coverup. For example, an August 17, 1981 letter from OIA's James Cummings to Ms. Ann Marie Tracey of your office explained:

OIA has initiated an investigation into the recent discoveries, by Region III, relating to both alleged altering or falsifying documentation and failures to conduct quality control inspections pursuant to Appendix B, Part 50, Title 10, Code of Federal Regulations. These allegations as they pertain to regulatory violations have been the subject of a recently completed IE investigation.

(Emphasis added.) (Exhibit 1.) OIA is the only branch of NRC with jurisdiction to conduct criminal investigations.

At Commissioner Ahearne's instruction, OIA's plan for the Applegate case was used to refer criminal activity beyond IE's reinvestigation of safety issues to the Justice Department. (A January 5, 1981 letter from James Cummings to Chairman Ahearne is enclosed as Exhibit 2.) At March 3, 1982 congressional budget hearings, IE Director Richard DeYoung revealed that OIA had not only split off a criminal investigation from the Applegate probe, but had referred it to the Department of Justice:

Ms. HULL. There is just one more question on this. I understand that inspections uncover certain health and safety possible violations, but that in the course of that investigation there is also, perhaps, evidence that there is criminality or a willful violation, in the case of Zimmer, the criminal inspection was postponed until the completion of the health and safety violation, probable violation.

I understand that health and safety is your primary responsibility, and should not take second seat to anything, including criminal violations. But have any standards been established to determine when the health and safety threat is imminent or when the criminal investigation should not be postponed?

Mr. DEYOUNG. I might respond that they were not put aside. They were separated. OIA pursued the criminality, and we pursued the I&E part of it, the health and safety. So they were not dropped, they were just completely separated.

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It was referred. We talked to the Department of Justice. OIA did pursue that, they questioned people, and they questioned them about the staff performance in Region III as well, but they referred it to the Department of Justice. The Department of Justice will tell us what they want us to do. If they say, stop, do not proceed, we do not proceed.

(Excerpts from the unpublished transcript of the March 3 budget hearings before the Energy Conservation and Power Subcommittee of the House Energy and Commerce Committee are enclosed as Exhibit 3.) Mr. DeYoung appeared to infer that the Justice Department will have to take any further initiatives on the case.

Finally, there is evidence that NRC Commissioners considered the criminal aspects of the case sufficiently significant to discuss in a closed meeting. In a February 3, 1982 response to a GAP FOIA request, the NRC stated that the Commission held a closed meeting on October 27 and 28, 1981 "to discuss potential enforcement actions stemming from the Zimmer investigations." The transcripts were denied pursuant to, inter alia, exemptions (5) and (7) of the Government in the Sunshine Act. Exemption (5) permits retention of transcripts likely to "involve accusing any person of a crime, or formally censuring any person." Exemption (7) covers transcripts likely to --

(7) disclose investigatory records compiled for law enforcement purposes, or information which if written would be contained in such records, but only to the extent that the production of such records or information would (A) interfere with enforcement proceedings, (b) deprive a person of a right to a fair trial or an impartial adjudication, (C) constitute an unwarranted invasion of personal privacy, (D) disclose the identity of a confidential source and, in the case of a record compiled by a criminal law enforcement authority in the course of a criminal investigation, or by an agency conducting a lawful national security intelligence investigation, confidential information furnished only by the confidential source, (E) disclose investigative techniques and procedures, or (F) endanger the life or physical safety of law enforcement personnel....

There is little escape from the conclusion that possible criminal misconduct at Zimmer was the focus of extensive discussion by the Commissioners.

Their concern was understandable. A careful reading of the IE report reveals quality control violations of astounding propor-

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tions. The report documented 40 noncompliances, compared with 44 for the entire previous two years. The noncompliances involved 964 instances of records manipulation, failure to conduct quality assurance tests properly, harassment of inspectors, unacceptable components and similar problems. The report documented numerous cases of faulty welds scattered throughout safety-related systems, overfilled cable trays and pipe hangers unacceptably installed. Even more significant, Region III found repeated instances where the design blueprints for the plant did not match the installed components. The report listed a series of examples where pipes that appeared to be permanently installed did not appear on any design documents. The NRC is just beginning to conduct extensive laboratory tests on the plant to see how much equipment damage the records manipulation covered up. Preliminary results, however, suggest that substantial new welding flaws will be exposed as the tests continue. (See, e.g. NRC Inspection Report No. 50-358/81-27.)

The NRC report found massive records and inspection violations, but the investigation did not attempt to identify who was ultimately setting the coverup policy. The issue is of decisive significance, however. CG&E is in charge of the Quality Confirmation program intended to resolve all the remaining safety questions at Zimmer. If CG&E was the ringmaster for the quality control circus at Zimmer, it would be tragic to put the utility in charge of cleaning up the mess. Certainly the public would not be reassured by any ensuing self-exoneration.

Unfortunately, there is considerable evidence found haphazardly in the IE report indicating that CG&E at least was aware of, and may have been directing, the Kaiser misconduct. The IE report contains 16 references to separate instances of utility misconduct or complicity.

For example, former CG&E Quality Assurance chief William Schwiers admitted that the utility's own quality assurance program suffered from the same lack of independence from construction demands as Kaiser's QA program. While he may have signed the paperwork refusing adequate Kaiser quality control staffing requests, he cautioned that he didn't make the decisions. They were made at CG&E management meetings that included Project Manager Barney Culver, as well as representatives of the CG&E Generation and Construction Departments. Mr. Schwiers added that he reported directly to Earl Borgman, the utility's Senior Vice President for Engineering Services and Electric Production. He could not remember, however, if Borgman had attended the referenced meetings. Schwiers concluded by stating that he had been under "tremendous pressure" during his assignment as QA Manager and refused to answer further questions beyond "yes" and "no." (The Schwiers interview, Exhibit 52 to the IE Report, is enclosed as Exhibit 4.)

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In a second instance, a witness reported that Schwiers and Kaiser Construction Manager Robert Marshall directed that a "hold tag" be changed to "rework" in the cable spreading room in order to avoid construction interruptions. Eighteen months later the non-conforming condition had not been repaired. (IE Report, at 135.)

A third instance involved harassment of a quality control inspector. CG&E official Scott Swain and Mr. Marshall followed around an inspector who was reinspecting previously rejected welds. Swain complained and almost got the inspector fired for allegedly using a magnifying glass to find welding defects. In reality, magnifying glasses are approved tools for welding inspections. At any rate, the employee in fact was using a flashlight. (IE Report, at 130-32, Attachment A, at 4-5.)

Another chilling example is prophetic of CG&E's current "100% reinspection" of safety-related components. A witness recounted a meeting with CG&E and Kaiser management when inspectors were rejecting 95% of the welds during a reinspection of all pipe support hanger welds. The management officials criticized the inspectors for finding defects in previously accepted welds, and pressured them to ease off. (Id., at 130-31.)

The Zimmer Quality Confirmation program will continue to have a credibility gap until effective decision-making authority over the coverup is identified, and until all the criminal leads are pursued. Mr. Applegate would not publicly air this request for a status report, but he has been rebuffed repeatedly in private. Further, GAP investigators have spoken with relevant witnesses for the IE and OIA Reports, and none have been contacted by law enforcement authorities.

Mr. Applegate is requesting more than merely a status report. He urges the U.S. Attorney's Office to proceed with the case. As House Environment Energy and Natural Resources subcommittee chairman Toby Moffitt explained at the December 14, 1981 hearings:

Second, the Congress last year added an entirely new provision for criminal penalties -- both criminal fines and actual jail sentences -- for knowing violations of NRC safety standards in the construction of nuclear plants or in the manufacture of reactors and other nuclear equipment....

Third, the Congress also added new criminal penalties for the harassment, intimidation or assault of quality control inspectors. Such harassment, as this Subcommittee has already found through previous investigations and as the NRC has now admitted in its own investigation, are precisely the sort of actions that occurred at the Zimmer site near Cincinnati.

