

THE CINCINNATI GAS & ELECTRIC COMPANY



E. A. BORGMANN  
SENIOR VICE PRESIDENT

February 28, 1983

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U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Mr. James G. Keppler  
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to file*

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

Gentlemen:

Enclosed for your review in response to Mr. Keppler's letter and Demand for Information dated September 24, 1982 in the captioned proceeding is "The Cincinnati Gas & Electric Company, et al. Response to the U.S. Nuclear Regulatory Commission Region III Demand for Information, Issued September 24, 1982."

The Company has made every effort to assemble the information requested in the Demand for Information in compliance with its obligations as an applicant before the NRC. Over 7000 professional man-hours were involved in preparing the response.

In the "Director's Decision Under 10 CFR 2.206," DD-82-02, 17 NRC (February 10, 1983), the Director of Inspection and Enforcement disposed of the petition to suspend construction of the Wm. H. Zimmer Nuclear Power Station filed on August 20, 1982, by the Miami Valley Power Project ("MVPP"). MVPP's petition had triggered Region III's Demand for Information. Inasmuch as the Nuclear Regulatory Commission's Order to Show Cause and Order Immediately Suspending Construction, CLI-82-33, 16 NRC (November 12, 1982), granted substantially the same relief as MVPP requested in its petition, the petition was granted in part and denied in part. Nevertheless, in footnote one thereof, the NRC Staff stated that it "continues to need CG&E's response to the petition's allegations because this

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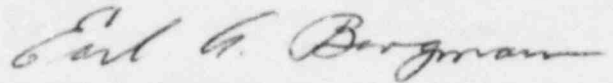
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Mr. James G. Keppler  
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information may be relevant to the Staff's review under the order of the adequacy of past construction, the management review, the updated plan to verify the quality of construction, and the plans to perform any future construction activities including rework."

Because of the Director's action on the MVPP petition, CG&E is not submitting its legal comments and analysis of the petition. However, if the Commission should review the Director's action, CG&E reserves the right to submit such analysis and comments.

Sincerely,



Earl A. Borgmann

EAB/ijs

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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

RESPONSE OF THE CINCINNATI GAS &  
ELECTRIC COMPANY, ET AL. TO THE NRC'S  
"DEMAND FOR INFORMATION" ISSUED SEPTEMBER 24, 1982

Introduction

By letter dated September 24, 1982 enclosing a "Demand for Information," the Regional Administrator, Nuclear Regulatory Commission ("NRC") Region III requested a response from the Applicants in the captioned proceeding, The Cincinnati Gas & Electric Company, et al., ("Applicants") in order to assist the NRC in determining whether Construction Permit No. CPPR-88 for the Wm. H. Zimmer Nuclear Power Station should be modified, suspended or revoked. Although this request was made in the context of the Miami Valley Power Project Petition to Suspend Construction of the Zimmer Station ("MVPP petition") and therefore adopted its format, Applicants recognize that many of the matters raised therein are being addressed or have been earlier addressed by the NRC and Applicants in other contexts relating to the NRC's overall review of the pending application for the issuance of an operating license.

In "Director's Decision Under 10 C.F.R. 2.206," DD-83-02, 17 NRC \_\_\_\_\_ (February 10, 1983), the Director of the Office of Inspection and Enforcement confirmed in footnote one that the NRC requires this information in Applicants' response for such purposes. While the necessity for formal comments on the MVPP petition discussing its legal deficiencies as a request under 10 C.F.R. §2.206 has been obviated, it is recognized that the NRC's entitlement to the information requested pursuant to Section 182 of the Atomic Energy Act and 10 C.F.R. §50.54(f) is governed by different standards. Accordingly, every effort has been made to cover each item in the "Demand for Information" in the full perspective of ongoing activities under review by the NRC, particularly the Quality Confirmation Program and other tasks resulting from the NRC's Immediate Action Letter of April 8, 1981.

Based on information received from the Architect/Engineer and the Constructor, Applicants have attempted to answer each of the items in the "Demand for Information" with the most up-to-date and authoritative data from all available sources. It must be noted, of course, that many of petitioner's allegations are extremely vague or derive from unreliable sources which cannot, as a practical matter, be checked by Applicants for accuracy, such as unsigned affidavits and newspaper articles.

Moreover, there are many instances in which an affidavit or statement proffered by petitioner makes sweeping allegations of a widespread "breakdown" in quality assurance which are entirely unsubstantiated. Many allegations, frequently involving hearsay information, divulge insufficient detail to support the specific charge. In certain instances, petitioner has chosen to withhold information which might have permitted a more specific response. Under such circumstances, Applicants are hardly in a position to answer these conclusory assertions. Nonetheless, it should be emphasized that Applicants and those assisting them in preparing their responses have made every effort to respond as specifically as possible to the allegations based upon whatever identifying information has been provided. It is noted that, in many cases, this simply has not been possible. Finally, the subjective, self-serving editorial comments and characterizations by petitioner or its representative, the Government Accountability Project, do not lend themselves to any appropriate response.



ALLEGATION 19

"A basic requirement of 10 C.F.R. 50, Appendix B, Criterion III - Design Control, is that construction must reflect the final, approved design. Measures shall be established..."

Response:

This statement is a summary of 10 CFR Part 50, Appendix B, Criterion III. There are no statements within this allegation that relate to construction at Zimmer for which a response would be appropriate.

ALLEGATION 20

"The Zimmer documentation does not reflect plant as built. Region III summary of a June 4, 1981 interview with Floyd Oltz, Kaiser's Quality Assurance Engineer/Records, reported...that from a safety standpoint that documentation in all areas of the plant does not reflect the as built condition...and is not limited to the diesel generator room."

Response:

Currently, Kaiser Quality Records Management is performing a formal document review under the surveillance of CG&E. This review will determine whether necessary documents have been supplied on systems or components to satisfy applicable requirements. After this document review is complete, the records will be turned over to CG&E for final review and acceptance. All such documentation will be complete such that these records will accurately reflect the "as built" quality of the Zimmer Plant, petitioner's conjecture notwithstanding.

The Floyd Oltz interview referred to by this allegation is from the NRC IE Report No. 50-358/81-13, Attachment A. The quoted section of the investigator's notes is part of a number of interviews regarding the investigation of the control of nonconformance reports. This isolated statement by Mr. Oltz within that interview which has been quoted in this allegation is a discussion of his opinion of the as built documentation of the plant. Neither Mr. Oltz's statement nor any other statement contained within this allegation provides any detail regarding a specific nonconforming condition to which a response can be made.

ALLEGATION 21

"Work at Zimmer has largely proceeded on the basis of informal drawings or construction aids...problem of construction modifications being incorporated into the informal drawings before formal modifications were approved...(Attachment 16 at 7) Piping Foreman James Tyner...explained...construction proceeded on the basis of ad hoc modifications...In some instances the work was even inspected on the basis of field sketches...49 packages of NX supports were being inspected on the basis of field sketches (Attachment 18)."

Response:

This allegation reflects petitioner's unfamiliarity with inspection requirements under ASME Code Section III and procedures at Zimmer. Informal drawings and sketches have been used regularly to aid in the construction process since their use at that point is entirely appropriate. By contrast, however, inspection and acceptance of final construction are based on Sargent & Lundy approved designs. Nor has petitioner cited any specific instances in which construction proceeded on the basis of unapproved design modifications.

The August 18, 1980 memorandum from Rex Baker to Kaiser Quality Assurance Manager Phil Gittings (Attachment 18), mentioned drawing series M-479, which are instrument rack drawings. Therefore, this memo involves the inspection of instrument racks. In some cases, construction took place and inspection packages were assembled prior to the inspection of racks. It is possible that in the interim period between the assembling of inspection packages and actual inspection of the racks that Sargent & Lundy revised the design of a rack and that Kaiser reworked the item in accordance with the S&L modification. The drawing in the inspection packages in that case would not

correspond to the latest design document for the as built condition. This situation may explain Mr. Baker's comment that "field sketches do not appear to meet the requirements of the design drawings." In any case, if Mr. Baker had found such a discrepancy between a drawing contained in an inspection package and the as-built condition of the corresponding rack, he should have written a Nonconformance Report to obtain immediate corrective action.

It should be noted that any construction work which has deviated from the Sargent & Lundy approved design is being detected and corrected during an inspection associated with system walkdowns. Kaiser Procedure MIP-1, Rev. 0, contains a complete description of the steps taken during final walkdown for traceable piping. MIP-1, MCP-7, and Kaiser's documentation review program provide for the resolution of traceability, base metal defects, verification of configuration, and compares traceable components with final approved designs.

ALLEGATION 22

"A December 3, 1981 CG&E Audit Finding Report (Attachment 19A) and a December 16, 1981 Kaiser Corrective Action Report (Attachment 19B) show that the Site Document Center did not even maintain an official listing of ISKs and PSKs until after December, 1981. However, ISKs and PSKs...became the only reflection of the as-built configuration...(Attachments 20A-D)...Kaiser replied that for piping, design drawings were received from Sargent & Lundy, reviewed, and translated into ISKs and PSKs for field construction. '(A)ctual work does not proceed without first receiving ISKs or PSKs.' The as-built configuration was reflected on these drawings, which would be transmitted to Sargent & Lundy to update the design drawings."

Response:

The Kaiser Document Control Center maintains a card file for ISK's and PSK's, dating back to the start of construction. The card files identify the ISK/PSK document, revision, and date. Kaiser does not maintain a Register Index with unique registration numbers attached to ISK's and PSK's. Kaiser Quality Assurance Procedure QAP-3, Revision 8, Section 4.1.3 states that only Status 1 drawings, those drawings officially released as design drawings by Sargent & Lundy, are required to be registered by the Document Control Center. ISK's and PSK's which are not instrumentation drawings are not required to be registered.

Kaiser's February 8, 1982 response to CG&E Audit Finding (Attachment 19A) and CAR-35 (Attachment 19B) indicates that ISK and PSK drawings are an aid to construction drawings with the exception of Essential instrumentation drawings, which are submitted to Sargent & Lundy for approval. When Essential instrumentation ISK's are returned to Kaiser with Sargent & Lundy approval, these drawings are design documents and are handled in the same controlled manner as other Sargent & Lundy design drawings. All other ISK and PSK drawings are not design drawings

and are used as construction aids. These drawings are inserted in work packages as an aid to Sargent & Lundy's approved mechanical design drawings, which are also included in the work package along with any applicable DDC's.

Petitioner's assertion that the as-built configuration as reflected on these drawings (ISK's and PSK's) would be transmitted to Sargent & Lundy to update design drawings is misleading in that it is only true for non-essential field routed small bore piping when the routing change remains within the design envelope specified by Sargent & Lundy. In this case, relocation of such field run piping would be permitted with marked up ISK drawings subsequently being submitted to Sargent & Lundy. As previously stated, ISK Essential instrumentation drawings are treated as approved design documents and revisions proposed in the field will require S&L approval prior to issue.

ALLEGATION 23

"Kaiser and CG&E Management knew better than to inspect the construction aids. Minutes of a joint February 28, 1975 KEI/CG&E Quality Assurance Meeting revealed (Attachment 21):...This commitment to use ISK's and PSK's for construction aids only and to inspect to the design documents was subsequently reiterated and an October 6, 1976 CG&E letter (Attachment 22A) and the minutes of a February 7, 1977 Joint CG&E-KEI QA Meeting (Attachment 22B)."

Response:

The reference to Attachment 21 quotes a section from February 28, 1975 meeting minutes which discusses the preparation and control of Kaiser sketches that are prepared to aid construction. It discusses the project quality assurance requirement that construction inspection plans not include the use of Kaiser prepared sketches which have not received Sargent & Lundy approval as a design document for final inspection. It was emphasized at the meeting that only S&L approved drawings should be used for final inspections. These minutes do not indicate any CG&E intention to use the construction sketches for any purpose other than their intended purpose of aiding construction.

The October 6, 1976 letter referred to as Attachment 22A is a continuation of the discussion of the status and use of construction sketches which have not received S&L approval and therefore are not considered to be approved design documents. This letter is largely a discussion of the procedures to be used for the detailing of non-essential 2 inch and under piping installation work. This non-essential work would be detailed on Kaiser ISK's which were then used for the construction of piping systems and, as a non-essential system, would not require quality assurance surveillance or S&L approval of the design documents

involved in their construction. There is no discussion of or requirement established in this letter for the use of any Kaiser prepared ISK for the final inspection of piping systems if that drawing has not received S&L approval. Kaiser prepared drawings would continue to be used for their intended purpose in accordance with the letter of Attachment 21 and the requirements of the Quality Assurance Manual.

The minutes of the February 17, 1977 Quality Assurance Meeting presented as Attachment 22B continues the discussion of Attachments 21 and 22A. That document states that these ISK's do not indicate a design review and therefore are not approved by S&L and may not be used for final inspection of the work. It is again reemphasized that final inspections must be made to S&L design documents.



ALLEGATION 24

"This commitment was not met. Richard Reiter explained, in an August 20, 1982 affidavit (Attachment 23) that piping was inspected almost exclusively to ISKs and PSKs."

Response:

Petitioner's allegation demonstrates a basic misunderstanding of the inspection process. Piping undergoes two types of inspections: Welding Inspections covered by Welding Inspection Procedure-7 (WIP-7), Rev. 4, and Configuration Inspections covered by Mechanical Inspection Procedure-1 (MIP-1), Rev. 0. The petitioner fails to distinguish between these two separate processes. The "final" inspection of piping, performed just prior to hydrostatic testing and/or final turnover to CG&E, is the configuration inspection. That inspection must be performed with Sargent & Lundy approved drawings.

The welding inspection can be divided into two major categories: Inspection of large bore piping and inspection of small bore piping.

The Kaiser welding inspection process outlined below, and detailed in WIP-7, Revision 4, is in full compliance with requirements of the ASME Code. Welding on large bore piping is inspected to KE-1 Forms. These forms contain all pertinent welding information, including inspection hold points for ANI and QC Inspectors. PSK's and ISK's are used as weld maps in this process to provide location and identification of the welds.

Welding on small bore piping is documented by completing KE-1 stamps which are imprinted on ISK's or other record prints. These stamps include all pertinent welding information and hold

points as required by the ANI and QA, and are prepared by the Weld Engineer.

Petitioner's affiant correctly stated in Attachment 23 that pipe welds were inspected using isometric drawings (ISK's). However, contrary to petitioner's allegation, that procedure was totally proper, since they were used as weld maps. Indeed, no other procedure is possible, since the S&L approved drawings do not contain weld number identification and location. Configuration inspection of piping is performed using S&L approved documents.

ALLEGATION 25

"Traditionally, Kaiser and CG&E have not been able to keep an account of the Design Document Changes ('DDC'), the record of changes approved by S&L. In some instances, as W. W. Schwiers of CG&E observed in a May 23, 1973 letter to V. P. McMahon of Kaiser, the relevant DDC's were not included with Sargent & Lundy specifications (Attachment 24)."

Response:

Attachment 24 to the petition is a letter which transmits CG&E Field Audit Report No. 13 to Mr. V. P. McMahon of Kaiser for his information. This letter summarizes the findings of the audit report that it transmits. However, the letter and its attached audit report certainly do not substantiate petitioner's allegation that Kaiser and CG&E have not been able to keep an account of the Design Document Changes.

Currently, under Quality Confirmation Program Task IX, the control and distribution of essential design document changes and applicable QC records that were issued prior to April 8, 1981 are being reviewed. This review is being performed by developing a computer listing of all essential DDC's and, when finalized, will contain the status of every DDC. Review of essential DDC and applicable QC records under QCP will be performed to determine if all in-process and final inspections have been performed. Any document deficiencies determined by this review will be identified and appropriate corrective actions taken.

ALLEGATIONS 26 AND 31

Allegations 26 and 31 both refer to Attachment 25 where Mr. David Jones discusses his conclusion that some copies of S&L Design Specification H-2256 were on site with incorrect revisions of S&L standard form 406.

26. "A Kaiser memorandum dated February 2, 1982 (Attachment 25A) and Kaiser memorandum dated February 3, 1982 (Attachment 25B) show that because Supplement #9 dated March 4, 1976 was not incorporated into S&L Design Specification H-2256, form No. 406-C was erroneously used in place of form No. 406-B for six years."
31. "...a February 2, 1982 memorandum...disclosed that...five copies of an S&L Design Specification being used by Kaiser personnel...all outmoded...'Based on my limited research, it appears that a breakdown of significant portions in the Quality Program have (sic) occurred and determination should be made concerning reportable items under Part No. 50 of the Code of Federal Regulations.' (Attachment 25A, supra.)"

Response:

Supplement 9, issued by S&L, directed that all companies employing Sargent & Lundy Design Specification H-2256 replace Form 406-C with Form 406-B. These forms set forth standards for the nondestructive examination (NDE) of pipe fittings. Kaiser Drawing Transmittal No. 6081 indicates that Supplement 9 was received by Kaiser and distributed to appropriate Kaiser personnel on March 18, 1976. This distribution was in accordance with Kaiser procedures in effect at that time. See FCP 2-5, Rev. 7, Secs. 2.1.3.1 and 2.4.0. The February 2 and 3, 1982 memoranda written by David Jones (Attachments 25A and 25B) indicate that he observed several copies of H-2256 which contained Form 406-C instead of Form 406-B. If so, some Kaiser personnel failed to follow FCP 2-5 and update their copies of H-2256 when they received Supplement 9.

The procedure governing Design Document issue and control at the time of Jones' review was FCP 2-5, Rev. 7. This procedure required that all design documents, such as S&L specifications, "be registered by affixing a KEI Registry Number to each document." Prints were then made from these registered documents and distributed to document users (distributees) who appeared on respective document transmittal forms. Each document user was required to acknowledge receipt by signing and when all distributees had acknowledged receipt, the transmittal was closed out. It was then the responsibility of document users to destroy or mark "void" all outdated documents and to assure that work was accomplished to the most current design document revision.

In response to Mr. Jones' February 3, 1982 memorandum (Attachment 25B), the Document Control Supervisor orally told Mr. Jones that all controlled copies of H-2256 would be checked for inclusion of supplement 9. This check has been completed.

Furthermore, Kaiser is now preparing new procedures that will control all copies of S&L Design Specifications. The Document Control Center will update documents when supplements to those documents arrive from S&L and will not rely on distributees to update their own documents.

In any event, the possible failure of some personnel to update their copies of H-2256 should not have any effect on the quality of construction or inspection at Zimmer, because Kaiser construction personnel were not required to implement Form 406-B which, as noted, sets forth standards for nondestructive examination of fittings. First, Kaiser does not manufacture any

of its own fittings and therefore requires its vendors to perform NDE testing prior to shipping materials to Kaiser. Kaiser procurement personnel were aware of the substitution of Form 406-B for Form 406-C even prior to its official announcement on March 4, 1976, and required vendors to comply with Form 406-B from 1976 on. See, e.g., Purchase Order Change dated January 26, 1976 changing a Purchase Order to require McJunkin Corp. to comply with the terms of Form 406-B. Second, Form 406-B and Form 406-C were virtually identical, except that Form 406-B includes somewhat more detailed requirements for conducting NDE testing.

Third, it is noted that the most important requirement for NDE testing is that it be performed in compliance with ASME requirements, and Kaiser has always insisted that its vendors comply with those requirements. See, e.g., January 26, 1976 Purchase Order Change.

ALLEGATION 27

"Richard Reiter stated that there was no system to retrieve DDC's applicable to a particular subject. (Attachment 23, supra, at 5)...A November 1, 1979 CG&E letter (Attachment 26)...asked for documentation generated for FDI's and FDDR's...It was not available...Questionable practices like allowing Construction to work to partially approved DDC's, a practice condoned by Kaiser (Attachment 27A, 27B, 27C)."

Response:

Mr. Reiter apparently defines "retrievability" to mean by subject matter of the DDC. However, that is not the criterion that has been developed for DDC retrievability at Zimmer. Rather, Kaiser control of DDC's is described on QACMI G-1 where identification of DDC's is properly based on specific design drawing numbers. Thus, the identification numbers of all DDC's which are applicable to a particular design drawing but which have not yet been incorporated into the drawing are listed not only on copies of the design drawing itself, but also in a card file maintained by the Document Control Center. To enhance retrievability even further, Kaiser is now in the process of computerizing the listing of all DDC's.

As regards the November 1, 1979 CG&E letter, it is noted, contrary to petitioner's contention, that the letter in no way indicates an opinion by CG&E that any delay in providing the documentation was attributable to the failure of the existing document retrieval system. One could just as easily infer that Kaiser Quality Assurance personnel had not yet had an opportunity to inspect the modification work performed pursuant to the FDI's and FDDR's. In any event, the letter is simply a request for review of the situation.

What petitioner refers to as "partially approved" DDC's are DDC's which have been approved by authorized Sargent & Lundy personnel at the Zimmer site, but which have not yet received approval from the home S&L office in Chicago. There is nothing at all "questionable" about allowing construction to proceed in accordance with such DDC's. This practice facilitates the orderly progress of construction and it is recognized that the work may require rework or removal if final approval at the S&L home office is not obtained.



ALLEGATION 28

"...Kaiser Site QA Manager W. J. Friedrich...called for the release of all approved designs through the KEI Site Documentation Control...he specifically requested that this requirement be imposed on all contractors...CG&E Principal QA Engineer, Edward Pandorf, responded...Procedures do not cover issuing these drawings to KEI (for the contractor in question)..."

Response:

The two letters do not discuss any failure of the control of design changes. Attachments 28 and 29 discuss the control and issuance of approved for construction drawings to be used during the performance of work by CB&I and Bishopric, which were under contract directly to CG&E. Mr. W. J. Friedrich's request to extend Kaiser site documentation control activities to include the release of drawings to be used by these contractors was not approved because the contractors in question had previously established that their individual design control systems met NRC requirements. These design control systems had been approved as a part of their respective Quality Assurance Programs.

Mr. Pandorf was reemphasizing that it was not CG&E's intention to transfer control of these drawings to the Kaiser Site Documentation Control System. The request by Mr. Friedrich for release of these contractor drawings through the Site Documentation Control Center under Kaiser would in CG&E's opinion lengthen the drawing issuance process, with no improvement in design control.

Work by these contractors continued in accordance with design drawings that had been approved by Sargent & Lundy and controlled and issued by the respective contractors. CG&E QA has

performed reviews and audits of both CB&I and Bishopric and has assured that their respective design control systems meet requirements. There was no relaxation of design control and NRC requirements were met. Mr. Pandorf's observation that the control of vendor drawings by the vendors may be "awkward" for Kaiser merely acknowledges the fact that Kaiser would have to be familiar with the contractor's drawing control system in order to review contractor drawings on site.

The respective vendor drawings that have been approved by S&L are now on file in the Configuration Control Center.

ALLEGATION 29

"CG&E Field Audit No. 270 deficiencies showed discrepant revisions of the same drawings in different files (Attachment 30A). It also reaudited...Audit No. 197...Six of Audit No. 197s deficiencies remained open. CG&E Field Audit Report No. 293...- (Attachment 30B) reaudited the corrective action for Field Audit Report No. 270...A Kaiser letter dated April 26, 1982 (Attachment 30C) explains why these items are still open, and encloses a memorandum from General Electric Company explaining why they will not fix these deficiencies...Kaiser Corrective Action Report (Attachment 31)...states that '[T]he present uncontrolled situation will continue until a controlled measure is established and followed.'"

Response:

In this allegation, petitioner claims that CG&E Field Audits 197, 270, and 293 reflect deficiencies that continue to remain open. The fact that the audit reports have identified deficiencies and controlled these identified deficiencies through follow-up auditing is a satisfactory auditing procedure. The type of deficiencies identified in these audits are those expected in the course of an audit and which would involve correction by a normal quality assurance response.

Attachment 30C is an April 26, 1982 letter by Mr. W. A. Hedzik to Mr. H. R. Sager, CG&E Quality Assurance Manager, which reviews the audit status of CG&E Field Audit Report Nos. 197 and No. 379. In the letter, Mr. Hedzik notes that during the process of verification of audit findings, it was discovered that several drawings had multiple General Electric MPL listings. Examples of the multiple listings of MPL numbers are given and it was stated that a request was made to General Electric for clarification of this situation. Mr. Hedzik's letter attaches a memorandum from General Electric dated November 12, 1981 which reviews the MPL listing concern. The General Electric memorandum responds that

the multiple listing of the same MPL number is proper because it is a part number that is "common" to more than one system and therefore would be listed on each respective MPL for each system in which it appeared. The GE memorandum satisfactorily explains that the multiple listings are not deficiencies. No corrective action is therefore required.

Petitioner quotes from a Kaiser Corrective Action Report, CAR No. 46 (Attachment 31) that "[t]he present uncontrolled situation will continue until a controlled measure is established." This CAR is an example of petitioner's attaching an incomplete document which in this case does not show the corrective action proposed to meet concerns identified by the document. A corrective action statement for CAR No. 46 was provided within one month from the date of the copy that petitioner has supplied as Attachment 31. The corrective action statement properly points out that, contrary to the writer's observation, there was no "uncontrolled situation that will continue." In fact, no construction work was being done to drawings that were not the latest revisions. It was suggested that changes in procedures be prepared to clarify the requirements for working to drawing revisions. CAR 46 has been superseded by CAR 193, which continues review and resolution of the concern originally described in CAR 46.

ALLEGATIONS 30 AND 32

These two allegations deal with a December 9, 1981 letter to CG&E from the National Board of Boiler and Pressure Vessel Inspectors, Attachment 32. Petitioner quotes identical sections from this letter as the basis for both Allegations 30 and 32.

30. "...Richard Jagger...wrote to CG&E...' (P)rocedures were not being followed which would assure compliance with NCA-4134.3(c) of Section II (sic) Div. I ASME for the review, approval, release of documents necessitated by revisions.' (Attachment 32, at 4.)"
32. "Richard Reiter related...his training...was to...outdated, incomplete, set of construction specifications. (Attachment 23, supra, at 3)...December 9, 1981 National Board letter found that '(p)rocedures were not being followed which would assure compliance with NCA-4134.3(c) of Section III, Div. I ASME for the review, approval, release of documents necessitated by revisions.' (Attachment 32, supra at 3)."

Response:

Both Allegations 30 and 32 rely upon an identical quotation from page 3 of Attachment 32. It concerns the implementation of requirements that will assure compliance with ASME Section III for the review, approval and release of documents that have been revised. The National Board's letter does not elaborate on findings or cite specific items for corrective action. Rather, the letter concludes with a general recommendation that the National Board conduct a study of compliance with ASME Code requirements at Zimmer.

This matter was subsequently addressed by the National Board Audit Team in their Interim Report No. 1, Section 2.1, regarding control of revisions to design specifications. The same matter is raised again by the petitioner in Allegation 38, where this section of the National Board Audit Report is quoted.

As stated in its response to Allegation 38, CG&E, as the Owner, understands the requirements of ASME Section III, Summer

1973 Addenda. As a part of that understanding, CG&E concurs that all design documents which form a part of the design specification including piping drawings, P&ID(s), line lists and associated specifications must be controlled in the same manner as the basic design specification. It is also understood that this requirement for control applies to all revisions of these documents.

The requirement for the review of design document control procedures and implementation of these procedures regarding design document and design document revision control is currently being reviewed by the Zimmer Project National Board Task Group under the heading of NBT-1. This review is in progress and all results and findings are being made available for review by the National Board and the NRC.

ALLEGATION 33

"...the official S&L design of the plant does not reflect the 'as-built' condition...Ronald Yates...'approximately one out of eight hangers couldn't be installed, because the blueprints were inaccurate. Piping and other equipment was already located in the spots where the blueprints (drawings) said the hangers should go.' (Attachment 33, at 1)...Mr. Tyner stated, 'It was impossible to locate hangers for the instrumentation piping according to the plant design drawings because the embedment plates were not located in the place indicated on the design drawings.' (Attachment 17, supra at 2.) Mr. Reiter...'...almost all the drawings that I had reviewed had some error...' (Attachment 16, supra at 2-3.) Mr. Reiter also observed that the HUAC (sic) ducts were not accurately reflected in the design drawings. (Attachment 23, supra.)"

Response:

Petitioner's allegation that the official Sargent & Lundy design drawings do not reflect the "as-built" condition of the plant is too general to permit a specific response. However, as discussed in response to Allegation 24, Zimmer procedures require that any portions of the plant which do not conform to the official design must be noted and corrected prior to final acceptance of the system.

The matter raised by Mr. Yates certainly reflects nothing out of the ordinary. Difficulty in installing pipe hangers is not uncommon on large construction projects. Due to installation of non-essential field routed components and ongoing design modifications and installation tolerances that occur in various systems, it is expected that a certain amount of interference among these systems will exist. Interferences also occur because the 2½" and under piping and electrical conduits and their supports are field routed. Because of the length of time between the initial feasibility check for preparing support drawings and the actual installation of the supports, other field routed

components may have been previously installed in the same area, which can cause interferences. The Sargent & Lundy design specifications allow for some tolerance in the installation of the hangers and piping in order to minimize interference problems.

If necessary adjustments cannot be made within permissible tolerance limits, such as Mr. Yates may have experienced in the installation of pipe hangers, then Kaiser is required to obtain approval of a DDC before proceeding with further installation work. All such work including hangers, as noted earlier, is subject to final walkdown procedures.

It is denied that the embedded plates were installed in improper locations as the allegation states. In the allegation regarding embedded plates, Mr. Tyner is discussing work done by other crafts which would not be in his area of responsibility. He does not identify significant deficiencies in the S&L design drawings for the installation of those plates but rather indicates a misunderstanding of how the plates were originally designed and installed. When S&L designed structural concrete, S&L design drawings provided for the installation of a grid of steel embedment plates for future use. When piping and hangers were later designed and installed, it was intended that the pipe hangers would coincide with the previously installed embedment plates. Where it was not practical to use existing plates, attachments were permitted by the use of added plates. Sargent & Lundy's drawing series M-403 provides that when a pipe hanger



does not line up directly with an embedment plate, alternative hanger attachments may be used.

Mr. Reiter's general observations (Attachment 16) questioning the accuracy of drawings he reviewed is too broad to permit a specific response. It should be noted as Mr. Reiter states in his affidavit that he "only saw a small portion of the total records" and therefore was not in a good position to make generalized conclusions regarding design control procedures at Zimmer.

Further, as explained above, it should be recognized that field conditions often require that systems be modified to avoid interference with other systems. If an HVAC duct requires a design change to suit field conditions, Kaiser is required to seek approval of a DDC which would permit that change. The allegation by petitioner from Attachment 23 that "HVAC ducts were not accurately reflected in the design drawings," is very misleading because it has been taken out of context from Attachment 23, item 14. Attachment 23 states that DDC's will be used to prepare as-built drawings and update design drawings in the future. The HVAC ducts will be reflected in the final design documents within established tolerances. DDC's and NR's will be incorporated into the design documents as appropriate.

ALLEGATION 34

"DDC's were not always incorporated into the design in a timely manner,...Kaiser Audit No. 374 reaudited Kaiser Audit No. 361 deficiencies, which were that 9 ISKs did not have DDC SLM-379 incorporated... (Attachment 35A.) (sic)"

Response:

This allegation merely recites audit findings that 9 ISK's did not have DDC-SLM-379 incorporated. However, as discussed in responses to Allegation 24, which deals with the incorporation of ISK's and PSK's into S&L design drawings, and Allegation 22, which discusses incorporation of DDC's into inspection work, it can be seen that the ISK's referred to by Allegation 34 will have no effect on the final configuration of the work when inspected to final approved design documents.

The Quality Confirmation Program, under Task IX, is reviewing essential DDC's to confirm that they have been considered in the final inspection.

ALLEGATION 35

"The instructions on DDC's are not always followed accurately. A December 11, 1979 CG&E QA&S Surveillance Report (Attachment 35B) showed the concrete pad...installed per DDC S-1729 on October 17, 1979, even though a note was placed on the DDC on August 14, 1979 deleting the pad."

Response:

The condition described in this allegation is documented in Attachment 34B, which is a December 11, 1979 QA&S Surveillance Report. This Surveillance Report correctly identifies the placement of the concrete pad subsequent to the note being placed on DDC S-1729, which deleted the requirement for the pad. The Surveillance Report required that a Nonconformance Report be prepared to resolve this condition. The applicable Nonconformance Report, E-2380, suggested an accept-as-is disposition which was approved by the Material Review Board and the NR was closed on 1-8-80. The detection and correction of this item by the Quality Assurance Program demonstrates that it is working. Further, as noted in response to Allegation 25, supra, CG&E's Quality Confirmation Program Task IX is reviewing all essential DDC's issued prior to April 8, 1981 to insure consideration of the DDC in the final inspection documentation.

ALLEGATION 36

"Enough conduit hangers were installed without design documents describing them that on April 9, 1979 W. W. Schwiers re-circulated two memoranda, one entitled 'Proposed Inspection Plan for Unidentified Conduit Hangers.' (Attachment 35)...- (Attachment 36)...Describing conduits in the control room...initially scoped for conduit runs a total of 305 conduits...After field inspection, the list grew to 376...It is impossible to affirm that every conduit run in a given area has in fact been inspected..."

Response:

Conduit hangers are fabricated and installed by Kaiser in accordance with criteria established by Sargent & Lundy Specification H-2173 and Sargent & Lundy Drawing Series E-189. These design documents provide standard details, including loading and spacing requirements for conduit hangers. Kaiser is then responsible for determining the number and location of conduit hangers and the subsequent fabrication and installation of these hangers in accordance with the requirements of Sargent & Lundy design specifications. It is denied that Mr. Schwiers circulated a memorandum expressing a concern that a number of conduit hangers were installed without design documents. In fact, Mr. Schwiers' memorandum was directed at developing an inspection plan to provide identification and inspection status of hangers to assist QC inspectors in completing their inspections. Obviously, this plan had nothing to do with the existence or control of design documents.

Mr. Biehle's observation (Attachment 36) of a difference between the number of conduits identified during an "initial scoping" and the number subsequently identified after "field inspection" does not show any problem regarding the accuracy of

the design drawings describing conduits in the control room. Mr. Biehle was merely commenting on the scope of the inspection activities that would be required. The difference in the number of conduits may be attributable to the fact that DDC's reflecting certain conduits had not yet been incorporated in S&L drawings or because conduits were deleted from S&L drawings but retained in the field as spares.

The installation and inspection of each conduit is tracked and monitored in accordance with Electrical Construction Procedure ECP-2, Rev. 1, "Conduit, Conduit Supports, and Additional Support Beams Installation Procedure." By using the "Conduit Number Report" prepared in accordance with ECP-2, Kaiser can determine the precise number of conduits which have been installed, which conduits have and have not been inspected, and whether any rework is required. This conduit tracking system assures that all conduits, including those tagged as spares, will be identified for inspection.

ALLEGATION 37

"...As Mr. Yates explained, in 1978 he was trying to lay 3/4-inch stainless steel piping to monitor outside radiation releases...Many other pipes and hangers in the way...(Attachment 33, supra at 2.)"

Response:

The allegation is incorrect in stating that a design modification was necessary in the particular situation described and is therefore denied. The piping contained in the radiation monitoring system referred to is classified as Class C (ASME III, Class C - Non-Seismic) piping. This piping was "field-routed", meaning that Sargent & Lundy provided a general routing layout, but that determination of the actual dimensioning and location of the piping is left to the discretion of the constructor (Kaiser). Instruction for the field routing of piping is contained in Sargent & Lundy's Specification H-2256, Paragraph 303.4.b, which does not require S&L approval prior to installation.

Further information regarding alleged interferences among various systems installed in the field at Zimmer may be found in the response to Allegation 33.

ALLEGATION 38

"Similarly, a May 12, 1982 ASME audit (Attachment 37) examined a 1973 S&L generic Design Specification for all piping systems....the ASME team found that a Registered Professional Engineer ('RPE') does not always certify all documents in the Design Specifications. 'Nor does he certify revisions to said documents.'...."

Response:

CG&E understands the requirements of ASME Section III, Summer 1973 Addenda as outlined in NA-3250 and concurs that all design documents which form a part of the Design Specifications, line lists and associated specifications must be controlled in the same manner as the basic Design Specification. CG&E also understands that this applies to all revisions of these documents and that the revisions to those documents must be certified by the responsible Registered Professional Engineer or other designated Registered Professional Engineer. CG&E has instructed S&L (the designated Registered Professional Engineer) to include as a part of the Design Specification a configuration control sheet to identify and control referenced design documents. This configuration control sheet documents that revisions to the referenced design documents are controlled and certified by a Registered Professional Engineer.

The review of the National Board Audit Team concern that S&L Generic Design Specifications have been properly reviewed by a Registered Professional Engineer is being coordinated as National Board Task Report NBT-1. The National Board Task Group issues bi-weekly written progress reports, copies of which are sent to the State of Ohio, National Board and NRC Region III. In addition to the bi-weekly progress reports, bi-weekly management

review meetings are held to review National Board Task work. These meetings are attended by representatives of Kaiser, CG&E, the National Board, and the NRC.



ALLEGATION 39

"S&L's criteria for approving DDC's may be suspect. As Mr. Tyner recalled, DDC's for hanger embedment plates were issued casually to compensate for construction mistakes that violated the design...Kaiser would simply write DDC's and not worry about how the overall design was being changed. (Attachment 33, supra, at 3.) sic."

Response:

It is denied that DDC's were casually issued or that there was no concern about overall design changes. Under the procedures of Kaiser's GCP-1, Rev. 1 dated May 12, 1982, the preparation of DDC's is specifically authorized "to resolve interferences or deficiencies resulting from field conditions." Persons responsible for field construction are required to prepare DDC's to resolve specific field concerns. After these DDC's are prepared, they are forwarded to the Design Engineer, S&L, who is responsible for review and final approval of DDC's. S&L will evaluate, revise if necessary, and either approve or disapprove the proposed DDC's. In so doing, Sargent & Lundy ensures that the proposed change will satisfy all applicable design criteria. As a part of Quality Confirmation Program Task IX, essential DDC's are being reviewed at the site to assure that they have been properly considered.

ALLEGATION 40

"Richard Reiter described...S&L questionably approved a DDC. When he reviewed records for the off-gas piping...he found that material traceability was not recorded. He wrote a Nonconformance Report, which was voided when the entire off-gas system was downgraded to Class D non-essential. (Attachment 23, supra, at 7.)"

Response:

Petitioner alleges that Mr. Reiter wrote a Nonconformance Report which was subsequently voided (unidentified by petitioner). However, Mr. Reiter's affidavit (Attachment 23 at page 7) does not state that he wrote an NR, and Kaiser has been unable to locate any such NR.

In addition, petitioner incorrectly states the sequence of events regarding the downgrading of the off-gas piping system to Class D non-essential. The off-gas system was reclassified Class D non-essential by S&L in 1978 and, as a Class D non-essential system, there would be no requirement for heat number traceability. Mr. Reiter did not begin working at Zimmer until May of 1979 (Attachment 16 at page 1.). Therefore, if Mr. Reiter wrote a Nonconformance Report as petitioner alleges, it was improperly prepared.

ALLEGATION 41

"After nearly a decade...there can be no reassurance the as-built condition of Zimmer reflects the proper final design. This weakness must be confronted...Jeffrey M. Nichols wrote...Although some systems have been turned over, walkdowns are counterproductive under these conditions. (Attachment 38 at 3.)"

Response:

CG&E denies the allegation that "there can be no assurances that the as-built condition of Zimmer reflects a proper design." Generation Construction Procedure GCP-1, Revision 1 establishes the procedure for initiation and control of DDC's. ZAPO-3, Rev. 0, establishes a uniform method to assure that engineering documents, including DDC's, are properly registered, indexed, controlled and filed. Together, these procedures ensure that design decisions are properly transmitted and that construction personnel do not use outdated design documents. Additionally, CG&E QCP Task IX provides a review of essential DDC's issued prior to April 8, 1981 to insure their proper consideration.

Kaiser conducts an audit and surveillance program to insure adherence to the procedure requirements for the control and use of design documents in the construction of the plant. In 1982, Kaiser performed 88 scheduled and unscheduled audits. In 1983, Kaiser has scheduled 24 audits and additional unscheduled audits will be conducted as required. All audit deficiencies that do not conform to design are documented and controlled for final resolution.

Mr. Nichols' allegation (Attachment 38 at 3) that "some systems have been turned over" and the "walkdowns are counter-productive under these conditions" is denied. No final walkdowns

have occurred and no systems have been turned over to CG&E on a final basis. A final inspection of each system within the plant will be conducted just prior to turning that system over to CG&E. This inspection, termed the "final walkdown", will detect and resolve any discrepancies between design documents and installation.

ALLEGATION 42

"10 CFR 50, Appendix B, Criterion VIII requires that identification and control measures be established to assure that each material, part or component 'Item is maintained by heat number, part number, serial number, or other appropriate means, either on the item or on records traceable to the item,...' similarly, Criterion IX requires control of special processes, including welding. To illustrate, the weld must be traceable back to a properly qualified welder using the proper procedure with the right filler metal."

Response:

This statement is a summary of 10 CFR Part 50, Appendix B, Criterion VIII and IX. There are no statements within this allegation that relate to construction at Zimmer for which a response would be appropriate.

ALLEGATION 43

"...A 1979 CG&E Field Audit found that eight items checked out of 18 used in dry well steel modifications had traceability deficiencies. (...Attachments 39A-F.) After finding nearly a 50% deficiency rate, CG&E did not expand its audit to cover the full extent of the problem..."

Response:

Contrary to petitioner's apparent belief, the November 28, 1979 investigation entitled Field Audit Report No. 285 was in fact an investigative type of review rather than a systematic audit of programs or procedures. Thus, this review, conducted by Mr. P. G. Davies of the CG&E Quality Assurance Audit Group, was an investigation of a specific concern for the substitution of A-588 material in place of A-36 materials for drywell structural steel modifications. Mr. Davies' statement of the intent of the audit is expressed in his summary of audit details.

Because the investigation was focused on a very narrow area of work which had previously been cited as an area of non-compliance by NRC inspection activities, it was anticipated that a rather high rate of deficiencies would be observed. Under these conditions, the fact that 8 items out of 18 were found to contain some type of deficiency is understandable. It is noted from the correspondence enclosed as Attachments 39A-F that all audit findings were resolved by January 18, 1980.

Nonetheless, the Kaiser Document Review Group, QCP, and CG&E Document Verification Group will identify deficiencies of the type that have been reported by this audit.

ALLEGATION 44

"Kaiser QA Surveillance Report No. 2819 ('SR2819'), issued on October 28, 1980 revealed that Kaiser ISK's and related documentation do not provide unique traceability for essential materials...(Attachment 40)...The Surveillance Report challenged the traceability for small-bore piping...There would be one identification for multiple items welded together, instead of unique traceability. The lack of traceability...involved miles of piping and thousands of items fabricated on the site...(Attachment 16, supra at 9.)...Mr. Reiter's supervisor, Floyd Oltz told him to continue using the old procedure and never returned the Surveillance Report. (Attachment 16, supra at 8.)"

Response:

It is denied that Surveillance Report No. 2819 (Attachment 40) or any other attachments or statements contained within Allegation 44 support petitioner's allegation of a lack of traceability that involves "miles of piping and thousands of items fabricated on site." Surveillance Report No. 2819 covers very specific items in certain small bore piping systems as regards the requirement for "unique" traceability for essential materials. This report was completed by Kaiser with the requested clarification and returned to Mr. Reiter.

Instances where traceability is questionable will be identified and appropriately dispositioned in the final walkdown and document review process. The final walkdown and inspection process is more completely discussed in responses to Allegations 23 and 24. In addition, Kaiser is reviewing material traceability of the large and small bore piping at Zimmer. This review and evaluation includes the following activities: a walkdown inspection for heat number identification on ASME pipe by the Kaiser QC Department; a review of the related quality records and evaluation of ASME code material documentation by the

QA Document Review Group; and a technical evaluation and proposed dispositions by Kaiser for all items of material in question.

In addition, the QCP under Task III is reviewing walkdowns of accessible small bore pipe and of large bore piping.



ALLEGATION 45

"A related case of non-traceable materials involves thousands of NX hangers that are used to hang the small bore lines...The hangers...were...refabricated from supplies on site...'Unfortunately, no one kept track of the heat numbers and traceability was lost permanently...those hangers might as well be garbage.' (Id., at 10.) Mr. Reiter."

Response:

The vast majority of NX supports are used as pipe guides and are not governed by ASME Code requirements. These support components are covered by the applicable site quality assurance procedures, Sargent & Lundy drawings and specifications, and the applicable criteria of 10 CFR Part 50, Appendix B. In particular, heat number traceability of non-ASME hangers is not required after fabrication, contrary to Mr. Reiter's apparent belief. Site Quality Assurance Procedure (QAP-9) specifically provides that non-ASME materials need only be traced to the point of field fabrication to assure the use of proper materials. After fabrication the item is controlled by design item number (configuration identification) and material traceability of the individual piece is no longer required. Consequently, NX components which are installed without heat number traceability in place can properly be used as pipe guides.

There is a very small percentage of support components categorized as Class A, B, or C which must meet ASME requirements because they are welded to the pipe. These components are governed by Sargent & Lundy Specification H-2256, Division 7, and require heat number traceability on the item or on records traceable to the item throughout fabrication and installation of such components. Kaiser ensures that heat number traceability of

such items is maintained by including in the Welding Control Procedure, WIP-7, hold points which require verification of the heat number of the pipe and pipe support components before work can proceed. In addition, QRM-1, Rev. 2, which governs quality document reviews requires verification of heat number traceability in accordance with ASME Code requirements. Compliance with ASME Code requirements for traceability will be assured by reviewing all quality assurance documents which relate to ASME hangers prior to the turnover of any systems to CG&E.

ALLEGATION 46

"Mr. Reiter's affidavit also describes in depth six examples where identification marks that existed could not possibly be accurate, suggesting deliberate falsification (Attachment 16, supra, at 3-7)..."

Response:

The first four items cited by Attachment 16 at pages 4-6 are four separate incidents which petitioner has also discussed as Allegations 266, 267, 268, and 269, respectively. Specific responses to these particular items have been made to those allegations.

The fifth item concerns the replacement of a non-traceable spool near a heat exchanger served by the service water system. Mr. Reiter is of the opinion that the means used to insure the existence of sufficient length and wall thickness in the area of the weld were "make-shift," and while it "might have satisfied the letter of the rule," he claims that "the effect was deceptive and circumvented the intent of the requirements." Kaiser has been unable to locate a Nonconformance Report which corresponds to this allegation. The process described by Attachment 16 appears to be fit-up pipe end preparation work, which is normally performed to obtain satisfactory pre-weld pipe alignment. Applicable code and specification requirements which support this work prior to welding may be found in the ASME Code sections NB-2539, NB-4131, and NB-4232.1 and Sargent & Lundy's Specification H-2256.

The sixth item concerns a Nonconformance Report Mr. Reiter wrote after he was unable to verify the heat number for weld rod used in a weld. The Nonconformance Report (E-2191) was voided

after Arch Lanham, a Kaiser employee who dispositioned Nonconformance Reports for the Construction Department, obtained the heat number from a weld rod issue slip. Mr. Reiter asserted incorrectly that this was not an acceptable method of tracing the heat number and implied that the information was "reconstructed" by Mr. Lanham. The NRC investigated this allegation thoroughly and in IE Report No. 81-13, Attachment A at page 12, finding that "based on record review and interviews of personnel, it could not be established that NR E-2191, Rev. 1, was improperly voided." Since nothing more than Mr. Reiter's original statement to the NRC has been asserted by petitioner, no further response is warranted.

ALLEGATION 47

"An internal July, 1981 investigation conducted by the Kaiser Corporate Supplier Quality Engineer Sherrill J. Nolder, 'Investigation of Supplier Quality Assurance at Wm. H. Zimmer Nuclear Generating Station' ('Nolder Report') (Attachment 41)...The investigation concluded that -- An unknown number of 40 ft. beams were cut to 8 ft. and used in electrical applications without transcribing the heat numbers so that only one of each five beams is traceable...These beams and most of the Non-essential upgraded to Essential materials are not traceable to the point of use..."

Response:

Allegation 47 quotes a section from Attachment 41 that identified the concern for the lack of traceability for structural material. This is the same concern that petitioner has expressed in Allegation 51, where it is alleged that a policy of not requiring traceability has been extended to "many types of materials." This allegation specifically addresses the transcribing of heat numbers to trace structural materials to the point of use and the mixing of "Non-Essential upgraded materials with Essential materials" so that there is a loss of identification of materials to the point of use.

CG&E does not agree that this allegation identifies any areas of noncompliance. In particular, CG&E does not agree that it reflects a correct interpretation of the requirements of 10 CFR 50 Appendix B relating to the identification and control of structural materials. Attachments 47B, 47C, 47D, and 47E, discussed in response to Allegation 51, accurately state requirements of ANSI 45.2.71, Criterion IX and 10 CFR Part 50, Appendix B Criterion VIII that identification of structural material is appropriate by records traceable to the material rather than by maintaining traceability marking on the material. In the case of

structural steel, the program does not in all cases attempt to maintain material identification through to the installed location by heat numbers or other traceability marking on the structural items. In cases where the in-place traceability of structural steel is not being maintained by the transfer of heat numbers or other identifying marks, proper documentation will be provided to show that acceptable materials have been purchased and released for use in the essential construction. The controlled upgrading of materials from a non-essential category to an essential use at the Zimmer project is not prohibited by 10 CFR 50 Appendix B provided all applicable criterion are satisfactorily met.

In order to assure that essential structural steel construction at Wm. H. Zimmer is performed using qualified structural steel materials, all purchase orders for essential and non-essential structural steel materials are being reviewed by Kaiser and the CG&E Quality Confirmation Program under Task III. The purpose of this review work is to confirm that only qualified materials have been used in essential structural steel work. If this cannot be determined, any deficiencies will be resolved by processing appropriate NR's. Work completed by the Kaiser and Quality Confirmation Program personnel will then be reviewed by the CG&E Documentation Verification Group to provide final assurance that structural materials are satisfactory.

ALLEGATION 48

"The Nolder investigation findings were consistent with HJK Field Audit 435, conducted by the Site QA Staff and released in final form July, 1981. (Attachment 42) The audit report covered the effectiveness of color coding for traceability, based on a survey of 108 items. The audit found nine deficiencies...Kaiser Construction responded that no action would be taken because the entire audit was 'invalid.' As of April, 1982, the audit remained open...."

Response:

Audit Report No. 435, issued in June, 1981, contained nine findings related to noncompliance with approved procedures for traceability of materials and cited the need to develop additional procedures. All responses from those subject to the audit findings were received by July 1, 1981 and all audit findings were closed out by July 30, 1982 by verifying corrective action. While the audit responses reflected some disagreement by Kaiser with the accuracy of certain audit findings, the entire audit was not considered "invalid" as alleged by Mr. Jones. The adequacy of the corrective action was reviewed, evaluated and approved by a certified auditor and Kaiser Quality Assurance Management on July 30, 1982.

A routine subsequent re-audit (Kaiser Audit Report No. 449) of the same areas performed in June, 1982 verified that all nine findings contained in Audit Report No. 435 had been satisfactorily resolved. No further corrective action is required.

ALLEGATION 49

"One of the causes for the lack of traceability is that materials were required to be traceable only as far as they were received...mistake to only require traceability until materials were received, rather than installed...(Attachment 38, supra at 3.) In addition, unique traceability was required for large-bore piping shown on PSKs but not for small-bore piping shown on ISKs...(Attachment 16, supra, at 8, and Attachment 40, supra.)"

Response:

Petitioner's allegation as drawn from Attachment 38 appears to refer to "hangers" fabricated on-site. The allegation based on Attachment 16 discusses traceability for small bore piping as shown on ISK's. Allegation 49 is a restatement of traceability issues raised in Allegations 44 and 45. All of those allegations reflect petitioner's unfamiliarity with QA procedures at Zimmer as well as ASME Code requirements and NRC regulations in discussing the lack of a requirement for in-place traceability in place for nangers fabricated on-site and for small bore piping installed in accordance with ISK's.

First, it is incorrect that Kaiser only requires material traceability up to material receipt. As discussed in response to Allegation 45, it has always been required that ASME components (piping) must be traceable to installation. Second, as also explained in response to Allegation 45, non-ASME materials need only be traced to the point of field fabrication to assure the use of proper materials. After fabrication the fabricated item is controlled by design item number (configuration identification) and material traceability of the individual piece of material is no longer required.



Likewise, the discussion of ISK's and PSK's in this allegation is a restatement of the issues raised in Allegation 44. Mr. Reiter is incorrect (Attachment 16 at page 8), in his interpretation of Surveillance Report No. 2819. Again, the CG&E response to Allegation 44 addresses Surveillance Report No. 2819 and provides the clarification that unique traceability of heat numbers is required for both large and small bore piping.

Currently, the traceability of piping is being reviewed by Kaiser and by CG&E's Quality Confirmation Program, Task III.

ALLEGATION 50

"CG&E and Kaiser Management were aware of the traceability breakdown...issued urgent instructions to minimize future loss of traceability...(Attachment 44A)...(Attachment 44B)...The 1981 Kaiser reports empirically demonstrated that a 1979 reform for future work could not remedy all past problems..."

Response:

The memoranda cited by petitioner as Attachments 44A and 44B do not support Allegation 50. The reference by petitioner to an alleged "traceability breakdown" is clearly its own characterization, not that of Mr. Marshall. Mr. Marshall's memoranda represent reinforcement and clarification by Kaiser's management of existing project procedure requirements concerning pipe identification and traceability.

Petitioner has failed to identify what "1981 Kaiser reports" and "1979 reform" concerning material traceability it is discussing or how they support Allegation 50. CG&E therefore cannot respond to this portion of the allegation. Nonetheless, it is noted that under Quality Confirmation Program Task III, traceability of essential piping installed at Zimmer is being reviewed and identified deficiencies are being corrected.

ALLEGATIONS 51 AND 130

Allegation 130 refers to correspondence of an audit of weld rod control (Attachment 111) which discusses corrective actions required for the control of welding materials. Allegation 51 also addresses control of welding material and supplies as attachments various project documents which have previously identified and addressed site procedures for welding material control.

51. "...problem has existed for special processes such as traceability of weld rods for filler metal used in welding. In a May 1, 1978 memorandum to all superintendents, Kaiser official C. K. Smith conceded general laxness in this area. (Attachment 45.)...last November's IE Report No. 50-358/81-13 observed, 'RIII inspectors on numerous occasions during previous inspections have observed weld rods lying uncontrolled in the construction area.' (IE Rep. No. 50-358/81-13, at 52: See also, id., at 49.)...Also see...(Attachment 47A) where the policy of not requiring weld rod traceability is set forth. This policy is extended to many types of materials. (Attachment 47B, 47C, 47D, 47E.)"
130. "Effective corrective action...requires a comprehensive response to identified violations...The continuing lack of weld rod control throughout the decade...indicates that the causes were never addressed." (Attachment 111)

Response:

Mr. Schwiers' May 9, 1973 letter (Attachment 111) expresses an early concern by CG&E for the effective control of welding materials. In this letter Mr. Schwiers was providing comments on Kaiser Audit Report No. 19 which was performed to review welding filler metal control and which had noted deficiencies. Mr. Schwiers' expression to Kaiser of the need for corrective actions clearly demonstrates an understanding and concern for welding filler metal control. It is denied that efforts to control weld rod at Zimmer have been ineffective or that the causes of any loss of welding filler metal control that may have occurred have not been addressed.

The May 1, 1978 memorandum (Attachment 45) does not concede a "general laxness" in the efforts to provide traceability for welding filler metal. The memorandum stated that some employees had been lax, and that Nonconformance Reports had been written for corrective action. The fact that Nonconformance Reports are being written is a sign that the quality assurance system was effectively working to address such problems and that material traceability was being maintained.

CG&E Field Audit Report No. 294 (Attachment 46A) and related Kaiser memorandum (Attachment 46B) do not "confirm" a trend toward the omission of procedures; the documents indicate that some KE-2 forms (Weld Rod Issue Slips) were not properly completed.

Furthermore, the principal audit finding, that all 15 documentation packages contained KE-2 forms that failed to record the amount of welding filler metal returned after welding, has been clarified by Kaiser in noting that the welding filler metal requisition form, KE-2, is a multi-page tear out form and that the weight of the returned welding rod is only recorded on the white copy, which is then filed by Material Control. The yellow copy of the Weld Rod Issue Slip, which was examined during the audit, does not indicate the weight of the returned welding rod because that copy has been separated from the other copies at the time of weld rod issue. The Kaiser response was evaluated by the auditor and Audit No. 294 was closed by Surveillance Report No. 264.

IE Report No. 81-13 states that inspectors have observed uncontrolled weld rod in the construction area. Kaiser QA personnel have noted such problems, and Kaiser has implemented corrective action to control the problem; for example, on November 3, 1982, a Kaiser Corrective Action Report (CAR-253) was prepared to address the control of welding filler metal.

It is denied that the June 1981 Kaiser memorandum (Attachment 47A) sets forth a policy of not requiring welding rod traceability. To the contrary, the memorandum states that the heat code identification for weld rod used in performing a weld shall be included on the appropriate KE-1 form. This memorandum was written to clarify the requirements and procedures associated with the preparation of KE-1 and KE-2 forms and how they may be properly implemented to assure that in fact welding filler metal traceability is maintained.

CG&E recognizes the importance of controlling welding filler metals. QCP Task II has been established pursuant to the NRC Immediate Action Letter of April 8, 1981 to review this concern.

A second area of concern in Allegation 51 involves the requirements for heat number traceability of structural steel, as discussed in Attachments 47B, 47C, 47D, and 47E. These attachments, which cover a period of time from August 30, 1973 through September 28, 1981 clarify the requirements of 10 CFR Part 50 Appendix B, Criterion VIII and IX for heat number traceability of structural steel. The requirements for the identification of structural steel materials are being reviewed as a part of the work under Task III of the Quality Confirmation Program. Task

III is reviewing quality assurance documentation to assure that acceptable documentation is available for all essential structural steel.

ALLEGATION 52

"...Mr. Tyner explained, during one period on 1976 construction...there was no traceability of welding rods because the rod shack (sic) would not stay open on the second shift...The foreman will make out a weld rod withdrawal slip...This was obviously impossible when the rod shack was closed because none of the workers could obtain withdrawal slips. (Attachment 17, supra at 6.)"

Response:

It is denied that Kaiser failed to maintain weld rod traceability during the second shift as alleged by petitioner. On occasions when the weld rod issue shack was not open for the entire night shift, the shack was kept open during the first hour or two of the second shift. During the time when the weld rod shack was open, a welder could obtain the weld rod that he needed for his work. Weld rods obtained in this manner were recorded on weld rod issue slips. If at the end of his shift a worker had left-over weld rod, he returned it to his foreman who retained the rod in rod warmers in a secure area until the weld rod shack reopened the next morning. When the weld rod shacks reopened, the return of the remaining weld rod could then be recorded.

Contrary to the allegation, the weld rod shack was open for the first few hours of the second shift to insure control of welding materials. The matter of assignment of a weld rod clerk to the rod shack during the second shift was reviewed and reported in IE Report 50-358/81-13 at pages 51-52. That report reviewed time cards to assure that a weld rod clerk was working the second shift for September and October, 1979.

The primary check on weld rod traceability was provided by quality assurance inspectors, and not by construction employees

working in the weld rod shack. If weld rod traceability had been lost or improper weld rod had been used in a joint, the deficiency would be detected when the welding documentation is reviewed during the welding inspection process.



ALLEGATIONS 53 AND 55

These allegations involve the use of weld rod issue forms, which are the subject of CAR's in Attachments 48 and 50 and are related to the same findings.

53. "Last November's NRC Report summarized an interview with a confidential witness who stated that weld rod issue forms routinely were falsified after the fact. (I.E. Report No. 50-358/81-13, at 50.)...A December 2, 1981 Kaiser Corrective Action Report (Attachment 48)...found improper alterations and paperwork that failed to reflect the full quantity of weld rod possessed by the welder."
55. "Another technique has been to 'void' HJK weld rod issue forms...(see HJK Corrective Action Report No. 37, enclosed as Attachment 50))"

Response:

CG&E cannot respond to the general allegations of petitioner's "confidential witness" because no specific facts are alleged. Nonetheless, IE Report No. 81-13 at page 53 states that no new items of noncompliance were identified as a result of inspection activities, which included the interview of the individual discussed at page 50. To the extent necessary, all such matters in the Report were fully discussed with the NRC at the time of its on-site investigation in 1981 and subsequent exit interviews. It is unclear what possible relevance this particular item, already investigated by the NRC and covered in its Report, has upon present concerns. As a general matter, of course, weld rod control and traceability are being addressed by QCP Task II, which the Report noted at page 53.

The issues raised in Allegation 53 about CAR-038 (Attachment 48), concerning improper alterations of weld rod issue forms and paperwork that failed to reflect the full quantity of weld rod

possessed by a welder, are answered by CAR-037 (Attachment 50). The background to these CAR's is discussed below.

On December 1, 1981, a welder requested 100, 7018 3/32" weld rods. A temporary clerk in the rod shack, finding that the shack was out of 3/32" weld rods, erroneously issued 1/8" weld rods without informing the welder. Prior to the use of the 1/8" weld rod, a QC inspector noticed the discrepancy and pursuant to Kaiser QA procedures issued an NR to prevent any welding. The welder returned to the weld rod shack with all 100 1/8" weld rods and a new weld rod issue slip requesting 100 3/32" rods. The clerk at first wrote "1/8" on the new weld rod issue slip. After noticing his mistake, the clerk changed "1/8" to "3/32" and initialed the change. He failed, however, to date the change and enter the heat and stock numbers and thus did not comply with Kaiser procedures. The QC inspector noticed the improper change and ordered the weld rod returned to the rod shack.

The QA documentation therefore demonstrates that the alteration of the weld rod issue slip did not represent an intentional falsification of records, but only an error in failing to date the initialed change. The QC inspection program detected this error and properly documented it. Contrary to the allegation that a weld rod issue form "failed to reflect the full quantity of weld rod possessed by the welder," the welder in question at all times possessed an issue slip for the full quantity of weld rod possessed. Further, the two CAR's do not reflect a lack of traceability for weld rod used at Zimmer, since the full amount of weld rod issued was returned unused to the rod shack.

The incident in Allegation 55 led to the issuance of CAR-037, (Attachment 50), CAR-038, (Attachment 48), and NR E-3849. Historically, Kaiser voided and discarded KE-2 forms where the welder returned his entire allotment of weld rod unused. Kaiser has provided corrective action for the concerns of CAR-037, CAR-038, and NR E-3849 and is now retaining a copy of KE-2 forms that are being issued.

ALLEGATION 54

"A third explanation for a lack of reliable traceability is the issuing of non-essential material for essential uses. Four Kaiser NR's dated October 21, 1981 (Attachment 49) describe some of the upgraded material."

Response:

The four Nonconformance Reports supplied as Attachment 49 to this allegation do not support petitioner's contention that reliable traceability was compromised by the issuance of non-essential materials for essential uses. Nonconformance Reports E-3700 and E-3701 describe the nonconformance as the issuance of essential materials purchased from vendors not on the Kaiser AVL. NR E-3700 has been re-issued as E-3700R1. The purchase of essential materials from approved vendors and the Kaiser AVL list is addressed in responses to Allegation Nos. 66 through 72. Both Nonconformance Reports E-3700R1 and E-3701 have been closed out and do not in any way support the petitioner's contention in Allegation 54 that material traceability has been lost when non-essential materials have been upgraded to essential uses.

Nonconformance Report E-3702 describes a nonconforming condition where material was purchased as non-essential from an approved Kaiser supplier and through error was issued to Construction for essential use. Nonconformance Report E-3702 proposed an "accept as is" disposition, was reviewed and accepted and was closed out on 2-1-82. Nonconformance E-3699 has been re-issued as E-3699R1 and likewise describes a nonconforming condition where material was purchased as non-essential from a non-approved source and was issued to Construction for essential

use. The review and dispositioning of Nonconformance Report E-3699R1 is still in progress at this time.

Therefore, appropriate corrective actions have been or are being taken as to each Nonconformance Report discussed. It is denied that any of the materials described in these Nonconformance Reports as finally dispositioned will lack requirements for material identification. While petitioner cites these NR's as evidence of problems, the reporting and resolution of deficiencies by NR's in the normal course demonstrates, to the contrary, that the system is working. The traceability of structural steel material is being addressed by Quality Confirmation Program Task III.

ALLEGATION 56

"New procedures for weld repairs institutionalize the lack of traceability for that task. A new records procedure, the In-process Inspection Deficiency Record ('IIDR'), is being used for weld repairs. As an April 19-23, 1982 CG&E Audit Finding Report [sic] (Attachment 51) conducted by Science Applications, Inc. ('SAI') reported, 'IIDR's do not provide direct traceability of welder weld procedure and revision, weld filler material type size and heat lot numbers...'"

Response:

The finding in Attachment 51 was discussed partially in this allegation and the remainder of the finding was the basis for Allegation 170. In its entirety, the April, 1982 Audit Finding Report pertains to the IIDR system and cites specific deficiencies. These deficiencies are interrelated and are explained in the responses to Allegations 169 through 172.

ALLEGATION 57

"Traceability for the welding special processes is deteriorating. Kaiser and CG&E Management have failed to implement the tighter requirements of 1979-1980. Instead, for weld repairs the new procedures discard the traceability requirements that have been violated for years."

Response:

This allegation is a generalized conclusion without any substantiation. The "tighter requirements" which Kaiser and CG&E have allegedly failed to implement are not identified. Accordingly, there are no specific matters to which a response can be addressed.

The "new procedures" for weld repairs are apparently the same procedures that petitioner relates to IIDR's in Allegation 56. The use of IIDR's is discussed in response to Allegations 169 to 172, infra.

ALLEGATIONS 58, 59, 60, 61, 62, 63, AND 64

This group of allegations deals with CG&E discussions with Kaiser regarding the review of vendors who may be requested to supply code or essential materials. These allegations erroneously assert that CG&E limited vendor review to only the "review of QA Manuals" as this is not the approach which has been followed by CG&E Company.

58. "10 CFR Part 50, Appendix B, Criterion VII, requires the applicant to establish measures that assure that purchased products..."
59. "...Kaiser (and CG&E) have purchased materials, parts, and components...Kaiser has made some 42,000 purchase orders for materials alone. (Attachment 41, supra, at 11.)"
60. "...CG&E QA Principal Engineer E. C. Pandorf established the basic ground rules to qualify for the CG&E and S&L AVL's...They would read the vendor's QA Manual or other description. (Attachment 52)"
61. "...As Mr. Jones explained in his testimony, 'CG&E would just review the vendor's QA Manual. That doesn't mean much...' (Attachment 43, supra, at 6)"
62. "...Mr. Friedrich warned that Kaiser had written its QA Manual to survey vendors at the insistence of the ASME Code Committee. (Attachment 53)...The March 4, 1974 response from CG&E (Attachment 54) tersely rejected Kaiser's plea..."
63. "As pointed out in a letter to Kaiser from the Hartford Steam Boiler Inspection and Insurance Company...this responsibility (of vendor surveys) cannot be assumed by any other organization such as CG&E. (Attachment 55) (sic)"
64. "...The minutes of a joint CG&E Kaiser QA Meeting pointed out KEI will continue to submit requests to perform vendor evaluations (Attachment 21, supra, at 4)...On March 15, 1977, Mr. Friedrich requested a survey for a supplier of Code Class Forged and Stainless Steel Pipe Fittings...CG&E's Principal QA Engineer, W. W. Schwiers refused. (Attachment 55)"

Response:

Allegation 58 is a restatement of 10 CFR Part 50, Appendix B, Criterion VII, and makes no specific allegation for which a response is necessary.



Allegation 59 contains a brief summary of Kaiser purchasing activities and expresses Petitioner's opinion that problems have existed with the vendor purchase program since 1973. This allegation attempts to lay a general foundation for the succeeding allegations which deal with the alleged failure to control purchased material, equipment and services and contains no specific items to which CG&E can respond.

Allegation 60 quotes Mr. E. C. Pandorf and implies that CG&E requested a "consistent procedure" whereby Kaiser would only read the vendor's QA Manual to determine the adequacy of a QA program. In fact, the letter makes no such reference to merely reading a QA Manual to determine vendor quality assurance program acceptability. The letter emphasizes that during the bidding phase of the project, vendors are required to submit descriptions of the quality assurance programs, that deficiencies within the program are to be resolved, and that vendor selection is based on the acceptability of his bid and the adequacy of his quality assurance program. The letter specifically states that a source evaluation may be conducted and that, during fabrication, source inspections may be made.

Mr. Pandorf requested that Kaiser establish a procedure for "the review of Quality Assurance Programs of vendors prior to the purchase of all essential and code items." As a part of this procedure, Kaiser is instructed to submit requests for source inspection of items that they feel require additional surveillance. Mr. Jones' assertion in Attachment 43 as cited in Allegation 61 that "CG&E would just review the vendor's QA

Manual. That doesn't mean much." This conflicts with the statements made by Mr. Pandorf in Attachment 52 and Mr. Rothenberg in Attachment 54A of Allegation 62. The letters from Messrs. Pandorf and Rothenberg to Mr. Friedrich of Kaiser both contain discussions of methods and procedures for the evaluation of vendor quality assurance programs that go beyond the mere reading of a Quality Assurance Manual as implied by Mr. Jones.

Allegation 62 quotes Mr. Friedrich as emphasizing that as a manufacturer and holder of an N Stamp, Kaiser is obligated under Section NA3361 of the Code for surveying and qualifying suppliers. Mr. Rothenberg's response (Attachment 54) correctly states that "a survey at the vendor's plant is not required for inclusion on a list of bidders." Thus, the list in that letter included vendors which would bid on work but may not be selected. Vendors who were selected for award of work may be subject to pre-award quality system evaluations as suggested by Mr. Rothenberg's letter. Mr. Rothenberg also suggests alternatives to surveys.

Allegation 63 cites the December 5, 1977 letter from Hartford Steam Boiler Inspection and Insurance Company (Attachment 54B) stating that there "were no surveys for the Ohio Valley Sales, Inc. by Kaiser" and that "since Kaiser is a symbol holder," that "this responsibility cannot be assumed by any other organization such as CG&E." Kaiser has identified this condition on draft NR 10,005D, dated October 13, 1982, which is currently awaiting disposition. No ASME Code Items were purchased by CG&E directly or indirectly from the Ohio Valley Sales, Inc. and

ALLEGATIONS 65 AND 72

These two allegations deal with a task force established by Kaiser to conduct a review of the Kaiser Approved Vendors List (AVL). The AVL was developed and maintained to control the purchase of material from approved vendors by providing a convenient list of previously reviewed and approved vendors. Allegation 65 quotes Mr. Paul Kyner's concerns that he expressed as a part of his participation in the Task Force. Allegation 72 does likewise and adds additional detail from Attachments 60 and 61.

65. "...Mr. Paul Kyner warned...'I fear that unless we make some basic changes to the way we have looked at this business of approving vendors, we are only delaying the inevitable.' (Attachment 56)...'very questionable practice - approval of a vendor by review of his QA Manual only.'"
72. "...Kaiser memorandum from Dave Howard to Mark Albertin (Attachment 60), Kaiser discontinued use of the existing AVL and established a Task Force...Mr. Kyner...warned...'We are only perpetuating these problems and by procedure will be required to place vendors back on the Approved Vendors List with very little justification.' (Attachment 56, supra.)...CG&E...rejected all complaints about the AVL. (For further examples, see June 9, 1982 Cincinnati Enquirer news article, enclosed as Attachment 61)"

Response:

In the fall of 1981, the Kaiser AVL was temporarily suspended until a review was completed. The review was conducted by a Special Task Force, which included Mr. Kyner. After review, a new AVL was prepared, which included all of the vendors on the previous AVL that were confirmed to have met the requirements for the materials and equipment they supplied.

It should be noted that the practices which are the subject of Mr. Kyner's concerns (Attachment 56) are only relevant to ASME items. He commented upon inclusion of vendors on the AVL on the basis of QA manual reviews and limited approval of vendors by the QA Manager on the basis of source and receipt inspections. Those two practices are acceptable for non-ASME items.

Under Kaiser procedures which were in effect in the fall of 1981 when the AVL was temporarily suspended (which had been approved by Mr. Kyner), no suppliers of ASME materials could be placed on the AVL unless they were subjected to surveys, or held ASME Certificates of Authorization or Quality System Certificates. The same procedural requirements apply today. All suppliers of ASME materials on the current AVL have either been surveyed or possess ASME Certificates of Authorization or ASME Quality Systems Certificates. Kaiser will continue to maintain its AVL in accordance with site QA procedures.

ALLEGATIONS 66 AND 67

These allegations concern the placing and removing of vendors on the Approved Vendors List.

66. "CG&E also shrank the scope of the Approved Vendors List. The Nolder Report described the CG&E policy 'that only material manufacturers had to be on the Approved Vendors List not material suppliers...' The Nolder investigation found that this restriction violated both ASME requirements and Kaiser's own QA rules. (Attachment 41, supra, at 6.)"
67. "In practice, the AVL did not supply an effective control on vendors. For example, the Nolder Report reveals,...(Attachment 25 (sic), supra, at 8.)"

Response:

The quotation from Attachment 41 at page 6 as regards placing only material manufacturers on the Approved Vendors List and not material suppliers is currently the subject of review and investigation as NBT-3 of the National Board Tasks Report. The procurement of such materials shall be dispositioned in accordance with requirements of the Kaiser Quality Assurance Program, National Board and the regulatory authorities.

Allegation 67 lists items from the Attachment 41 at page 8 regarding the Kaiser Approved Vendors List. However, this attachment does not cite alleged deficiencies that are specific enough for a response. Kaiser has created a special AVL Task Force which is evaluating purchases made from suppliers that were not listed on the Approved Vendors List. Vendors are being identified, evaluated, and Nonconformance Reports written where required as a part of this review process. This Task Force Work is being reviewed and coordinated by NBT-3.