March 19, 1982

These new criminal penalties were not placed in the Atomic Energy Act as window-dressing. The Congress provided for criminal penalties for utility failures to obey NRC safety rules for a very important reason: the public health can be endangered by nuclear crimes just as surely as it can be by street crimes.

(Emphasis in original.) (Exhibit 5.)

In short, these issues are too serious to ignore. As Commissioner Gilinsky observed at the March 3 hearings:

I think criminality, if that is the right word, is not permissible under the statutes that we administer. I think that has health and safety implications just as much as other things that we are looking into.

If there is someone falsifying records, that has health and safety implications.

(Exhibit 3, supra.) Mr. Applegate and GAP will cooperate fully with your office in any efforts to solve the mystery of who ran the Zimmer coverup.

Sincerely,

Thomas Devine
Legal Director

TD/kep

Enclosures

August 17, 1981

Exhibit 1

Ms. Ann Marie Tracey
Assistant U.S. Attorney
United States Attorney
Southern District of Ohio
Cincinnati, Ohio 45202

Dear Ms. Tracey:

Enclosed is a copy of the Office of Inspector and Auditor's (OIA) report of investigation pertaining to an NRC investigation conducted in April 1980 by the Office of Inspection and Enforcement (IE) at the William W. Zimmer Nuclear Construction Project. We are providing this report in order that your office remains fully informed of the results of investigations conducted by the NRC at Zimmer.

As discussed during our April 22, 1981 meeting, OIA was tasked to investigate the adequacy of previous efforts at the Zimmer site to resolve allegations of alleged faulty construction which may have violated quality assurance criteria set forth in NRC regulations and adversely effected NRC's ability to ensure matters effecting public health and safety.

Our report specifically focuses on the merits of IE investigation 50-358/80-09 and "extends neither to the evaluation of other Region III actions relating to Zimmer nor to the question of allegedly faulty construction at Zimmer." However, OIA has initiated an investigation into the recent discoveries, by Region III, relating to both alleged altering or falsifying documentation and failures to conduct quality control inspections pursuant to Appendix B, Part 50, Title 10, Code of Federal Regulations. These allegations as they pertain to regulatory violations have been the subject of a recently completed IE investigation. This draft IE report of investigation will be forwarded to your office under separate cover.

If there are any questions regarding this matter or assistance needed, feel free to contact Arthur Schnebelen, Acting Assistant Director for Investigation or John Sinclair of the investigative staff (301-492-7170).

Sincerely,

Distribution

OIA File 81-18

OIA File I.2.b.

JSinclair

/s/ Arthur Schnebelen

James J. Cummings, Director
Office of Inspector and Auditor

Enclosure:
OIA rpt of investigation

OFFICE	cc: David Everett, DOJ, w/encl.	OIA	OIA	OIA	
NAME	Allen Hausman, DOJ, w/encl.	JSinclair/bab	Schnebelen	Cummings	g1
DATE		8/17/81	8/17/81	8/ /81	V

January 5, 1981

MEMORANDUM FOR: Chairman Ahcarne
 FROM: James J. Cummings, Director
 Office of Inspector and Auditor
 SUBJECT: THOMAS W. APPELATE ALLEGATIONS

Original signed by
 James J. Cummings

Attached is a letter to you from the Office of the Special Counsel dated December 29, 1980, which was directed to this office.

As you requested in your December 15, 1980, memorandum to me, this office will investigate the adequacy of the Office of Inspection and Enforcement's (IE) handling of Applegate's allegations. We will also refer to appropriate law enforcement agencies any allegations of criminal activity beyond the scope of IE's current investigation of the safety issues raised by Mr. Applegate.

Attachment:

As stated. (*see separate folder for attachment*)

cc: Commissioner Gilinsky, w/cy Special Counsel ltr
 Commissioner Hendrie, w/cy Special Counsel ltr
 Commissioner Bradford, w/cy Special Counsel ltr
 Victor Stello, w/attach
 L. Rickwit, w/attach

Distribution

OIA 81-18

OIA rdr
 Gamble
 Sinclair

CONTACTS: David Gamble
 John Sinclair
 OIA - 27170

OFFICE:	OIA <i>DV</i>	OIA <i>RF</i>	OIA				
NAME:	DGamble/bab	Fortuna	Cummings				
DATE:	1/5/81	1/5/81	1/5/81				

2428 adequately.

2429 I wonder if you would comment on that?

2430 Chairman PALLADINO. Yes, I will be glad to comment on
2431 that.

2432 The question of investigations has been an item of
2433 discussion for some time among the Commissioners as well as
2434 between myself and the staff, and among the staff members. I
2435 tried to bring all the parties in the staff that bear on
2436 this issue together at a workshop, which I think was held on
2437 February 8, and out of that came a number of suggested
2438 improvements that were written up and are now being
2439 circulated for concurrence.

2440 The approach being taken relates to both the headquarters
2441 and the regional offices. With regard to headquarters, we
2442 concluded that the investigatory aspects of inspection and
2443 enforcement are too low in the organization, and that the
2444 investigation office should be raised to an office reporting
2445 directly to the Director of Inspection and Enforcement.

2446 Furthermore that the size of the group should be doubled
2447 and that these should be professional investigators, and
2448 that their main function is to make sure that the
2449 procedures, the policies, the training program, and the
2450 training is well defined and carried out. As a matter of
2451 fact, during the workshop that was one of the comments that
2452 was most frequently made--We don't have any policies, we

2453 don't have any procedures, and we really need a good
2454 training program, not only to train people that are being
2455 brought in from the outside on the aspects related to
2456 nuclear power, but also to make sure that they are
2457 continuously updated on investigation process and the
2458 policies that we set forth.

2459 We said that we wanted this written, at least the first
2460 draft, by May 15. When I say, we said that, we said it in a
2461 draft document that has not yet been approved but I am
2462 pretty confident that it will be approved, with perhaps some
2463 minor modifications, because this is the second go-round.

2464 We have also said that the regional administrators shall
2465 increase substantially their investigation staff and make
2466 sure that they have qualified individuals. The region is
2467 where the investigations begin, and they can call for help
2468 from headquarters, or for that matter from any region if it
2469 is a big investigation.

2470 We think that this is an important element of getting
2471 investigations started early, and having qualified people in
2472 the regions to do it, having enough of them is the key to
2473 success in that.

2474 With regard to the criminal aspects, it did not go to the
2475 point of saying that we were going to remove OIA from that.
2476 As a matter of fact, this proposal retains OIA as the focal
2477 point for contact with the Department of Justice, and

2478 coordinating with the regions, so as soon as the regions see
2479 that there is something that needs to be investigated--

2480 Incidentally, we said that the regional director has to
2481 decide and identify when he is going to call something an
2482 investigation. When he sees that there is anything that is
2483 going to involve significant criminal aspects, he notify the
2484 director of OIA, as well as the EDO, and others in the
2485 chain. Between them, they decide whether it is going to be
2486 done through the regional office of the Department of
2487 Justice, or the FBI, or whether it is to be centralized here
2488 in Washington.

2489 So some of the implications in your opening statement, I
2490 think, are a bit different from the way we are proceeding at
2491 this time.

2492 Ms. HULL. Does that mean that there is no change in the
2493 jurisdiction of the IOA?

2494 Chairman PALLADINO. I think that is basically true.

2495 Ms. HULL. I understand that one of the proposals in that
2496 policy paper was to establish a new civil area which makes a
2497 distinction which requires a finding of a willful careless
2498 disregard.

2499 Chairman PALLADINO. What are you quoting from?

2500 Commissioner GILINSKY. Those are two separate categories,
2501 I believe.

2502 Ms. HULL. I believe they were combined, and that was

2503 essentially the question, how can there be a willful and
2504 knowing disregard.

2505 Chairman PALLADINO. What document are you referring to?

2506 Ms. HULL. I am referring to SECY-81-600A.

2507 Chairman PALLADINO. That is the new enforcement policy.

2508 Ms. HULL. We will pursue that later. There is no reason
2509 to go into that now.

2510 Mr. OTTINGER. Does your budget have the funds necessary
2511 to hire your additional qualified people and to train them?