ALLEGATION 68

"...suppliers were approved for specific, rather than generic, commodities...'many of the materials used to build Zimmer have been left off the AVL.' (Id., at 8-9.)...'...instrument fittings...ordered from the sole distributor, Cincinnati Valve, which has never been approved as a material supplier' (Id., at 7.) Another case involved...steel beams from the Frank Adams Company...'Frank Adams -- A Cincinnati scrap dealer supplied a large amount of the beams...' (Attachment 57)"

Response:

In some cases suppliers were approved for specific rather than generic commodities. The reason for issuing specific approvals to suppliers is because some materials supplied were for non-essential and non-ASME uses and therefore placement of such suppliers on an AVL was not required. The review in Attachment 41 of materials supplied to the project by Cincinnati Valve is an example of this case.

Cincinnati Valve, a distributor of fittings, supplied fittings to the project from manufacturers which were required to be approved and placed on Kaiser's AVL list because the fittings were used on essential and/or ASME work. In other instances, materials were purchased through Cincinnati Valve from other manufacturers where the uses of these materials were for non-ASME and non-essential uses and therefore placement of the manufacture on the AVL was not required.

Cincinnati Valve was surveyed by Kaiser in early August, 1981 and approved for incorporation on the AVL. A later review by the Kaiser AVL Task Force has established that an appropriate QA program had been in place at Cincinnati Valve since at least

November, 1976, which is prior to the first Kaiser purchases from Cincinnati Valve.

Petitioner has erroneously implied that Frank Adams Company was an unsatisfactory supplier of materials. The fact that Frank Adams Company has a scrap business in no way supports petitioner's claim. Frank Adams Company also operates a structural material warehouse and as such is a fully satisfactory supplier of steel. All purchase orders for material bought from Frank Adams Company have been reviewed, and Certified Mill Test Reports (CMTR's) are available to verify that essential purchases met applicable material traceability requirements. In addition, an audit of Frank Adams Company has been performed and a recommendation is pending for the addition of Frank Adams Company to the Kaiser AVL.

The Quality Confirmation Program under QCP Task III will perform the verification of the quality documentation for materials supplied by Frank Adams Company and Cincinnati Valve.

ALLEGATION 69

"...October 30-31, 1978, in Kaiser Audit No. 366 (Attachment 57) then-Auditor (later QA Manager) P. S. Gittings found, 'Approved Suppliers List is inaccurate with a supplier's evaluation method listed as survey when approval was given through the use of Paragraph 3.9.1 (acceptable Quality Assurance Manual).'"

Response:

It is denied that Audit No. 366 (Attachment 57B) "tracked the ongoing inadequacy of the AVL." The statement by Mr. Gittings quoted by petitioner was an isolated finding involving a single instance, LIMCO Manufacturing. Audit No. 380, dated July 1, 1979, which followed up the findings from paragraph 2 of Audit No. 366, found that these AVL deficiencies were no longer present and declared Audit No. 366 closed. Audit No. 380 concluded: "[G]enerally the documentation covering the audited characteristics...[were] found to be well documented and under control with the exceptions noted."

The deficiencies cited from Audit No. 366 have no significance to the work because the distinction between a vendor which has been placed on the AVL on the basis of a survey and a vendor placed on the AVL on the basis of a QA Manual review is of importance only if the latter is permitted to supply ASME material. LIMCO Manufacturing was listed on the AVL as approved for non-ASME material only, and review of purchase orders shows it did not in fact provide any ASME material. Consequently, the improper designation of LIMCO as a survey-approved vendor did not result in the receipt of ASME material from an unapproved supplier by Kaiser.



ALLEGATION 70

"On November 25, 1979, in Audit Report No. 400, Kaiser auditor A. E. Kaplan found, inter alia, that the Approved Vendors List required updating...(Audit Report No. 400 and related correspondence are enclosed as Attachments 58A-F.) Auditor Kaplan...'I thought the AVL is in deep trouble...'"

Response:

Audit Report No. 400 does not support this allegation. Audit No. 400 found that the AVL was out-of-date in some respects, but virtually all of the items of concern in the audit were corrected when the AVL was routinely updated on December 31, 1979. The final specific audit finding of Audit No. 400 was closed on May 29, 1980.

The purpose of the Kaiser/CG&E Audit Program is to detect and correct the type of deficiencies cited in Audit Report 400. The fact that the audit detected deficiencies and that they were fully resolved in a relatively short period of time demonstrates that the audit program was working.

A finding of Audit No. 400 was that the AVL listed vendors whose (ASME) certification had expired since the most recent revision of the AVL had been published. The related corrective action which resulted from Audit No. 400 was inclusion on the AVL of the expiration date of each vendor's certification.

The major concern of Audit 400 was the purchase of materials from vendors who were not duly qualified for the AVL. Kaiser has formed an AVL Task Force, which is currently reviewing all purchases to detect and address any instances in which material was purchased from vendors which were not duly qualified to supply essential and Code material. For a more detailed

description of the activities of the AVL Task Force, see the response prepared for Allegations 66 and 67, which addresses the purchase of materials from vendors not on the AVL.

ALLEGATION 71

"On December 14, 1979, Kaplan noted...(Attachment 58F)...'All Findings remain open'...shortly after Kaplan's protest, the Kaiser audit function was discontinued at CG&E's direction. (Attachment 43, at 11.)"

Response:

This allegation, which erroneously implies that Mr. Oltz simply ignored Audit Report No. 400, is denied. To the contrary, Mr. Oltz responded to each of the audit findings which had been assigned to him. Mr. Kaplan's statement in his December 14, 1979 memorandum that no corrective action had been taken simply meant that Mr. Kaplan was not satisfied with the response given to him by Mr. Oltz on November 13, 1979 (Attachment 58B). It is not unusual for an auditor and the person assigned to respond to an audit to correspond several times before they can agree on the proper corrective action.

Petitioner provides no basis for its claim that Audit Report No. 400 was intended to "challenge...the integrity" of the AVL. As is true of audits, Audit Report No. 400 was intended to point out any deficiencies in the function audited and to suggest improvements. Nor is there any basis alleged for the assertion that Audit Report No. 400 was "stalled."

As a result of an agreement between Kaiser and CG&E, CG&E took over all audit functions between mid-1980 and September 1, 1981. The reassignment was temporary and was made at a time when Kaiser QA personnel were required for other site QA functions. CG&E QA Staff assumed the prime responsibility for audits with assistance from Kaiser's staff when Kaiser personnel could be made available. Kaiser QAP 19, Rev. 7, Section 2.3 permits CG&E

audits of Kaiser QA Program. Petitioner has failed to state any facts that would even intimate that the reassignment of audit functions was in any way related to Audit Report No. 400 or that Kaiser and CG&E were attempting to avoid an objective and thorough audit of the AVL.

ALLEGATION 73 AND 74

Allegation 73 is based on a quotation from part 2.3 of the May 12, 1982, National Board Audit Team Report (Attachment 37). The section quoted notes that Kaiser in some cases placed material manufacturers on the Approved Vendors List based on CG&E's experience or on some other basis that would be an apparent nonconformance to ASME Code requirements. Allegation 74 continues the discussion of Allegation 73 by repeating this same concern from Attachments 62 and 41.

73. "CG&E's 1973 policy to use its own AVL as the basis for Kaiser purchases also was improper under ASME rules....The ASME audit team observed:...Cincinnati Gas & Electric Company must cease preventing Kaiser from the performance of those Code activities which are required to be performed by Kaiser's Certificate of Authorization."
74. "The practice...violated Kaiser's own QA program...(Attachment 62)...unable to find authorization from H.J.K. to purchase from vendors on the basis that they appear on the CG&E Approved Vendors/Supplier's List.' (See also Attachment 41, supra, at 6.)"

Response:

The qualification of Material Manufacturers under the ASME Code is a responsibility of the ASME Certificate Holder, in this case Kaiser. Kaiser will assure that the Material Manufacturers for Code materials have a quality assurance program which meets the requirements of NX-2600 (Section III, Summer 1973 Addenda).

A task force has been formed to evaluate purchases made from suppliers that had not been duly qualified by Kaiser. Vendors which were not duly qualified and which supplied materials to the site are being identified and Nonconformance Reports are being written as a part of the review process. There is no longer a requirement for Kaiser to obtain CG&E approval to perform vendor surveys. Both CG&E and Kaiser are working to clear up all deficiencies involving previously unapproved suppliers.

The review of the National Board Audit Team finding that Code materials may have been purchased from unapproved material manufacturers is being coordinated as NBT-3. The progress of work on NBT-3 is summarized in bi-weekly reports, copies of which are sent to the State of Ohio, National Board, and NRC Region III. In addition, bi-weekly management review meetings are held to review NBT work and these meetings are attended by representatives of Kaiser, CG&E, the National Board, and NRC.

ALLEGATION 75

"...For instance, in 1980 Nuclear Energy Services, Inc. ('NES') replaced Peabody Megnaflux (sic) ('PM' or 'Peabody') as supplier of NDE services at Zimmer. As a May 13, 1981 Corrective Action Report ('CAR') (Attachment 63) found, however, NES was performing ASME code work -- a Kaiser responsibility -- without first being on Kaiser's AVL. This loophole effectively circumvented Kaiser's legal requirement to verify the quality of non-destructive tests at Zimmer.

Response:

Petitioner alleges that Kaiser's requirement to verify the quality of nondestructive tests at Zimmer has been compromised because of an apparent deficiency in the Kaiser Approved Vendors List (AVL). Petitioner cites Corrective Action Report No. 5, prepared by CG&E on May 13, 1981 (Attachment 63). Petitioner interprets CAR-5 to mean that NES, under contract to CG&E, was performing ASME code work, a Kaiser responsibility, without first being on Kaiser's AVL list. However, project documents show that CG&E was placed on Kaiser's AVL on May 2, 1978, and therefore CG&E could properly supply NDE services to Kaiser by directly contracting with NES which appears on CG&E's AVL Rev. 1, December, 1978.

The "corrective action" portion of CAR-5 stated that the description of the deficiency should have explained that CG&E was not listed on the HJK Approved Vendors List, which appeared correct at the time this CAR was written, although CG&E had actually been incorporated into the HJK Approved Vendors List. Thus, CG&E had been approved for the Kaiser AVL but, through a clerical error which was unnoticed at the time of the preparation of CAR-5, did not appear on the Kaiser AVL. When the erroneous

omission of CG&E from the HJK AVL was identified in this CAR, the corrective action taken was for HJK to include CG&E in their AVL.

As stated in CAR-5, "HJK (Kaiser) has, and will continue to monitor the activities of the NDE subcontracted services." It was the responsibility of the Kaiser NDE Level III inspector to monitor activities of NES through the review and approval of the NED procedures, review of radiographic film and the surveillance of NDE activities. Accordingly the quality of nondestructive tests at Zimmer was in no way compromised by the clerical error of omitting CG&E from the Kaiser AVL as described in CAR-5. Additionally, under NBT-21 the survey and approval of Kaiser's nondestructive examination subcontractors are being reviewed. No further corrective action is required.



ALLEGATION 76

"In theory, NES was working to Kaiser's QA Procedures. In fact, NES did not even have a copy of Kaiser's QA Manual. As Mr. Jones testified, 'NES was not following the Kaiser QA Procedures and was barely familiar with our manual.' (Attachment 43, supra, at 10.)..."

Response:

The NES Purchase Order/Contract with CG&E initially provided that NES was required to work to Kaiser's QA Manual. Because NES had its own QA Program and Manual, it was not required by the ASME Code or by Kaiser's QA Program to use Kaiser's Manual in lieu of its own. However, through the normal auditing process, a Kaiser auditor discovered that NES was not working to the Kaiser Manual which was inconsistent with the language of the contract between NES and CG&E.

In order to resolve this matter, Kaiser confirmed in a June, 1980 Hartford Steam Monitoring Report that NES already had a qualified QA Program and Manual. Kaiser then sent NES the Kaiser QA Manual for informational purposes. The CG&E Purchase Order/Contract with NES was revised to reflect the fact that NES was authorized to work in accordance with its own QA Manual. Furthermore, Kaiser's NDE Level III had previously received and approved the NES procedures to be used in conducting radiography. In summary, NES performed NDE on essential ASME equipment with a formal QA program.

ALLEGATION 77

"...Although this audit was not yet complete, Mr. Eversult wrote a March 12, 1982 memorandum to Kaiser QA Manager Walter Hedzik (Attachment 64) that 'a determination should be made for stop work order and possible 50-55e.' Mr. Hedzik responded, according to eyewitness Jones, 'I don't want to see any more of these types of memos. They tend to embarrass us and cause more accusations and allegations.' (Attachment 43, supra, at 10.) Mr. Hedzik did not act on the memorandum and Mr. Eversult was removed from the audit group after he protested manipulation of his findings on NES. (id., at 10.)"

Response:

The memorandum (Attachment 64) cites matters previously discussed in Allegations 75 and 76, regarding performance by NES of NDE activities for ASME code work. Because Mr. Eversult's memorandum contained no supporting information, Mr. Hedzik sought from him the factual data necessary to evaluate the need for a 10 CFR 50.55(e) report or a stop work order. Mr. Eversult, who was not the Audit Team Leader, was unable to provide adequate information and Mr. Hedzik had no basis for taking Eversult's suggested actions. Subsequently, NES was confirmed as an acceptable vendor upon completion of the NES audit by the Audit Team. Action taken on the subject audit is discussed in response to Allegations 75 and 76.

Mr. Eversult was not removed from his auditing job because he protested the "manipulation" of his NES findings. His draft findings were included in Audit Report No. 7 without any substantial change. He was transferred within the HJK QA Department as a lateral move to Quality Engineer to meet job requirements and to utilize available personnel resources most efficiently.

ALLEGATION 78

"During the summer of 1981, Kaiser finally developed a plan to 'correct' all the purchases from vendors who were on CG&E's AVL but not on the Kaiser's AVL: qualify CG&E for Kaiser's own AVL. As Mr. Jones pointed out, to CG&E's dismay, however, the Kaiser auditors learned that the utility would not qualify...When CG&E representatives were informed of the findings in a pre-audit conference, they challenged Kaiser's authority to conduct the audit and refused to cooperate. The audit was stopped. Eventually, a new team 'approved' CG&E under watered-down criteria. (Attachment 43, supra at 6-7.)"

Response:

The basis for this allegation is statements by Mr. D. Jones, a former Kaiser employee at Zimmer, who had filed a complaint regarding his employment at Zimmer with the U.S. Department of Labor, which he subsequently withdrew. Mr. Jones alleged that he prepared a checklist and gathered some "preliminary information" in connection with a proposed audit of CG&E, and that his preliminary work had turned up some "problems" in the CG&E QA Program. All this preliminary information was apparently gathered prior to a pre-audit meeting between Kaiser and CG&E representatives. Whatever Mr. Jones' preliminary conclusions may have been, Kaiser's auditors do not make audit findings prior to the completion of an audit. There was some discussion whether an audit of the owner (CG&E) by the construction contractor (Kaiser) was appropriate. Following the resolution of this question, Kaiser proceeded with the cooperation of CG&E and an audit was completed September 29, 1981.

The audit of CG&E in 1981 by Kaiser referred to by Mr. Jones was Audit 436, which was in fact a re-audit to continue CG&E's qualification for Kaiser's AVL list. Kaiser subsequently determined that CG&E was acceptable for inclusion on Kaiser's

AVL. Project documents show that CG&E had originally been qualified for a Kaiser Approved Suppliers List (AVL) on May 2, 1978. Therefore, the auditing of CG&E by Kaiser in 1981 was not any part of a plan as alleged by petitioner to "correct" the purchases of vendors who were on CG&E's Approved Vendors List but was a reaudit to verify CG&E's acceptability for continued listing on Kaiser's AVL.

ALLEGATION 79

"CG&E also set the groundrules for inspection of the actual purchases. A March 28 and April 9, 1974 exchange of correspondence between Kaiser and CG&E (Attachments 65A and 65B) confirmed the groundrules in actual purchases: 1) CG&E would maintain all documentation to prove the qualifications of vendors on its own AVL. 2) With a few exceptions, CG&E would not use a formal program to certify purchases had been released for shipment. 3) CG&E, not Kaiser, would develop the necessary documentation requirements checklist for CG&E vendor purchases. 4) CG&E did not 'anticipate the need' for a specific document certifying that all required document requirements were passed, before items were installed. 5) Kaiser's receiving inspection responsibilities were limited to surface observations such as shipping damages and identification. 6) CG&E not Kaiser, would conduct the increased inspections necessary for 'essential' purchases, and CG&E did 'not plan to conduct in-depth reviews of documentation for non-essential components.' 7) Kaiser was not to review documents previously accepted by CG&E from its own vendors. Kaiser does need to review doc. from CG&E for ASME in order to stamp the system. (See also Exhibit I to Attachment 10, supra)"

Response:

Petitioner has cited portions of March 28 and April 9, 1974 letters between Kaiser and CG&E (Attachments 65A and 65B). However, it has failed to identify any specific concerns, or to demonstrate any departure from accepted QA procedures at Zimmer. In particular, petitioner has failed to indicate any regulatory noncompliance which would result from adherence to the stated criteria.

ALLEGATION 80

"CG&E encouraged the policy of Kaiser conducting only the most limited inspection. For instance, on September 19, 1975, Mr. Pandorf informed Kaiser, 'It will not be necessary to include documentation as an item on your Receiving Inspection Plans.'...Kaiser officials repeated...source inspections were needed for specific purchases. (...Attachment 66)"

Response:

Allegation 80 begins with an assertion that CG&E encouraged Kaiser to conduct "only the most limited inspection." Mr. Pandorf's letter of September 19, 1975 explains the requirements and procedures for the handling of documentation supplied in accordance with Sargent & Lundy specifications. Thus, Mr. Pandorf's September 19, 1975 letter was written to inform Kaiser of the steps specified by S&L for the submittal and review of quality assurance documentation, and did not express any CG&E policy limiting Kaiser's receiving inspection. Petitioner's quotation from the last sentence of that letter merely summarizes how the discussion of quality assurance documentation review may be related to Kaiser receiving inspection plans.

W. J. Friedrich's August 19, 1974 memorandum (Attachment 66) which suggests that source inspection may be the "best way to avoid rework and attending delays," was prepared in response to a concern specifically related to the receiving inspection of pipe on delivery trucks prior to the unloading of such pipe. His memorandum did not address nor was intended to apply to receiving inspections generally. CG&E felt that it was important to check for transit damage and that this should continue to be performed in receiving inspections at the site.

Thus, in 1975, receiving inspection was being performed by Kaiser in accordance with approved quality assurance procedures, which clearly outlined the criteria to be met for receiving inspection. Attachment 66 and the referenced September 19, 1975 Pandorf letter do not support the allegation that CG&E encouraged limited inspection but, as has been stated, were prepared to clarify specific quality assurance requirements for verifying receipt of quality documents. No violation of applicable Code requirements or Zimmer QA procedure has even been alleged much less demonstrated.

ALLEGATIONS 81 AND 82

Both Allegations 81 and 82 quote from the same series of statements by Mr. Griffin (Attachment 67 at 2). These statements outline Mr. Griffin's opinion of vendor inspection systems.

81. "Utility's basic philosophy was to trust the vendors' paperwork...(Attachment 67)... 'CG&E...essentially just relied on the vendors' paperwork to buy parts off the shelf' (id., at 2.)"

82. "...vendor paperwork frequently does not accurately reflect the condition of purchased items...'You don't purchase nuclear parts and components like a jar of nails...or like a carburetor...' He listed the necessary minimum requirements...(Id., at 2)"

Response:

Petitioner relies exclusively upon Mr. Griffin's affidavit (Attachment 67), which is a generalized characterization of vendor QA practices and vendor inspection procedures at Zimmer. It is based on opinions by Mr. Griffin which represent an extreme simplification of Kaiser and CG&E procurement policies without any substantiation and thus presents no specific matters to which a response can be addressed. No particular hardware problem or violation of Code requirements or QA procedures at Zimmer has been alleged.

In general, procurement requirements vary according to the material, system or service being procured. In some circumstances, the purchase of commercial off-the-shelf items is acceptable. Without knowing, however, what specific material or component is the subject of the allegation, no further response is possible. Mr. Griffin's listing of steps for "a proper independent inspection system" are his version of QA program requirements needed to comply with 10 CFR 50 Appendix B. In practice, purchase orders to vendors would normally detail the QA



program requirements, including inspection requirements for specific equipment.

ALLEGATION 83

"CG&E's policy of performing only superficial receipt inspections for identification and transit damage illustrates further deficiencies. Kaiser decided to go beyond the usual surface inspection on the Nash condenser...Mr. Griffin broke the seal...he saw the motor had broken off...(Id., at 5)"

Response:

Petitioner's allegation of superficial receipt inspections, as taken from Mr. Griffin's affidavit (Attachment 67), is denied. Limiting the scope of receiving inspection to identification of the shipment involved, transit damage, and receipt of quality documentation is a fully acceptable practice.

S&L purchase specifications that cover Class I or Essential work provided detailed specifications which required the quality of materials and equipment to be fully documented. Such documentation was further required to be forwarded with the shipment. Receiving inspectors, while not required to perform testing or inspection activities, would verify the shipment integrity and receipt of the quality documentation. Identification of the shipment and related Quality documentation is adequate to receive the shipment and place it under warehouse control. Thus, final approval of quality documentation was not a part of Kaiser receiving inspection as explained in CG&E's response to Allegation 80.

Petitioner's assertion that Kaiser's inspection of the Nash condenser was a decision "beyond the usual surface inspection" is wholly inaccurate. As noted above, opening the shipping package for assessing possible shipping damage is not an unusual occurrence. Moreover, in this particular case it was necessary to

implement specific storage instructions for this item. The Nash condenser vendor supplied storage instructions which required opening the shipping crate and performing various storage inspection checks while under warehouse control. It was in complying with these storage instructions that Kaiser discovered the damage to the equipment. An appropriate Nonconformance Report was prepared and the damaged item was returned to the manufacturer.

ALLEGATIONS 84 AND 246

In Allegation 84 and Allegation 246, petitioner refers to Attachments 61 and 195A which are the same newspaper article reporting remarks by Mr. Dickhoner.

84. "CG&E's President, William J. Dickhoner [sic], still does not believe source inspections were ever necessary...As Mr. Dickhoner stated publicly last month, 'I don't think there was anything sinister in telling people who are working for us how to proceed. They were traipsing all over the country on junkets that weren't required.' (Attachment 61 supra.)"
246. "History has shown that Mr. Borgmann was penny-wise and pound foolish, but there is no evidence that CG&E's commitment has changed. For instance, a June 9, 1982 news article (Attachment 195A) reported CG&E President Dickhoner's current position on independent quality verification of vendors one of the most fundamental early mistakes.

'Dickhoner was particularly incensed about charges that CG&E acted improperly when he refused to allow Kaiser to make independent inspections of material suppliers approved by CG&E...

'They were traipsing all over the country on junkets that weren't required. They've got qualified nuclear inspectors in these shops. What good would it have done other than to run up the cost to send another inspector?'

Response:

CG&E has already responded to petitioner's allegations regarding its QA Program for vendors, in particular, in response to Allegations 73 and 74 where vendor qualification surveys are discussed. As noted the Company's position on source inspections is explained in the responses to Allegations 73 and 74. Petitioner's characterization of Mr. Dickhoner's statement is incorrect and also mis-states CG&E's position.

ALLEGATION 85

"Even when Kaiser or CG&E management conceded that required source inspections were skipped, corrective action has been limited to future purchases. At least in some cases, items previously purchased without required inspections will be allowed to remain in the plant with their quality unverified. (See, e.g., a June 5, 1981 Kaiser CAR enclosed as Attachment 68.)"

Response:

Attachment 68 to this allegation is a copy of a Kaiser Corrective Action Request (CAR-12), which reviewed steel plates fabricated by Stacey Manufacturing Company from materials supplied to Stacey by Kaiser. The requirements and specifications for this work are covered by Kaiser Purchase Order No. 7070-41719. CAR-12 addressed the problem of a supplier's noncompliance with the purchase order requirement for source inspection prior to shipment. Corrective action was verified and accepted by the preparer of CAR-12, which was closed on July 8, 1981.

The quality of the Stacey work was verified through the receiving inspection performed in accordance with QACMI G-3, Rev. 10, at the site when the shipment was received. The supporting documentation for this verification, including the Material Received Report No. 68580, CAR-12, and the purchase order have all been reviewed and approved by Quality Engineering personnel. The quality of the work performed on material supplied by Stacey covered by CAR-12 has therefore been verified.

ALLEGATION 86

"CG&E is reluctant to make retrograde repairs, in part, because it may lose warranties on the product.... As Mr. Griffin explained, 'Now CG&E cannot disassemble the components, parts and materials to do the inspections that should have been done at the hold points. It would lose the warranty. Nevertheless, this step must not be skipped.' (Attachment 67, supra, at 6-7.)"

Response:

This allegation involves wholesale conjecture that CG&E may be reluctant to make unspecified retrograde repairs on certain vendor materials such as valves, also unspecified, because of a concern over warranties. It is totally lacking in any specificity to which CG&E can respond. CG&E will perform required inspections and complete required repairs without regard to potential loss of warranty.

ALLEGATION 87

"...Mr. Griffin pointed out that 'frequently the paperwork was not even checked for up to 1½ years.' (Id., at 3.) The Nolder Report revealed that the review procedures, and resulting documentation...do not represent compliance with the QAP requirements...question their validity as well as the qualifications of personnel generating and approving them...'...heat numbers for both essential and non-essential items have been grouped together, and non-essential items were approved for essential use. (Attachment 41, supra, at 3, 9-10.)"

Response:

Neither his own affidavit nor Attachment 41 supports Mr. Griffin's allegation that "[f]requently the paperwork was not even checked for up to 1½ years." Currently, Kaiser Quality Records Management is performing a review of documentation prior to turnover to CG&E. The CG&E Documentation Verification Group is then responsible for performing further review and final acceptance of all quality assurance documentation.

Petitioner's citation from Attachment 41, Section VII, deals with purchase requisitions and receiving inspection plans. This attachment has been investigated and although some ambiguities were observed in regard to the format of purchase requisitions, deficiencies were not found to have existed in the review and approval cycle for purchase order quality requirements. In any event, it is denied that these records do not represent compliance with QAP requirements or that their validity is questionable. Kaiser Quality Records Management Group is currently reviewing the material requisitions and purchase orders and is verifying that quality requirements have been met. Also, a review of prior and current procedures for the completion of purchase requisitions demonstrates that Kaiser prepared and

reviewed those purchase requisitions in accordance with quality assurance procedure requirements.

The matter of proper recordation of heat numbers has been previously discussed in response to Allegation 47. Kaiser Records Department is currently compiling a computerized heat number log which will be used in the future to verify heat number identities. In addition to heat number identification, the log will designate code class and essential or non-essential categories.



ALLEGATIONS 88 AND 89

88. "...The Nolder Report found that 80 to 90 percent of structural materials were purchased as non-essential and later upgraded '...CG&E directed that structural materials be purchased as Non-essential and later upgraded to Essential...' (Id., at 3.) Mr. Griffin...'release it from the non-essential materials stockpile and in effect upgrade it...'...(Attachment 67, supra, at 3)...W. W. Schwierts instructed Mr. Friedrich to stop requesting 'Certificates of Compliance' for non-essential components...(Attachment 69)"
89. "Essential materials...very stiff requirements...bought from approved vendors...heat traceability and material certificates...significant defects...must be reported to the NRC under 10 C.F.R. Part 21...(Attachment 41, supra at 3-4.) In effect, the CG&E upgrading program bypassed the...QA Program for essential material purchases."

Response:

Allegation 88 cites Attachments 67 and 69 in discussing the practice of purchasing materials as non-essential purchases and subsequently upgrading them to essential construction. Allegation 89 simply restates the requirements for the purchase of essential materials and concludes with a general reference to Attachment 41 to repeat Allegation 88. Shorn of rhetoric, these allegations simply assert that a significant percentage of structural materials were upgraded. No particular hardware problem or violation of QA procedures is alleged.

As to the specific items, it is denied that Attachment 41 "found" that 80 to 90% of the structural materials were purchased as non-essential and later upgraded as alleged by the petitioner. Attachment 41 "estimated 80-90% of structural materials (including beams, plate, shapes, angles and bars) were purchased Non-Essential and later issued and/or used as essential materials." A review of structural material purchase orders has been performed as a part of QCP Task III to determine the extent of

the upgrading and based on review work completed to date has found the 80-90% estimate to be totally unrealistic. A program under Quality Confirmation Program Task III has been developed to verify acceptability of all structural steel material for essential applications. This program has identified the purchase orders involved and will continue until all upgraded structural material has been verified for essential application.

It is denied that Mr. Schwiers' instructions (Attachment 69) to "stop requesting Certificates of Compliance for non-essential components" in any way supports petitioner's allegations on the upgrading of structural materials. There is no requirement in 10 CFR 50 Appendix B that Certificates of Compliance be obtained for non-essential components.

As noted, the numerous comments by petitioner in Allegation 89 which restate 10 CFR Part 50, Appendix B requirements for the purchase of essential materials wholly fail to present any specific matters to which a response can be addressed. Petitioner's reference to Attachment 41 in Allegation 89 is a repetition of the discussion in relating to the upgrading of structural materials, answered in CG&E responses to Allegations 47 and 87.

ALLEGATION 90

"...CG&E directed Kaiser to change all NR's written on vendor purchases to Inspection Reports ('IR'), if the purchases were returned to the vendor before installation...(See Attachment 70) for three examples of an Inspection Report...Impossible to compile accurate 'percent defective statistics' on outside vendors. (Attachment 67, supra at 4.)"

Response:

There is no basis for petitioner's subjective inference that the use of Inspection Reports rather than Nonconformance Reports for noninstalled vendor purchases was an attempt by CG&E to prevent Nonconformance Reports from being shown to the Nuclear Regulatory Commission. In fact, it was not a requirement in 1973 to send copies of Nonconformance Reports to the Nuclear Regulatory Commission. Nonetheless, it has always been clearly understood by CG&E that the NRC has access to Zimmer Quality Assurance Records at all times and does review Nonconformance Reports and Inspection Reports. Inspection Reports do not require Material Review Board Approval since, by definition, the deficient material or component is being returned to the vendor and is not being installed at Zimmer. Such returned items therefore cannot possibly affect any safety related function of the plant.

The documenting of deficiencies on Inspection Reports for items returned to the vendor provides a fully adequate record of the condition which has been identified and the applicable supplier.

ALLEGATION 91

"...Vendors with...deficiencies passed through CG&E and Kaiser's Quality Assurance Program. Mr. Nichols recalls that in the early seventies, he had temporarily shut down the Bristol Plant...(Attachment 38, supra, at 2.) And IE Report No. 50-3-58/81-13 listed noncompliances involving Bristol Steel purchased for the containment in the early seventies. (7.1.8) Yet Bristol Steel and the welds for structural steel in the containment are also a major focus of the Quality Confirmation Program, Tasks I and X."

Response:

CG&E cannot respond to Mr. Nichols' account of his experience with Bristol Steel prior to his employment at Zimmer. However, whether Mr. Nichols "closed down" another Bristol Steel project in the early 1970's for inadequate welding procedures is not determinative of the quality of Bristol Steel's work in connection with the Zimmer Project.

NRC IE Report No. 81-13 reviewed the control of structural hanger steel beams and beam welds and reported items of apparent noncompliance at Section 7.1.8. As the allegation itself states, the concerns identified by this section are being fully addressed by the Quality Confirmation Program under Tasks I and X. The activities and progress accomplished under Quality Confirmation Program Tasks I and X have been reviewed with the Nuclear Regulatory Commission.

ALLEGATIONS 92 AND 181

92. "The May 12, 1982 ASME interim report cites numerous deficiencies for the LaBarge Corporation. The ASME team also disagreed with the 'Accept-As-Is' disposition for Kaiser NR's that identified the same problems. The ASME team warned, 'The National Board Audit Team believes that similar problems exist in all Section III materials provided by LaBarge and possibly other suppliers. This should be resolved by Kaiser.' (Attachment 37, supra at 11.)."
181. "...the May 12 report from the ASME survey team (Attachment 37, supra) examined an NR that had been dispositioned 'Accept-As-Is.'...The Survey Team concluded, 'It is the opinion of the National Board Audit Team that disposition 'Accept As Is' documented NR No. E3633 R1 appears invalid based on the above-listed apparent nonconformance with Section III requirements.'"

Response:

These two allegations deal with the National Board Report finding that Kaiser made purchases of ASME Code Section III materials from manufacturers or suppliers that had not been approved by Kaiser. Allegation 92 restates the National Board Audit Team summary of this concern regarding LaBarge and possibly other suppliers. Petitioner restates in Allegation 181 that the National Board Audit Team (not ASME Survey Team as alleged) has identified Kaiser Nonconformance Report No. E-3633R1 and expresses petitioner's concern that the disposition of "Accept As Is" may be invalid. This Nonconformance Report involves LaBarge code material suppliers which may not be qualified. CG&E has established NBT-3 Task Force to evaluate these National Board concerns and to resolve all deficiencies that may result from this review. The Task Force will review LaBarge and all other suppliers of Code Section III Materials to the Zimmer Site.

Findings of the Task Force regarding Nonconformance Report E3633 R1 along with all other findings will be documented and made available to the National Board and NRC for review.

QCP Task III and CG&E Document Verification Group is performing a review of Kaiser and CG&E Essential material purchase orders to verify that they meet specification and Code requirements.

ALLEGATION 93

"ASME's fears had already been documented in internal Kaiser Reports that were disregarded. The reports indicated Kaiser knew in 1976 that 400 ft. of LaBarge-purchased pipe was originally obtained from an unapproved vendor...Mr. Friedrich then voided the resulting NR. On January 30, 1982 a new NR was written for the same piping. (See Attachment 71...)"

Response:

In 1982, Kaiser and CG&E undertook a comprehensive review of all purchase orders for essential materials to verify that the materials were obtained in compliance with applicable requirements and, where deficiencies were identified, to implement corrective actions necessary to satisfy all applicable requirements. Under QCP Task III and CG&E Document Verification Group, a review of Kaiser and CG&E Essential material purchase orders is being performed to verify that these purchase orders meet specification and Code requirements. The program of purchase order review is not yet completed, but as a part of that review, Nonconformance Report E-4179 (Attachment 71) was reissued as NR E-4179 Rev. 1 on March 5, 1982. At the present time, work is in progress on completing disposition and disposition instructions for this Nonconformance Report. If the disposition ultimately so requires, the material will be removed and replaced with acceptable ASME material. No further corrective action is required.

ALLEGATION 94

"Zimmer did not participate in the vendor QA standards of the nuclear industry. As a result, any corrective action will have to be comprehensive. As Mr. Griffin summarized: On balance, the significance of my affidavit is that the quality control program for vendor purchases has failed... (Attachment 67, supra, at 6)"

Response:

This allegation merely summarizes petitioner's previous allegations that materials have been supplied to Zimmer from unapproved vendors. As the answer to Allegation 93 explains, QCF Task III is currently reviewing purchase orders for essential safety-related material in order to verify compliance with requirements. In addition, the method by which vendors were placed on the Kaiser AVL is also being evaluated by Kaiser's AVL Task Force to determine conformance to ASME and NRC requirements. Nonconformances identified by these reviews are being reported and dispositioned in accordance with applicable QA procedures.



ALLEGATION 95

"Most of the criteria of 10 C.F.R. Part 50, Appendix B, stem from Criterion I - Organization, and Criterion II - Quality Assurance Program ('QAP')...Criterion I also describes the premise that provides legitimacy to a licensee's QA Program...At Zimmer CG&E policies dominated these premises, and in the process took the rest of the Quality Assurance Program step-by-step."

Response:

This statement is a summary of 10 CFR Part 50, Appendix B, Criteria I and II. There are no statements within this allegation that relate to construction at Zimmer which warrant a response. The last sentence is unintelligible, but appears to be so vague that a meaningful response would not in any event be possible.

ALLEGATION 96

"The premise for quality assurance at Zimmer...at the maximum, do the minimum...violations of minimum government and professional requirements were common...(Attachments 67, 72, 73)...Three CG&E and one Kaiser official signed an order that certain preoperational testing 'shall not require certification by Henry J. Kaiser that all construction QA documentation has been reviewed' (Attachment 74)...In other cases, CG&E simply relieved Kaiser entirely of QA responsibilities,...(Attachment 75) The CG&E policy was to let supposedly sound construction industry practices govern quality assurance for all non-class I safety-related items instead of nuclear-related regulations..."

Response:

Petitioner confuses the reader by interrelating different issues and time frames within the same allegation. The issues here are: whether CG&E has complied with QA requirements on the Zimmer Project and what "Classes" are subject to QA. The time frame referenced extends from 1971 to 1980 during which the criteria of 10 CFR 50 Appendix B were introduced and the definition and implementation of quality assurance requirements related to nuclear facilities expanded at an unprecedented rate.

The referenced 1971 letter (Attachment 72) from CG&E to Kaiser provided an interpretation of the then current regulatory requirements related to quality assurance which would have to be met on the project. At that time, classifications related to quality assurance were just being formulated. In this allegation, petitioner incorrectly interprets the term "Class I" referred to in the letter. Article D.6 of the Zimmer PSAR, which was the controlling document, defined Class I as follows:

"D.6 APPLICABILITY OF QUALITY ASSURANCE PROGRAM TO COMPONENTS, SYSTEMS, AND STRUCTURES"

"The equipment, systems and structures listed in Table D.6-1 and Table D.6-2 are those assessed as being essential to the prevention of accidents which could affect the public

health and safety or to mitigation of their consequences. Each item in Table D.6-1 and D.6-2 will be subject to the quality assurance program designated in this Appendix D.0, and all such essential items are designated as Class I equipment or structures for seismic evaluation..."

The allegation is thus incorrect in concluding that "the QA Department has responsibilities beyond Class I. The codes direct that the QA effort apply to Class I, II, and III items without exception." Petitioner fails to distinguish between Class I as defined in the PSAR and Safety Class 1, 2, and 3 as defined by ANSI-N18.2 for Structures, Systems and Components. Zimmer project QA requirements are developed in accordance with the PSAR and ANSI-N18.2 and are not applied "without exception" as petitioner alleges.

The allegation also attempts to establish an omission in the Zimmer Quality Assurance Program by citing a CG&E/Kaiser November 1980 instruction that certain preoperational testing "shall not require certification by Henry J. Kaiser that all construction QA documentation has been reviewed." (Attachment 74). Article 14.1.3.2 of the Zimmer FSAR provides for this procedure as a controlled process by stating:

"Some systems may be turned over for preoperational testing with existing deficiencies in construction or documentation. When this occurs, these deficiencies are listed on the subject system's punchlist and those affected portions of the preoperational test are not conducted until the deficiencies are resolved."

Further, the Zimmer Start-up Manual, System Verification 6.3.2 at C Rev. 5, stipulates that systems do not receive final certification until all preoperational tests are completed. This program, therefore, assures that documentation will be reviewed before final system certification.

Finally, petitioner erroneously alleges that "CG&E simply relieved Kaiser entirely of QA responsibilities, such as when it replaced Kaiser on October 19, 1976 for the Electric Operating Test Department Program. (Attachment 75)." Kaiser did not have responsibility for the activities performed by the Electric Operating Test Department and, therefore, was not "relieved" of this responsibility as characterized by the allegation. Kaiser does not have QA responsibility in all areas of the Zimmer Project and instructions, such as Attachment 75, were provided to delineate these areas of responsibility. In the case of Attachment 75, the Electric Operating Test Department has its own procedures, operates under CG&E's Corporate QA program, is fully qualified to do the electrical testing work and was given that assignment.

ALLEGATION 97

"CG&E policy...defeated...organizational independence and authority for QA personnel...the program had operated illegally for ten years...subordination of QA...was not an isolated occurrence...construction did not fear to threaten QA inspectors...(Attachment 76.) For another example (Attachment 77)...field instructions and procedures for inspections...allow construction to decide when and if the QA program would be applied...CG&E repeatedly forbade Kaiser from extending QA field procedures to installation work, and discontinued QA procedures that covered installation. (Attachments 78A-C)...Mr. Pandorf extended the Construction Department's control to non-conformance reports..."

Response:

Lack of independence of the Kaiser QA Program from cost and schedule was discussed in findings made in IE Report No. 81-13 at Section 6.1. QA independence was also an issue in the April 8, 1981 Immediate Action Letter, Item 2 entitled "Concerning Independence and Separation Between Kaiser Construction and Kaiser QA/QC" which stated:

"CG&E will take action by April 15, 1981, to assure independence and separation of the QA/QC function performed by Kaiser from the construction function. Region III will be informed of actions taken."

For various reasons, CG&E did not contest these findings and took corrective measures including significant changes in corporate structure which were judged to be appropriate by the NRC.

ALLEGATION 98

"The painting foreman and the craft superintendent can perform the necessary inspection...This policy institutionalizes conflict of interest...and is incompatible with 10 CFR 50 Appendix B...(Attachment 80)."

Response:

This allegation takes a statement out of context from the Van Veen letter (Attachment 80) in an attempt to show subordination of site QA to construction personnel. The sentence from which the statement is taken relates to a discussion of Coating Inspection in Service Level II Areas.

Sargent & Lundy design specifications for Coating Work define Coating Service Level II Areas as other than Essential Coating Areas, which are therefore not subject to 10 CFR 50 Appendix B requirements. Thus, the use of the painting foreman and craft superintendent to perform the necessary inspection is not inappropriate.

ALLEGATION 99

"...(Attachment 81) Harpster explained the effects of financial and time pressure from the construction department on a QC program that lacks independence...Mr. Jagger's report...described the current status: 'Persons performing Quality Assurance program inspections [at Zimmer] were not being provided the required freedom and authority to initiate quality control functions.' (Attachment 32)...Kaiser also adopted an IIDR system which reaffirms the superior authority of construction to thwart QC inspectors from correcting identified deficiencies to their satisfaction." (Infra, at 71.)

Response:

The first part of this allegation asserts a lack of independence of the Zimmer quality program based on a quotation from a NRC/OIA March 1981 interview with NRC representative Mr. Harpster (Attachment 81.) No specific details are provided to support Mr. Harpster's opinion. Under these circumstances, the only reasonable response is that Item 2 of the IAL, which was issued after Mr. Harpster's interview, addresses the concern of QA independence from construction and corrective action has been taken.

The National Board December 9, 1981 letter (Attachment 32), also cited by petitioner, likewise provides no specific details to which a response can be made. This concern of independence and separation between Kaiser Construction and QA/QC was discussed in Section 6.1 of IE Report 81-13 to which CG&E responded on February 26, 1982.

Finally, it is denied that the IIDR system was adopted "to thwart QC inspectors from correcting identified deficiencies. Responses to Allegations 169 through 172, infra, address the use of the IIDR system within the Zimmer QA Program. No additional corrective action is required.

ALLEGATION 100

"...Kaiser QA did not have organizational independence from CG&E. CG&E attempted to control official communications between the Kaiser Site and Corporate QA Offices (Attachment 82)...CG&E policy...violated 10 CFR Part 50, Appendix B Criterion I..."

Response:

Criterion I of 10 CFR Part 50, Appendix B is quoted as requiring "sufficient independence from cost and schedule" as well as "direct access to such levels of management as may be necessary to perform this function." Attachment 82, wherein Mr. Schwiers is asking Kaiser in his May 23, 1975 letter not to send procedures to Oakland for approval because it delays use of the procedure, did not violate this criterion. Mr. Schwiers' request was authorized by the provisions of the Kaiser Quality Assurance Procedure No. 2, which provides for "CG&E Quality Assurance Direction" as follows:

"Any direction from CG&E to KEI concerning the implementation of the quality assurance program which represents an increase in scope or change in those functions and procedures set forth in the KEI Quality Assurance Manual shall be delineated in writing from the CG&E Principal Quality Assurance and Standards Engineer to the KEI Quality Assurance Manager..."

Far from any undue interference or infringement upon Kaiser's "organizational independence" to implement a satisfactory quality assurance program, as alleged, CG&E's letter attempted to provide direction to Kaiser in the manner stipulated in procedures.

Further, it is important to identify the type of procedures being discussed in Attachment 82. The subject of Mr. Schwiers' letter shows he was referring to "Miscellaneous Procedures" and the body of the letter further identifies them as "Welding,



Non-destructive Heat Treating, and Similar Special Process Procedures..." Such procedures were developed on site by Kaiser QA and Construction engineers, approved by the Kaiser site QA Manager, and were then being sent by Kaiser to its Oakland headquarters for additional review. In CG&E's opinion, no benefit was derived from the Oakland review and Mr. Schwiers was objecting to the delay that was being experienced in this review process which prevented the use of these procedures. Significantly, on December 1, 1981, Kaiser delegated the authority for Corporate QA approval of Zimmer Project Welding Procedures (Special Process Procedures) to the Site Quality Engineering Manager for the current revisions and reapproval of selected procedures.

A review of welding procedures is part of Task II of the Quality Confirmation Program.

ALLEGATIONS 101, 102, 103, 104, AND 105

Allegations 101 through 105 deal with the size of the Kaiser Quality Assurance Staff.

101. "...Criterion I recognizes it is not possible to have a sound QA program without an adequate staffing level. Until April 8, 1981, CG&E refused to honor this rule, despite...pleas of Kaiser QA Managers." (Attachments 83, 84, and 85)
102. "On December 9, 1974, Kaiser requested 23 additional non-manual personnel. On January 15, 1975, CG&E's Earl Borgmann agreed to hire 5 or possibly 6." (Attachment 86)
103. "Internal Kaiser memoranda from later in 1975 indicate that Mr. Borgmann was hoping for a miracle." (Attachments 87, 88, and 89)
104. "QA Staffing remained substandard....Other nuclear construction sites have substantially larger QA Staffs to perform their responsibilities." (Attachment 90)
105. "Kaiser's request for an adequate number of inspectors continued to fall on deaf ears until the NRC's April 8, 1981 Immediate Action Letter." (Attachments 9 and 17)

Response:

Collectively, these allegations charge that CG&E prevented Kaiser from maintaining an adequately sized QA Staff on the Zimmer Project prior to the NRC's April 8, 1981 Immediate Action Letter. CG&E denies this charge. It was the size of the CG&E QA organization, not that of Kaiser, that was an issue in the NRC's Immediate Action Letter (IAL). Specifically, Item 1 of the IAL requires that "CG&E will increase the size and technical expertise of the CG&E QA organization." The size of the Kaiser QA organization was increased in the period following the IAL, but this was a result of restructuring that organization to strengthen the management and supervision of the QA/QC activity and to

support the added effort required by the dual inspection and document review programs.

Petitioner's subjective characterizations of Kaiser inspector staffing levels are unsupported. In any event, there is no requirement limiting any given number of construction craft personnel to the number of available QA/QC inspectors as implied in Allegation 104. As would be expected, there were differences of opinion between Kaiser and CG&E in this matter as evidenced by some of the attachments provided with the petition. In the final analysis, Kaiser QA/QC did control the rate at which work was accepted, thereby controlling the rate at which construction proceeded.

In Allegation 105, Mr. Tyner's affidavit (Attachment 17) provides no specific details about particular occasions where construction activity was delayed because of the purported unavailability of QA personnel. Even so, the affidavit demonstrates that inspection requirements were being followed.

The size of both the CG&E and Kaiser QA organizations have greatly expanded since April, 1981. This is partly due to the more rigorous QA program required to support ongoing work, and it is also required to implement the Quality Confirmation Program reviewing construction to date. The ongoing review of quality documentation will verify that all required inspections have been performed, or appropriate action taken to resolve instances where the records do not so reflect. No additional corrective action is required.

ALLEGATION 106

"The QA short-staffing at Zimmer extended beyond Kaiser, even to the number of Authorized Nuclear Inspectors ('ANI') available to enforce the American Society Mechanical Engineers ('ASME') code..." (Attachment 32)

Response:

This allegation refers to a December 9, 1981 National Board letter (Attachment 32). Petitioner has taken a statement from the letter out of context to imply inaccurately that CG&E deliberately avoided employing a sufficient number of Authorized Nuclear Inspectors.

During construction at Zimmer, the ANI has been employed by the constructor, Kaiser. The ANI is retained from a qualified agency in order to certify that components, parts, appurtenances, piping subassemblies and/or materials comply with the requirements of the applicable section of the ASME code and local laws. Therefore, the scope of the ANI's responsibility is limited to certain parts of the project and the requirements for the inspector's services are determined by the amount of activity in those areas of responsibility at a given time. Investigation shows that there was communication between Kaiser and the ANI Agency to coordinate the ANI requirements. At times during the course of this project, due to high levels of demand for these inspectors throughout the nuclear industry, they were not always readily available. In such cases, the rate of work done which requires inspection is controlled by the availability of inspectors. The document review currently underway will assure that an ANI's certification has been obtained where required.

As a separate issue, it is acknowledged that Finding 2.5 of the National Board Audit Report suggested that CG&E retain inspection services from an Authorized Inspection Agency (AIA) to audit or monitor "CG&E activities in the compilation of Code required documents for completion and certification of the N-3 Data Report Form(s)". CG&E has initiated National Board Task 5 and is pursuing contract negotiation with an AIA.

No further corrective action is indicated.

ALLEGATION 107

"Although staffing levels are adequate since the Immediate Action Letter, that does not compensate for the effects of drastic short-staffing for a decade...The deficiency throws the quality of all inspections into question and dictates that current 'confirmation' reforms must be comprehensive."

Response:

This statement is a generalized conclusion without sufficient substantiation. There are no specific matters to which a response can be addressed. CG&E has implemented a number of actions such as the Quality Confirmation Program which will assure that the Zimmer Station has been constructed so as to meet all regulatory requirements. Coordination of these activities with the NRC as well as its licensing review to assure compliance with all requirements of 10 CFR 50, Appendix B, will necessarily render all confirmation actions "comprehensive."

ALLEGATIONS 108 AND 111

Allegations 108 and 111 are grouped in this response because they deal with training activities prior to the April 8, 1981 Immediate Action Letter.

108. "...QA personnel must be properly trained and qualified. Again minimum requirements were not met....(Attachment 91)...The hesitation to fully train QA personnel turned into a long pause." (Attachment 92)
111. "Mr. Harpster described the net effect of combined construction, financial pressure and untrained personnel--disintegration of the QA effort..." (Attachment 81)

Response:

Item No. 5 of the April 8, 1981 Immediate Action Letter entitled "Concerning Training" stated:

"QA/QC personnel at the Zimmer Site will receive training on any new procedures and practices resulting from actions taken to fulfill provisions of this letter prior to implementation of the procedures. In addition, refresher training will be given prior to June 1, 1981 on (a) the identification and documentation of nonconformances, deficiencies, and problems, (b) the procedure for resolving nonconformances, deficiencies, and problems, (c) the feedback mechanism for informing the identifying individual of the resolution of the nonconformance, deficiency or problem and (d) the avenue of appeal should the identifying employee disagree with the adequacy of the resolution."

For various reasons, CG&E did not contest the issue of prior inadequate training contained in the Immediate Action Letter. Subsequently, a rigorous training program related to Quality Assurance has been conducted on the Zimmer Project, subject to NRC review.

ALLEGATION 109

"The inadequate training program has persisted since the Immediate Action Letter, negating the effect of personnel increases...a November 24, 1981 CG&E Corrective Action Report (Attachment 93) identified...'[f]ailure to train inspectors adequately prior to performing inspection,'...violated ANSI Standards and the Region III IAL. Item 5."

Response:

This allegation charges that the QA training program was inadequate after the Immediate Action Letter, citing issuance of CG&E Corrective Action Report 81-29 (Attachment 93) in November 1981. This same report is cited in Allegations 125 and 133.

As part of its response to the IAL, CG&E committed to review "all QC inspection procedures" for adequacy and to provide training for inspectors in the procedures as reviewed and revised. CAR 81-29 found an instance where there was no record to show that inspectors had been trained to four Construction Inspection Plans (CIP's) and these procedures were used prior to formal approval.

In response to CAR 81-29, the four CIP's were reviewed by Kaiser. One had been revised, but no changes had been made to essential inspection requirements and it was deemed acceptable. The other three CIP's were subsequently modified, inspectors were trained to the revised procedures, and the work was reinspected. In addition, the applicable procedures regarding issuance of and training to CIP's were modified to require review by CG&E and training prior to the effective date of the CIP. CAR 81-29 was closed by CG&E on August 23, 1982.

CG&E denies the allegation of an "inadequate training program" by noncompliance with the Immediate Action Letter. As



noted in the response to CAR 81-29, from the IAL to December 1981, over 140 QC inspection procedures were reviewed by Kaiser and submitted to CG&E for its review and concurrence, and more than 250 training sessions had been conducted. The four isolated instances identified in CAR 81-29 do not establish inadequacy of a training program on a project the scale of Zimmer. To the contrary, CAR 81-29 illustrates an effective QA surveillance program. The NRC routinely audits various site activities, including training. For example, IE Inspection Report 82-01, page 16, Item 5 entitled "Review of Immediate Action Letter Required Training" reviews training records on five separate procedures and does not identify any items of noncompliance. IE Inspection Reports 81-19 and 82-06, as well as others, provide examples of the NRC audit of Zimmer training activities. No items of noncompliance are noted.

ALLEGATION 110

"...Semi-annual Management Audit (Attachment 94) revealed, the problem persists. The audit found 'no objective evidence...that NED (Nuclear Engineering Department) personnel are being indoctrinated, trained, qualified, or certified in accordance with procedural requirements....Richard Reiter says his NED training was almost non-existent.'" (Attachment 23)

Response:

This allegation switches focus from the training of QA/QC personnel to the training of personnel in the Nuclear Engineering Department (NED). The allegation charges that a management audit report found "no objective evidence" of training and that Mr. Reiter claimed training was "almost non-existent."

The referenced Audit Finding Report No. 82-1-1 (Attachment 94) identified a deficiency in the "training documentation" of NED personnel. It did not say training was not being provided as alleged. Training classes were being conducted in NED which included indoctrination in Owner Project Procedures, various technical areas, related quality assurance subjects and general site activities. Signed attendance sheets identifying the class period and course of instruction show that adequate training was provided. These documents specifically reflect that Mr. Reiter attended many classes, some of which were a full day in duration. Fifty-four training classes were conducted in NED between September 1981 and November 1982. The charge that NED training was "non-existent" is denied.

Further, Mr. Reiter's particular charges are without basis. First, there was no set commitment to weekly training sessions. Secondly, the records show that Mr. Reiter was given specific training in codes related to piping work, Owners' Project

Procedures, safety concepts related to regulatory guides, and other activities that were related to his job functions. Mr. Reiter was hired as a draftsman in NED to prepare drawings in connection with testing and balancing the heating, ventilating and air conditioning systems at the Zimmer Plant. He came to this job with demonstrated drafting skills and was under the direct supervision of a registered engineer who checked his work. Mr. Reiter's limited job functions under these conditions did not require additional job skill training. Instructors who taught Mr. Reiter advise that he did not indicate concern about any training associated with his job despite requests for such feedback.

Mr. Reiter's criticism of the brief training session on ZAPO-5 QA Procedure failed to point out that this was part of an information program intended only to acquaint NED personnel briefly with new procedures or similar developments that were occurring in other areas of the site operations. Thus, the class was not intended to be a detailed training in that procedure alone.

The cited Audit Finding Report has been closed out with the implementation of acceptable documentation of training activities in NED. No further corrective action is required.

ALLEGATIONS 112 AND 114

These allegations are grouped because they both deal with alleged training utilizing "wrong" or "outdated" procedures.

112. "Even when training sessions were conducted, sometimes the classes taught the wrong procedures...the procedures used to certify Level I and Level II Document Reviewers...did not even meet ANSI Standards." (Attachment 38)
114. "As with training, personnel were qualified to outdated QA procedures." (Attachment 38) "According to a February 4, 1981 Kaiser Memorandum...the problem of being trained to improper procedures existed at every one of the 16 training classes Mr. Shinkle attended. (Attachment 97.)"

Response:

Allegation 112 is based on a June 7, 1982 letter from Mr. J. M. Nichols to Dr. Henry Meyers of Congressman Morris Udall's staff. Mr. Nichols "worked at Zimmer on and off from November 1981 until May 1982" (Attachment 38) for Kaiser in various jobs. His allegation charges that some training classes "taught the wrong procedures" is not sufficiently specific to permit a response. However, Kaiser has taken several steps to insure that proper procedures are taught in training courses. There is a designated Training Coordinator who has overall responsibility for the training program. Instructors are required to prepare lesson plans for each formal class they give. In addition, the Training Coordinator monitors the performance of instructors to insure that classes are conducted in a professional and consistent manner. Each class is normally evaluated by the class participants and these evaluations are available for review by the Training Coordinator and the QA Manager.

GQP (General Quality Procedure) 13, Rev. 4, details current procedures for indoctrination and training of QA/QC personnel. Section 4.1.3 of GQP-13, Rev. 4, requires that indoctrination classes, given to all new Kaiser employees within 60 days of their date of hire and prior to the performance of quality related functions, cover at a minimum the following subjects:

- (a) The requirements of 10 CFR 50, Appendix B; 10 CFR 50.55(e); and 10 CFR 21;
- (b) Kaiser's Quality Assurance Program;
- (c) Familiarization with Project Directives and implementing procedures for specific work assignments; and
- (d) An explanation of CG&E contractual quality requirements.

Following indoctrination, initial training, and certification, QA personnel receive continuing training in the QA program to insure that they are familiar with all procedures as they are revised. Section 4.5.1 requires that certified QA personnel "[r]eceive training (formal and informal) on any new or revised procedure, within area of certification, prior to the implementation or use of that procedure." Section 4.5.4 requires Department Managers, Supervisors, and Leads to "[r]eview the training status, as reported, and verify that assigned personnel are trained to a procedure prior to use." These provisions of GQP-13, Rev. 4, were contained in all prior revisions of GQP-13, which has been in effect since January, 1982, after being established in response to the April 8, 1981 Immediate Action Letter.

Secondly, Allegation 112 charges that procedures used to certify Level I and Level II Document Reviewers did not meet ANSI standards in May, 1982 when Jeffrey Nichols left Zimmer. The relevant ANSI standards on qualifications are contained in ANSI N45.2.6, "Qualifications of Inspection, Examination, and Testing Personnel for Nuclear Power Plants." Section 1.2 of ANSI N45.2.6 sets forth which personnel must be certified as meeting ANSI qualification standards:

"The requirements of this Standard apply to personnel who perform inspections, examinations, and tests during fabrication prior to and during receipt of items at the construction site, during construction, during preoperational and startup testing, and during operational phases of nuclear power plants."

Since Level I and Level II Document Reviewers do not perform inspections, tests, or examinations (as defined by ANSI), ANSI standards do not require that individuals possess any particular qualifications to be certified as Document Reviewers.

Nevertheless, Kaiser does impose minimum qualification requirements on all QA personnel, including Document Reviewers. Document Reviewers are certified to the requirements of GQP-14, Rev. 3, a Kaiser procedure entitled "Certification of QA/QC Personnel." (Mr. Nichols' reference to QRM-14 probably meant GQP-14.) The certification requirements for Document Reviewers contained in GQP-14, Rev. 3, which was in effect prior to May, 1982 when Mr. Nichols left Zimmer, are virtually identical to Kaiser's certification requirements for inspection personnel. Compare, for example, the educational and experience requirements for Document Reviewers (Secs. 3.5.2.2 and 3.5.2.4 of GQP-14, Rev. 3) to the educational and experience requirements for inspection

personnel (Secs. 3.5.2.1 and 3.5.2.3). Thus, Kaiser has not violated ANSI standards in its use of Document Reviewers, and has in fact gone well beyond ANSI requirements in order to insure that those performing quality review of documents are fully qualified for their jobs.

The first part of Allegation 114 also refers to Mr. Nichols' letter (Attachment 38), charging that "personnel were qualified to outdated procedures." It is not clear what petitioner means by "qualif[ying]" QA personnel to a procedure. Before QA personnel are permitted to perform an assignment at Zimmer, they must receive training for that assignment and must be certified as qualified to perform the task. It is unclear whether petitioner is referring to training and/or certification. Attachment 38 makes reference both to training and certification procedures. In any event, the allegation is too broad to answer with any degree of specificity. Kaiser's training procedures, including safeguards to insure that current procedures are taught, are described in detail in GQP-13, discussed above in the response to Allegation 112. Procedures and safeguards for certifying the qualifications of QA personnel are described in GQP-14, also discussed in the response to Allegation 112.

Allegation 114 also quotes a February 4, 1981 Kaiser internal memorandum (Attachment 97) in which Mr. Shinkle stated to his supervisor, Mr. Burgess, that "certain indoctrination and training sessions on procedures (QACMI's and QAP's) he attended show the need for revisions." The memo also expressed the opinion that some procedures did not meet site requirements. The

memorandum did not provide details as to the nature of the alleged deficiencies. On February 5, 1981, Mr. Burgess responded in a memorandum inviting Mr. Shinkle to discuss his concerns. He restated the test against which procedures were to be measured: "[T]he acceptance criteria established by a procedure shall comply with all specifications, codes, and standards required to construct[,] operate or license a Nuclear Power Plant." (Emphasis in original.) Mr. Burgess also pointed out his experience "that as construction progresses, procedures are required to be changed to reflect different levels of acceptance (i.e., Fabrication, Installation, In-process and Final)."

Mr. Shinkle's memorandum was issued shortly before the NRC's April 8, 1981 Immediate Action Letter. Item 4 of the IAL called for the establishment of a program for review and approval of all QC inspection procedures which CG&E immediately implemented. This review has been completed. Further, since procedures are constantly being modified and improved as warranted by experience in working with them, the review sought in Mr. Shinkle's memo has been accomplished. No additional corrective action is required.



ALLEGATION 113

"The approach to qualification standards was also to skirt the minimum. To illustrate, a July 28, 1981 internal Kaiser memorandum specified that CG&E was committed to the 1973 ANSI Standards requiring QA personnel to have high school diplomas. (Attachment 95.) On August 11, 1981, CG&E responded to an NRC request for verification that CG&E met the standards of the Codes to which it was committed. CG&E's response was to dilute its qualification standards and certify individuals without high school degrees. (Attachment 96.)"

Response:

This allegation refers to two documents. The first is a July 28, 1981 internal Kaiser memorandum (Attachment 95) which says in the closing statement: "We must therefore conclude that ANSI N45.2.6-1973, as required by the Owners' FSAR, is the effective standard." This standard, revised in 1978 as described below, required a high school diploma plus one year's experience in quality assurance for certification to Level I capability.

The second reference is an August 11, 1981 letter from CG&E (Attachment 96) in response to the NRC's May 4, 1981 Generic Letter 81-01 addressed "To all licensees of operating plants and holders of construction permits" relative to the NRC's position on the "Qualification of Inspection, Examination, and Testing and Audit Personnel." Specifically, this NRC letter states:

"Regulatory Guide 1.58 endorses ANSI N45.2.6[1978] with certain exceptions. The NRC Staff has determined that the intent of Regulatory Positions C.5, 6, 7, 8, and 10, which provide additional guidance concerning the qualification of nuclear power plant inspection, examination, and testing personnel, should be implemented by all operating nuclear plants and those under construction." (Brackets added for clarification.)

The May 4, 1981 NRC letter requested each licensee to specify its commitment to meet the above requirements, but provided, alternatively: "If you elect not to adopt the methods

given in Regulatory Guide 1.58...describe your alternative methods of complying with 10 CFR Part 50, Appendix B regarding qualification of nuclear power plant inspection, examination, and testing personnel, and qualification of audit personnel, and your schedule for implementing the alternative methods." CG&E's August 11, 1981 letter advised the NRC that these requirements would be met except for regulatory position C.6 of Regulatory Guide 1.58, Rev. 1 which states:

"6. Section 3.5, 'Education and Experience-Recommendations,' of ANSI N45.2.6-1978 states that the education and experience specified are recommendations and that other factors may provide reasonable assurance that a person can competently perform a particular task. The set of recommendations has been reviewed by the NRC Staff and found to be acceptable with one exception. In addition to the recommendations listed under Section 3.5 for Level I, II, and III personnel, the candidate should be a high school graduate or have earned the General Education Development equivalent of a high school diploma. Since only one set of recommendations is provided for the education and experience of personnel, a commitment to comply with the regulatory positions of this guide in lieu of providing an alternative to the recommendations of the standard means that the specified education and experience recommendations of the standard will be followed." [Emphasis added.]

Thus, it is clear the NRC would consider alternative methods for qualifying QA/QC personnel. CG&E's August 11, 1981 letter stated its position to the NRC that "personnel can be certified without a high school diploma or General Equivalency Development Certificate provided they have sufficient experience." The NRC has not indicated any disagreement with this position. CG&E then developed the following alternative which is from Quality Assurance Procedure 02-QA-04:

6.5.5.2 The education requirements of section 6.5.4 above may be achieved through military, industrial, or business training courses; or knowledge gained through work experience. A General Equivalency Diploma is considered to be

equivalent to a high school diploma. Six years of related work experience is considered equivalent to a high school diploma.

Many highly experienced QA/QC personnel in nuclear construction do not have high school diplomas but were pioneers in the development of this relatively young industry. The nuclear industry should not be denied the services of such qualified personnel nor should these individuals be arbitrarily denied their livelihood. This is recognized in ANSI N45.2.6-1978 Para. 3.5, which states "that other factors may provide reasonable assurance that a person can competently perform a particular task." CG&E did not alone propose alternative education/experience requirements as authorized by Reg. Guide 1.58 Rev. 1. At least 12 other nuclear utilities also proposed similar alternatives.

No corrective action is required.

ALLEGATION 115

"The result has been unqualified personnel throughout the Zimmer QA Program. As seen above, co-op students were given key inspection duties..."(Attachment 98) "The questionable qualifications extended to the supervisor (Attachment 16...) and top management levels (Attachment 38...)." "

Response:

The use of unqualified personnel in the Zimmer QA Program was addressed in Item 1 of the April 8, 1981 Immediate Action Letter. Corrective actions by CG&E in response resulted in upgrading QA personnel qualifications and training in both the Kaiser and CG&E organizations. This problem has therefore been fully resolved.

This particular allegation, however, refers out of context to an October, 1976 letter from CG&E to Kaiser (Attachment 98), which requests that an electrical co-op student from the University of Cincinnati, along with an alternate, "be assigned [to CG&E] for use in enforcing quality assurance requirements." This did not result in placing co-op students in "key inspection duties" as alleged. CG&E did not perform routine inspections until after the Immediate Action Letter, which called for 100% re-inspection by CG&E of all new work. CG&E employed co-op students furnished by Kaiser in the Quality Assurance Group only before the Immediate Action Letter and, even then, none of them performed inspection duties.

Investigation into this allegation showed that prior to 1976, Kaiser did employ 9 co-op students who were issued inspector stamps. This practice was stopped after ANSI N45.2.6 was adopted and implemented on the project in 1975-1976. This

Standard established certification requirements for inspectors. In response to a Corrective Action Report (CAR 118), Kaiser is reviewing the certification of all inspectors used on the Zimmer Site, including these co-op students. If an inspector was not qualified for his level of certification, the work which he did will be identified and suitable corrective action taken.

Thus, proper certification of QA/QC personnel is being addressed by CAR No. 118 to retrain and recertify all current Kaiser QA/QC employees. In addition, a special task force was formed to review all historical and current QA/QC certification files, with the results documented and used for verification of proper certification in the final review of all QA documentation. No further corrective action is required in response to this allegation.

The charge that questionable qualifications "extended to the supervisor" is based solely on Mr. Reiter's assertion (Attachment 16) regarding an unidentified Kaiser piping field engineer. The failure to identify this particular individual renders it impossible to reply.

Next, it is alleged that "questionable qualifications extended to...top management levels." This allegation derives from Mr. J. M. Nichols' letter to Congressman Udall (Attachment 38), which vaguely charges a lack of training and certification "from the QA management on down for Kaiser and CG&E." This item goes on to make a number of broad charges in this area, without supporting evidence, for which a response is likewise impossible without further information. Part of this same paragraph from

Mr. Nichols' letter is cited by the petitioner in Allegation 112, which has been addressed above.

ALLEGATION 116

"The lack of proper qualification and training has compromised reliability of QC inspections. The effects are illustrated again by internal documents issued since the NRC began its April, 1981 reform program. An October 30, 1981 CG&E Corrective Action Report (Attachment 99) listed...deficiencies...The C.A.R. illustrated the cause of each example cited to support the conclusions as, 'Supervision and Training inadequate.'"

Response:

Petitioner cites conditions in the pipe hanger inspection program taken from CG&E CAR 81-25 (Attachment 99). The identification of the cause of these conditions as stated in this CAR is premature in that ordinarily such conclusions are not drawn until investigation of the findings is complete. CAR 81-25 remains open pending completion of CG&E's review of Kaiser's response.

As a result of Item 5 of the April 8, 1981 Immediate Action Letter, CG&E and Kaiser implemented expanded QA/QC training programs which have been reviewed on at least several occasions by the NRC as reflected in routine inspection reports with no items of noncompliance identified.

ALLEGATION 117

"Within the past few months, CG&E has conceded the training and qualifications for inspectors remain fundamentally deficient. An April 30, 1982 Quality Confirmation Program Status Report questioned the competence of inspectors performing Task I inspections. All 1685 Nonconformance Reports generated by these inspectors during the QCP were placed on hold, the inspection procedures were revised, and the inspectors were retrained before beginning the reinspection of Task I items." (Attachment 100)

Response:

This allegation is denied for several reasons. The April, 1982 Quality Confirmation Program Status Report does not question "the competence of the inspectors performing Task I inspections." Nor does it represent a concession from CG&E that "the training and qualifications for inspectors remain fundamentally deficient." Petitioner completely misrepresents the report with these statements.

Rather, the QCP Status Report merely states that a review of the results of the initial inspections from Task I, Structural Steel Review, showed inconsistencies on NR's resulting from these inspections. Inspections were stopped and experts in American Welding Society Standards were consulted in an effort to eliminate these inconsistencies. As a result, the inspection procedures were revised to include new and clarified criteria. Also, Task I Inspectors were given additional training in the procedures and demonstrated their visual weld inspection capabilities prior to resuming reinspection. The areas of inspection which were in question have been reinspected and new Nonconformance Reports issued as required, replacing the initial NR's. Just as all procedures are subject to continuing review and upgrading, these particular improvements do not represent a



concession that training and qualifications for inspectors were deficient.

Corrective action in this matter has been implemented in a programmatic fashion as part of the QCP and no further corrective action is required.

ALLEGATIONS 118 AND 119

Allegations 118 and 119 deal with QA procedures.

118. "...in many key instances, mandatory inspections did not occur at all...(Attachment 101.)...There was no QA procedure for 'alerting QA inspection personnel...'"
119. "Even when a procedure existed for QA inspection of construction work, there was an excellent chance the procedure was either obsolete or incorrect." (Attachment 102.)

Response:

Item 4 of the April 8, 1981 Immediate Action Letter entitled "Concerning QC Inspection Procedures" required:

"All QC Inspection Procedures will be reviewed and revised (where appropriate) by qualified design engineers and QA personnel. These reviews will be conducted by personnel independent of the construction organization to confirm that the procedures include appropriate inspection requirements and applicable hold points. The construction activities controlled by these QC Inspection Procedures will not be performed after the date of this letter until the applicable procedure has been reviewed and approved."

For a number of reasons, CG&E did not contest this requirement and, as noted in response to Allegation 114, Item 4 of the IAL called for a review and approval of all QC inspection procedures which was immediately implemented by CG&E. Nonetheless, some specific charges contained in these allegations are erroneous.

The opening sentence in Allegation 118 alleges that "inadequate procedures have neutralized stepped-up training programs," but fails to state a basis for this assertion. The final sentence is also a general, unsubstantiated allegation that does not warrant a response.

Allegation 118 misleads the reader when referring to the CG&E field audit report No. 247 (Attachment 101) by quoting only

a select portion of the finding. The complete finding in the audit report is as follows:

"Because of the sporadic fabrication of embedded plates and angle frames, it is suggested that Henry J. Kaiser Company personnel in charge of fabricating embedments establish a more positive means of alerting QA inspection personnel when fabricating will commence. There is no provision for this in QACMI C-12, Revision 1 at the present time." [Emphasis added.]

Therefore, the finding was not that there was no procedure requiring inspection of the embedded plates, but rather that a better notification system was needed for inspectors. Item 1.3 under "Procedures" of QACMI C-12, Rev. 1 calls for inspection:

"The inspector shall release the fabricated work by stamping and dating the appropriate block on the release form and by affixing his stamp to each piece."

Without the requisite stamp, the piece could therefore not be released for installation.

This field audit did, in a proper programmatic fashion, identify the need for an improved procedure to alert inspection personnel when fabrication begins since surveillance was required in the fabrication shops. During the period in question, there was reduced activity in the fabrication shops which did not justify the presence of full-time inspectors. A Kaiser inter-office memorandum dated July 18, 1979 was written as a result of this audit directing that suitable notification be given QA by Construction at the start of fabrication. The other findings of this field audit were also properly dispositioned.

Allegation 119 charges that procedures used for "QA inspection of construction work" were "obsolete or incorrect" and then quotes a CG&E December 14, 1979 letter out of context to support

this allegation. Investigation shows that this letter was referring to three Kaiser procedures:

- 1) QAP No. 3, "Configuration Control."
- 2) QACMI G-5, "Design Document Change."
- 3) QACMI G-1, "Configuration Document Control."

None of the procedures deals with "QA inspection of construction work." All three of these procedures were revised to comply with the findings of Field Audit 193, which was closed out in October of 1980.