2512 Chairman PALLADINO. The additional people could be taken
2513 from other aspects of the organization. In IE, they should
2514 hire three more professional investigators for the
2515 headquarters staff, and the personnel billets are to be
2516 taken from other operations of IE. This is a small
2517 perturbation on a sizable group of people.

2518 Mr. OTTINGER. From the information that I have here, and
2519 I have to assume that it is accurate, the regions presently
2520 just don't feel that they are equipped to handle these
2521 responsibilities. They have had difficulties fulfilling
2522 those investigations that have had to do.

2523 Chairman PALLADINO. Most of the regions, I think, have
2524 about five investigators, and the intent of this document,
2525 when I first wrote it up based on our workshop, said that
2526 they should double that to ten. They did plead with me to
2527 give them a little better flexibility, and so I said that

2528 the regional administrator shall redistribute staff
2529 resources to substantially increase the number of qualified
2530 and trained investigators.

2531 In some regions, doubling the size of the investigative
2532 staff may be warranted. These must be qualified and trained
2533 investigators.

2534 Mr. OTTINGER. I am not sure what the staff meant, or
2535 where they got it from, but they said Region II has eschewed
2536 investigations altogether in favor of special inspections.
2537 Do the regions have latitude to decide whether or not they
2538 will make investigations or not, or what kind of personnel
2539 they will take on?

2540 Chairman PALLADINO. We would require this of the regions.

2541 Mr. OTTINGER. Region II is my region, so I am concerned.

2542 Chairman PALLADINO. I misunderstood your question. The
2543 regions do have flexibility on whether or not something
2544 should be investigated, and what to investigate.

2545 Mr. OTTINGER. But not to eschew investigation altogether.

2546 Chairman PALLADINO. No.

2547 Ms. HULL. If such a policy were in place, is there an
2548 oversight mechanism within the Commission that would
2549 recognize that there had been a lack of investigations in
2550 this area?

2551 Chairman PALLADINO. Yes. As a matter of fact, the
2552 headquarters group does have oversight responsibility for

2553 the investigations that go on, to make sure that they are
2554 properly coordinated, and that they are following the
2555 procedures that have been set forth.

2556 Mr. OTTINGER. Mr. Ahearne.

2557 Commissioner AHEARNE. I think the chairman is addressing
2558 the proposed modification on how to improve the system. I
2559 think your question was right now.

2560 Right now, the principal way in which we come across
2561 issues that one might have concluded should have been
2562 investigated and that were not, are when an issue gets
2563 raised to either I&E headquarters, and then I&E headquarters
2564 will then ask the region why they did not follow up on this;
2565 or an issue gets raised to the Commission, and the
2566 Commission will ask why is not the region following it up;
2567 or OIA in one of their reviews will do that.

2568 These issues get raised sometimes by staff people within
2569 the Commission, sometimes by intervenors on the outside, or
2570 through a variety of such sources. But at the moment there
2571 has not been any formal mechanism, and the chairman's
2572 proposal would have that.

2573 Ms. HULL. If such a policy were in place, it would be
2574 difficult to detect that?

2575 Commissioner AHEARNE. I would find it astonishing if that
2576 policy were from the headquarters.

2577 Ms. HULL. No, this is the policy of the regional

2578 administrator from my understanding of the discussions

2579 Commissioner AHEARNE. The administrator recently changed
2580 in that region.

2581 Chairman PALLADINO. We are addressing an item that might
2582 be better handled by Mr. DeYoung.

2583 Mr. DEYOUNG. I will try.

2584 We have changed about three or four months ago. The
2585 regional groups are now on their own. They are no longer a
2586 part of I&E. They are independent groups.

2587 Mr. OTTINGER. Who do they report to?

2588 Mr. DEYOUNG. They report to Mr. Dircks.

2589 With the new concept, and this applies across the board,
2590 the inspections, investigations, everything we do, the
2591 headquarters group develops the program. The regional
2592 people will implement that program. The headquarters group
2593 has the added responsibility to assess the performance of
2594 those regions with respect to uniformity between the
2595 regions, and the acceptability of what they are doing with
2596 intend of that program that we have established.

2597 I think we will have some control over how they do it, and
2598 what they are doing. We are going to be assessing the
2599 performance of each region with respect to each part of that
2600 program.

2601 I would like to comment on certain other comments that
2602 were made about the inadequacy of the Diablo Canyon

2603 investigation. They had to go back and do something.

2604 The original directions to the group out there was to do
2605 an investigation and do it quick. I think provided a date
2606 to them of about two weeks. They said, "'Gee, that is hard,
2607 but we will do our best.'" But they wisely, on their own,
2608 requested that we put over them a peer panel review to see
2609 that what they did in two weeks was acceptable from the
2610 standpoint of breadth and depth of the investigation. And
2611 that was very fortunate because in two-weeks of work, they
2612 couldn't do too much.

2613 Another thing, when we are talking about criminal
2614 investigation, we don't do them, neither does the OIA. We
2615 refer them to the Department of Justice. We don't do
2616 criminal investigation. When we suspect criminality or know
2617 it, we refer it to the Department of Justice and they will
2618 do the investigation.

2619 Commissioner GILINSKY. They are responsibility for
2620 dealing with the civil aspects of actions which may have
2621 also criminal implications.

2622 Ms. HULL. I understand that OIA is the only office within
2623 the Commission which pursues the referral.

2624 Mr. DEYOUNG. The only thing they do, and they help us
2625 greatly, they meet with us, whether it is the I&E group or
2626 the NRR Group, and if there is any suspicion of criminality,
2627 we talk about it. We give it to OIA with a recommendation

2628 of whether or not we think it should be referred to the
2629 Department of Justice. They do the referral. If they don't
2630 think it should be referred, they will come back and talk to
2631 us, and we will argue about it. If there is any
2632 disagreement, we tend to tilt in the direction of safety.

2633 Mr. OTTINGER. Clarify this new structure for me a little
2634 bit. You said that the regions are not going to be under
2635 IE?

2636 Mr. DEYOUNG. No. What we are going to do is use the
2637 regional offices to do all the work for the agency. That
2638 is, bring together in the region not only the I&E parts of
2639 the agency, but also the nuclear reactor regulation parts of
2640 the agency, and also all the work that we can get out that
2641 is related to the material safety and safeguards. So that
2642 the regional office becomes a focus for all of the agency
2643 activities.

2644 In that respect, they work for all of the program
2645 directors here in Washington. They will exercise oversight
2646 for their program responsibilities now going on in the
2647 region. So I don't think we can say they are cut off from
2648 I&E. We are having I&E programs run in the region, with
2649 program oversight and evaluation done by the I&E program
2650 office here at headquarters.

2651 The same rule applies to reactor regulation activities,
2652 and also applies to all of the material safety and

2653 safeguards activities going on in the region.

2654 Ms. HULL. There is just one more question on this.

2655 I understand that inspections uncover certain health and
2656 safety possible violations, but that in the course of that
2657 investigation there is also, perhaps, evidence that there is
2658 criminality or a willful violation, in the case of Zimmer,
2659 the criminal inspection was postponed until the completion
2660 of the health and safety violation, probable violation.

2661 I understand that health and safety is your primary
2662 responsibility, and should not take second seat to anything,
2663 including criminal violations. But have any standards been
2664 established to determine when the health and safety threat
2665 is imminent or when the criminal investigation should not be
2666 postponed?

2667 Mr. DEYOUNG. I might respond that they were not put
2668 aside. They were separated. OIA pursued the criminality,
2669 and we pursued the I&E part of it, the health and safety. So
2670 they were not dropped, they were just completely separated.

2671 It was referred. We talked to the Department of Justice.
2672 OIA did pursue that, they questioned people, and they
2673 questioned them about the staff performance in Region III as
2674 well, but they referred it to the Department of Justice.
2675 The Department of Justice will tell us what they want us to
2676 do. If they say, stop, do not proceed, we do not proceed.

2677 Commissioner GILINSKY. I think criminality, if that is

2403 may not be staff with trained investigators.

2404 Region V's Diablo Canyon investigation to determine
2405 whether the Commission had been misled was replete with
2406 contradictions that were not addressed, leads that were not
2407 followed, and misrepresentations at depositions.

2408 Similar inadequacies in Region III's investigation of
2409 Zimmer were documented last year by the Office of Inspector
2410 and Auditor. Region II has eschewed investigations
2411 altogether in favor of what they call special
2412 investigations.

2413 This is significant because some of these inspections
2414 presuppose no finding of criminality, in other words,
2415 willfulness, and do not invoke the jurisdiction of the
2416 Office of Inspector and Auditor.

2417 OIA, a Commission level office, is currently the only
2418 office that has jurisdiction over criminal matters, and thus
2419 the only office with trained investigators. The Commission
2420 is proposing eliminating criminal jurisdiction from OIA, and
2421 resting it solely with IE, and we are concerned that this
2422 may place an unreasonable burden on IE to investigate that
2423 which its inspections fail to uncover.

2424 Since this whole question of inspection and investigation
2425 is so critical to the safety, we are concerned that in the
2426 process of this reorganization, the program for inspections
2427 and investigation of safety problems may not be treated

2678 the right word, is not permissible under the statutes that
2679 we administer. I think that has health and safety
2680 implications just as much as other things that we are
2681 looking into.

2682 If there is someone falsifying records, that has health
2683 and safety implications. Unfortunately, there has been a
2684 certain amount of confusion about who is responsible for
2685 what, and that has led to these investigations not being
2686 pursued in the way they should have been.

2687 We are trying to sort all of that out, and I hope we are
2688 going to make clear what everyone's responsibilities are,
2689 and that things will improve.

2690 Mr. OTTINGER. Would you keep us advised, since that is
2691 really important.

2692 Commissioner AHEARNE. I think there continues to be
2693 confusion as to even what is a criminal charge and what is
2694 not, and how does that overlay the NRC responsibilities. It
2695 has led to some difficulties on deciding when something
2696 should be referred to the Justice Department. It has led to
2697 difficulties with how we handle our investigations and the
2698 Justice Department at times has expressed concern that we
2699 didn't do it in such a way as to maintain their options.

2700 But these are all areas which, I think, the chairman's
2701 initiative is going to hopefully lead to some substantial
2702 improvement. We recognize that there have been problems,



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555

February 3, 1982

IN RESPONSE REFER
TO FOIA-81-488

OFFICE OF THE
SECRETARY

Mr. Thomas Devine
Government Accountability Project
1901 Que Street, NW
Washington, DC 20009

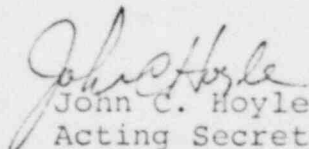
Dear Mr. Devine:

This is in further response to your letter dated November 23, 1981, in which you requested, pursuant to the Freedom of Information Act (FOIA), copies of documents prepared in connection with the Office of Inspector and Auditor's report on IE's investigation of the Zimmer Nuclear Power Station.

On October 27 and 28, 1981, the Commission held closed meetings to discuss potential enforcement actions stemming from the Zimmer investigations. We have reviewed those transcripts under the Government in Sunshine Act (GISA) to determine whether they should be released in whole or in part at this time. The meetings were closed pursuant to exemptions (5), (7), and (10) of the Government in Sunshine Act, 5 U.S.C. 552b, and 10 CFR 9.104 of the Commission's regulations, since the discussion focused on the review of investigatory reports and the consideration of potential enforcement actions, including the imposition of civil penalties, all within the context of an ongoing agency adjudication. Commission deliberations of this nature are exempt from mandatory public disclosure in the interest of avoiding interference with current and future Licensing Board proceedings and of protecting the uninhibited exchange of ideas and opinions which relate to such proceedings. For these reasons, the Commission has determined that the public interest does not require release of these transcripts and that they should be withheld in their entirety pursuant to exemption (3) of the Freedom of Information Act and exemptions (5), (7), and (10) of the Government in the Sunshine Act.

Because the Commission itself addressed this portion of your request, an FOIA appeal would be redundant. Therefore, please consider this the final agency action. Pursuant to the FOIA, judicial review of this decision is available in a Federal District Court in the district in which your client resides, has his principal place of business, or in the District of Columbia.

Sincerely,


John C. Hoyle
Acting Secretary of
the Commission

TOBY MOFFETT, CHAIRMAN
FLOYD L. BISHOP, JR., IND.
MARK E. BROWN, TEX.
TIMOTHY W. CAHILL, CALIF.
EUGENE W. STRONG, PA.
BARRY L. FRANK, MASS.

NINETY-SEVENTH CONGRESS

Congress of the United States

House of Representatives

ENVIRONMENT, ENERGY, AND NATURAL RESOURCES
SUBCOMMITTEE

OF THE

COMMITTEE ON GOVERNMENT OPERATIONS

RAYBURN HOUSE OFFICE BUILDING, ROOM B-371-B-C

WASHINGTON, D.C. 20515

JOEL BECKARD, IND.
JAMES HILLER, TEX.
JUDY GRACE, N.H.
MICHAEL G. O'LEARY, CALIF.

MAJORITY—215-8427
MINORITY—215-2710

EXHIBIT #13

OPENING STATEMENT CHAIRMAN TOBY MOFFETT December 14, 1981

Our hearing this morning provides the Subcommittee with its first opportunity to receive testimony from the new Chairman of the Nuclear Regulatory Commission, Mr. Nunzio Palladino. We welcome him and Commissioner Peter Bradford, whose testimony before us in the past has always been highly informative and useful.

It is particularly timely to hear from Chairman Palladino this morning. Certain remarks he has made recently about the performance of the nuclear industry are terribly important. Chairman Palladino has stated, and I quote:

"If the nuclear industry does not do its part, no amount of regulatory reform will save it from the consequences of its own failures to achieve the quality of construction and plant operations it must have for its own well-being and for the safety of the public it serves. Based on quality assurance failures that have recently come to light, I am not convinced that all of the industry has been doing its part."

Those are straightforward, clear words to an industry that many people think can use more straight talk. Chairman Palladino is to be commended for his candor and his willingness to say some things to the industry that industry people do not want to hear.

Moreover, the NRC recently has taken a few actions which appear to back up those blunt words. The Commission has revoked the interim operating license at Diablo Canyon based on the recent revelations

of seismic miscalculations. An unusually large civil penalty of \$200,000 was imposed on Cincinnati Gas & Electric for its failures in quality assurance at the Zimmer plant construction site.

Those of us on this Subcommittee who have been working for the last two Congresses on the problems of this industry and the Commission's regulation of it know just how right and necessary those words and actions are. We are here this morning to encourage you, Mr. Palladino, and the entire NRC, to do more to force all the players in this industry to confront the very serious problems that exist at a number of sites around the country.

Beyond that, we want to take a close look at whether the current NRC enforcement program is tough enough to be a credible deterrent to the kinds of safety failures that Chairman Palladino has correctly criticized.

My own assessment, based on what we have seen from this dais for the past three years, is that the NRC enforcement program is not a credible deterrent to utility misconduct.

The NRC is often too slow to respond to allegations of massive breakdowns in quality assurance, as the cases at Zimmer and Marble Hill illustrate.

The NRC is often too skeptical of the contentions of intervenors and other nuclear critics about the existence of problems at particular sites. The NRC is frequently too quick to assume that the utilities are all-knowing and do not make major mistakes in construction and operations. The Diable Canyon fiasco is a clear example of that.

And the NRC seems too willing at times to accept industry excuses for non-compliance with important NRC safety regulations. The Commission's lax handling of emergency planning requirements is a vivid example of that.

Most important, even when the NRC finally reacts to allegations, does an investigation and decides on enforcement action, its steps are too weak to be of genuine deterrent value to other utilities and officials who are tempted to ignore safety requirements.