Allegation 119 then refers to a Kaiser internal memorandum dated February 14, 1981 (Attachment 97) wherein Mr. Shinkle expresses the opinion that Kaiser QA Procedures require revision. This concern was addressed in Item 4 of the April 8, 1981 Immediate Action Letter, which required review of all QC inspection procedures. This review has been completed and revisions, where indicated, have been made.

It should be pointed out here that procedures are not static documents and changes are expected to be made as improvements are identified while the procedures are being used. Changes to procedures do not, therefore, mean that the prior procedures were invalid or inadequate as implied by these allegations.

No further corrective action is required.

ALLEGATION 120

"...Mr. Nichols disclosed that the post-IAL process of revising the QA Manuals has proven ineffective:... (Attachment 38 supra, at 1.)...SAI audit demonstrated that procedural amendments are still suspect...(Attachment 94...) In short, the absence of minimally adequate QA procedures and manuals throughout construction of Zimmer undercuts the foundation of every QA conclusion."

Response:

Contrary to the statement from Mr. J. Nichols' June 7, 1982 letter to Congressman Udall (Attachment 38) cited in this allegation, CG&E is not aware of an NRC finding that "the KEI QA manual" was "deficient". Item 4 of the NRC's April 8, 1981 Immediate Action Letter required review of all QC inspection procedures, which has been done. This may have been the "NRC report" to which Mr. Nichols referred, but it is uncertain since his reference was unidentified.

On June 23, 1982, the American Society of Mechanical Engineers (ASME) renewed the Certificate of Authorization previously issued to Kaiser to utilize the "N" stamps certifying compliance with the ASME Code. The Code requires holders of these Certificates to have a quality assurance program which meets specified requirements (NA-8121), and mandates prior to issuance or renewal an evaluation by ASME of the adequacy of the quality assurance program to assure compliance with ASME Code provisions (NA-8123.1). Under NA-4120, the applicant's quality assurance program must be documented, and NA-4140 states that the quality assurance manual "...shall be a major basis for demonstration of Code compliance." The renewal of the ASME

Certificate of Authorization attests to the quality of the Kaiser QA Manual.

In alleging that the Kaiser QA Manual is deficient, Mr. Nichols cites only one item: the manual's distinction between the terms "documents" and "records." Mr. Nichols alleges that the Kaiser Manual is unique in the nuclear industry in making this distinction, and that the distinction is not included in the ANSI Standards. Kaiser's definition of "documentation" is identical to the definition set forth in ANSI N45.2.10. Further, Kaiser's definition of "Quality Assurance Records" is identical to that contained in ANSI N45.2.9. Both of Kaiser's definitions are contained in QAP-21. Therefore, Mr. Nichols' charge that the Kaiser QA Manual defines records and documents in a manner inconsistent with ANSI Standards is entirely without basis. Further discussion of the subject is provided in response to Allegation 124.

Allegation 120 then refers to the April, 1982 SAI Audit No. 82-1, alleging that it "found that QA procedures for anchor bolts in core-drilled holes were improperly revised through a Site Communique, rather than the normal approval process. (Attachment 94...)" While the use of Site Communiques at Zimmer was authorized for the "clarification" of procedures, it was not approved for "revision or modification" of procedures. Kaiser responded to the audit finding by conducting a review of all Site Communiques issued prior to June 2, 1982 to insure that they had been issued properly. Where procedures have been "modified" by

Site Communiques, the modifications are being issued as procedure revisions.

The review of QA procedures initiated by the Immediate Action Letter as well as the continuing programmatic review through audit and modification of these procedures demonstrate the baselessness of this allegation. As customary, of course, additional changes will be made to these procedures as needs are identified by experience. No additional corrective action is required.

ALLEGATION 121

"For some construction work, there was not even an inadequate QA procedure. None existed at all...(Attachment 103.) In light of the critical safety significance of valves, it is hard to accept that QA procedures should not apply when they are disassembled and reassembled...(Attachment 104...105.) The late discovery of these non-existent procedures raises a real question about what percentage of Class I Systems have been omitted from any QA oversight for particular construction work."

Response:

Petitioner cites Kaiser Surveillance Report No. 2671 written on July 31, 1980 (Attachment 103), which discusses whether bolting on components such as valves and flanges have been properly torqued. This Surveillance Report stated:

"There are many incidents occurring in the field where flanges, and valves are disassembled. What torque values or tables are to be used when reassembling the component? We have no torque procedure for flanges or valves and in the majority of valves disassembled, there are no vendor manuals giving torque requirements on site."

The responding corrective action statement said: "Consult the Generation Construction Department for guidance. Industry Standards are used." This response did satisfy the concern of the SR because the author verified this corrective action on August 7, 1980.

It is acknowledged that bolting standards were not incorporated into a project inspection procedure, nor were provisions made for documenting the torque values used. The need for this documentation was identified in CAR-81-14 dated August 27, 1981 and CAR-030 dated November 19, 1981 (Attachments 104 and 105 respectively). As a result of these CAR's, Kaiser General Inspection Procedure GIP-3 (effective February 8, 1982) established procedures for inspecting mechanical assemblies including



flange connections and documenting torque values during construction. For installed systems, Mechanical Construction Procedure MCP-7, TCN 7-2 (effective November 4, 1982) provides for unbolting and rebolting any ASME flanged connections necessary to document compliance with ASME requirements.

Corrective Action Report 103 dated May 10, 1982 consolidated the requirements and corrective action as follows:

Requirements: ASME Section III NB4720: "In bolting gasketed flange joints, the contact faces of the flanges shall bear uniformly on the gasket and the gasket shall be properly compressed in accordance with the design principles applicable to the type gasket used. All flange joints shall be made up with relatively uniform bolt stress."

Corrective Action Statement: HJK Procedure MCP-7, Rev. 0, TCN No. MCP 7-2, "any ASME flange connections assembled without regard to this procedure shall be unbolted per the Unbolting Operation Sheet and rebolted in compliance with this procedure and documented on the Bolting Operation Sheet."

The corrective action described above addresses the concerns expressed in these various Corrective Action Reports and as restated in this allegation.

ALLEGATION 122

"The result of QA inspection and procedural omissions has been undocumented, informal construction and repair work. Under the IIDR System, these conditions are perpetual. The plant is left in a 'quality indeterminate' state. At Zimmer, an unknown number of deficiencies may lie dormant, having circumvented the QA system. There is no dispute that unapproved repairs should not occur. As Mr. Schwiers explained in a September 22, 1975 CG&E letter...(Attachment 106, at 1.)"

Response:

This allegation contains petitioner's characterization of the QA system at Zimmer. There are no specific items, except one discussed below, which raise any factual issue warranting a response. Nonetheless, petitioner's vaguely asserted, subjective views as to the quality of construction are denied.

It is denied that the plant is in "a 'quality indeterminate' state" such that when construction is completed the facility will not meet all applicable NRC requirements for an operating license. The rigorous final certification processes, which include system walkdowns and document verification, are an integral part of the Quality Assurance Program and will provide assurance of the quality of the plant. Moreover, the Quality Confirmation Program will provide an added dimension of assurance.

Petitioner attempts to create a false impression of "QA inspection and procedural omissions" throughout the life of the Zimmer Project by extrapolating from CG&E's September 22, 1975 letter (Attachment 106) regarding temporary revisions to essential components by Kaiser during installation. The letter did not deal with "Unapproved Repairs" as alleged by petitioner. In writing the letter, Mr. Schwiers appropriately outlined to

Kaiser the procedures to be followed when removing or disassembling essential components. In this case, Kaiser had temporarily removed the control air manifolds from the steam valves during installation. The letter went on to say:

"In summation, the purpose of the above is to establish appropriate communication between craft, supervisory, and other personnel to assure that required approvals are obtained if disassembly and reassembly of critical components is required."

Investigation shows that in October of 1977, GE issued FDI No. 71/63000 to check the air manifolds as part of an investigation into a generic problem with them. In November, 1978, GE issued FDI No. 90/63000 instructing that these manifolds be replaced with a new and improved version. These changes were made in line with GE's recommendations under quality control conditions which assures their present condition. Further, these manifolds are outside of the steam valves and the removal and replacement does not affect the internals of the steam valves themselves. In all, improvements in procedures on a project such as Zimmer are identified and implemented in the early stages of procedure use. This normal situation does not support the "quality indeterminate" condition as alleged.

ALLEGATION 123

"The policy against unapproved modifications has not always been followed, however. To illustrate, an August 27, 1981 CG&E memorandum noted...improperly dispositioned NR...unapproved work could damage the wiring...informal changes were not incorporated into the vendor's drawings. (Attachment 107) These practices have been repeated, at least for GE purchases, weld repairs, and parts substitution after hydrostatic testing. (Infra, at \_\_\_.)"

Response:

This allegation cites a CG&E November 10, 1978 memorandum (Attachment 107) related to electrical terminations on 11 motor operated valves (MOV's) which were identified during an inspection of one of these valves. One concern was "improperly dispositioned" NR No. E1457, which was written in November, 1978. Disposition of this NR called for rework of the field cable terminations followed by DDC's to document the revisions on wiring diagrams. The memorandum correctly observed that "DDC's should not be written to close N.R.'s," however, it did not take cognizance of DDC No. E-1205, Rev. 1, written in April of 1978 which stated: "M.O.V.'s having terminal blocks with such screwed terminals are to be replaced with either in line splices or regular terminal blocks." Therefore, formal action by a DDC was already under way to correct the condition identified in the NR. A revision in the disposition of NR E-1457 to reflect DDC No. E-1205, Rev. 1, is being made which will result in the verification that the MOV's in question had been modified and that associated documentation reflected the current condition of this equipment.

A concern in the memorandum that "unapproved work could damage the wiring" is addressed in Corrective Action Report No.

82-154 regarding modifications to electrical equipment internals. As a result of this CAR, Quality Assurance Procedure No. 10-QA-07 was written in August of 1982 to develop inspection records for essential electrical equipment modified as a result of FDI's, FDDR's, and DDC's or approved drawing revisions. Part of this inspection includes a verification of proper terminations.

The memorandum's assertion that "informal changes were not incorporated into the vendor's drawings" is unwarranted because wiring terminations, including any changes initiated by DDC's, are shown on Sargent & Lundy design drawings.

While investigation suggested a revision to NR E1457, it does not substantiate the allegation of "unapproved modifications." Terminal blocks are an interface between the vendor's equipment and CG&E's wiring. Changes to terminal blocks via a DDC is proper and that is the procedure followed in this case.

In addition to the specific corrective action described above, Task IX of the Quality Confirmation Program involves a review of DDC's. Where insufficient inspection documentation exists to verify modification to essential electrical equipment internals, they will be reinspected to QAP No. 10-QA-07.

ALLEGATIONS 124, 125, AND 126

Allegations 124, 125, and 126 deal with allegedly missing records.

124. "The problem of missing irretrievable records has existed for years at Zimmer...(Attachment 108) If anything, it has intensified since CG&E assumed control of QA records through the April 8, 1981 IAL...(Attachment 109, supra, at 1)"
125. "The composite effect of missed inspections, inspections to the wrong procedures, and missing documentation is that in an unknown number of cases, the quality of work at Zimmer is indeterminate....(Attachment 93, supra, at 4.)"
126. "The proper response to undocumented quality indeterminate work is clear. Critical safety items must be removed from the system...(Attachment 37, supra, at 11-12.)"

Response:

These three allegations erroneously attempt to link "missing records" with "indeterminate work." Before addressing the specific allegations, however, it is important to note there is a distinction between "documents" and "records" as applied to a nuclear project. This was discussed in response to Allegation 120. Article 3.2.1 of ANSI N45 2.9-1979 states: "Documents shall be considered valid records only if stamped, or initialed, or signed and dated by authorized personnel or otherwise authenticated." Various documents are generated as part of the Quality Assurance Program such as inspection forms and weld record forms, but these do not become formal "records" until authenticated by the planned, formal document review. This document review is being performed by the Kaiser QA Group under the surveillance of CG&E and is determining whether the required documents have been supplied on systems or components to satisfy applicable requirements. It is only after this document review is complete that the records are turned over to CG&E as the owner and require

protection. Such documentation must be complete even if rework is necessary. It is only after the records are complete that a system can be finally accepted by CG&E. The requirement for this final document review, which assures the quality of the plant, has always been part of the Zimmer Quality Assurance Program.

Addressing the specific allegations, a monitoring report (Attachment 108) from Authorized Nuclear Inspector Lowell Burton to Kaiser on December 6, 1979 is cited in Allegation 124, charging that there have been missing, irretrievable records at Zimmer. The report does not support the allegation. Mr. Burton merely stated that of the work packages he inspected on December 6, 1979, "in many instances there are no supporting records for fabricated items." The report does not state that any records were "irretrievable." In its response to the report, Kaiser stated that "records for all code items are completely reviewed and reconciled prior to certifying the system for turnover. All documentation is verified for heat number, weld documentation, and NDE acceptance where required." Following the issuance of the report, Kaiser QA personnel acted to correct noted deficiencies and on March 7, 1980, Mr. Burton remonitored the conditions which led him to write the original report, finding them to be "satisfactory."

Document deficiencies were identified and acknowledged in Item 8 of the April 8, 1981 Immediate Action Letter and Section 4 of IE Investigation Report 81-13. The NRC is aware of CG&E's corrective actions in response to its findings, which include revised documentation procedures, construction of an underground

fireproof record storage vault, and document reviews such as QCP Task VII covering nonconformance reports.

A November (not December) 1981 General Electric Company Audit (Attachment 109) is also cited in Allegation 124 as it relates to the time required for GE auditors to obtain documents from CG&E. The statement in the audit report as to the unavailability of certain documents was, at best, tangential to the purpose of the audit, which was to audit Kaiser QA systems, not Kaiser or CG&E's ability to retrieve documents. It is necessarily true that, when CG&E took direct control of the documentation as required by Article 8 of the Immediate Action Letter, the document handling procedure became cumbersome. New facilities and systems were developed to provide closer control over these activities.

Allegation 125 cites a November 24, 1981 corrective action report in support of the charge that the quality of work at Zimmer is indeterminate. This claim is wholly unsupported by the finding from CAR 81-29 (Attachment 93) which is discussed, along with the corrective action taken, in the response to Allegation 109. A similar charge citing this same CAR 81-29 is addressed in response to Allegation 133.

Finally, Allegation 126 also alleges the existence of "quality indeterminate work." CG&E agrees that if necessary documentation is unavailable and a determination of satisfactory quality of work cannot be made in any other way, the component or work must be repaired in an acceptable manner or replaced. This



general principle, however, fails to raise any specific issue as to the adequacy of the QA program at Zimmer.

In Allegation 126, petitioner also paraphrases the National Board Audit Team Report (Attachment 37) regarding pumps and valves supplied by General Electric Company subcontractors some time ago as a part of Nuclear Steam Supply System contracted to General Electric. The National Board Audit Team noted that some pumps and valves in the reactor water cleanup/demineralizer system were not "N" Symbol stamped and that NPV 1 Data Reports were not available on site for review by the audit team. This matter is currently under investigation by the National Board Task Force as Task 10.

ALLEGATION 127

"...Criterion XVIII requires a 'comprehensive system of planned and periodic audits...' If the auditing system were functioning properly, the basic training, inspection, procedure and documentation deficiencies above would have stopped recurring."

Response:

This allegation is simply a restatement of a portion of Criterion XVIII of 10 CFR Part 50, Appendix B. The accompanying statement is a generalized conclusion without any substantiation. Thus, there are no specific matters that can be addressed in a response.

ALLEGATIONS 128 AND 129

These two allegations both deal with Zimmer Audit Programs and are grouped here for response.

128. "CG&E has long been aware of the need to improve its audit program..." (Attachment 110) "Not only did CG&E fail to honor its own auditing responsibilities (NRC IE Report 50-358/81-13, at 152), it also prevented Kaiser from conducting audits." (Attachment 109)
129. "While CG&E has reinstated the audit program, there are still severe questions whether it meets the standards...Again, the key flaw is the lack of organizational freedom. As Mr. Jones' Congressional Testimony pointed out, the QA procedures built in conflicts of interest by giving the Manager of Quality Engineering ('QE') extensive review authorization over audits...In April, 1982, the new Audit Training Coordinator even told auditors as a general practice to refrain from writing memoranda, recording observations, or making recommendations...As he [Mr. Jones] explained to Congress, 'Without required authority and organizational freedom, effective implementation of a Quality Assurance Program is impossible.' (Attachment 43, supra, at 4-10.)"

Response:

Allegation 128 cites a 1975 CG&E letter to Kaiser (Attachment 110) written as a result of an AEC audit identifying specific deficiencies and CG&E's intention to put added emphasis on auditing the Kaiser operation. This is not an unusual exchange to take place during the continuing development of programs related to the construction of a nuclear power plant and illustrates the responsible workings of the regulating agency, the owner, and the contractor in pursuing their respective duties in this regard. In responding to Item 10 of the NRC's IAL and Article C.13 of the NRC's November 24, 1981 Notice of Violation, CG&E stated: "Although the Applicant feels that this item is not a noncompliance, past audits could have been more comprehensive." (NOV response, Attachment B, page C-54.) Task XI of the Quality

Confirmation Program has been established to review the adequacy of past audit reports. Expanded audit schedules have also been initiated under CG&E's QA program.

Allegation 128 goes on to charge that CG&E "prevented Kaiser from conducting audits." This statement was taken out of context from the report of a November, 1981 audit conducted by the General Electric Company on the Kaiser operations (Attachment 109, supra, CAR No. HJK81-1-3) wherein it states: "HJK audit function was discontinued at the direction of CG&E, however, HJK has reinstated the audit function. HJK is currently conducting audits to their approved audit schedule." CG&E did not "prevent" Kaiser from conducting audits as petitioner alleges. Rather, CG&E assumed the responsibility for auditing Kaiser's operations against their procedures, which previously had been performed internally, from June, 1980 until March of 1981, just prior to the issuance of the NRC Immediate Action Letter. The reason for this temporary assumption of responsibility is discussed in response to Allegation 71.

In response to Allegation 129, the petitioner incorrectly asserts that the Kaiser QE Manager has extensive review over audits and that this presents "built in conflicts of interest" QAP-19, Rev. 1, has provided since 1973 that QE's involved in audits shall be those "not directly responsible for the element being audited." In the 1980-1982 period when Mr Jones (on whose congressional testimony in Attachment 43 this allegation is based) worked at Zimmer, the Audit Group reported to the Manager of Quality Assurance, not Quality Engineering. This is still the

case. Elsewhere, Allegation 129 contains Mr. Jones' opinions and general philosophy as to the operation of a proper QA program, but alleges no specific deficiencies at Zimmer. Charges regarding NES deficiencies and AVL standards are repetitions from Allegations 77 and 78, respectively, to which CG&E has already responded.

Finally, Allegation 129 accuses a new Audit Training Coordinator for Kaiser with issuing a "gag order" in April of 1982. Mr. Howard Chandon, the Audit Training Coordinator to which this allegation refers, denies ever imposing a gag order on Mr. Jones or any Kaiser Auditor. In discussing this with Mr. Chandon, he believes Mr. Jones has taken out of context his comments that "audit findings should be noted on appropriate forms as defined by procedures."

In summary response to these allegations, there has been a continuing effort to improve the audit process on the Zimmer Project. While the specific items alleged by petitioner are denied, it is pointed out that CG&E did not, for various reasons, contest the April 8, 1981 Immediate Action Letter, Item 10 entitled "Concerning the Audit Program," which required:

"The existing CG&E audit program will be reviewed and revised by June 1, 1981, to include technical audits of construction work and more comprehensive and effective programmatic audits."

The revised audit program was developed, reviewed by the NRC and has been implemented.

Thus, comprehensive auditing schedules and programs, along with significant additions to the audit staff, have been implemented both by Kaiser and CG&E in response to the Immediate

Action Letter. Further, Task XI of the Quality Confirmation Program involves a review of past CG&E/QA audits of HJK, NPD, NED, EOTD, and GCD. Review sheets for each of these audits have been completed and are currently being evaluated.

ALLEGATIONS 131 AND 155

131. "A second premise for effective corrective action is to learn the full scope of the damage that has already occurred. If the initial testing sample identifies deficiencies, the sample must be expanded...At Zimmer, the QA response was not expanded as serious symptoms were identified...When specific samples of NRC or code violations were identified, at best those violations were corrected. The full extent of each problem frequently has remained a mystery, because initial identification did not trigger wider QA verification efforts." (Attachment 23)
155. "The radiography effort for radwaste piping welds illustrates the failure to expand the QA effort as problems are identified." (Attachments 136 and 137)

Response:

These two allegations are related to the use of sampling methods to assure quality.

Allegation 131 is rooted in an unsigned "Supplemental Affidavit" attributed to R. L. Reiter (Attachment 23), in which an analogy is drawn between the use of sampling in connection with QA programs in a nuclear plant and a tire manufacturing plant. On this basis, the statement is made: "If the initial testing sample identifies deficiencies, the sample must be expanded until the extent of the problem can be identified with a high degree of confidence."

It is agreed that sampling is a good quality control technique for specific applications. When applied to a repetitive, high-volume production line activity such as in a tire plant, which utilizes spot-checking rather than a 100% inspection, sampling is an effective procedure to assure quality. In such circumstances, this technique can be refined to a point where detailed statistical relationships can be developed between

sample size and lot size, which are used to establish confidence levels in the work performed.

There are limited instances, however, in which sampling can be used for nuclear plant construction. For example, this method has been used in parts of the Quality Confirmation Program. Guidance for random sampling methods has been documented for the QCP in Procedure 19.QA.37, "Double Sampling Plan for Lot and/or Process Acceptance." However, because of the general lack of repetitive operations by the same persons and/or tools, and because of the high rate of individualized inspection for essential operations, sampling may not be appropriate or useful in each instance.

Allegation 155 refers to a July, 1977 Kaiser memorandum (Attachment 136) as evidence of "the failure to expand the QA effort as problems are identified." This memorandum describes a situation in which 18 random welds on radwaste piping were to be X-rayed to comply with the 20% random radiography requirement per Sargent & Lundy. Four of these radiographs had been made and rejected. Petitioner asserts that Kaiser "requested approval to X-ray 14 more welds and reach the 20% figure, without expanding the sample after the other failure of the first four samples. A June 14, 1982 letter from Sargent & Lundy outlined a specific formula for expanding the X-ray sample as individual welds are rejected. (Attachment 137)." It is difficult to understand precisely what problem or deficiency is being alleged. Petitioner's statements are self-contradictory because plans for an expanded sample were obviously obtained from Sargent & Lundy,



as the correspondence indicates. This sampling effort is currently being completed by Kaiser. Moreover, it is entirely unclear how Sargent & Lundy's interpretation of its own specification demonstrates any shortcoming in the CG&E or Kaiser QA programs.

Investigation into this allegation shows that, contrary to doing a minimum QA effort as alleged throughout the petition, CG&E committed in the PSAR to quality assurance measures above the Code requirements in the construction of the radwaste system which is rated Class D non-seismic, non-essential. The 20% random radiography test is a requirement of the radwaste piping installation specifications as good engineering practice to provide an added measure of construction acceptability. Nonetheless, the scope of this testing should not be compared with the scope of testing for Safety Class Piping.

Sampling inspection programs are being used where appropriate on the Zimmer Project to assure the acceptability of the plant. No additional corrective action is required.

ALLEGATIONS 132, 152, 153, AND 154

These four allegations relate to corrective action on the Zimmer Project.

132. "...an effective corrective action program must address deficiencies retroactively...Even in 1981 after the Immediate Action Letter, CG&E restricted corrective action to future violations." (Attachment 112)
152. "A variety of other welding activities illustrates the extent of the de facto limit to Zimmer QA -- Stop doing it wrong in the future." (Attachment 133)
153. "The philosophy persisted after the April, 1981 IAL...Again, the only corrective action was prospective..." (Attachment 134)
154. "Amazingly, the prospective-only approach to corrective action even applied to missing surveillances and inspections." (Attachment 135)

Response:

These allegations fail to take cognizance of the evolutionary nature of industry code and regulatory standards. Resultant new criteria are not automatically applied to past construction and this has been a consideration in developing the Quality Confirmation Program on the Zimmer Project, which does incorporate retroactive corrective actions. CG&E's response to 10 CFR 50.55(e) reports, audit reports, and NRC/IE inspection reports, along with the entire Quality Confirmation Program being implemented on the Zimmer Project are, in fact, "retroactively" oriented and do re-examine critical areas of the existing facility addressed by petitioner. The specific issues of each of these four allegations addressed below demonstrate this commitment.

Allegation 132 charges that when a nonconforming condition is identified, all like work previously done should be

re-examined. The example petitioner cites is a July 1, 1981 CG&E internal memorandum (Attachment 112) releasing a stop work order that had been issued a month and a half earlier by the Kaiser Construction Superintendent on the installation of expansion anchors. The allegation implies that the release makes no provision for checking expansion anchors already installed.

The issuance of the stop work order of May 18, 1981 was triggered by a concern, expressed verbally, by NRC Inspector Mr. T. Daniels, who observed a craftsman striking an expansion anchor bolt with a hammer perpendicular to its axis. An immediate inspection was performed by the CG&E civil Quality Engineer and a Kaiser civil inspector. The inspection found that there had been no damage to the bolt.

This allegation presupposes that the work was stopped because what had been done was wrong. Actually, the work was stopped by the Kaiser Construction Group for a clarification of procedures revised after the review dictated by the Immediate Action Letter. These wedge anchor installation procedures incorporated the vendor recommendations which allowed some alignment of the bolts through tapping; the question was how much force was allowable. After review, the expansion anchor installation procedures were revised to address this issue and work was restarted. Expansion anchor inspection procedures were also consolidated into Kaiser General Inspection Procedure GIP-6, which provides in-process as well as post installation inspection requirements.

Unrelated to the stop work order release, CG&E has committed to 100% inspection of expansion anchors in response to NRC I.E. Bulletin 79-02. Each installation using expansion anchors requires a completed inspection form certifying either in-process or post installation inspection. Final document review of these forms will assure the proper installation of each anchor bolt.

Allegation 152 refers to a February 22, 1979 Kaiser inter-office memorandum which identifies a past failure to meet the requirement that "the welding engineer shall enter the base metal ASME specification number" on the KE-1 form which gives the instruction that this should be done in the future. Petitioner erroneously implies that possible omissions on KE-1 forms in the past were overlooked.

The February 1979 memorandum was correct to reemphasize the proper completion of the KE-1 form. However, there was no need to re-check all KE-1 forms completed prior to February 1979 to verify that they were completely filled out. First, the memorandum does not establish or state that KE-1 forms were being issued to the field with the ASME base metal specification omitted. Prior to issuance, the Weld/NDE QA Engineer reviews the KE-1 form completed by the Construction Welding Engineer. This is the function Mr. Pallon was performing at the time he issued the memorandum (Attachment 133) and, as the memorandum indicates, he was aware of the need to enter this information on the KE-1. There was no reason to believe that this situation was anything but an isolated occurrence, or that other QA Engineers reviewing the KE-1 forms had not caught similar omissions. In addition,

during final documentation review, a check is made to insure completeness of the KE-1 and omitted information would then be identified. If the base metal ASME specification is missing, it can easily be obtained from drawings in work packages, or from F-Sheets (vendor drawings), isometric drawings in the bill of material section, or S&L piping design tables. Thus, verification of the base metal ASME specification numbers will present no difficulty during routine final documentation review of work packages.

Allegation 153 cites a September 2, 1981 Kaiser inter-office memorandum (Attachment 134) to show that Kaiser initiated a procedure to avoid repetition of an identified situation regarding a welder who welded to a procedure for which he was not qualified. The memorandum does not reflect the circumstances under which the welder was discovered to be welding to a procedure for which he was not qualified. Mr. Puckett, the author of the memorandum, took appropriate action by notifying the Superintendents of the problem, directing further training, and requiring documentation of compliance. This corrective action was therefore adequate. It is also noted that normal inspection procedures such as Item D1(b), p. 23 of WIP-7, Rev. 3 require verification of the welder's qualifications on the KE-1 form on each weld. Further, an item in the final documentation review procedure, QRM-1, Rev. 2, paragraph 4.2 requires that the document reviewer confirm and document the completeness and accuracy of the QA documentation.

Finally, Allegation 154 cites a July 28, 1981 CG&E Corrective Action Report (Attachment 135) regarding prospective corrective action applied to allegedly missing surveillances and inspections. Contrary to petitioner's allegation, CAR-81-10 (Attachment 135) did not find that Kaiser failed to perform required inspections, that these inspections were not documented, or that Kaiser's procedures did not require such inspections. The CAR concerned surveillances only in its finding that Kaiser did not have a procedure to meet the in process surveillance and documentation requirements of AWS D1.1-72, Paragraphs 6.5.3 and 6.5.4, specifically, surveillance for verifying that welders are using approved procedures. CAR 81-10 stated that Kaiser would revise SPPM 4.6 to comply with those requirements and would conduct necessary surveillances.

Paragraph 6.5.3 of AWS D1.1-72 states:

"The inspector shall make certain that electrodes are used only in the positions and with the types of welding current and polarity for which they are classified."

Paragraph 6.5.4 states:

"The inspector shall, at suitable intervals, observe the technique and performance of each welder, welding operator, and tacker to make certain that the applicable requirements of Section 4 are met."

Kaiser imposes numerous inspection requirements on welders and welding. For example, the QC inspector checks the qualification of welders, checks the KE-2 form to insure that the proper weld rod was issued, verifies that the proper welding procedure is being employed, and visually inspects the weld to insure that the welder utilized proper techniques. Document reviewers verify that weld documents contain no irregularities. Furthermore,

Kaiser utilizes only electrodes which are approved for use in all positions, thus ensuring that electrodes are not used in positions for which they are not classified. Although Kaiser QA did not previously have a written procedure concerning AWS surveillances, it nevertheless has conducted such surveillances.

Therefore, to make its surveillance practices an explicit part of written procedures as described in the AWS code, Kaiser replaced SPPM 4.6 with WIP-27, Rev. 5, Sec. 5.4.1 which states:

"The QA inspector shall observe welding technique and performance on a random surveillance basis, and document findings on the 'Welding Surveillance Report.'"

The written procedures thereby incorporated procedures already in place as exemplified by SR-2238 and SR-2310, two reports concerning surveillances of welder technique and performance dating back to 1979. In addition to the surveillances of welding technique documented on written Surveillance Reports, inspectors routinely performed undocumented surveillances and provided guidance to welders during in-process work additionally, welding audits were performed by CG&E/QA. Since surveillances have, in fact, been performed in the past, it was not necessary to include retrospective corrective action in the response to the deficiency cited in CAR 81-10.

Essential structural steel beam and connection welds are being reinspected as part of QCP Task I and a review of certain structural weld data sheets is part of QCP Task II. This activity provides further retroactive review assuring the quality of Zimmer structural welds.

ALLEGATION 133

"...The QA Program at Zimmer still has not mastered the basics since the April, 1981 NRC-imposed reform program. The November 24, 1981 CAR notes the frustration that 11 of 23 other CAR's in 1981 were for inadequate inspection procedures or the absence of verification documents... (Attachment 93, supra, at 4...)"

Response:

This allegation repeats several of the broad charges made earlier in the petition. The petition alleges "frustration," presumably on the part of CG&E, by quoting a portion of CG&E's November, 1981 Corrective Action Report CAR 81-29 to Kaiser (Attachment 93).

Rather than showing any such "frustration," the quoted CAR demonstrates firm resolve on the part of CG&E to fulfill the requirements of the Immediate Action Letter, which calls for increased involvement by the owner in implementing a more rigorous QA Program on the Zimmer Project. CAR 81-29 is a good example of CG&E's exercising its proper oversight function.

CAR 81-29 has already been discussed in responding to Allegations 109 and 125. As noted in those responses, this CAR found that four Construction Inspection Plans (CIP's) were used for inspections prior to their formal approval and the inspectors had not been properly trained in them. Kaiser's response to CAR 81-29 included additional review, training and reinspection to the approved procedures. This item has therefore been closed. No significant deficiencies have been identified in the CIP review and approval process since the issuance of CAR 81-29. Thus, CAR 81-29 does not support the charge that the QA program at Zimmer "has not mastered the basics." Rather, its issuance



and appropriate disposition confirm that CG&E's increased direct involvement in the QA Program is producing the results intended by the NRC.

The fact that the CAR listed eleven other CAR's to summarize overall action is irrelevant. Moreover, those other CAR's do not necessarily involve "inadequate inspection procedures or the absence of verification documents" as petitioner alleges. Most of these other CAR findings, in fact, dealt with implementation of the intensified Zimmer QA/QC Program activities. Given this intensified effort, it is certainly not unusual that more CAR's are being prepared to clarify project requirements.

No additional corrective action is required.

ALLEGATION 134

"The breakdown of the QA structure at Zimmer can be illustrated through its impact on key construction tasks...A May 13, 1976 ASME survey reported...that cumulative heat treatment practices at Zimmer were deficient...(Attachment 113)"

Response:

This allegation cites a 1976 ASME survey finding, Article 7.4 (Attachment 113), regarding petitioner's contention that there was no procedure to assure that cumulative heat treatment times were within the manufacturer's specifications.

Kaiser procedures have always required that the heat treatments be recorded on time-temperature strip charts. See SPPM 5.2, covering ASME Section III materials. Prior to turnover, all post weld heat treatments are reviewed to insure that maximum time and temperature criteria were not exceeded. Kaiser Procedure WCP-10, "Preheat Relieving, and Normalizing," requires: "All postweld heat treatments for any particular weld shall be closely monitored to insure that the maximum allowable time and temperature specified within the applicable welding procedure is not exceeded."

To provide an added layer of assurance concerning the adequacy of welds, Kaiser is currently performing a review of all post-weld heat treatments completed prior to March 24, 1982 and will take appropriate corrective action in connection with any weld discovered to have received improper heat treatments.

The ANI must review all heat treatment documents related to ASME systems prior to approval of N-5 Certificates to confirm that cumulative heat treatments did not exceed the maximum permissible under the applicable weld procedures.

On July 19, 1976, two months after conducting the survey cited by petitioner, the ASME informed Kaiser that it had renewed the Certificate of Authorization previously issued to Kaiser to utilize the N stamps certifying compliance with the ASME Code. The Code requires holders of these Certificates to have a quality assurance program which meets specified requirements (NA-8121), and mandates prior to issuance or renewal an evaluation by ASME of the adequacy of the quality assurance program to assure compliance with ASME Code provision (NA-8123.1). Under NA-4120 the applicant's QA program must be documented. Accordingly, ASME's renewal of the Certificate of Authorization attests to the acceptability of the Kaiser QA program in 1976.

ALLEGATION 135

"While the ASME survey team properly identified the heat treatment problem...severe heat treatment deficiencies still existed six years later. This time the code requirements for preheating the pipe were ignored...(Attachment 37, supra, at 8-9.)"

Response:

This allegation states that the National Board Audit Team (NBAT) interim report dated May 12, 1982 (Attachment 37) found some piping systems were welded without applying either post-weld heat treatment (PWHT) or the required preheat. In response to the NBAT findings, CG&E has undertaken a plan of action as outlined in the following reply to the National Board, Task NBT-9:

"We intend to invoke the provisions of NA-1140(f) to allow the use of NB-4620 as published in the Winter 1973 Addenda to Section III. In using this new provision, it will be necessary for HJK to document that all materials being joined by welding have a reported carbon content of 0.30% or less. Any material which does not meet this requirement will be removed from the piping system or the effected material will be post-weld heat treated in accordance with the requirements of the Code. In addition, the design specification will be modified to permit the use of NB-4620 in the Winter, 1973 Addenda."

No additional corrective action is deemed necessary.

ALLEGATIONS 136, 137, AND 138

The following allegations relate to hydrostatic tests conducted on the Zimmer Project.

136. "The major milestone for each system is the hydrostatic test, which subjects pipes and valves to more pressure than under normal operations...Again the QA program displayed repeated weaknesses. Initially, required drawings were missing from the test packages...(Attachment 114.)"
137. "Improper procedures were used during the hydrostatic tests, again after the IAL reform. A November 12, 1981 surveillance report (Attachment 115) reported QA deficiencies for hydro-tests in the main steam piping...While the test was satisfactorily performed at another time, the first ill-measured test could have weakened the piping...A May 17, 1982 Nonconformance Report disclosed overpressurization in the reactor core isolation cooling system during 1979 tests...(Attachment 116.)...Mr. Reiter's affidavit provides an account of eyewitnesses that seals were blown and water spewed out during the hydrostatic test for the Reactor Pressure Vessel. (Attachment 16, supra, at 13.)"
138. "Additional repairs and modifications also created loopholes in hydrostatic test coverage...new welds were installed in the containment after the hydro tests...This new work escaped hydrostatic testing...(Attachment 17, supra, at 6.) In 1979, CG&E and Kaiser responded by lowering the QA standards sufficiently to permit post-test welded attachments without conducting the hydro test again. (Attachment 117.)"