We need to examine some very practical realities about the NRC enforcement program. The typical NRC punishment, where it does punish at all, for an isolated violation of safety regulations is a civil penalty of perhaps \$40,000 to \$50,000. For a massive, years-long, systemic failure to adhere to proper standards, they may impose a fine as high as the \$200,000 imposed on Cincinnati Gas & Electric.

It is true of course that the public embarrassment of such a fine is not welcomed by any utility. But the public memory is short. And the sting of a civil penalty of that size is not really very lasting. We all know that the price tag on a nuclear plant today is over a billion dollars, making civil penalties of the size meted out by the NRC quite trivial by comparison.

It is important for us to review a bit of recent legislative history in this regard. Just last year, the Congress took note of the disturbing number of incidents which showed that the performance of the nuclear industry was dangerously inadequate. In the Fiscal Year 1980 authorization, we took what we felt were significant steps to strengthen the NRC's enforcement of nuclear safety.

First, we provided for substantially higher civil penalties. Prior to 1980, the most the NRC could fine a utility was \$5,000 per violation -- and no more than \$25,000 total in any one month. We raised the potential penalty per violation to a full \$100,000 and we eliminated that 30-day ceiling. As a consequence, NRC fines have become somewhat larger. But as I just discussed, they certainly are not as large as the Congress has now made possible, and they are still not large enough to be very convincing deterrents.

Second, the Congress last year added an entirely new provision for criminal penalties -- both criminal fines and actual jail sentences -- for knowing violations of NRC safety standards in the construction of nuclear plants or in the manufacture of reactors and other nuclear equipment. That provision was prompted in large part by the revelations from this Subcommittee about quality assurance problems at the Marble Hill site in Indiana, about which the ranking minority member, Mr. Deckard, has long been concerned, and by the allegations arising from the Three Mile Island accident that information about defects in the equipment there had been concealed. These criminal penalties relating to construction of new nuclear reactors and plants were added to existing criminal penalties for violations of NRC safety standards for operating nuclear plants.

Third, the Congress also added new criminal penalties for the harassment, intimidation or assault of quality control inspectors. Such harassment, as this Subcommittee has already found through previous investigations and as the NRC has now admitted in its own investigation, are precisely the sort of actions that occurred at the Zimmer site near Cincinnati.

These new criminal penalties were not placed in the Atomic Energy Act as window-dressing. The Congress provided for criminal penalties for utility failures to obey NRC safety rules for a very important reason: the public health can be endangered by nuclear crimes just as surely as it can be by street crimes.

Of course, when talking about the need for criminal sanctions, we are not talking about every utility in the nuclear industry. Many are solid performers who take compliance with NRC safety regulations very seriously. But as Chairman Palladino has recognized, there are undeniably poor performers in the nuclear industry. For some of

those, strong sanctions may be necessary. When nuclear utility officials knowingly ignore NRC regulations, misinform and mislead the NRC, and harass or allow the harassment of quality control inspectors, they are committing crimes that should be punished as such in order to protect the public health and safety.

Unfortunately, Subcommittee investigations have repeatedly shown that the NRC is reluctant to pursue indications of criminal conduct, particularly when the trail leads higher and higher in the utility management. Documents which we will discuss this morning suggest that the NRC has failed in a number of situations to take effective steps to investigate possible management involvement in problems at nuclear sites and to consider the use of criminal sanctions for the violation of NRC safety requirements.

As we discuss some of these cases this morning, I want to assure the Commissioners that we are not seeking any statement from you that would indicate that you have prejudged such an important and sensitive question as a possible criminal enforcement action against a particular utility official or employee.

But we are seeking from you a clear commitment that the Commission will conduct effective and thorough investigations of allegations of utility violations of safety requirements, that you are committed to addressing the question of management involvement in such violations, and that you are prepared to use the criminal penalties which the Congress enlarged last year specifically to deal with the types of problems that are disturbingly prevalent in the industry today.

The other aspect of this morning's hearing is of course related to this question of effective inspections and enforcement actions. We want to review with Chairman Palladino and Commissioner Bradford

- 6 -
what steps the NRC has taken to respond to the numerous recommendations made by the Government Operations Committee in the four reports on NRC oversight that have emerged from this Subcommittee's work in the last three years. Again, I welcome you both.

AFFIDAVIT

EXHIBIT #14

My name is Jeffrey J. Hyde. From August 7, 1979 until October 1980 I was employed as a security officer at the William H. Zimmer nuclear power plant in Moscow, Ohio. The plant is being constructed by Kaiser Engineering and is owned by Cincinnati, Gas and Electric. I worked for Yoh Security of 1616 Market Street, Philadelphia, Pennsylvania. This affidavit concerns numerous serious problems I was aware existed at Zimmer, including breaches of security for over \$40 million dollars worth of nuclear fuel; employees at the plant who were drunk during working hours; and thriving black market businesses that included hot weapons, belt buckles, prostitution and a bookie operation.

Before I came to Zimmer I had worked as a member of the 164th Military Police in Miesau, West Germany. My job was in physical security guarding classified items. After receiving a medical discharge for arthritis, I was hired in August 1979 by Yoh. I was the first security officer hired by Yoh for the Zimmer contract.

My first experience with problems at the plant began around 1:35 A.M. in mid-August, after receipt of the first uranium dioxide 235 nuclear fuel shipment at Zimmer. I read the name of the fuel from the packing slip. It had been trucked in from General Electric's plant in Wilmington, North Carolina. I heard through the grapevine that GE&E had obtained permission to have the fuel delivered early, in order to avoid paying additional storage charges to General Electric. It arrived at night to avoid anti-nuclear demonstrators.

When the fuel arrived, Mr. Fred Lautenslager, GE&E's security supervisor for the site, called myself and the other officer on duty, John Benjamin. He told us to have one person go downstairs to the loading area and watch the fuel, while the other man stayed at the seventh, or reactor, floor. Fred gave John a weapon and told him to stand outside guarding the fuel until the morning shift arrived at 7:00, around five hours later. For around the next 20 days we received shipments. After the first shipment, the trucks arrived at all hours, including the afternoon. During that period the loading dock was full on

about 12 occasions. In those instances, the truckers would just unload the fuel outside the railroad tracks, rope off the crates, and put up warning signs. I thought it was curious that the warning signs were radiation warnings, but the fuel just sat out in the open. Then the security officers would take turns guarding the crates.

The other security officers and I felt extremely uneasy about having just one, or at most three, officers guarding the fuel. The security equipment, such as closed-circuit TV and the E field on the fence designed to detect movement, were not yet functional. After having worked in Germany, I was familiar with terrorism. I knew that even the most sophisticated systems had been defeated by groups of nine to twelve people. But we were expected to guard these shipments by, to paraphrase the CG&E security manual, placing our bodies "between the adversary and the fuel." We were only armed with .38 caliber pistols that carried five rounds at a time. As a result, in the event of an attack, even at full strength all three potential guards would only have 15 rounds to defend the plant's fuel.

Further, although we were carrying the weapons, none of us qualified to have .38's until a May 1980 test. The utility might respond that we had prior military experience, but I had never carried a .38 before in my life. In the Army I used other weapons.

One of the problems that concerned me the most is that the fuel sometimes was totally unguarded. This occurred because no officer was required when maintenance moved the fuel to the seventh floor. When their shift was over before fuel was all moved, maintenance would just quit and call up to the security officers. They had been working twelve hour shifts, and on at least two occasions that I was involved with, they left before I came down to watch the fuel. One one of those occasions the fuel was totally unguarded for around ten minutes. Since there was no window by the seventh floor access point, we couldn't even look outside to see if any intruders were approaching.

At the time, I just considered these security breaches as another broken rule. In retrospect, I am upset and fearful about such a lax practice. I wonder just how widespread this type of sloppiness still is. Under these conditions, I couldn't state that no fuel was ever diverted, although I am not personally aware of any thefts.