Response:

Allegation 136 cites a January 25, 1980 Kaiser inter-office memorandum (Attachment 114) which states, inter alia, that "one prevalent finding is that Hydro packages have no listings of ISK's or PSK's used in tests." From this, petitioner erroneously infers that "required drawings were missing from the test packages." Contrary to petitioner's allegation, the memorandum does not state that any documents were "missing" from test packages; rather, it states that test packages should include a listing of ISK's and PSK's used in the test. In any event, the author of the memorandum incorrectly interpreted FCP-2-103, Rev. 14, Sec.

3.4.4 in arriving at his conclusion. Sec. 3.4.4 states that drawing numbers of "drawings used to describe test boundaries" shall be recorded in the test packages. ISK's and PSK's are not "drawings used to describe test boundaries" and thus their numbers need not be listed in the test packages. The principal use of ISK's and PSK's in connection with hydrostatic testing is to provide weld location and identification. The inspector can obtain them from the Document Control Center.

Allegation 137 refers to Surveillance Report No. 81-23E issued in November of 1981 (Attachment 115), which observed deficiencies in the hydrostatic testing procedure used on a portion of the main steam system. SR 81-23E notes that Test 75-61 was voided because the range of the gauge used to conduct the test was below the minimum permitted by Sec. NB 6412 of the ASME code. The SR did not find that the gauges exceeded maximum ranges. A second test was performed satisfactorily. There is no reason to believe that the first test, which did not involve over-pressurization, weakened the piping.

Nonconformance Report E1677 (Attachment 116), written on February 16, 1979, noted that overpressurization occurred during hydrostatic test R1-28. S&L reviewed the NR and dispositioned it "Accept-As-Is". S&L determined that the test complied with the ASME Code. The NR was revised in 1982 under the designation NR E-8412D, in order to reflect the S&L calculation supporting the "Accept-As-Is" disposition. While overpressurization during a hydrostatic test could cause hardware damage, the project's Architect/Engineer determined that no damage occurred in this

instance. Again, the facts recited by petitioner only show that the QA Program effectively detected, reported and resolved this item.

Allegation 137 also contains a hearsay statement from Mr. Reiter (Attachment 16) that "seals were blown and water spewed out during the hydrostatic tests for the Reactor Pressure Vessel." It is alleged that rapid depressurization during such a test "violates a significant requirement." To the contrary, ASME Code Sec. NB6111.1 exempts nuts, bolts, gaskets, and seals from testing during hydrostatic tests and contains no requirements on the rate of depressurization during testing. That gaskets are blown during a hydrostatic test is not an indication of improper test procedures; gaskets occasionally fail during such tests. When this occurs, the gaskets are replaced and the test is rerun. Following this procedure, the test to which the allegation refers was successfully completed. Thus, if a gasket leaks during testing but test conditions were met, the results of the test are not affected. Therefore, there is no basis for petitioner's implication that a blown gasket is indicative of any "hardware damage" to the main steam piping.

Allegation 138 charges that "new work escaped hydrostatic testing". In his affidavit, however, Kaiser piping foreman James Tyner (Attachment 17), qualifies his statement by admitting his limited knowledge.

Kaiser routes through the hydro test department any work orders for a system which has already undergone a hydrostatic test. Consequently, the hydro test department is aware of

changes and determines when hydro retesting of a system is necessary. In such cases, the previous hydrostatic test is voided and a new test planned for the affected system. Simply because Mr. Tyner did not see a particular hydrostatic test in the containment redone, does not mean that the test was not performed or would not be performed in the future. Moreover, not all of the hydrostatic testing has been completed. A rerun of the hydrostatic test of the reactor vessel for example is scheduled to be performed in the future.

Petitioner cites a Kaiser March, 1979 memorandum (Attachment 117) to CG&E seeking consensus to apply a later ASME Code by allowing weld attachments to piping without the necessity for rehydro-tests. The adoption of ASME Code Section III Subarticle NB 4436 neither created a "loophole" in test coverage nor "lower[ed]" QA standards. Subarticle NB 4436, adopted in 1977, is the industry-wide standard for hydrostatic testing. A plant begun after 1977 is subject to the provisions of Subarticle NB 4436. Subarticle NA 1140(f) of Section III of the 1971 ASME Code -- under which Zimmer is being constructed -- permits the incorporation of provisions of subsequent codes. S&L revised Article 902.2 of Specification H-2256 by incorporating Subarticle NB-4436. Approval by the State of Ohio is pending.

Subarticle NB 4436 specifies when a hydrostatic test must be re-performed following post-test welding of a system. It does not, as petitioner alleges, "permit post-test welded attachments without conducting the hydro test again" except in the following limiting circumstances:



"NB-4436 Installation of Attachments to Piping  
Systems After Testing

"Permanent attachments meeting the requirements of NB-4433 and temporary or minor permanent attachments meeting the requirements of NB-4435 may be welded to the piping system after performance of the pressure test provided that:

- (a) the welds do not require PWHT under NB-4622.7;
- (b) the cross-sectional area of the material attached shall not exceed 6 sq. in. (3870 mm<sup>2</sup>) at the surface of the pressure boundary material;
- (c) welds shall be restricted to fillet welds not exceeding 3/8 in. (10 mm) throat thickness and to full penetration welds attaching materials not exceeding 1/2 in. (13 mm) in thickness;
- (d) welds shall be examined as required by NB-5000."

Contrary to petitioner's implication, the decision to adopt Subarticle NB 4436 was unrelated to the post-test construction work in the containment discussed by Mr. Tyner in Attachment 17 at page 6.

Investigation into these three allegations does not reveal use of improper hydrostatic testing practices or a violation of QA procedures and therefore they are denied. In addition to regular QA procedures which assure that proper hydrostatic testing is performed, the review performed by the CG&E Document Verification Group will confirm that no work done will invalidate previous tests on a given system.

ALLEGATION 139

"The most basic activity on site, welding, is the best model to illustrate the structural breakdown of the Zimmer QA Program. As seen above, traceability of welding materials has traditionally been deficient...(Attachment 118A-B)"

Response:

This allegation is the first of 19 allegations in the petition under the subheading entitled "Welding" and apparently is intended to be an opening statement because of its broad and general content. The general characterization of the Zimmer QA program therein contains no basis in fact and does not warrant a response. As to the matter of traceability of welding materials, this subject is addressed in response to Allegations 51 and 52, which deal with weld rod traceability.

Next, the allegation refers to two newspaper articles (Attachments 118A-B), which deal primarily with welder qualifications. There is insufficient specific information provided in these articles to warrant a response. However, it is interesting to note that Attachment 118B is an article from the July 27, 1982 Cincinnati Enquirer headlined "ZIMMER WELDERS RETESTED-SEVERAL DOZEN FLUNK," which was essentially retracted the following day in that same newspaper.

Finally, this allegation cites five reports to the NRC by CG&E of welding problems since December of 1981 under 10 CFR 50.55(e). These reports deal with welding procedures, welder qualifications and weld quality. Here, petitioner has actually identified examples of the proper functioning of the quality assurance program. This reporting process and the detailed follow-up investigation with corrective action, if required, will fully resolve the issues raised.

ALLEGATION 140

"Initially, CG&E's philosophy of not going beyond the minimum -- particularly with respect to qualifications -- underpinned welding. A February 10, 1975 letter (Attachment 119) from Mr. Pandorf instructed, 'Chapter BB-201 (of the Ohio Building Code) does not require state certification of welding labs. KEI should discontinue its efforts to obtain certification of its weld testing facility.' Gladstone Laboratories got the job. Gladstone has conducted tests...trained weld inspectors...conducted reinspection of welds...(Attachment 120.)"

Response:

Petitioner cites Attachment 119 and asserts CG&E established minimum requirements with respect to welding qualifications. This broad charge is not supported by CG&E's February 10, 1975 letter which clearly outlines to Kaiser a course of action to comply with State of Ohio code requirements.

Petitioner's general statements regarding Gladstone Laboratories are too vague to identify what concern, if any, is being conveyed. Specific concerns related to Gladstone are addressed in response to Allegation 141.

ALLEGATION 141

"A January 29, 1982 Kaiser 'mini-audit' (Attachment 121) of Gladstone's work revealed wide-ranging deficiencies...The report concluded...This supplier has never implemented a formal Quality Control Program at this location...The scope of Gladstone's impact on Zimmer extends to the first years of work..."

Response:

Following the preliminary findings of the mini-audit/plant survey, Kaiser removed Gladstone from the AVL. Kaiser completed a full-scale audit of Gladstone in December, 1982. The findings of that audit are being evaluated by the Kaiser Quality Engineering Department. Whether Gladstone now meets current standards is not necessarily determinative of its AVL eligibility in past years.

ALLEGATIONS 142, 143, AND 144

These three allegations deal with welder qualifications.

142. "The qualifications of welders at Zimmer have become a major focus of public concern...(Attachment 118C, supra.)...the scope of suspect welder qualifications truly covers the entirety of work on-site...(Attachment 17, supra., at 3.)"
143. "The tradition of welders with suspect qualifications parallels the tradition of limited, subordinate involvement with welder qualifications...(Attachment 122)...An October 28, 1981 Kaiser Corporate Audit (Attachment 123) revealed both the lack of QA oversight and the predictable consequences..."
144. "A review of internal reports and welder qualification records reveals the scope of the problem. Welders were tested to qualify for one procedure, and then work to another more difficult task..." (Attachments 123, 124, and 125)

Response:

Allegation 142 cites a July 27, 1982 news article as Attachment 118C, apparently referring to Attachment 118B. This is the same article used in Allegation 139 and, as pointed out in the response to that allegation, the hearsay statements and similarly unreliable information contained in such an article do not warrant a response. Another article in the same newspaper the following day retracted portions of Attachment 118B.

Allegation 142 cites a June 19, 1982 affidavit by James Tyner, (Attachment 17), once a Kaiser piping foreman at Zimmer, regarding welder qualifications. He stated:

"When we came up against a weld requiring a procedure for which we could not find a qualified welder, the weld would be done with a person not qualified in that procedure. Later, the person who did the weld would be tested and said to be qualified after-the-fact."

In contrast, Mr. Tyner also stated to the NRC during an

April 16, 1981 interview taken from NRC IE Report 81-13 at page 61:

"Tyner said the pipe welds in the plant are good, and attributed this to Kaiser's Welder Qualification Program which identified unqualified welders and prohibited them from working on safety-related welds."

Regardless of the credibility of these statements, the quality of essential welds at Zimmer is being re-examined under Task II of the Quality Confirmation Program.

In Allegation 143, petitioner charges that Zimmer has a tradition of limited, subordinate involvement with welder qualifications. It cites a February 22, 1980 memorandum (Attachment 122) written by a Welding Engineer, Worley Puckett, stating that it was unnecessary for personnel to perform visual inspection of weld test coupons prior to radiography or a bend test. Section IX of the ASME Code does not require final visual inspection on weld test coupons prior to radiography or bend tests. The ability of welders to make sound welds is determined by a radiographic examination or bend test on the weld. (See ASME Section IX, Para. Q-5(b).) This inspection is not a QA requirement unless the contractor designates it as such, and Kaiser did not so designate at the time of Mr. Puckett's memorandum. Consequently, there is nothing improper in Mr. Puckett's memorandum.

Petitioner then cites an October 28, 1981 Kaiser corporate audit (Attachment 123) to allege a lack of QA oversight, identifying two instances in which no QA representatives were in the lab test area while welder qualification tests were being performed. Audit Report 67 found that on two of four visits to

the weld test shop, no QA representatives were in the lab test area. The audit stated that in the absence of QA personnel, it was possible for a welder to visit test booths other than his own. On August 28, 1981, shortly before the audit of September 28, 1981, Kaiser adopted SPPM 3.2, Rev. 7, Para. 13 which directed that a "representative from HJK QA will be present in the test lab area at all times when weld tests are being performed" to confirm compliance with procedural requirements. Following the issuance of Audit Report 67, Kaiser issued WIP-27, Rev. 5 requiring that QA personnel be present at all times and the inspector document his presence on the QA Weld Test Shop Surveillance Form. Signs have been placed in test booths stating the policy that only one welder is allowed in the test booth at any one time. Contrary to petitioner's implication, Mr. Puckett's January 12, 1982 memorandum instructing that two persons would not be allowed in the test booth was therefore not an attempt to prevent surveillance of welder qualification tests by QA personnel.

Allegation 144 cites a January 22, 1982 Corrective Action Report (Attachment 124) in asserting that welders were tested to qualify for one procedure and then worked to another procedure. The improper welding was discovered by the Project Welding Manager on January 20, 1982. He immediately issued a Stop Work Order and reported the violation to the QA Department. CAR-048 was issued two days later. Appropriate corrective action was taken, and the Corrective Action Statement was approved on February 18, 1982. CAR-048 demonstrates that deficiencies

concerning welder qualification are being identified and properly dispositioned. The fact that the deficiency in this case was first identified within the Construction Department indicates their serious regard for welder qualification requirements. Petitioner's allegation that the weld procedure being used was "more difficult" than procedures to which the welder had been qualified is denied. The violation of weld procedures was caused by a misinterpretation of those procedures and was not a deliberate violation. These procedures have been clarified to prevent recurrence of this condition.

Petitioner incorrectly refers to page 15 of Kaiser Audit Report 67 (Attachment 123) in Allegation 144. Nothing in that audit concerns welders using weld procedures to which they were not qualified.

Finally, petitioner cites a February 23, 1982 internal Kaiser memorandum (Attachment 125) stating that some welder qualification report forms contained "a number of discrepancies." This memorandum involved preliminary, in-process documents which were sent to Mr. K. Cherian, the author of the memorandum, for his approval prior to their release as QA documents. Mr. Cherian's observations were appropriate since it was part of his duties to review these documents for accuracy, thus contributing to the Quality Assurance Program.



ALLEGATION 145

"21 examples of welder qualification records from 1978-1982 submitted by Counsel to the NRC Staff contained the following characteristics --"

Response:

In this allegation, petitioner has asserted 11 "characteristics" of welder qualification records unsupported by any attachments or backup documentation. The Company's request to the NRC for the alleged basis of these allegations was denied. Based on the limited amount of information, the 11 "characteristics" are addressed as follows;

In general, deficiencies in welder qualification records are identified in 50.55(e) Item M-45.

"a) Same test referenced on both carbon steel and stainless steel qualification forms;"

Response: Applicable codes ASME Section IX, 1971 Edition, and AWS D1.1-1972 do not differentiate between forms to be used for qualification of a groove welder on either stainless or carbon steel forms. Carbon steel test coupons are often used in lieu of stainless steel, as allowed per ASME Section IX Paragraph Q-23(e).

"b) Testing to 3/8 inch thickness pipes and that 'qualified' the welder 3/4 inch thickness;"

Response: Welder performance qualification tests on pipes are certified in accordance with ASME Section IX, 1971. Table Q-24.3 allows a maximum qualified thickness range of "2T" (2 times) for a .375 in. thick test coupon (thus, 2 x 3/8 in. = 3/4 in.) Therefore, this practice is acceptable.

"c) Absence of evidence that mandatory procedures such as break tests were performed for certain qualification levels;"

Response: Break/tension tests are only required for procedure qualification, not performance qualification. As per ASME Section IX Tables Q-24.1, .2, and .3 and AWS D1.1 Table 5.26.1.

"d) Documentation that two X-rays were taken of weld coupons when four were required;"

Response: There are no known instances where two X-rays were taken when four were needed. Without specific details, it is not possible to respond further to this allegation.

"e) Reference to radiography of test welds when radiography is not the appropriate non-destructive examination;"

Response: Because neither ASME Section IX 1971 Edition nor AWS D1.1-1972 disallows the use of radiographic examination in determining welder performance qualification, it is assumed that this allegation stems from Note No. 2 on Ohio Form Q-1G which states in part "Radiography is not acceptable." When the Ohio Q-1G forms were developed, radiographic examinations were not acceptable per ASME. Subsequently, ASME determined that radiographic examinations are acceptable for this application; however, the Q-1G forms were not revised to reflect the change and retained the information "Radiography is not acceptable." This form has been used in accordance with applicable ASME code. All Ohio Q-1G forms submitted to the State Welding Department for

their approval reflect the test method used to qualify each individual welder. Forms returned from the State stamped "Approved" have been reviewed and determined to be acceptable. There are no known instances in which the state has disapproved this form.

"f) Approval of test results by unqualified individuals;"

Response: This deficiency has been addressed by HJK CAR 197, and CG&E Condition Evaluation Request 82-295. Currently, all items are open.

"g) Weld rod issue slips that did not release enough electrode to perform the tests supposedly passed;"

Response: The welding material control procedures followed in the welder qualification program do require control of welding materials through the use of KE-2 forms. In this instance, however, petitioner has failed to identify which tests allegedly involved issuance of insufficient weld rods. Nonetheless, the allegation is without merit. If sufficient welding material had not, in fact, been issued, the weld metal in the joint would be inadequate to pass the initial weld profile examination or any of the subsequent inspections of the weld test coupons performed prior to final acceptance of the weld. Thus the situation alleged by the petitioner necessarily would have resulted in welder qualification failure.

"h) Inconsistencies in the records for the thicknesses to which welders had supposedly qualified;"

Response: In the past, several partially preprinted qualification forms were prepared. The majority of welder tests are standardized for specific procedures, i.e., most past S.P.P.M. 3.1.21 tests were performed on 6" inner-diameter XX strong .864" pipe. Because a 5" inner-diameter XX strong .750" pipe would grant a welder the same qualified thickness range and require less time and material to complete, it was often substituted for the .864" coupon when available. Through inadvertence, some of these preprinted forms did not reflect the actual test data. These conditions have been addressed by HJK Nonconformance Reports as ASME Section IX Paragraph Q-1(c) violations. This item is pending resolution.

"i) Unexplained changes in pen to Xeroxed copies of qualification records which consistently upgrade the records;"

Response: In cases where sufficient backup documentation does not exist, (i.e., KE-1's, RT Reader Sheets), Nonconformance Reports are generated. The assertion that these changes consistently upgraded records is erroneous. Several welders' qualifications were downgraded.

"j) Signatures on the qualification records that do not match the stamp log;"

Response: Such alleged inconsistencies are under investigation. However, absent specific information, further response is not possible.

"k) Despite all these record deficiencies, a uniform absence of X-ray films, reader sheets or shooting sketches to verify any of the various versions of the records."

Response: Neither the ASME nor AWS Code requires retention of welder performance qualification radiographs. The majority of the radiographic reader sheets missing are those which were filled out by the initial NDE contractor on site, Peabody/Magnaflux. P/M has transmitted originals or copies of radiographic reader sheets to CG&E on site. Radiographic reader sheets which are in fact missing and cannot be obtained are addressed in QCP Task II by CG&E CAR No. 82-51, initiated June 14, 1982.

ALLEGATION 146

"QA documentation standards for welding are deficient at Zimmer, with far reaching ramifications. The case of Class D piping is revealing. Again CG&E established the groundwork by ordering Kaiser to minimize the QA records...(Attachments 126, 127, and 128)...The problem was that in many cases, the piping was purchased as Class D and then upgraded to D+...(Attachment 129A and B)...Weld rod traceability and missing KEI-1 forms are a wide scale problem at Zimmer... There are no traceability records to find. Due to CG&E's order not to provide more than minimally-required documentation, the necessary records to support the upgrading were never generated."

Response:

Allegation 146 discusses correspondence from the Zimmer files regarding QA documentation standards for welding at Zimmer. The first is a June 11, 1973 CG&E letter to Kaiser (Attachment 126), in which petitioner incorrectly characterizes CG&E as "ordering Kaiser to minimize the QA records." This letter, written during the early stages of Zimmer construction, responded to a Kaiser request and clarified documentation requirements for Class D piping on the Phase I embedded piping installation. While petitioner quotes a portion of CG&E's letter noting that the requirements for documentation for this piping is an owner's prerogative, petitioner fails to point out that the letter then states:

"Since there have been several interpretations of the Phase I Specification, it is suggested that you continue to include on your Documentation Deficiency Report the requirement that no documentation has been received for this pipe. This will assure that the decision which has been made relative to the documentation will be completed."

CG&E's position as stated in the 1973 letter was an intermediate step pending final definition of the Class D piping documentation requirements and was in accordance with piping code ANSI B31.1, which did not stipulate documentation requirements

for Class D piping. Thus, the letter makes no attempt at establishing a policy of "minimizing" the QA records for Class D Phase I piping. Rather, it established that (1) the requirements for documentation are the owner's prerogative, but those requirements had not yet been decided; (2) Kaiser should continue to initiate Documentation Deficiency Reports on the basis that no documentation has been received for this pipe to assure that the documentation requirements will be established; and (3) the pipe can be released for installation. In August, 1973, Phase II Fabricated Piping Specification H-2255 was issued which defined Class D piping documentation requirements in Article 1.14B.e.3.

The second reference cited in Allegation 146 is a January 21, 1975 CG&E letter to Kaiser (Attachment 127), taking out of context that part which directed that use of Kaiser's KE-WELD-1 form was not required for documentation of Class D piping welds. This letter also required verification that both the Welding Procedure Specification and the Weld Performance Qualification Records were completed and properly certified. As indicated in the letter, the placement of an inspection stamp in the appropriate place on the Construction Inspection Plans would indicate work was satisfactorily completed by a qualified welder using a qualified welding procedure. Again, this directive was appropriate for Class D Piping as outlined in Specification H-2255.

The next reference is a June 12, 1978 Kaiser inter-office memorandum (Attachment 128), from which petitioner erroneously implies that completed Construction Inspection Plans (CIP's)

could substitute for KEI-1 forms in all instances. The Kaiser memorandum actually states that "those few cases where KE-1 Forms cannot be accounted for, but the CIP's verify the work was completed, inspected, and accepted[,] will not require reconstruction of the KE-1 Form." Attachment 128 does not authorize, as petitioner implies, that this program be expanded to project wide activities.

The September 24, 1981 Kaiser letter to Sargent & Lundy (Attachment 129A) asks whether documents on Class D+ systems must be handled and controlled the same as Class A, B, and C, and also whether material traceability is required for D+ systems. Sargent & Lundy answered "yes" to each of these questions in their June, 1982 letter to Kaiser (Attachment 129B). Petitioner charges that "in many cases" piping was purchased as Class D and then upgraded to D+" and that "the necessary records to support the upgrading were never generated," which are false allegations as shown below.

This assertion reflects a lack of understanding of project details at Zimmer. D+ piping is the classification given to main steam piping outside the containment. Only five small bore Class D lines used for leak detection are being upgraded to D+ and this work has been initiated under the control of an Engineering Change Request 1221. Sargent & Lundy has confirmed that there are no other planned piping classification changes that would require upgrading a Class D pipe. Thus, notwithstanding petitioner's speculation to the contrary, material traceability records are available to support the upgrading of Class D pipe in



these few instances. Petitioner may have confused this upgrading of piping with the upgrading of pipe support systems from non-seismic to seismic, which has been done on both Class D and Class D+ pipe systems.

Class D+ piping systems are now entirely in the Quality Inspection required classification and all welds are controlled on Kaiser's KE-1 Weld records. Class D piping is divided into large bore and small bore systems; pipe over 2 inches is large bore and pipe 2 inches and under is small bore. Large bore Class D welds are now controlled on Kaiser's KE-1 Weld records requiring all Quality Control Inspections and acceptance. Small bore Class D welds are now tracked directly on the ISK drawing on a weld block. Inspections are done by Kaiser welding engineering personnel who are trained to Weld Inspection Procedure (WIP-27). These personnel perform all indicated inspections and sign off the weld block directly on the drawing. Kaiser quality personnel are not involved in Class D small bore welding; however, CG&E QA does maintain a surveillance activity to insure that all required inspections are performed and recorded on KE-1 weld record documents or on ISK drawings.

ALLEGATION 147

"...[T]he quality of welding QA records has not met the standards adopted...(Attachment 130)"

Response:

In support of this allegation, petitioner cites a February 26, 1979 Audit Report 372 (Attachment 130) that only 3 of 20 KE-1 forms reviewed were acceptable, and only 12 of 20 radiographic reports were acceptable without corrections. The concerns identified in this audit report, an audit of documents related to welding, were basically clerical in nature. All were corrected at the time of the audit.

Attached to the audit is a memorandum written by the auditor stating that a follow-up audit of the noted deficiencies would be conducted. Two such follow-up audits of special processes were performed. See Audit Report 383 and Audit Report 416. Neither audit found that the type of deficiencies cited in Audit Report 372 continued to be a problem. These audits demonstrate that the Zimmer audit program is working properly in identifying and eliminating deficiencies. In addition, weld related documents are being reviewed for completeness and accuracy in the final documentation review and acceptance prior to systems turnover.

ALLEGATION 148

"The quality of documentation for weld inspections has also been inadequate... (Attachment 32, supra, at 3.) The October 30, 1981 CAR reveals the extremes of the records deterioration... (Attachment 99, supra, at 2.)"

Response:

The first portion of this allegation cites a December 9, 1981 letter from the National Board (Attachment 32), stating that Zimmer files failed to show that appropriate documentation had been provided to support QC 'Transfer Acceptance Stamps' on weld histories such that many of the welds which had been stamped acceptable were questionable. Nonetheless, the letter makes no specific findings to which CG&E can respond. For example, it is not known whether the examples occurred before the NRC's Immediate Action Letter (IAL) of April 8, 1981.

In response to the IAL, CG&E established Task II of the Quality Confirmation Program, which includes a review of code piping KE-1 weld data sheets to verify, among other things, inspection stamps. This review is in progress. Any deficiencies found, such as Transfer Acceptance stamp inconsistencies, will be dispositioned prior to the system's final turnover. Corrective action taken since the IAL to assure against improper use of Transfer Acceptance Stamps include more rigorous documentation control procedures and additional qualified personnel for documentation review.

The second part of this allegation cites CG&E's October 30, 1981 Corrective Action Report, CAR 81-25 (Attachment 99), alleging that an inspector verbally rejected welds without documentation or KE-1A forms and then accepted them through a

note. However, the welds in question had not been turned over for inspection at the time of the in-process inspection referenced in Example 2 of the CAR. A Nonconformance Report (NR) was not required to be written at that point in the welding process since the welding had not been completed. The subsequent formal inspection accepted these welds. The CAR finding was also against an informal in-process inspection, calling for improved documentation of this process. This procedural concern expressed by CAR 81-25 has been addressed by Kaiser's In-process Inspection Deficiency Report (IIDR) Procedure (ZAPO-5), which was issued in May, 1982. Upon verification of Kaiser's corrective action, CAR 81-25 will be closed out. This CAR is further evidence of the effectiveness of the Zimmer Post-IAL Quality Program.

ALLEGATION 149

"Welding QC Inspection Procedures may be as deficient as documentation. Mr. Jagger's December 9 letter revealed that several different approaches were used to inspect small bore "pullback" or "fit-ups", some of which would prevent verification and inspection as required by Article NB-3661.5(b). (Attachment 32, supra, at 3-4.)"

Response:

This allegation is similar to the finding of IE Report 81-13, Item 05, criticizing the method of indicating "pullback" used on socket welds.

Welding procedure Specification SPPM 3.1.18, dated November 10, 1974, for carbon steel pipe is typical of pipe welding procedures used early in the Zimmer project, which required ASME socket welds to be inspected at fit-up for approximately 1/16" end gap. This fit-up was documented per in-process inspection procedure SPPM 8.0 on the small bore pipe data sheet. The welding procedures used for pipe fabrication delineate how the craftsman scribes the pipe to enable the inspector to verify disengagement between the end of the pipe and the bottom of the socket fitting. Mr. Jagger's allegation did not indicate what "several different methods of verifying 'pullback'...were employed," but the scribing procedure specified adequately met the requirements of ASME III NB 3661.5(b).

As a result of concerns raised by NRC/RIII in early 1981 regarding whether these procedures were being followed, Task IV of the Quality Confirmation Program was established to review the documentation of existing socket welds to determine if disengagement was verified by inspection. Accessible welds without this

verification have been radiographed as part of this continuing program.

ALLEGATIONS 150, 151, 187, AND 188

These four allegations are grouped for response because they deal with weld repairs.

150. "The QA deficiencies have spilled over to compromise weld repairs as well...(Attachment 131). As a result, the quality of repairs are suspect...(Attachment 132)"
151. "The above Surveillance Report illustrates the Zimmer QA effort at its best; as well as why the program is deficient. The Surveillance Report noted that the two welds in question had been cut out. Improved procedures and improved training were promised...Unfortunately, the document is solely prospective...(Attachment 109)...As a result, the full scope of weld problems remains a mystery. The welds might have been repaired that way routinely for the last decade."
187. "The effect of the NR breakdown on welding raises questions about the actual condition of nearly all welds on-site. The May 4 minutes of a May 2, 1973 Joint CG&E/Kaiser Construction Coordinating Meeting (Attachment 164) showed how the NR ground rules were rigged from the start to avoid reporting informal weld repairs:"
188. "The manifestations of this 1973 policy are still surfacing...(Attachment 32)...A January 11, 1982 CAR, ironically, identified a system to circumvent NR's through informal weld repairs that could apply throughout Zimmer:" (Attachment 165)

Response:

Allegation 150 refers to a February 23, 1982 internal Kaiser Memorandum (Attachment 131) citing "a number of weld repair cards (KE-1A Cards) having re-work instructions that do not meet the code requirements," referring to ASME Code Section III. This memorandum, written by Kaiser Quality Engineer K. Cherian, incorrectly stated that instructions concerning ASME Code Section III, 1971 Edition, Paragraph NB 4453.1 should have been included on weld repair cards (KE-1A Cards). Paragraph NB 4453.1 concerns acceptable methods for removal of weld defects. Code Cases N-274 and N-275 were adopted by the ASME in 1980 and provide alternative methods for examination and repair of welds. The

instructions provided in the KE-1A Cards examined by Mr. Cherian were consistent with the requirements of those Code cases. This allegation does not cast any doubt on the quality of weld repairs at Zimmer.

Allegation 150 also refers to a February 16, 1982 Surveillance Report (Attachment 132), written by a Kaiser Quality Engineer after observing an in-process weld repair, which criticized an inspector for accepting an excessive weld root gap and reported another such incident in another weld the writer had not personally seen. That both welds were subsequently cut out and replaced is documented on KE-1A Form 5685 and KE-1 Form A 7284. Petitioner's allegation that the SR identified "previously inspected and accepted weld repairs" is incorrect. The SR documented the excessive root gap prior to initial completion of the weld. That the deficiency was discovered and corrected during in-process procedures is an example that the QA program is working.

Allegation 151 cites the same Surveillance Report (note that Attachment 109 was cited; Attachment 132 is the correct reference). Nothing in the SR suggests the existence of any generic problem so as to cast doubt on the quality of weld repairs which have been inspected and accepted. Thus, a QC inspector would have no reason, based on the SR, to examine any weld repairs previously accepted for excessive root gap. Kaiser followed industry practice by keeping the root gap to a minimum because it increases welding efficiency. Nothing in the ASME Code, however, discusses root gaps. Kaiser established a procedure limiting



root gaps early in 1982. When the February 16, 1982 SR identified excessive root gap in a weld, it was dealing with this new procedure.

Allegation 187 attempts to raise questions about nearly all welds on-site by quoting a portion of the minutes from the May 2, 1973 Project Meeting (Attachment 164) dealing with weld repairs to pipe from the inside. Apparently, the petitioner is criticizing the statement in these minutes that "[s]uccessful repairs will not be reported as non-conforming work."

It should first be pointed out that petitioner misquoted the word "check" as "cut" from the May minutes: "Kaiser Engineers indicated that they prefer making the check [not 'cut'] only after three repairs have been attempted." This changed the meaning of this quotation, portraying Kaiser as taking action without checking first. This sentence was clarified in the June Project Meeting Minutes to read: "Kaiser Engineers indicated that the procedure will allow up to three repairs without going through the reporting system."

Review of the minutes of these construction meetings shows that agreement was reached among Kaiser, Sargent & Lundy, and CG&E on the following points connected with cutting new openings in pipe to make weld repairs which was the specific topic under discussion:

1. Successful weld repairs made from the outside would not be reported as nonconforming work.
2. In accordance with existing site procedures, only after Kaiser made three unsuccessful attempts to repair a weld

from the outside would Sargent & Lundy approval be requested to cut a new opening in the pipe and attempt repairing the weld from the inside.

3. Sargent & Lundy would review and approve weld repairs made from inside the pipe on a case-by-case basis and an approved DDC would be required before such a repair could proceed.

These agreements were appropriate and in accordance with codes and procedures in effect.

Allegation 188 cites a December 9, 1981 letter from the National Board of Boiler and Pressure Vessel Inspectors (Attachment 32), asserting:

"The welds which had originally been stamped accepted by Q.C. on revision (1) were later cut-out. Acceptance of the replacement welds could not be verified, and it appeared that a breakdown had occurred in the documentation of identification and inspection portions of the Quality Assurance Program."

The concern in this letter is unwarranted. The welds in question, 1B-1 and 1B-2, were on the connections to an elbow which were welded, inspected and accepted in 1977. Subsequently, welds 1B-3 and 1A-4 on pipes connected to this elbow were cut out, the piping and elbow removed, and new pipe and elbow installed. There is no indication that welds 1B-1 and 1B-2 were ever cut. These welds were in fact replaced by welds 1B-6 and 1B-7 using new pipe and a new elbow. QC stamped and accepted these new welds on January 8, 1980. This information is available in the documentation package for ISK-D01-M427-DO-1. No breakdown occurred in the documentation and identification of the original and replacement welds.

This allegation then cites CAR-047 (Attachment 165), issued on January 11, 1982, which explains that under welding procedure SPPM 3.1.12, Rev. 5, only "major repairs" must be documented as a nonconformance. SPPM 3.1.12, R.5, defines minor repairs and states:

"All 'Minor Repairs' shall be classified as 'Rework' as defined in QAP 20 except these will not require documentation as a nonconformance, but will be noted on the KE Weld 1A form. If after (3) attempts of rework the condition has not been satisfactorily corrected, all attempts will cease, and the condition will then be identified as a nonconforming condition and evaluated as a 'Repair' as stated in QAP 20 and QAP 16."

Therefore, if a weld is radiographed and found to be unacceptable, weld engineering is authorized by procedure to cut out the weld and replace it with a new weld, as long as the rework constitutes a "minor repair." The only documentation requirements are that the rework be documented on a new KE Weld 1A form and that this form be reviewed and signed by the ANI (for ASME items) and Kaiser's QA Weld/NDE Engineer.

As indicated on CAR-047, Field Weld K-807 failed to meet the radiographic acceptance requirements on June 24, 1981 (see Weld Data Sheet 23840). The first repair of this weld was documented on KE Weld 1A form 2986. This repair failed and the weld was cut out, replaced with Weld K-816 and documented on KE Weld 1A form 2957. Weld K-816 was only a tack weld and was cut out as required by PSK-1MS-27A, Rev. 12, replaced by weld K-819, documented on KE Weld 1A form 3206 and documented and accepted on KE Weld Data Sheet 8996.

There was no requirement to initiate an NR in this case since all of the above work was considered "minor repair," and no

more than three attempts were performed to rework the weld. The NR system was not circumvented and the traceability of the welding process and weld numbers was maintained in accordance with approved procedures.

ALLEGATION 156

"Another symptom of an ineffective QA Program is the occurrence of repetitive violations...a hanger work package where the welder was not qualified for the procedure used. This was the second occurrence. (Attachment 138)...for a third time, a welder had used the wrong rod for the stainless welding procedure used. (Attachment 139)"

Response:

Petitioner asserts that the Zimmer Quality Assurance Program is ineffective because it resulted in the detection and reporting of similar QA violations. Specifically, petitioner alleges that CAR-033 (Attachment 139), written on November 19, 1981, identified the same sort of welding error identified by CAR-027 (Attachment 138), written on November 10, 1981, and CAR-013, written on August 24, 1981. This is not the case. The three CAR's cited involved different welders, different foremen, two different problems, and are not evidence of "repetitive violations."

CAR-013 was the only one of the three involving welder qualification; the welder had previously been qualified to perform gas tungsten welding, but his qualification had lapsed. As a corrective action, Kaiser provided foremen with additional indoctrination to impress upon them the need to check the qualifications of welders before handing out work assignments. Kaiser also cut out and replaced the weld in question. CAR-013 was closed November 3, 1981.

CAR-027 found that a foreman had entered an incorrect welding procedure number on a KE-2 (weld rod slip) form. The weld procedure listed was SPPM 3.1.6, which this particular welder was not qualified to perform. However, the welder was

previously qualified to procedure SPPM 3.1.21, which qualified him to perform weld procedure SPPM 3.1.41, the procedure which should have been listed on the KE-2 form. This situation was documented on NR E-4052 January 7, 1982 and dispositioned accept-as-is on January 12, 1982.

CAR-033, which also identified entering the wrong procedure on a KE-2 form, was written three days after CAR-027 by the same person, before Kaiser had any substantial opportunity to take corrective action. CAR-033 noted that a KE-2 form had listed SPPM 3.1.56 as the weld procedure to be performed whereas the proper procedure number was SPPM 3.1.51, for which the welder was qualified. As part of the corrective action, it was determined that the correct process and filler metal had been used to make the weld. CAR-033 was closed on January 6, 1982. In response to the conditions identified by CAR's 027 and 033, Kaiser also conducted refresher training classes on December 7, 1981 on the issuance and control of welding rod.