Although the fuel was all delivered in 20 days, the security breaches did not stop at that point. There were numerous small incidents that irritated me. For example, Mr. Lautenslager did not obey his own rules on proper identification before gaining access to controlled areas where the reactor vessel was located. I was not used to this kind of game-playing in the Army.

On one occasion during the late summer of 1980, our supervisor at the time, Nick White, left his gun in the unlocked file cabinet at the security office. The office was locked but could be opened easily with a credit card, because the magnetic locking device was not yet in place. This was a direct breach of the rules, which called for automatic dismissal of all involved parties whenever an officer relinquished his weapon to other than authorized personnel. A file cabinet does not qualify as authorized personnel. I wrote up an incident report, but Lautenslager said not to worry about it.

Although practices like mismanagement and cost-cutting don't qualify as security breaches, they still endanger the security of the nuclear fuel. For example, we were all overworked. I routinely put in twelve hour days, seven days per week. With an 84 hour week, you soon become a vegetable. You're physically there but no good to anyone. I couldn't pass up the work, because I needed the money for my wife and two children. The paycheck was the only good thing about it. Once I even had to work a 24 hour shift straight through, although we were authorized to take naps.

There were never more than ten guards, which left us badly understaffed. Many nights there were only two of us on duty. Since frequently one of us would be out patrolling the perimeter, when any immediate problem arose, the other man would have to break

the rules by leaving the seventh floor access point. We discussed how with only two officers on duty we would be caught in a dilemma of deserting our partner or our post, if the man on perimeter duty radioed in an emergency call for help.

We only had direct supervision about 5% of the time. There was a "lead man" named Jim Caplinger, but he did paperwork rather than overseeing our work. He wasn't much good to anyone, because he had a drinking problem and came to work shit-faced after awhile.

Mr. Caplinger's practice was not unique at Zimmer. The construction crews, including the foremen, frequently were drunk on the job. I would see them sitting out drinking in the parking lot at 7 A.M. Employees brought in six packs of beer in their lunch boxes and drank very powerful moonshine liquor at the plant. In fact, for \$10 you could buy a mason jar filled with moonshine.

The plant was full of illegal black market operations, including gambling and lotteries of all sorts. For instance, a pyramid game similar to a chain letter was quite popular. Employees paid \$100 at a time to join the game. I did not challenge the pyramid game or the other illegal schemes, because they were far too common. It was understood at the plant that anyone with sense would follow the strict "No Questions Asked" policy about these activities at Zimmer. All of the schemes were in existence throughout my employment at the plant.

Perhaps the most chilling business involved the raffle of hot guns. The prizes included handguns, shot-guns and high-powered rifles. I personally saw .357 Colt handguns, 12 gauge Remington shotguns, and 30-6 deer rifles. I am sure a person could buy any weapon desired. The deer rifles use 7.62 millimeter bullets, the same as the Army uses for machine guns. The pistols were so commonly raffled that it was routine. The weapons came complete with ammunition. To get a weapon a worker would buy a raffle ticket from other unidentified employees. The prices ranged from \$2 for a pistol ticket to \$10 for a deer rifle ticket. There were up to 100 raffle tickets sold for each weapon.

Another frequent activity involved placing horseracing bets over the telephone at the seventh floor security desk. A Kaiser electrician named Neal Weber of Amerlia, Ohio ran the bookie operation. Weber's nickname at the plant was "Shitsy." We joked that Shitsy had to be connected with the Mafia, because he bragged that he could place a bet at any track in the country.

During my entire time at Zimmer, Weber's bookie business followed a similar pattern. He would use the seventh floor telephone in the morning to get the scratches. Around seven or eight employees would come around lunch, each representing a section of the plant such as the Instrumentation and Control employees. Shitsy then would conclude his business in the afternoon, using the seventh floor phone again to place the bets and learn the race results.

This really wasn't much of a secret at Zimmer. In fact, the operation was so blatant that one day an employee wrote out \$2 and \$5 on paper and taped the signs on the table as a joke, analagous to the betting windows at the track.

I know that management was aware of the practice, because I told Lautenslager about it in September 1979. But nothing was done. Shitsy's foreman yelled at him about the practice sometimes but didn't make him stop. The practice made some of us sick, because Weber was receiving a \$26 per hour salary to place bets.

There were other black market operations at the plant. For example, the pipefitters made belt buckles that were so beautiful it was hard to believe. You could buy a belt buckle directly for about \$25, or spend \$1 on a raffle ticket. They sold 10-20 belt buckles daily throughout my time of employment.

The only raffle operation I heard about but did not see directly involved prostitutes. Other employees told me that the winners would receive a Fifth of liquor and a whore for a whole Friday night session.

During the summer of 1980 the security officers voted to unionize. Apparently Yoh lost the security contract at Zimmer as a result. Lautenslager said that our union vote was a "major

and contributory" factor in CG&E's decision to change security firms. That fall I gave a statement to an investigator from the National Labor Relations Board. Despite promises to the contrary, I never received a copy of my statement or heard from the NLRB again.

I am providing this affidavit out of a sense of obligation to the public. Previously I was afraid of retaliation on the job, so I waited until obtaining new employment on December 8 at Good Samaritan hospital and my new supervisor's permission to speak out. After another former Zimmer security officer contacted Tom Applegate, we saw an avenue for disclosure. After the initial contact, Mr. Applegate was so persistent that I felt he deserved my cooperation by giving this statement to his representative from the Government Accountability Project.

I swear that the above statement is true, accurate and complete to the best of my knowledge and belief.

X Jeffrey J. Hyde
Jeffrey J. Hyde

Sworn by *Allen E. Taylor*

Notary This Day Jan 31st 1981
Comm. Expires March 10th 1982

September 3, 1981

MEMORANDUM FOR: James G. Keppler, Director, Region III

FROM: James E. Foster, Investigator

SUBJECT: OIA REPORT "ADEQUACY OF I&E INVESTIGATION 50-358/80-09 AT THE WILLIAM H. ZIMMER NUCLEAR POWER STATION"

I am very concerned about the adequacy and conclusions of the subject OIA report. From my review it appears that the report does not deal with all questioned areas, significantly mischaracterizes statements made by Region III personnel, does not document interviews conducted, contains statements not supported by fact, and reaches inaccurate conclusions. It also appears that the investigative effort neither included interviews of pertinent licensee and contractor personnel, reviews of appropriate Region III investigative procedures, nor developed crucial information. Lack of attention to detail is evident in many areas.

Three of the conclusions reached by OIA regarding the I&E investigation are:

1. The investigation failed to properly document the results of investigation both as to interviews and material reviewed.
2. The investigation failed to determine the correct status and history of several welds.
3. The overall investigative effort was neither vigorous nor sufficiently broad in scope.

These conclusions are unsupported, but do apply to the OIA review. The remaining OIA conclusion (use of the phrase "not substantiated") has some merit, but would not alter the conclusions of the I&E investigative report. In summary, the OIA effort appears totally deficient.

Specifically:

1. The OIA report (Page 3 Paragraph 2, Page 4 Paragraph 3, Page 5 Paragraph 9) indicates that the matter reviewed is the agency handling of allegations by Thomas Applegate. These were:

- a. Welds CY606, K811, HR42 have been rejected by Peabody-Magnaflux personnel but accepted by Kaiser.
- b. System flushing procedures were improper.
- c. Welds on Main Steam Relief pipe spools are defective but were accepted by Kaiser.

The OIA report only contains a review of the handling of the first allegation. No detailed review of the other two allegations was performed or documented.