ALLEGATION 157

"...It appeared that constructive steps were being taken, through a 'Welding Task Force' (Attachment 99, supra, at 6.) and by reporting significant deficiencies to the NRC through reports under 10 CFR 50.55(e). [I]n July 1982 CG&E told the NRC that only 19 instances among nearly 500 welders raised serious problems for establishing welder qualifications, although Kaiser reviewers could only document fully the qualifications of eight welders...CG&E had been explicitly warned that it would be impossible to prove the qualifications of 10%-15% of the welders...(Attachment 118B)...Mr. Hunter accurately described the utility's perspective in the welder qualification review: '...They say that a guy is innocent until proven guilty. I say they are guilty until proven innocent.' (Attachment 118D)...'...I don't think they-or we-realize the extent of the problem yet.' (Attachment 118C)...Counsel has...sent an affidavit to the NRC Staff...(Attachment 140)"

Response:

It is impossible to respond fully to this multi-faceted allegation due to incorrect or non-existent attachments.

First of all, reference is made to a "Welding Task Force," purportedly discussed in Attachment 99 on page 6. This Attachment, which is a four-page October 1981 Corrective Action Report, dealing with the inspection program for pipe hangers, is a clearly inapplicable reference. However, Kaiser Audit Plan, Audit 67, (Attachment 123), dated September 21, 1981, describes an ad hoc site "Welding Task Force" to review, rewrite and requalify, when necessary, all Zimmer Site Welding Procedures. Petitioner acknowledges that creation of the Task Force was a positive step and does not allege that it failed to perform its function properly.

The next portion of the allegation charges that CG&E misrepresented the results of their investigation into welder qualifications to the NRC at a meeting July 9, 1982 and cites a July 27, 1982 news article (Attachment 118B). Allegations

possibly related to this matter have been investigated based on an October 27, 1982 letter from the NRC/RIII, inquiring of "allegations that relevant documentation on the welders at the Zimmer site...was not discussed with, or made available to, Region III at a meeting on this subject held on July 9, 1982...." CG&E investigated these charges and denied them in a letter to NRC/RIII on November 15, 1982. This letter pointed out, however, that concerns over welder performance qualification records were previously identified in 10 CFR 50.55(e) Report M-45, which is currently under review.

This allegation then makes further charges regarding welder qualification and records, referring to Attachments 118C and 118D. Neither of these attachments was furnished with the petition and, therefore, no response is possible.

Finally, petitioner refers to Attachment 140, GAP's July 15, 1982 letter to the NRC. Since the letter itself contains no factual allegations regarding welder qualifications and did not enclose the affidavit to which this allegation refers, there is no substance to this charge and no further response can be given.



ALLEGATION 158

"....The breakdown of the Nonconformance reporting system at Zimmer illustrates the breakdown of the entire QA Program."

Response:

This allegation provides no substance to support the charge of any such "breakdown" of the entire QA Program and is denied. Elsewhere, GAP's July 9, 1982 letter to the NRC (Attachment 79) and glossaries developed by CG&E (Attachment 141A) and Kaiser (Attachment 141B) are cited to define "nonconformance." It is unclear how this definition in and of itself purports to show the existence of a QA "breakdown" at Zimmer. However, the allegation incorrectly states: "Nonconformance Reports are sent to the NRC." While this may be done in specific instances, it is not standard procedure or a requirement under NRC regulations or the QA Program at Zimmer in issuing Nonconformance Reports.

ALLEGATIONS 159, 166 AND 167

These three allegations deal with charges of "Inferior Substitutes for Nonconformance Reports."

159. "It is significant that the overwhelming majority of QA violations discussed in previous paragraphs were identified on more informal substitute forms such as Corrective Action Requests, Surveillance Reports, Inspection Reports (supra at \_\_\_), Punch Lists (Attachment 142.), and frequently mere inter-office memoranda. The permanent Nonconformance reporting system at Zimmer has only identified a shadow of the QA violations. As a result, it circumvents normal oversight for the vast majority of necessary corrective action."
166. "There have been a variety of NR substitutes used to report nonconforming conditions...1) memoranda...(Attachments 152A-C); 2) letters...(Attachment 152D); 3) 'as-built' drawings...(Attachment 152E); 4) Surveillance Reports...(Attachment 152F); CG&E was aware before the November 1981 NRC Report that Surveillance Reports were an improper substitute for NR's that had been 'abused' and should be 'discontinued.' (Attachment 79...) The abuses included allowing violations to remain for two years without establishing tracking methods to prepare trends from the final resolution. (Attachment 92 supra.) Any doubts about the propriety of the SR substitute should be resolved (Attachment 32, supra, at 3.)"
167. "An October 5, 1979 memorandum (Attachment 152G); introduced Corrective Action Requests ('CAR') as an NR substitute...A July 22, 1981 Kaiser memorandum from Mr. Jones (Attachment 152H) noted that CAR's are 'redundant of the Nonconformance Report and may cause confusion concerning the initiation of an NR or CAR.'...CAR's excluded procedural violations...could shrink the NR procedure to 'only non-repetitive conditions.'"

Response:

The April 8, 1981 Immediate Action Letter and IE Report No. 81-13 include concerns that nonconforming conditions had been inadequately addressed on the Zimmer Project. Consequently, CG&E established Task VII of the Quality Confirmation Program to address nonconformances that were documented on Surveillance Reports, Punchlists, or Exception Lists, as well as Nonconformance Reports that were not documented, documented but

not entered into the system, or voided rather than being dispositioned. The corrective action being taken under Task VII includes a review of all Surveillance Reports, Punchlists, and Exception Lists to determine whether they should have been written as Nonconformance Reports. Further, all voided Nonconformance Reports are being reviewed to determine if the proper disposition was made. A random selection of 300 NR's closed for other reasons is also being reviewed to make the same determination. The results of the ongoing investigation of these documents shows that some NR's were not dispositioned correctly and some Surveillance Reports should have been written as Nonconformance Reports. All such NR's identified will be properly dispositioned.

In addition to the review of previous NR's being conducted under QCP Task VII, Item 9 of the April 8, 1981 Immediate Action Letter requires "CG&E to perform a 100% review of all Surveillance and Nonconformance Reports written by contractor personnel. This review program is functioning on the Zimmer Project. Refer to CG&E's February 26, 1982 response to NRC Inspection Report 81-13, Item 24 for details regarding rewriting of selected SR's.

These are examples of positive actions taken by CG&E to improve procedures in the area of nonconformance identification and documentation. It is denied that improper use of various reports was done to subvert the established nonconformance reporting system. While the above discussion addresses the

general charges contained in this group of allegations, responses to each of these allegations are given below.

Allegation 159 characterizes various QA procedural devices as "NR substitute forms," but fails to demonstrate that any such procedure is deficient or invalid for its intended purpose. Reference is made to Attachment 142, which is an Emergency Core Cooling System Test Punchlist that identifies items requiring completion prior to ECCS testing. While petitioner attempts to show that Punchlists were being used to circumvent the normal corrective action system, Project Procedure Admin-2 clearly defines the use of Punchlists as a document to identify and provide a status of items requiring completion prior to system turnover and preoperational testing. Included in the items on system punchlists are open Nonconformance Reports requiring disposition and corrective action processing. Rather than providing a means to circumvent existing systems, therefore, the Punchlist actually provides a means of tracking the completion and acceptance status of open construction items, including Nonconformance Reports.

Allegation 166 is primarily directed at Surveillance Reports substituting for Nonconformance Reports, which has been discussed above in this response. Responses to other examples of alleged "NR substitutes" are:

- 1) Memoranda. The handwritten memoranda identified as Attachments 152A, B, and C were not used as substitutes for NR's, nor were they the result of an official inspection of the areas described. Rather, they

represent informal overviews of the general condition of an area prior to final inspection. The rejection rates to which the memoranda refer stem from the actual inspection of the area by QC inspectors, with appropriate documentation of nonconforming conditions. Thus, the memoranda do not reflect attempts to resolve deficiencies without resorting to the NR system, and are inaccurately described as "substitutes" for NR's.

- 2) Letters. Attachment 152D, a September 8, 1976 letter from Mr. Schwiers to Mr. Friedrich, notes: "It has come to our (CG&E) attention that two branch welds on a Class D+ main steam pipe spool did not receive NDE at Pullman Kellogg," the piping fabricator. Petitioner erroneously assumes that the letter was an improper attempt to document a nonconforming condition on a letter instead of an NR. In fact, the condition had already been identified during the normal review of received material documentation and an NR written, which is being reviewed under QCP Task VII.
- 3) "As-built" drawings. A CG&E internal memorandum dated September 6, 1978 (Attachment 152E) is cited in Allegation 166 as evidence that a directive was given to document unapproved construction work on "as-built" drawings. This memorandum was written to emphasize the need to obtain S&L's approval of design drawings and DDC's prior to performing work on the project. This concern has previously been discussed in response to

Allegation 27. In particular, Attachment 27C of that allegation is a Kaiser project directive implementing CG&E's memorandum, reiterating the need to obtain S&L's approval of DDC's. The memorandum further explained that work which may have been installed prior to such S&L approval must be documented on as-built drawings for S&L approval. If this approval was not granted, the work would have to be redone. Task IX of the QCP includes a review of changes to design documents including verification that essential DDC's were considered.

Petitioner cites Attachment 32, which repeats the same findings as IE Report No. 81-13 at page 142 regarding use of Surveillance Reports. As noted at the outset, CG&E has taken action to resolve this concern through the Quality Confirmation Program Task VII.

Allegation 167 cites a Kaiser October 5, 1979 memorandum (Attachment 152G) which states CAR's will be used for procedural violations and NR's only for hardware deficiencies. It is asserted that this Corrective Action Request was used as an NR substitute. Petitioner has cited only one piece of correspondence from a series of developments in the evolution of CAR procedures. The Kaiser memorandum did not introduce a substitute for NR's but provided a means for documenting procedural violations which did not affect hardware. CAR's are supplemental, not detrimental, to the reporting process.

The CAR form is an appropriate method of documenting procedural deviations, but is not limited to repetitive conditions as indicated in this Allegation. Kaiser Corrective Action Report procedure GQP-10, Rev. 2 specifically authorizes the use of CAR's when any of the following conditions are found:

3.2 CONDITIONS OR SITUATIONS REQUIRING CAR'S

- 3.2.1 CAR's are used to document conditions of a significant nature which have an adverse affect on quality, and are procedural in nature.
- 3.2.2 A CAR shall not be written on specific or non-repetitive type conditions which can be reported on Nonconformance Reports (NR).
  - 3.2.2.1 Hardware nonconformances detected, as a result of the conditions noted on the CAR, shall be identified by the issuance of an NR, an in-process deficiency report or other appropriate reporting documents in accordance with the approved procedures.
- 3.2.3 CAR's provide a means of determining and documenting the cause of adverse conditions and corrective measures employed in order to provide assurance that the problem will not recur.
- 3.2.4 Conditions adverse to quality are considered significant and reportable on CAR's when any of the following exist:
  - 3.2.4.1 The condition is repetitive in nature and indicates that the current controlling measures are inadequate or insufficient.
  - 3.2.4.2 The condition is the result of a program or procedural deficiency.
  - 3.2.4.3 A noted deficiency has not been resolved in a timely manner.
  - 3.2.4.4 The condition indicates a disregard for procedural or program requirements.
  - 3.2.4.5 A review of formerly approved corrective actions indicates that these actions were either improperly or incompletely accomplished.

The Corrective Action Reports are distributed to the appropriate management of the organization to which the corrective action is addressed as well as those responsible for implementation of the corrective action and the CG&E QA Manager.



ALLEGATIONS 160, 161, 162, 163, AND 164

These five allegations deal with an alleged CG&E policy to circumvent nonconformance reports.

160. "As with the general QA program, CG&E has asserted control over the Nonconformance Report system from the beginning... (Attachments 143-145). CG&E assumed veto power over Kaiser corrective action decisions to 'rework' or 'reject'... (Attachment 143 supra)... 'The (CG&E) Quality Assurance and Standards Section has assumed the responsibility for the control and distribution of Design Document Changes and Nonconformance Reports.' (Attachment 146) "
161. "... (Attachment 147) illustrates the relative roles of CG&E Kaiser... Kaiser would still initiate and review the NR's. But CG&E controlled the corrective action... CG&E also gutted the normal 'Hold Work' tag for nonconforming items, by permitting work -- even hydrotests -- to proceed despite nonconformances."
162. "CG&E's approach to NR's mirrored its entire QA Program. Two premises -- Construction Department control and restricting QA requirements to the legal minimums -- governed the program." (Attachment 148.)
163. "The major CG&E premise for Nonconformance Reports -- from the early stages of construction until the present -- has been 'the elimination of unnecessary Nonconformance Reports.' (Attachment 149) Although the policy has always been presented as a way to concentrate on more significant NR's, in practice it translated into illegally severe restraints on the NR system... At best, CG&E has permitted NR's for such significant violations as work performed contrary to approved procedures." (Attachments 83 and 39A)
164. "In an August 21, 1979 letter, Mr. Schwiers warned, 'The continuing lack of credibility to the Nonconformance Reporting and closing cannot be tolerated.' (Attachment 150.)"

Response:

In this group of allegations, petitioner cites 1973 documents and attempts to paint a picture of CG&E exerting undue influence in the ensuing years over Kaiser in implementing its "general QA program" and specifically its "Nonconformance Report system." CG&E denies this allegation and points out that the prime factor behind the NRC's April 8, 1981 Immediate Action

Letter was its concern that CG&E was not monitoring Kaiser's QA activities closely enough rather than excessive control of these activities by CG&E. Many items contained in the Immediate Action Letter were directed toward increased involvement by CG&E in QA areas including: increasing the size and technical expertise of the CG&E QA organization, reinspecting after Kaiser's inspection, reviewing all QA procedures, reviewing nonconformance reporting, and establishing a records handling program. Further, there was no CG&E policy to circumvent Nonconformance Reports and petitioner provides no support for these allegations.

By using suggestive language such as "asserted control" in Allegation 160, petitioner implies that CG&E improperly assumed responsibilities that were Kaiser's. An exchange of correspondence between Kaiser and CG&E in July of 1973 (Attachments 143, 144, and 145) is cited with regard to this allegation. These attachments refer to Kaiser Quality Assurance Procedure No. 16, entitled "Control of Nonconforming Material Parts & Components," which specifies procedures for final approval of "Rework" or "Reject" dispositions for Nonconformance Reports.

The nonconformance reporting system has two parts. The first is the identification and controlling of material, appurtenances, components, and parts that are not in conformance with specifications, drawings or purchase documents. The second part is the disposition of the nonconforming condition which includes acceptance of any proposed corrective action. It is this second function that was the topic of the July, 1973 letters. Since CG&E was procuring much of the engineered

hardware which could be the subject of Nonconformance Reports, it was necessary that CG&E be aware of the proposed "rework" or "reject" NR dispositions so that the contractual obligations of CG&E's vendors, such as satisfying warranty obligations, could be properly administered. This activity did not allow CG&E to assume "veto power over Kaiser corrective action decisions" as alleged.

Allegation 160 then quotes out of context from a November 5, 1976 CG&E letter to Kaiser (Attachment 146) that CG&E "assumed the responsibility for the control and distribution of Design Document Changes and Nonconformance Reports." The apparent implication is that CG&E was trying to circumvent the NR reporting system by assuming control for the distribution of Nonconformance Reports. However, the complete text of CG&E's letter, along with the accompanying proposed flow charts showing CG&E Quality Assurance Section's role in processing NR's and DDC's, clearly show that there was no such attempt being made. Since DDC's and NR's could be generated by various groups on site, CG&E/QA coordinated and tracked these documents to assure they had been properly classified (essential or non-essential) and received the proper approvals. Kaiser's comments were invited on these flow charts, which were incorporated into CG&E QA Procedures 03-QAS-02 and 15-QAS-01, respectively.

Allegation 161 continues with the charge that CG&E controlled Kaiser's QA Program by concluding that an April 13, 1977 letter from CG&E (Attachment 147) "illustrates the relative roles of CG&E and Kaiser." As with Allegation 160, the petition

again confuses the identification and controlling function of the NR with the dispositioning function. These NR's were initiated by Kaiser Quality Control, reviewed by Kaiser's Quality Assurance and then submitted to CG&E Engineering for disposition. CG&E involvement in the disposition was not inappropriate. Kaiser's QACMI G-4 Rev. 3 stated: "The Construction Engineer or his designee will in coordination with CG&E determine the proposed disposition of the NR." Normally, deficiencies can be resolved by Kaiser and CG&E site personnel. In this instance, however, it was Sargent & Lundy which was to supply the disposition for CG&E. This did not compromise Kaiser's QA Program.

The statement made in Allegation 161 that "CG&E also gutted the normal 'Hold Work' tag for nonconforming items" is false in that it is not "normal" to place a Hold Work tag on a nonconforming item. Kaiser QAP 15 allows for several different tags depending on the level of severity of the deficiency. (See response to Allegation 175.) The "Hold" tag requires that the item be segregated or further use/installation be terminated. This tag might be used where a defective component or material would adversely effect the quality and safety of the plant if it were to be used. A "Deficiency" tag does not require work to be terminated. Either of these tags may be used for a nonconformance. Using a separate "Seismic Clearance Violation" tag would not have "gutted" the normal nonconformance tagging.

It is unclear what the petitioner's concern is in regard to hydrotesting piping with Seismic Clearance Violations. Hydrotesting consists of pressurizing pipe to test the welds and

this has nothing to do with whether components meet seismic clearance tolerance. Further, the tag has no relation to the disposition of the NR and could not provide for S&L "expedient disposition to all seismic clearance NR's" as petitioner alleges. This "temporary procedure" for NR's on seismic clearance violations, introduced in the April 13, 1977 letter, was made a permanent part of 15-QAS-01 Rev. 0 on August 11, 1977.

Allegation 162 also attempts to show alleged CG&E control of Nonconformance Report processes. Here, petitioner cites a January 17, 1977 letter from CG&E to Kaiser (Attachment 148) charging "Construction Department control and restricting QA requirements to the legal minimum." It is difficult to understand how this letter from CG&E to clarify identification of studs constitutes control over Kaiser's QA. As stated in the letter, the studs were conforming to ASTM (not ASME as petition states) standards, but the procurement document was nonconforming. Procurement Spec. 8025-I was subsequently rewritten and the NR accepted and closed.

Allegation 163 cites a January 29, 1974 letter from CG&E to Kaiser (Attachment 149), alleging the "elimination of unnecessary Nonconformance Reports" as the policy that has been maintained throughout the job. This quotation was taken out of context from this letter which goes on to state:

"We have observed that certain Nonconformance Reports exist which do not affect final plant configuration. An example is N79 which covers marking deficiencies on material for temporary construction."

The letter then identifies criteria requiring NR's and concludes:

"This request should not be interpreted as a desire to place excessive constraints on the nonconformance system. On the contrary, we feel that the overall effectiveness of the system will be enhanced by elimination of nonconformance reports which do not meet the foregoing criteria."

The reference in Allegation 163 to the "review of 26 NR's that were voided or overruled" derives from IE Report No. 81-13. For a number of reasons, CG&E did not contest these findings and is implementing Task VII of the Quality Confirmation Program which includes a review of voided NR's.

Allegation 163 also refers to Attachment 83. There is no correlation between the contention that CG&E has utilized NR's where work has been performed contrary to approved procedures and Attachment 83, which is a 1974 Kaiser letter to CG&E regarding staffing.

Finally, Allegation 164 quotes an August, 1979 CG&E letter to Kaiser stating, that the "continuing lack of credibility to the Nonconformance Reporting and closing cannot be tolerated." (Attachment 150). This letter provided Kaiser with a list of NR's that "...either need work, inspection, or disposition by your field forces." Contrary to the insinuation made in this allegation, this letter shows that CG&E did act responsibly in directing Kaiser to utilize, not circumvent, the nonconformance reporting system in a timely manner.

Task VII of the QCP, along with CG&E's action in response to Items 7 and 9 of the Immediate Action Letter, provide assurance that nonconforming conditions have been and will be correctly identified and dispositioned. No further corrective action is required.

ALLEGATION 165

"...A Kaiser Construction Bulletin (Attachment 151) informed all employees of an ongoing project: 'The major thrust of this effort has been to provide alternate means of documenting and resolving deficiencies without using the NR process...' A May 24, 1982 Kaiser 'Analysis Report' to the owners (Attachment 152) queried, 'WHY IS THERE A BOTTLENECK IN THE NR SYSTEM?'...It went on to list seven joint Kaiser/CG&E approaches to reduce NR's...In each case, however, the approaches reflected the same type of practices that led to last November's fine -- less formal substitutes for Nonconformance Reports and specific 'corrective action' against QC inspectors who write too many NR's...."

Response:

While the quotation from the Construction Bulletin (Attachment 151) is accurate, the inference which the petitioner draws of an improper attempt to circumvent the Nonconformance Report (NR) process is unsupported and erroneous. This Construction Bulletin, an informal means of notifying employees of items of general interest, provided information concerning a substantial effort aimed at enhancing the control of nonconforming conditions by utilizing means other than NR's for documenting and disposing of conditions encountered while work was still in process. This involved In-Process Inspection Deficiency Records (IIDR's). The particulars of the procedure regarding IIDR's are addressed in the response to Allegation 169.

This allegation also cites a May 24, 1982 Kaiser "Analysis Report" (Attachment 152) as providing approaches to "reduce NR's." Again, petitioner's obvious inference -- that nonconformances would go unreported -- is based upon a misinterpretation of the purpose of the Report and its recommendations. The intent of the May 24, 1982 Report was to show that there were a lot of unnecessary and incorrect NR's

written and there was a disproportionate amount of time being utilized to review Nonconformance Reports which were not nonconformances.

The May 24, 1982 Analysis Report related to several topics, one of which was the proper dispositioning of NR's. Petitioner erroneously assumes that every NR written correctly reflects an actual nonconforming condition and, hence, that any effort to reduce the number of NR's is an improper attempt to eliminate valid NR's. In fact, some NR's are not properly initiated either because the condition described is not truly nonconforming, or because other procedures are more appropriately designed for the disposition of the deficiency in question such as in the case of a missing document discovered during the document review process. In such cases, an Exception-Correction Notice is more appropriately used to identify and track this situation. Therefore, the objective of the recommendations in the Analysis Report was to enhance and expedite the processing and resolution of proper NR's by eliminating from the NR system and recording by other methods those items for which NR's were not the proper method for disposition. The Report embodies a legitimate interest in analyzing the effectiveness of existing NR procedures, improving them where possible, and thus ensuring that the proper reporting procedure is being used for each deficiency detected. By documenting and resolving deficiencies by either IIDR's or CAR's as appropriate in accordance with approved procedures, NR reporting procedures will be utilized only for those deficiencies for which NR's were originally intended.



Similarly, indications in the Report of consideration of corrective action regarding QC inspectors relates to ensuring that inspectors are properly trained in and familiar with the documented procedures, so that the methods regulated by those procedures are uniformly applied.

ALLEGATION 168

"Unfortunately, even in the post-April, 1981 'reform' period, CAR's continue to replace Nonconformance Reports. The internal May 24, 1982 report (Attachment 152, supra.) called for an expanded CAR program to '(r)educe NF's.'...to replace NR's 'on areas of AVL's tools, codes, and so forth.'...(Id.)"

Response:

The intent of the May 24, 1982 internal project report, also discussed in response to previous allegations, was to review ways of reducing the number of unnecessary and ineffective Nonconformance Reports. Petitioner's cynical interpretation of this entirely proper objective lacks any substance whatsoever.

The conditions for which Corrective Action Reports are issued are detailed in the response to Allegation 167. Recognizing that CAR's are oriented toward program deficiencies whereas Nonconformance Reports are directed at hardware deficiencies, it can readily be seen that effective responses to CAR's will ultimately reduce the number of nonconforming conditions generated and hence the number of NR's as well.

ALLEGATIONS 169, 170, 171, AND 172

These four allegations are grouped for response because they deal with the In-Process Inspection Deficiency Record (IIDR).

169. "The most recent innovation to replace NR's is the In-Process Inspection Deficiency Record ('IIDR'). As the May 28 Construction Bulletin (Attachment 151, supra) revealed, IIDR's replace a major portion of the NR system...Unfortunately, the IIDR system gives Construction decisive veto powers to quietly halt corrective action after QC inspections. The IIDR form itself fails to include such basic information that it takes several acts of initiative to verify quality on an IIDR. More specifically, IIDR's are deficient to Nonconformance Reports in at least ten respects...(Attachment 79...) In short, IIDR's promise to institutionalize the abuses that led to last November's fine."
170. "IIDR's have already been abused to replace NR's for work such as DDC's (which require engineering approval). [sic] (Attachment 153) and weld repairs. The April, 1982 Management Audit (Attachment 51, supra) described the predictable results with respect to weld repairs...The auditor, SAI, recommended that 'HJK should discontinue the use of IIDR's for weld repairs and should identify all welds for which IIDR's have been used to document weld repairs.' (Id.)"
171. "This is not to say that IIDR's are improper in all, or even in many context [sic], but they should not be a substitute for legitimate nonconforming conditions, as has occurred at Zimmer. The April, 1982 SAI Audit put the phenomenon in perspective: '(T)he HJK procedural requirements and program controls for usage, documentation and disposition of IIDR's is [sic] not adequate.' [Attachment 51] (Id.)" [Should be Attachment 153]
172. "Unfortunately, the trend is once again in the opposite direction. The May 24 report called for an expanded IIDR program, as well as deficiency lists for non-hardware programs in order to '(r)educe NR's.' (Attachment 152, supra.) A June 2, 1982 revision of field procedures ZAPO-5 helped implement the May 24 report. (Attachment 79, supra.)...To illustrate the scope and informality of the IIDR system, two examples with control Nos. 5144 (Attachment 154) and 5222 (Attachment 155) are enclosed."

Response:

Allegation 169 begins with a repetition of Allegation 165 that IIDR's replace NR's and cites Kaiser's May 28, 1982 Construction Bulletin (Attachment 151) as a reference. As explained

in the response to Allegation 165, IIDR's are not, either by written procedures or field inspection practice, substitutes for NR's.

Allegation 169 goes on to criticize the IIDR system by listing ten alleged deficiencies. These items are taken from GAP's letter to the NRC on July 9, 1982 (Attachment 79), which reflects a lack of understanding of the procedural requirements imposed by Kaiser Procedure ZAPO-5 for processing IIDR's and NR's. Also, the selected excerpts from project documents cited by petitioner misrepresents the use of the IIDR and NR.

CG&E's letter dated August 27, 1982 to Chairman Palladino of the NRC explains how the Kaiser Quality Assurance Manual establishes the measures for implementing the requirements of 10 CFR 50, Appendix B, to control nonconforming conditions and outlines how the implementing procedure, ZAPO-5, Rev. 1, establishes the specific methods and instructions for identifying and resolving nonconforming items through the use of the IIDR and NR. After establishing the basic concepts and distinctions between the IIDR and NR, the letter then specifically addresses each of the ten enumerated items in Allegation 169, which is incorporated herein by reference.

As a result of feedback from users of IIDR's, several improvements were implemented which resulted in additional training and issuance of ZAPO Rev. 2 on October 5, 1982. Such changes are not unusual when implementing a new system, and additional refinements will be made as the IIDR system evolves through experience.

Allegation 170 continues its comparison of the IIDR's with NR's by referring to two findings from an audit performed in April, 1982. The first is Audit Finding Report No. 82-1-6, dated April 23, 1982 (Attachment 153), which found that HJK Procedure ZAPO-5, Rev. 0, Paragraph 3.2.1 restricted the use of IIDR's to "deficiencies that are corrected in accordance with approved procedures." The auditor identified an IIDR requiring revision of DDC's to correct drawings for acceptable corrective action. Paragraph 3.2.1 was changed in Rev. 2 of ZAPO-5 to provide:

"The IIDR's shall reference PSDCR's, DDC's, NR's, or CAR's written as a result of the conditions identified on the IIDR. Reference to these PSDCR's, DDC's, NR's, or CAR's is acceptable to close out the IIDR. IIDR's shall not be used to provide procedural instructions."

The response to the audit was evaluated as acceptable on August 20, 1982 and was verified on November 18, 1982 at which time the Audit Finding Report was closed. Furthermore, various HJK Procedures were revised to address the use, control and processing of IIDR's for weld-related deficiencies.

The second audit finding to which Allegation 170 refers is Audit Finding Report 82-1-5 (Attachment 51). Petitioner cites this same audit in Allegation 56. The corrective action taken in response to this report was: "IIDR's will not be discontinued. The use of IIDR's will be adequately addressed in the next revision (Rev. 1) of WIP-7." In order to address the concern over documentation of inspections of rework performed to IIDR's, the procedures for welding and weld inspection were revised to clearly identify how documenting these inspections is performed.

This item was verified and closed by the CG&E Audit Group on November 22, 1982.

Allegation 171 refers to Attachment 51 but quotes from CG&E Audit Finding Report No. 82-1-6 (Attachment 153), which stated in part that "procedural requirements and program controls for usage, documentation and disposition of IIDR's is [sic] not adequate." Corrective action for this finding was taken as described in the response to Allegation 170 above.

Allegation 172 takes statements from the Kaiser May 24, 1982 Project Report (Attachment 152) out of context in a sinister attempt to imply an improper motive to reduce unnecessary and ineffective NR's. However, as explained in response to Allegation 168, the effort was directed at reducing nonconforming conditions, thereby reducing NR's. ZAPO-5 was not an attempt to reduce or replace the NR system with IIDR's and fully met the nonconformance reporting criteria of 10 CFR 50, Appendix B.

Allegation 172 refers to two IIDR's as examples of system "informality." IIDR's 5144 (Attachment 154) and 5222 (Attachment 155) are only a part of an entire work package and therefore do not fully illustrate the documentation associated with an IIDR. Following review and inspection by the IIDR originator, the IIDR and the associated work package are reviewed by a Lead Inspector, a Quality Engineer, and a Document Reviewer. Petitioner's allegation that the IIDR system is an informal and inadequate system for documenting deficiencies is, therefore, without merit. These two IIDR's cited by petitioner were properly closed in accordance with applicable procedures. IIDR C/N 5144 was

completed on June 23, 1982, and IIDR C/N 5222 was completed on July 23, 1982.

ALLEGATIONS 173 AND 174

These two allegations allege Design Document Changes (DDC's) are used to disposition nonconforming conditions.

173. "Once a Nonconformance Report is written, it faces a gauntlet of internal approvals and potential techniques to dispose of it without corrective action. (See, Attachment 43, supra at 12) A common technique for engineering deficiencies has been to change the design retroactively to permit the violation through Design Document Changes. As usual, this has been a traditional CG&E practice, before and after NRC reforms. (Attachment 156)...Four of eight deficiencies identified in a November 28, 1979 audit (Attachment 39A, supra) were dealt with by DDC's to correct nonconforming conditions."

174. "Although the early 1981 NRC reform supposedly stopped the abuse of DDC's...the practice continues. IIDR's, the NR substitute, are being dispositioned through DDC's. (Attachment 79, supra.)"

Response:

To the extent Allegation 173 merely represents petitioner's characterization of the Nonconformance Reporting System, no response is warranted. Reference is then made to the statements of Mr. Jones (Attachment 43) wherein he objects to a review process given a Nonconformance Report after it is written and before it is issued for disposition. This general statement contains no specific matters to which a response can be addressed. However, as explained in response to Allegation 165, it is incorrect to assume that every NR written truly represents a nonconforming condition. Therefore, an intensive review of NR's, including potential rejection by the Manager of Quality Engineering, is properly performed on the Zimmer Project.

Allegation 173 goes on to charge that DDC's were used to change the design retroactively to avoid NR's. Petitioner refers to a July 10, 1973 CG&E letter (Attachment 156), which returned a



NR without action because a DDC left it no longer applicable. Investigation shows that development of DDC S25, which was approved on July 5, 1973, was underway at the time NR E61 was written on June 15, 1973. Therefore, this was not an attempt to disposition a NR by changing the design retroactively as alleged. It is also important to note that this same condition was already identified on NR E59, written on June 11, 1973. Each of the NR's dealt with the same concern but with material from a different "heat." Since NR E59 was processed in accordance with established procedures and dispositioned "accept-as-is," it was deemed unnecessary to follow up with another NR having the same observation.

Petitioner then refers to the CG&E November 28, 1979 Field Audit No. 285 (Attachment 39A) wherein deficiencies identified in the audit were eliminated by Design Document Changes. Of the four DDC's used to close audit findings, one of them was written prior to the audit. DDC SLS375 was approved on March 27, 1979. The other three DDC's were written to disposition audit findings (S1908 for Item 11, S1907 for Item 12, SLS483 for No. 18) after the audit was written. It is not inappropriate to close audits with DDC's provided the directions of the DDC are implemented in a controlled manner. In this case, CG&E Surveillance/Inspection Report No. 194 (Attachment 39E) was written January 9, 1980 to track the disposition of these audit findings.

After citing the findings of NRC IE Reports 80-05 and 80-25, Allegation 174 refers to GAP's own letter to the NRC (Attachment 79) with the assertion previously made that IIDR's are

substitutes for NR's and are dispositioned through DDC's. Under certain conditions, DDC's are used to disposition IIDR's. No specific details are provided in support of this general allegation. Alleged IIDR deficiencies are addressed in the response to Allegations 169 et al.

ALLEGATIONS 175, 182, 183, 184, 185, AND 186

These allegations are grouped for response because they all deal with corrective action following Nonconformance Reports.

175. "The tradition of informal repairs manifests itself with Nonconformance reports as well. In this context the abuse has been to violate the "hold tag" that stops construction activity until the proper corrective action is determined...(Attachments 16 supra, at 11.) Mr. Nichols explained...the problem continued to exist after the IAL. (Attachment 38, supra, at 5.)"
182. "Following up to verify proper corrective action is the bottom line for the NR system. It is not surprising that corrective action has been narrow and superficial for NR's that survive the gauntlet of Zimmer's QA Program. CG&E has long been aware of inadequate corrective action for NR's...(Attachment 160)"
183. "The problem persisted...(Attachment 22B, supra)"
184. "The trend of inadequate corrective action continued in 1978...(Attachment 161)"
185. "A 1979 CG&E memorandum (Attachment 162) noted that 10% of Kaiser NR's did 'not state whether or not the corrective action taken for the NR's listed has been effective; no trend given...'...in some cases the corrective action involved welder qualification records, when the problems 'have nothing to do with welding.'...in 23% of the cases, the cause of the corrective action could be tied to improper training...The Nonconformance system fails if it identifies but does not correct violations. In the end, the Corrective Action breakdown means that the disposition for all NR's should be reviewed by an organization that was not responsible for the original erroneous judgments."
186. "The result of the NR breakdown is that required proof of quality is not available for final acceptance. Instead of proof, repairs are accomplished informally. Mr. Reiter explained that failure to respect 'hold tags'...was routine during the late 1970's (Attachment 16, supra, at 11.)...As an August 27, 1981 CG&E memorandum recognized, changes not approved by the vendor...'could result in failure of the valve...' (Attachment 107, supra.)"

Response:

Allegations 175 and 186 are virtually the same allegation and cite the same reference (Attachment 16) wherein Mr. Reiter charges "hold tags were generally not used in practice at

Zimmer...I failed to issue around 100 when I wrote NRs...because no one ever told me so."

Contrary to petitioner's allegation, Mr. Reiter did not state that hold tags were routinely ignored. Rather, he said that hold tags were not used in practice at Zimmer for a year beginning in late 1978. Since he did not begin work at Zimmer until mid 1979, his statement is obviously hearsay and, in any event, false. While isolated instances have been identified in which hold tags had been ignored, Kaiser procedure QACMI G-4, Rev. 5 in effect at that time mandated the use of hold tags and explained the requirements for the application of such tags:

"1.3 The Inspector of QAE, upon initiation of the Nonconformance Report, will notify the QA S.D.C. NR controller who will log in the NR and assign a KEI Control Number...The inspector will initiate a yellow 'Hold' or orange 'Deficiency' Tag noting the CN Number and a brief description of the nonconformance in the remarks section of the tag. If the nonconforming item or condition requires that the item be segregated or further use/installation be terminated, the inspector will apply a yellow 'Hold' Tag. If the nonconforming item or condition does not require segregation or that the use/installation be terminated, then the inspector should apply an orange 'Deficiency' Tag. If the nonconformance is a Seismic Violation between systems or components in Seismic Category I Buildings as defined in the specifications, the NR will be assigned an NR Number in the 6000 Series and the items in violation will be identified with a white 'Seismic Violation' Tag. The tag is 'R' stamped and then affixed to the material, equipment or work in a conspicuous area. All inspection documents are to reference the NR Number and 'R' Stamp. The inspector notifies the cognizant superintendent for the purpose of quarantining material as necessary.