2. Although William Ward (Chief, I&E Investigations Branch) played a substantial part in the handling of this case by I&E (his name appears 20 times in the OIA report, Pages 5, 10, 14, 20, 35, 36, and 38), he was not interviewed.
3. Several statements by RIII personnel (G. Phillip, K. Ward) were significantly mischaracterized or misunderstood. I understand they are responding separately.
4. I&E Inspection Reports Nos. 50-358/78-39 and 50-358/79-17 are significantly mischaracterized as indicating a "chronic and long history of welding problems at Zimmer" (OIA report Page 2). These reports deal with radiographic technique, not welding problems.
5. One of the OIA report attachments is a manual chapter from the Fundamentals of Inspection course meant as a training aid (written by Gerald Phillip). This is not an I&E or RIII procedure. RIII does have procedures covering report format, statements, etc. pertaining to investigations. No reference is made to these procedures.
6. For the three welds, CY606, WR-K811, HR42, significant information was not obtained by OIA. Lack of this information (weld chronologies are attached) led to inaccurate conclusions. Relevant Nonconformance Reports were not reviewed, and cognizant personnel were apparently not interviewed. No technically knowledgeable personnel assisted in the review. Attention to detail was lacking, as was understanding of construction practices.

As the report focuses considerable attention on a nonconformance report (NR E-2138) related to weld WR-K-811, it is evident that the circumstances surrounding this document were not understood due to lack of complete information.

7. Unsupported statements are characterized as fact. On pages 2, 12, and 35, the conclusion is propounded that CG&E QA&S Manager William Schwierts ordered Floyd Oltz to "line out" a Nonconformance Report. The basis for the conclusion is apparently the interview of Gerald Phillip, who noted that Schwierts denied the action.

A subsequent interview with Oltz indicated that Mr. Turner, then Kaiser QA Manager, his supervisor, advised him to line out one Nonconformance Report, knowing that another was in existence to track the nonconforming condition. Schwiers was characterized as being present for this exchange, but did not direct Oltz. This information was corroborated by a Mr. Deerwester, who indicated that he was present during the exchange. No information is presented in the OIA report to support the conclusion that this action was directed by Schwiers.

On Page 40, no support is similarly given for the statement that Thomas Applegate brought information to CG&E officials.

8. Several comments in the OIA report pertain to the investigative case file maintained by RIII. These OIA criticisms are from a criminal investigation viewpoint rather than an I&E viewpoint. The one very minor discrepancy, the lack of an Identifier Key for the sole alleged in the I&E report (Thomas Applegate), was easily rectified. One criticism (lack of "results of interview" documentation) is for an item not required and not believed necessary.
9. Portions of the presentations of interviews are unrelated to discussion of the adequacy of the I&E investigation, and add nothing to the report. Examples of this are the mechanics of meeting with Applegate, what he was wearing, xerox machine difficulties, etc.
10. Several of the report attachments are of little or no significance, and some (weld rod issue slips) are totally unreadable. Several attachments add nothing to the report but size and weight.
11. The report does not explain the thirteen day delay by OIA Director Cummings, but only states that "the Chairman was aware of that aspect of the case". The handling of Applegate's allegations by OIA is very much a part of the agency response, and should be adequately detailed and explained.
12. While no interviews of licensee or contractor personnel are presented in the OIA report, I am personally aware that a site QC inspector was interviewed on June 10, 1981. The OIA report alludes to interviews of a QC inspector and a former supervisor of Document Control, but documents neither interview. An outline of the OIA report is attached, indicating documented interviews and time frames.
13. The report took 7.83 months to produce. The last documented action in the report took place March 5, 1981 (interview of E. L. Williamson), 5.16 months prior to report finalization.
14. The style and detailed content of the reports of interviews with I&E personnel strongly suggest that these interviews were tape recorded. Interviewees were not advised of such recording.

James G. Keppler

- 4 -

September 3, 1981

15. While probably not of significance, the OIA report lacks signatures by the investigators or a Personnel Contacted listing.

J. E. Foster
Investigator

Attachments:
As stated

R111

Foster/so

9/2/81

JEF
9/2/81

CY 606

CY 606 is a weld in the Cycled Condensate System, located in the ground in the tank farm area, under a concrete slab. The line is sixteen inches in diameter (weld is 50.26 inches of weld metal).

Design conditions for this line are 35 psig and 140 degrees F. Maximum operating conditions are also 35 psig and 140 degrees F. This line is S&L piping Class B.

CHRONOLOGY

07/ /76	Weld fit-up.
07/ /76	Weld performed.
07/15/76	RT of weld - reject.
07/16/76	RT read, reject 0-13, 13-26, unconsumed insert.
07/16/76	Approvals on WRD No. 1.
07/19/76	RT read, PT of grinding - accept, weld performed.
07/21/76	Approvals for WRD No. 2.
07/23/76	Ground area, PT accept, weld performed.
07/26/76	RT performed.
07/26/76	RT read, reject 0-12, 12-24, incomplete fusion.
07/27/76	Approvals for WRD labeled No. 2.
07/29/76	PT - accept.
08/02/76	RT for information only - reject.
08/04/76	PT reject - grind through & adjacent area, crack in weld edge.
08/09/76	RT performed.
08/09/76	RT read, 0-12 rejected.
08/10/76	KEI approval of above RT report.
08/10/76	Approvals for WRD labeled No. 3.
08/10/76	PT test of area - accepted.
08/11/76	RT of weld.
08/11/76	RT read - rejection areas 0-12 (Peabody-Magnaflux Personnel).
08/12/76	P-M rejection overridden by M. Low - accept weld.
08/13/76	Gamma plugs CY606GP, 606GPS, 606GP welded, PT accept.
*01/13/77	S&L audit of radiography, areas 8-12 rejected for surface indications and linear indications.
*01/21/77	NR-E-633, documents above finding, grind out defect and reweld.
*02/11/77	Approvals on disposition of NR-E-633
04/14/77	ANI approval of 08/11/76 RT.
04/15/77	Approvals on WRD labeled 3A.
06/08/77	RT of area in 3A 0-13, 13-26 accept.
06/08/77	RT read and approved.
06/20/77	ANI review and approval of above RT.
*06/24/77	NR-E-633 closed.
07/19/77	Gamma plug re-welded, PT accept.
*10/10/79	NES Review Begins
*10/12/79	NES review - technique and documentation deficiencies.

*Significant information not in OIA Chronology.

*01/02/80 Applegate told acceptance of CY 606 improper. (Daily Report)
 *03/03/80 Applegate interviewed by Phillip.
 04/07-09/80 Phillip onsite.
 *10/03/80 NR-E-5172 based on NES findings for CY-606 and several adjacent
 welds.
 *10/27/80 Disposition of NR-E-5172, accept as is, A. Lanham.
 *11/07-12/80 Approvals on NR-E-5172.
 *11/12/80 NR-E-5172 closed.
 *12/17/80 Rex Baker notation on NES documentation review checklist form
 (closeout).

*Significant information not in OIA Chronology.

WR-K-811
 WR-K-516
 (WR-K-827)
 (WR-K-916)
 (WR-K-917)

WR-K-811 and WR-K-827 were welds on the Auxiliary Building Closed Cooling Water System. Weld WR-K-516, on the same line, is still in existence. Welds WR-K-916, WR-K-917 are replacement welds. Weld WR-K-811 was located in the Auxiliary Building at elevation 572'. The line is 4 inches in diameter (weld was 12.56 inches of weld metal).

Design conditions for this line are 120 psig and 105 degrees F. Maximum operating conditions are 150 psig and 125 degrees F. The line is S&L piping Class C (final visual inspection only, not normally radiographed).

CHRONOLOGY

08/ /77	Approvals for production of WR-K-516.
11/08/77	Consumable insert placement and tack weld WR-K-516.
11/09/77	WR-K-516 welded, ANI waiver on hold point.
01/29/79	WR-K-811 weld fit-up.
01/30/79	WR-K-811 visual inspection of final pass-accept. KE1-1 misplaced.
*10/ /79	Inspector Setlock assisting with documentation location and correction.
10/11/79	NR-E-2138(RO) WR-K-811 and WR-K-516, believe missed ANI holdpoint.
	Disposition: RT, accept if RT acceptable.
*11/06/79	RT of weld WR-K-516 per NR-E-2138RO.
*11/06/79	Probable date of RT of WR-K-811, radiography not retained. Reject. (RT done twice).
*11/08/79	RT of WR-K-516 rejected for unconsumed insert, other defects.
*12/03/79	NR-E-2260, RT of WR-K-811 shows adjacent weld WR-K-827 unacceptable, unconsumed insert.
	Disposition: Replace pup piece, "see related NR-2138."
12/14/79	NR-E-2138 "Voided" (actually superseded), ... "see Revision 1."
*12/27/79	"Steve" tells Applegate K-811, "MSR pipe" has "insert fault."
*01/07/80	Speed memo, Ruiz to Pallon: WR-K-516 no KE1-1, RT reject.
*01/ /80	NR-E-2138 Revision 1, (see related NR-E-2260).
	Disposition: Cut out and reweld.
01/14/80	Approvals on NR-E-2138, Revision 1 (weld WR-K-516 not mentioned).
01/16/80	Approval on KE1-1 for welds WR-K-916, WR-K-917.
01/18/80	WR-K-916 fitup and weld.
01/21/80	NR-E-2138R1 closed.
01/24/80	WR-K-916 visual inspection and acceptance.
*01/24/80	NR-E-2260 closed.
03/03/80	Applegate interviewed by Phillip.
04/07-09/80	Phillip onsite.
*08/ /81	RT for WR-K-516 found.
*08/ /81	WR-K-516 Re-radiographed.

*Significant information not in OIA Chronology.

COMMENTS

According to QC Inspector Setlock, Floyd Oltz asked him to locate the KEI-1 weld history forms for welds WR-K-811 and WR-K-516. He could not locate them, and found that the ANI had listed hold points on the fit-up for welds on the line. The ANI had no log notation to indicate that he had waived the holdpoints for these welds. NR-E-2138 was written to document missing the holdpoints.

Setlock was not aware that the ANI had waived the hold point on fit-up inspection for WR-K-516. He indicated that he first learned of this information on approximately August 15, 1981, when he was shown the KEI-1 form for weld WR-K-516. He indicated that the form and ANI waiver are genuine. (It appears that at some time the KEI-1 form for WR-K-516 was found, and the ANI waiver discovered.)

He also stated that he was not aware of NR-E-2260 nor of Revision 1 to NR-E-2138 (RO) but does not see anything wrong with actions taken. He does feel that he should have been advised of the revision of NR E-2138, and that the dates of the original and revision might have been shown to better document actions taken.

RT of WR-K-811 could not be found, and RT of removed welds need not be retained. It is very possible that WR-K-811 had a partially consumed insert, as WR-K-827 had, and WR-K-516 has this condition. This would explain why "Steve" (Allen Sellars) told Applegate of an "insert fault" in weld "K-811" as detailed in Applegate's daily report dated December 27, 1979. WR-K-811 and the other welds had been accepted, and would not experience further review, as RT or other examination would not normally take place on these welds.

If a weld is not subject to RT, certain defects are considered acceptable, and must be assumed to exist. The licensee has indicated that removal of WR-K-516 is planned, based on unacceptable RT of the weld.

Both the original NR-E-2138(RO) and the subsequent Revision 1 incorrectly indicate that weld WR-K-811 was welded on November 9, 1977 and weld WR-K-516 was welded on January 30, 1979. Apparently, this date transposition (WR-K-811 and WR-K-516) was an error that was made by QC Inspector Setlock when NR-E-2138 was drafted. The error was carried to the subsequent revision, and read by RIII Inspector K. Ward during weld documentation review.

RH-42 was a weld on line 1RH01C18 in the Residual Heat Removal system. The weld was located in the reactor building at elevation 497'. The line is 18 inches in diameter (weld was 56.54 inches of weld metal).

Design conditions for this line are 220 psig and 389 degrees F. Maximum operating conditions are 240 psig and 358 degrees F. The line is S&L piping Class B.

CHRONOLOGY

08/06/76	Weld fit-up.
08/06/76	Weld performed.
08/09/76	RT of weld.
08/09/76	RT read by P-M, reject markers 36-48 (Notation: re-shoot 100% following repair).
08/10/76	KE approval of above RT interpretation.
08/10/76	Approvals on WRD form.
08/10/76	RT of repair area.
08/10/76	RT read by P-M.
08/11/76	RT accepted by KEI.
08/11/76	Approval of repair.
09/16/76	ANI review of 8/9/76, 8/10/76 RT reports, approval.
*10/10/79	NES review begins.
*01/25/80	NES review, porosity at film markers 53-55.
*02/12/80	NR-E-5056 based on NES review findings.
*02/15/80	NR-E-5056 dispositioned to grind out and repair defect.
03/03/80	Applegate interviewed by Phillip.
03/21/80	WRD form approvals.
*04/07-09/80	Phillip onsite, initiation of Applegate investigation.
04/14/80	PT of re-prepped pipe ends, acceptance.
04/21/80	Approvals for WRD for new elbow.
04/23/80	PT of elbow end prep. accepted.
04/30/80	Weld fit-up breaks loose (Ref: KEIA No. 1008).
05/01/80	Re-fit-up approved and weld started.
05/02/80	Root pass made.
05/05/80	Root pass approval.
05/06/80	RT of new weld.
05/07/80	RT approved by KEI.
*05/07/80	ANI review and approval.
*06/16/80	NR-E-5056 closed out.

*Significant information not in OIA Chronology.

COMMENTS

The NES documentation checklist dated January 25, 1980, by R. A. Zieler, LII RT, on page 3, notes "NR issued to repair rejectable indication" and "corrective action prepared by T. McCall, February 12, 1980".

It appears that the decision to grind out and repair the defects at film markers 53-55 was misinterpreted to mean cut-out the entire weld. Weld cut-out then necessitated a new elbow, as fit-up could not be accomplished within specifications.

From a review of the weld chronology, and of statements made by Applegate, he was in contact with Peabody-Magnaflux personnel after he left the site. Otherwise, he would not know of the NLS review as noted on page 6 (Allegation 1) of report 50-358/80-09.

The Cincinnati Post, Tuesday, May 4, 1987

metro/tri-county

Group wants new hearings on Zimmer

By Ron Liebow
Post Staff Writer

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"We've received new evidence that we think
meets the legal standards to re-open the licensing
hearings, and we are receiving substantial new
funding to support the contentions," said Devine.

Contentions challenging issuance of the li-
cense will be filed with the three-member U.S.
Atomic Safety and Licensing Board. The board
concluded hearings in March and was expected to
have a licensing recommendation by June.

Devine said the evidence he has goes beyond
what the NRC found in its November 1981 report,
in which CG&E was fined \$1,000 for construction
management problems.

CG&E spread the fine among itself and two
building partners, the Dayton Power & Light Co.
and the Columbus and Eastern Ohio Electric Co.

IN ANNOUNCING the fine, the NRC said its
investigation found "serious" problems. An NRC spokesman

said recently no significant new findings are ex-
pected when another report is issued, perhaps by
August.

Devine contended the NRC has not "actively
pursued" the investigation since November. He
also criticized the utility's Quality Confirmation
Program, a systematic re-examination of con-
struction prior to April 1981, as unsatisfactory.

"While the utility is conducting its QCP, very
significant items may be legitimately repaired,
and should be repaired, but how the defects origi-
nated is very significant to the licensing process,"
said Devine.

The contentions will be filed by Devine on be-
half of the Miami Valley Power Project, which
GAP now represents. The Miami Valley Power
Project and the vocally anti-nuclear Cincinnati
Alliance for Responsible Energy are essentially the
same organization, said Devine.

Devine said the costs of a license challenge are
being covered by a grant from a private founda-
tion and fund-raising efforts by CARE. Devine has
declined to name the foundation or the amount of
the grant. CARE has estimated legal expenses at
\$22,000.

THE NRC'S finding that all licensing require-
ments had been met was based on all of the infor-
mation presented to the licensing board over three
years by various license challengers, including
Miami Valley Power Project, City of Mentor, Ky.,
and Zimmer Area Citizens.

David Altemuehle, manager of media services
for CG&E, said Monday GAP is attempting to
delay completion of the plant.

"It seems as if whenever they lose a round,
they probably open a new front, or re-
allocation by whatever means of their own
choice," said Altemuehle.