"Note: A description of the tags authorized for use by the KEI Inspection Department can be found in Quality Assurance Procedure (QAP) 15. These tags are to be applied or removed only by KEI QA."

Mr. Reiter's training records indicate that he signed and dated a memorandum on August 14, 1979 attesting that he had read and

understood QACMI G-4, Rev. 5, a fact contrasting with his claim of ignorance in applying hold tags. In any event, the use of hold tags is not the primary check used to insure that nonconforming conditions are properly corrected. No system will be finally turned over to CG&E until NR's written against that system have been dispositioned properly.

Allegation 175 cites Mr. Nichols' letter (Attachment 38) wherein, contrary to the allegation, he does not allege that violations of hold tags have been "routine" since the IAL, nor is such the case. Kaiser has repeatedly demonstrated its strong commitment ensuring that hold tags are honored. Project Directive VII-16 issued on November 4, 1982, instructs:

"Any obvious disregard of site procedures or requirements which result in the bypassing of a hold point will not be tolerated. Persons bypassing a hold point are subject to disciplinary action up to and including termination."

Attachment 38 cites one instance where a hold tag placed on welds in the drywell structural beams allegedly was removed and "informal" welds occurred. Mr. Nichols says that the NR was not dispositioned but does not provide the identification for the NR to which he refers. A specific response, therefore, cannot be made to the allegation. Inasmuch as Mr. Nichols functioned as a certified weld inspector at Zimmer for just two weeks, it is unclear upon what basis he states that the NR to which he referred was not dispositioned. This statement that the welds were repaired "informally" is incorrect because the NR could not have been closed in accordance with established procedures unless the repairs were fully documented.

Allegation 182 provides no substance to support its charge that corrective action has been "narrow and superficial" for NR's, but rather provides evidence of CG&E's monitoring Kaiser's QA activities and encouraging Kaiser to improve upon these efforts as shown in Mr. Schwiers' letter to Kaiser in October of 1976 (Attachment 160). The review of NR's under Task VII of the QCP illustrates CG&E's commitment to assure they are properly dispositioned.

Allegation 183, which cites a portion of the minutes from a February, 1977 CG&E/KEI QA Meeting (Attachment 22B), also lacks any basis for this assertion. To the contrary, the opening statement of these minutes states: "The purpose of the joint Quality Assurance Meeting was to establish an increased line of communication between CG&E and KEI in areas relative to Quality Assurance." This meeting and subsequent actions were precipitated by an NRC Quality Assurance Audit, which resulted in the identification of specific areas requiring improvement and the division of audit functions between CG&E and Kaiser. A specific statement from these minutes, quoted in this allegation, deals with the valid objective of eliminating recurring nonconforming conditions. The contents of these minutes do not support the allegation, but show the QA audit function correctly seeking to improve the overall level of QA performance.

None of the documents cited by petitioner in Allegation 184 reflects anything but the customary auditing and improvement of a nuclear site Quality Assurance Program. As with the other documents cited in previous allegations, this April 20, 1978

letter from CG&E to Kaiser (Attachment 161), which is a follow-up of a management audit pursuing more complete information for NR files, is more evidence of CG&E's exercising proper stewardship on this project.

In Allegation 185, petitioner cites a December, 1979 internal CG&E memo (Attachment 162) written after review of an audit (Audit Report 407) conducted by the Kaiser Company. This audit was performed in response to Paragraph 3.6, Item 1(a) of NRC/IE Inspection Report 79-14. The purpose of this audit, as stated in Attachment 162, was to "[a]nalyze the corrective action taken to prevent each of these NR's from recurring to determine if the corrective action taken has been effective to prevent recurrence. This establishes a trend." The memorandum analyzes the audit finding, providing certain statistics that could be used in trending and making conclusions which would result in more effective corrective action. The fact that a routine audit accomplishes its purpose in identifying areas of possible improvement does not, as petitioner alleges, show any quality "breakdown."

Moreover, Allegation 185 reveals Petitioner's basic misunderstanding of the documents included in Attachment 162. Kaiser Audit Report 407, issued August 14, 1979, was a review of essential NR's issued during the previous six months to determine whether deficiencies previously noted on NR's were recurring. The December 11, 1979 CG&E memorandum cited by petitioner was a critique of the methodology used in Audit Report 407. The audit studied 268 "mechanical" NR's; 28 of those, or approximately 10%

of the NR's studied, involved violation of inspection hold points. The CG&E memorandum was critical of the audit's analysis of those 28 NR's, since the audit did not consider whether the corrective action taken for those NR's had been effective. The memorandum also stated that the audit had grouped 46 NR's into a category associated with welder qualifications, yet four of those 46 NR's had nothing to do with welding.

The statements made by petitioner concerning the conclusions drawn by the CG&E memorandum are erroneous:

1. The memorandum did not find that 10% of Kaiser NR's failed to state whether corrective action had been effective; the memorandum stated that the audit's analysis of one category of NR's -- which category contained 10% of the 268 NR's studied -- was inadequately analyzed.
2. The memorandum did not state that four NR's listed corrective action involving welder qualifications when the deficiency cited had nothing to do with the subject; rather, it stated that four NR's unrelated to welder qualifications should not have been grouped for purposes of analysis with 42 NR's which were related to welder qualifications.

None of these documents shows that a "corrective action breakdown" has occurred, or that a review of the disposition of all NR's by a third party is necessary. A review of voided NR's as well as a sampling of the disposition of closed NR's is being performed under Task VII of the Quality Confirmation Program and will provide adequate assurance of their proper disposition.



Allegation 186 alleges that "required proof of quality is not available for final acceptance. (Attachment 163.)" This December, 1977 Kaiser internal memorandum gave specific instructions as to the treatment of defects detected during pressure testing of piping systems and concluded by saying:

"Preparation of a Nonconformance Report is necessitated for the above situation due to the fact that the weld joints involved have received prior acceptance and the inspection records attesting to this acceptance have been closed and filed in the Site Document Center. Additionally, there is need to demonstrate by record that rework is authorized and accomplished to approved instructions before final acceptance can be made."

Far from substantiating an "NR breakdown," the memorandum provides further evidence of quality concerns being pursued on the project.

Finally, Allegation 186 refers to an August 27, 1981 CG&E QA internal memorandum (Attachment 107) dealing with Nonconformance Report No. E-1457 written in November of 1978 regarding electrical terminations on motor operated valves. See the response to Allegation 123, which denied this same allegation.

ALLEGATION 176

"The November RIII Report found that one improper technique for dispositioning NR's was to 'void' them. While the NRC reported that 25 out of 26 examples were improper, it did not reveal how common 'voiding' was at Zimmer. Three pages from a 1980-81 Kaiser nonconformance log (Attachment 157) are educational. Twenty out of 39 NR's were voided..."

Response:

Allegation 176 lists six voided NR's identified in IE Report No. 81-13. These NR's and those from the NR log pages furnished as Attachment 157 preceded the NRC's April 8, 1981 Immediate Action Letter, which dealt specifically with voiding of Nonconformance Reports in Item 7. The Quality Confirmation Program addresses voided NR's under Task VII. It is not clear, however, how the recitation of this matter, which the NRC has known about and had under review since 1981, is intended by petitioner to shed any new light on the situation. CG&E's February 26, 1982 response to IE Report No. 81-13 addresses in detail the disposition of the 20 NR's identified.

No additional corrective action is required.

ALLEGATIONS 177 AND 178

These two allegations allege NR's are voided as "Not Issued."

177. "The November RIII report noted one particularly ominous method to dispose of NR's: Void them as 'Not Issued.' (IE Report No. 50-358/81-13, Att. A.) Under this technique, the NR is returned to the original QC inspector without being formally rejected."
178. "The NRC has not publicly identified or quantified the full scope of NR's voided as 'Not Issued' and then lost...(Attachment 32...) The public still does not know the scope of the 'various' NR's that vanished from the system. Five examples are enclosed, however, as Attachments 158A-G."

Response:

Allegation 177 refers to IE Report No. 81-13. While the allegation misquotes the NRC Report in using the phrase "Not Issued," it is acknowledged that this Report did identify Nonconformance Reports which were incorrectly handled. Corrective action in connection with these specific findings has been identified in CG&E's February 26, 1982 response to IE Report No. 81-13. Further, as explained in the response to Allegation 159 above, the Quality Confirmation Program is reviewing the disposition of voided NR's, as well as a sampling of other NR's, and also soliciting past site inspectors on whether they have knowledge of any NR's that were written but not entered into the NR system.

Allegation 178 is a continuation of the same charges from Allegation 177, but in this case reference is made to the National Board December 9, 1981 letter (Attachment 32), charging that "[v]arious Nonconformance Reports which had been issued NR numbers had not been filed or retained in the Site Document

Center as required." This allegation, which repeats IE Report No. 81-13 at page 19, goes on to cite examples (Attachments 158A-G). These NR's, which were written in mid-1980, have "Control Numbers" written on them which were assigned to the writers at the time the NR's were prepared. They do not have "NR numbers" assigned to them, and are on the list of NR's being investigated as part of QCP Task VII. Each of these items was investigated by the NRC. They are listed in IE Report No. 81-13 at page 17 and discussed thereafter.

The NR's cited by petitioner all involve pipe supports. The pipe supports have been reinspected (as have all pipe supports accepted prior to September 20, 1981), and six of the seven have been accepted. The seventh is pipe support 1DG095SR, for which NR C/N 4930 was written. The design for 1DG095SR has been modified and the pipe support has not yet been inspected to the new design drawing.

In summary, a major portion of the Quality Confirmation Program has been dedicated to assuring proper disposition of nonconforming conditions. Improved procedures as a result of the Immediate Action Letter assure that nonconforming conditions are properly identified and handled on new work. No additional corrective action is required.

ALLEGATION 179

"In other instances, records were maintained for improperly voided NR's. For example, a January 5, 1981 CG&E audit (Attachment 159) reviewed 160 out of 500 voided NR's. Despite CG&E's later public denial of impropriety, the internal audit found that in violation of the Kaiser manual, the second-largest category was: those reports which were voided because the condition described was brought into conformance by a change in requirements..."

Response:

Petitioner refers to a January, 1981 CG&E audit (Attachment 159), which dealt with Nonconformance Reports voided by Kaiser in violation of its QA Manual. This matter was addressed in Item 7 of the Immediate Action Letter issued on April 3, 1981, which resulted in the initiation of a review of voided Nonconformance Reports as part of Task VII of the Quality Confirmation Program. CG&E acknowledged the existence of improperly voided NR's when the Immediate Action Letter was issued. Accordingly, there is no support for the alleged CG&E public denial of improperly voided NR's. Appropriate corrective action has been undertaken.

ALLEGATION 180

"Sometimes the NR's remained partially intact. As Mr. Jagger reported on December 9, 1981, 'The obliteration of entries by Q.C. Inspectors on Nonconformance Reports is an apparent violation ASME Section III Division Code requirements...' (Attachment 32, supra, at 3.)"

Response:

This allegation provides no evidence to support the generalized statement which petitioner extracts from Item 5 of Attachment 32. However, this same matter was investigated by the NRC and discussed in IE Report No. 81-13 at page 18. CG&E responded to these allegations on February 26, 1982, Attachment B, pages A-6 through A-8.

The allegation therefore presents nothing new. In any event, Task VII of the Quality Confirmation Program involves a review of Nonconformance Reports which have been voided as well as a random sampling of Nonconformance Reports closed for other reasons. No further corrective action is required.

ALLEGATION 189

"FDI's and FDDR's are General Electric substitutes for Nonconformance Reports...(Attachment 166). Kaiser Site QA Programs provide the quality verification for the field work. (Attachment 167)"

Response:

General Electric Company FDI's and FDDR's are not substitutes for Nonconformance Reports as alleged. Neither Kaiser's October 11, 1974 letter (Attachment 166) nor CG&E's letter of July 21, 1975 (Attachment 167) referred to in this allegation provides support for this charge.

As Attachment 166 clearly shows in the "Procedure for Process of FDI's and FDDR's," these are design documents:

"Field Disposition Instructions (FDI) and Field Deviation Disposition Requests (FDDR) are documents which are prepared by General Electric personnel to indicate that equipment or design documents which have been received in the field require a modification or change. The FDI's are prepared by engineering personnel at San Jose. The FDDR's are prepared by General Electric site personnel. Both documents should follow the design review procedure since they direct the modification of equipment or documents which previously had been engineered, reviewed, approved for manufacture, and inspected for acceptance by authorized General Electric personnel..."

"Each FDI is a design document and will be processed in the same manner as other design documents sent to Sargent & Lundy...The FDI will immediately alert site personnel that the referenced equipment or design document at the site is now in nonconformance with those design documents of which the FDI becomes a part.

"In the case of equipment modification, it will be KEI's [Kaiser] responsibility to tag the equipment affected by the FDI and prepare a Nonconformance Report which will assure that the work described by the FDI is completed prior to installation of the equipment..."

"If the FDI revises a General Electric document previously 'Approved for Construction,' a Design Document Change (DDC) will be prepared which will become a part of the document covered by the FDI..."

"FDDR's will be processed in the same manner..."

In summary, this allegation is denied because FDI's and FDDR's serve to implement, rather than function as replacements for, Nonconformance Reports. There is no allegation, much less evidence, to show that these procedures have not been properly followed.



ALLEGATIONS 190, 191, AND 192

These three allegations are related to the General Electric Field Deviation Instruction (FDI) and Field Deviation Disposition Request (FDDR) processes.

190. "Mr. Jones' Congressional testimony described his unsuccessful efforts, along with another Kaiser employee, to establish a meaningful quality verification program in the face of construction department opposition. (Attachment 43, supra.) Another NR substitute, a December 23, 1981 CAR (Attachment 168) reveals the consequences of ignoring QA for repairs on GE purchases..."
191. "A December 21, 1981 report on a November 7-20, 1981 GE audit... (Attachment 109, supra.)... reveal another glimpse of a total breakdown... GE auditors might have difficulty getting the records from CG&E... Kaiser QA 'does not review or verify completion of modifications'; '(work) packages are not retrievable as non-conformance corrections (i.e. FDDR) but is [sic] integrated with S&L drawings'; and '[w]ork standards required by FDI and FDDR are not used in determining acceptability of completion.'"
192. "The FDI/FDDR deficiencies concern some of the most significant safety/related valves and pumps on-site." (Attachment 109)

Response:

The opening statement of Allegation 190 refers to assertions by Mr. Jones (Attachment 43) concerning his attempt to establish a Kaiser QA inspection program for work done in response to FDI's and FDDR's which are GE's modification instructions for items already delivered by it to Zimmer. For the reasons discussed below, this attempt was unnecessary and inappropriate.

GE sends FDI's and FDDR's to CG&E, not to Kaiser and procedures for processing FDI's and FDDR's make clear that Kaiser becomes involved in rework required by FDI's and FDDR's only when requested to do so by CG&E. This arrangement is consistent with 10 CFR 50, Appendix B, Criterion I, giving responsibility for non-ASME items to the owner. When, at CG&E's request, Kaiser

construction personnel perform any of the rework, inspection of the rework is normally performed by Kaiser QA personnel utilizing Kaiser inspection procedures. In the other instances, rework performed by Kaiser is under the direction of CG&E and inspection by CG&E to its QA program. However, CG&E has determined that the Kaiser QA department is not to be involved in inspection of non-ASME FDI/FDDR rework not performed by Kaiser. Mr. Jones persisted in his efforts to establish a procedure for inspection of all rework, performed by CG&E as well as Kaiser, pursuant to FDI's and FDDR's.

Allegation 190 also cites a Kaiser Corrective Action Report, CAR 045, (Attachment 168) which states that the Kaiser QA department was not notified concerning FDI 120/63000 calling for modifications to RT pump impellers. The modifications were performed under the direction of CG&E and, for the reasons discussed above, thus Zimmer procedures did not provide for Kaiser QA personnel to become involved in inspection of the modifications. However, in order to perform the modifications, CG&E had to remove two pumps from the RT system; removal required CG&E to disassemble the flanges on both ends of these pumps and inspection of this work by Kaiser is required. CAR-045 was written because a procedural violation was identified where Kaiser QA personnel were not called in to inspect disassembly and reassembly of the flanges.

As a result of CAR-045, the modifications were performed a second time and approved by both GE QA and Kaiser QA. See CIP-M018 and FDI 120/63000. Far from demonstrating that Kaiser

and CG&E are "ignoring QA for repairs on GE purchases as alleged," CAR-045 illustrates the QA system working as intended.

Allegation 191 repeats Allegation 124 regarding a 1981 GE audit (Attachment 109) and reasserts difficulty in getting records from CG&E. This alleged problem was fully addressed in the response to Allegation 124.

Allegation 191 also quotes GE audit finding No. 81-1-1 in attempting to characterize the QA program at Zimmer. Audit Finding No. 81-1-1 was limited to a survey of electrical rework or repair performed pursuant to FDI's and FDDR's which resulted from GE's misunderstanding of the manner in which electrical work mandated by FDI's and FDDR's is handled at Zimmer. As explained in response to Allegation 190, Kaiser does not perform or inspect modifications to GE-supplied equipment unless asked to do so by CG&E. CG&E generally inspects all internal electrical modifications to GE-supplied equipment, and wrote Quality Assurance Procedure QAP 10-QA-07 in August of 1982 to establish controls for such inspections. Audit Finding 81-1-1 correctly states that the Kaiser QA Department does not verify completion of all electrical modifications mandated by FDI's and FDDR's. To assure that the required inspections have been performed, disposition of this audit requires review of previous FDI/FDDR's by Kaiser Quality Engineering with inspections performed where indicated. All new FDI/FDDR's will also be reviewed by Kaiser to determine if inspection by Kaiser is required.

The condition identified in GE Audit Finding 81-1-1 was transmitted to NRC/III on June 10, 1982 potentially reportable

item under the requirements of 10 CFR 50.55(e). Based on subsequent investigation, this condition was determined not to be reportable and NRC/III was so advised on July 23, 1982.

Allegation 192 also cites Paragraph 1.1 of GE FDI No. 120/63000 dated April 12, 1980, included in Attachment 109, which called for modifications to RT pump impellers. The history of modifications performed in accordance with FDI 120/63000 is discussed in response to Allegation 190. As explained therein, the quality verification of those modifications was not "short-circuited." Furthermore, petitioner is incorrect in its allegation that FDI 120/63000 involved "significant safety-related valves and pumps." FDI 120/63000 specifically states (at page 1) that the modifications to the RT pump impellers mandated by the FDI do not affect a safety-related function.

ALLEGATION 193

"Unfortunately, it is clear from recent developments that Kaiser and CG&E are not going to reverse the trend of an inadequate NR program...On June 2, 1982 ZAPO-5 procedure was amended. Reports are now 'Draft NR's' until approved by Quality Engineering...ZAPO-5 further guts the independence of QC Inspectors...to stop...work through hold tags. During disputes over disposition, work can continue unless specifically prohibited by the QA Manager. Finally, there are no time limits to resolve disputes. (See, ZAPO-5, Rev. 1, enclosed as Exhibit 2 to Attachment 79, supra.)"

Response:

Allegation 193 repeats Allegation 161, makes misleading statements, and takes selected excerpts from project documents out of context in an unsubstantiated attempt to discredit the nonconformance reporting system at Zimmer. Petitioner characterizes ZAPO-5, Revision 1, dated June 2, 1982, as a new policy to "circumvent" the NR program by subjecting the report to additional layers of review and by identifying the report as a "Draft NR" until approved by Kaiser Quality Engineering. This assertion is without merit and shows a total misunderstanding of the requirements in ZAPO-5.

The June 2, 1982 revision of ZAPO-5 did not add any additional layers to the review process nor did it provide any individual reviewer the authority to override the NR. The NR review process described in ZAPO-5, Revision 1, is consistent with the review process of previous revisions, including ZAPO-5's predecessor QACMI G-4. The purpose in assigning a "Draft NR" was to assure that all NR's would have control numbers for tracking and to assure that NR reviewers who felt that additional information or corrections was necessary to describe accurately the NR condition would be required to document and justify these

changes. This process enhances the accuracy of conditions reported on the NR and provides documentary evidence that the NR has received the appropriate review prior to processing.

Petitioner's claim that ZAPO-5, Revision 1 impinges upon the independence of QC inspectors and their ability to stop challenged work through hold tags is essentially the same as that contained in Item 7 of Allegation 169 as well as Allegation 175 and again shows how selected excerpts from project documents are taken out of context and paraphrased to raise sinister implications about the NR process at Zimmer. CG&E's August 27, 1982 letter to the NRC pointedly observed the misleading character of this statement. ZAPO-5, Section 4.1.3 specifically directs that the Authorized Engineer must be contacted if any disagreement exists between construction personnel and the inspector concerning a deficiency reported on an IIDK, and that any work involved with the deficiency shall cease until the Authorized Engineer provides a resolution. ZAPO-5 further directs that disagreements as to deficiency resolution between the inspector and Authorized Engineer shall be submitted to the Quality Engineer for evaluation. If agreement as to deficiency resolution cannot ultimately be achieved, ZAPO-5 allows the condition to be documented on a NR for resolution and/or to be elevated to a higher level for review.

The statement that "during disputes over disposition, work can proceed unless specifically prohibited by the QA Manager" is also entirely misleading. ZAPO-5, Section 3.8.1(c) specifically directs that where any NR disposition is initially approved and

the disposition is subsequently changed, it is required that original NR be superseded, a NR revision initiated, and the change in disposition identified on the revised NR. This process assures that regardless of how the item was dispositioned initially, the new disposition will be reflected in the final product. The procedure also gives the QA Manager the prerogative to halt the work should the circumstances warrant such action.

The assertion that "there are no time limits to resolve disputes" erroneously implies that the failure to establish a specific time frame for resolving NR disposition disputes is a loophole in the NR system. Contrary to this assertion, it is mandatory under QA procedures at Zimmer that all requirements to resolve disagreements concerning the finally approved disposition of a NR be met. Thus, all legitimate concerns are evaluated and resolved, regardless of the time required to reach such a resolution.

ALLEGATIONS 194, 195, AND 196

Allegation 194 is a paraphrasing of numerous federal laws and regulations that relate to the subject of retaliation and reprisals against quality assurance/quality control personnel.

Allegation 195 refer to Bernard v. Gulf Oil Co., 619 F.2d 459 (5th Cir. 1980) and relates this ruling to "gag orders."

Allegation 196 quotes from an H.J.K. memorandum which was written to clarify the coordination of responses to requests from the NRC.

Response:

Allegation 194 recites the federal prohibition against harassment of inspectors and notes the fact that part of the civil penalty paid by the Company related to alleged harassment. As such, there is no factual matter to which a response can be directed.

Allegation 195 asserts that "CG&E and Kaiser management have established a policy not to permit employees free access to the NRC." CG&E denies this allegation for which no substantiation whatsoever is offered. Moreover, the concluding sentence is far more equivocal as to the existence of any violation of regulatory requirements. It states that "[d]epending on the issues and evidence involved in the public agreement and private disagreement distinction, CG&E could have been imposing a policy to withhold evidence." There is, however, no assertion that there was any "evidence" withheld from the NRC by CG&E at any time. In fact, the minutes of the meeting referenced in this allegation merely reflect the Company's desire to assure that it is fully informed of all discussions between Kaiser personnel and NRC inspectors, which is clearly its right and obligation. There is no indication in the cited reference that disagreements



between CG&E and Kaiser be suppressed, only that they be resolved after the completion of the inspection.

The reference to "unconstitutional government 'prior restraint'" is obscure in the context of these allegations. The one cited case, Bernard v. Gulf Oil Co., 619 F.2d 459 (5th Cir. 1980), involved a class action suit against racially discriminatory employment practices in which the district court issued an order forbidding attorneys to communicate with actual or potential class members concerning the suit or its settlement. The Fifth Circuit Court of Appeals ruled that the court's interest in preventing abuse of class action procedures did not justify a prior restraint of constitutionally protected expression that was not a direct, immediate and irreparable threat to the administration of justice. No discernible connection to the issues here is evident.

Similarly, with regard to the "directive" cited in Allegation 196, there is absolutely no indication of any intent to suppress communication with the NRC nor any showing that opinions or information from Kaiser personnel were in fact suppressed. The quoted matter, which itself categorically states that a "directive will be given...to make the requested personnel or information available to the N.R.C.," simply established the procedures for such contact. These procedures were intended to insure that the NRC was provided with correct and complete answers to questions in a timely manner, and that knowledgeable individuals would be made available to the NRC without disruption to site activities.

ALLEGATION 197

"...until May 3, 1982, Mr. Jones was a Senior QA Analyst and reported directly to the Kaiser QA Manager. After Kaiser management erroneously suspected Jones of sending the Nolder Report on the vendor QA breakdown (Attachment 43, supra.) to the NRC, however, he was stripped of his duties and relegated to Documentation Review Clerk."

Response:

It is denied that Kaiser engaged in any retaliation against David Jones for any contacts with the NRC. The allegations regarding retaliation through demotion that petitioner has raised are the same claims that Mr. Jones made in a complaint filed with the U.S. Department of Labor in 1982. During an investigation of the complaint filed by Mr. Jones with the U.S. Department of Labor, Mr. Jones withdrew his complaint and the matter has been closed. This withdrawal is confirmed by a letter of July 13, 1982, from Glenn A. Fierst, Area Director, Wage and Hour Division, U.S. Department of Labor, to Mr. Walter Hedzik, Kaiser Quality Assurance Manager, which says:

"This is to advise you that Mr. David Jones, through his attorney, notified this office in writing on July 2, 1982, that he was withdrawing his complaint under 42 U.S.C. Section 5851 (Amendment to Energy Reorganization Act)."

Mr. Nichols' opinion of this matter is obviously irrelevant and, for that matter, badly misinformed.

To ensure that all employees are aware of their rights under the U.S. Nuclear Regulatory Commission regulations, Kaiser has appropriately posted NRC Form 3 as required by federal regulations entitled "Standards for Protection Against Radiation (Part 20); Notices, Instructions, and Reports to Workers; Inspections (Part 19); Employee Protection."

ALLEGATION 198

"Mr. Rex Baker's case is another example of retaliation. Mr. Baker recalled that he was the Inspection Supervisor...until he spoke freely with the NRC...Almost immediately, he was reassigned to a supervisory job 'as a practical matter with little or no supervisory responsibilities.' The day after Mr. Baker spoke with the NRC, CG&E official Robert Ehas spoke derogatorily about the meeting, 'They don't need him -- he went there yesterday and spilled his guts to them (NRC)'...Kaiser Site Construction Manager Robert Marshall...'hear's Rex Baker, the source of all my problems.' (Id.)"

Response:

It is denied that Rex Baker's reassignment from the Inspection Supervisor position in 1981 was in retaliation for Mr. Baker's having spoken to NRC investigators. While an unsigned NRC summary recapitulating a June 11, 1981 interview of Mr. Baker alleges that he "believed the change in assignment was related to talking to the NRC," no claim of retaliatory treatment was presented by Mr. Baker to Kaiser. Nor did Mr. Baker avail himself of any remedy for protection against unlawful harassment or discrimination if he truly believed that the reassignment was retaliatory. Mr. Ehas denies having made the statement regarding Mr. Baker that is alleged by petitioner.

ALLEGATION 199

"Traditionally, it has also been dangerous to work within the QA Program at Zimmer...As Mr. Jones testified, in February, 1981 he wrote an inter-office memorandum to Mr. Rex Baker identifying problems with certification and quality of inspection personnel...Mr. Gittings warned Jones that he was not hired to write memos and would find himself on Route 52 (which runs outside the plant) if he wrote another one. (Attachment 43, supra, at 2.)"

Response:

In support of Allegation 199, petitioner refers only to the unsworn testimony of David Jones that in February, 1981, he was "warned" by the former Kaiser Quality Assurance Manager, Mr. Phillip Gittings, in connection with a memorandum that Mr. Jones wrote to Mr. Rex Baker.

Kaiser has been unable to locate the memorandum that Mr. Jones claims to have written to Mr. Baker. Mr. Gittings does not recall the alleged conversation with Mr. Jones and denies that he ever directed Mr. Jones to cover up any deficiencies by failing to document them appropriately.

ALLEGATION 200

"...On numerous occasions during late 1981, Mr. Norm Vitale, Manager of Quality Engineering, has ordered employees to stop writing memoranda that have been included in this petition (Attachment 140, supra.)...Mr. Nichols...was forced out of his job through an acceptable transfer. (Attachment 38, supra, at 6.)...A Kaiser Auditor submitted a memorandum concerning NES deficiencies...Kaiser's current QA Manager told the auditor not to write any similar memoranda...When the auditor persisted in verbally defending his findings, he was removed from the Audit Group. Similarly, Mr. Jones was removed from the Audit Group after verbally protesting a gag order...(Attachment 43, supra at 8-10.)"

Response:

It is denied that it is "dangerous" to write memoranda at Zimmer. Mr. Vitale denies that he has ever ordered employees to stop recording deficiencies on the appropriate documents. Mr. Vitale's denial is supported by those Quality Engineering employees who worked most closely with him. In addition, Quality Engineering personnel have continued to write memoranda. It is noted that the only document cited in support of the alleged danger of writing memoranda is Attachment 140, but that document is merely a letter from MVPP counsel Thomas Devine to the NRC, which contains no substantiation of the allegation against Mr. Vitale.

In response to Mr. Jeffrey Nichols' allegations, it should be noted that Mr. Nichols was a temporary contract employee hired through TAD Consulting who was assigned to the QC Department at Zimmer from November 18 to December 11, 1981. During this time, he was a certified inspector for approximately two weeks.

Mr. Nichols stated, (Attachment 38 at 6) that he had written an NR and that his supervisor told him to "throw it in the trash can." Mr. Nichols' supervisors deny ever having told Mr. Nichols

to throw findings in the trash can. His supervisor is in fact unaware of any instance where Mr. Nichols prepared a draft Nonconformance Report during his two weeks as an inspector.

It is denied that Mr. Nichols was transferred or "forced off the job" as an inspector as a result of his findings. Mr. Nichols was laid off on December 11, 1981 along with nine other TAD Consulting employees as part of a reduction in force. In fact, Mr. Nichols was rehired through Mid-Columbia Services as a document reviewer from January 25, 1982 through April 9, 1982. His subsequent layoff also resulted from a reduction in force.

The discussion in this allegation of the treatment of a Kaiser Auditor who submitted a memorandum concerning NES deficiencies (See Attachment 43 at 8-10) repeats the same charge made in Allegation 77 and is answered by CG&E's response to that allegation. The suggestion that "gag orders" were imposed on auditors or other employees repeats a charge previously made by petitioner in Allegation 129 to which CG&E has previously responded.

ALLEGATION 201

"...Mr. Deerwester's February 26, 1982 memorandum (Attachment 169A, supra) also listed the management reaction to his memoranda, letters, Nonconformance Reports, Inspection Reports, Surveillance Reports, Document Deficiency Notices, Corrective Action Requests, Request for Information, and other reports...'It was decided...that communications with CG&E would be improved by removing me from this position.'"

Response:

Attachment 169A has not been supplied as represented in Allegation 201 and cannot be located. Nonetheless, it is denied that Mr. Deerwester was transferred in retaliation for any reports written by him. Mr. Deerwester is still employed at the site in a position of comparable responsibility and has received salary increases. Mr. Deerwester was given a special assignment in October, 1981 to update the status of the AVL. In light of Mr. Deerwester's background at Zimmer, he was particularly qualified for such an assignment. Mr. Deerwester does not remember sending and cannot find a copy of any such a memorandum.

ALLEGATION 202

"Retaliation has extended to institutions as well as individuals. For instance, CG&E claims that it terminated the Peabody Mangnflux (sic), Inc. ("PM") from Non-destructive Examinations contract because of obsolete equipment and poor performance, such as exposure of construction personnel to X-rays...In short, CG&E's financial shortcuts and Construction's failure to respect QA activities contributed significantly to the problems for which PM was made the scapegoat."

Response:

In Allegation 202, Petitioner alleges retaliation by CG&E against Peabody Magnaflux, Inc. ("PM") for the rejection of welds by PM radiographers. This allegation of retaliation has been very thoroughly investigated by the NRC as reported in IE Report No. 81-13. This report summarizes the NRC investigative activities that were conducted to review this allegation, which led to the finding reported in Section 5.16.5 that "[n]o items of noncompliance were identified."

The reference cited by petitioner (Attachment 171) relates to the discussion in IE Report No. 81-13 at Section 5.16.3.10 of an interview of Steven Binning where Mr. Binning summarizes some of his activities as a radiographer on the Wm. H. Zimmer Site. Mr. Binning makes no statements in his interview with the NRC that support this allegation of retaliation.

The petitioner refers to radiographers experiencing difficulties "because CG&E would not approve overtime." This concern for overtime is not supported in any way by Attachment 171. CG&E has reviewed the construction records and time sheets submitted by Magnaflux, which clearly show that Magnaflux did work overtime and did adjust levels of staffing to respond to work load. In Report No. 81-13, the NRC found no items of noncompliance in



their investigation of the allegation of retaliation against Peabody Magnaflux. In this allegation, petitioner states nothing that has not previously been thoroughly investigated by the NRC.

ALLEGATION 203

"CG&E replaced PM with Nuclear Engineering Services, Inc. ('NES'). On April 3, 1980, within two weeks of NES' arrival, Kaiser QA officials reported lack of communication, poor productivity and failure to honor promises to supply radiographs on schedule. (Attachment 172) In an April 11, 1980 memorandum (Attachment 173), Mr. Schwiers directed the Department to relinquish all responsibility for the NES contract..."

Response:

In this allegation, the referenced attachments deal with the administration of the NES contract for the provision of NDE inspection services. NES started NDE work on the site on March 5, 1980 and performed the first radiographic services on March 31, 1980. At this time, Peabody Magnaflux (PM) was also on site and was not fully replaced by NES until June 15, 1980.

Attachments 172 and 173 concern themselves with the coordination and administration of NDE work during the time when both NES and PM were on site and not the work function or performance of work. There is absolutely no basis within this allegation to support any charge by petitioner that any of the parties mentioned were subject to retaliation.

ALLEGATION 204

"The fate of Butler Services, Inc. illustrates combined institutional and personal retaliation...The firm's contract was terminated. CG&E had Kaiser replace Butler and offered positions to all Butler employees. The Butler employees who had written NR's received offers of new jobs with cuts in pay and responsibility. The employees who hadn't found any significant problems received raises and de facto promotions. (NRC IE Report No. 50-358/81-13, Exhibits 36-39.) Mr. Reiter reported...(Attachment 16, supra., at 14.)...Kaiser QA Manager Gittings later recalled...Butler inspectors had 'no loyalty' to Kaiser (Attachment 174 at 4.)"

Response:

It is denied that the cancellation of the Butler contract was related to the weld rejection rates of Butler personnel. Butler was hired to provide contract personnel to Kaiser during periods in which Kaiser was unable to hire sufficient personnel to meet its needs. Kaiser cancelled its contract with Butler as soon as Kaiser was capable of obtaining sufficient numbers of full-time employees.

At the time that the Butler contract was cancelled, Kaiser undertook a re-evaluation of salaries of all quality assurance personnel, not just Butler personnel. The re-evaluation was undertaken because Kaiser believed that a general upgrading of salaries of quality assurance personnel was necessary in order to attract greater numbers of skilled individuals and to improve morale within the Quality Assurance Department. Kaiser did offer positions to contract personnel previously supplied by Butler. It is denied, however, that salaries offered to these Butler employees in any way were related to the number of Nonconformance Reports they had previously written. Petitioner's allegation is based solely on the statement of one disgruntled employee who did

not accept permanent employment with Kaiser because he was dissatisfied with the salary offered to him. See NRC IE Report No. 81-13 Exhibit 39 at page 6. It should be noted that contract employees, because of their willingness to relocate for the purpose of taking short-term employment, generally command higher salaries than do full-time employees. It should also be noted that the NRC's IE Report No. 81-13 included the statements of the former Butler employees which petitioner has cited. However, neither the NRC's discussion of those statements (pp. 127-28) nor its summary and findings (pp. 135-37) found any merit in these allegations.

It is denied that the decision to replace Butler was intended to eliminate inspection to applicable procedures or to encourage QC inspectors to ignore construction defects. As the NRC is well aware, the context of Gittings' statement was that quality assurance as a verification program could not function if different and unnecessarily stringent standards were being utilized. See, CG&E's February 24, 1982 Response to IE Report No. 81-13 at B-21 and B-22.

ALLEGATION 205

"Last November's IE Report listed numerous examples where QC personnel were physically harassed or intimidated, including water dousing, high pressure fire hosing, searches and bodily harm. (NRC IE Report, 6.13)...The NRC reported (Attachment 175) that 3 contractors and utility personnel were doused with dirty water...NRC official Dorwin Hunter informed the press that allegations of harassment have continued since last November...(Cincinnati Enquirer News Article Attachment 176)."

Response:

Allegation 205 lists a restatement of charges that appeared in the NRC IE Report No. 81-13. These instances of alleged physical harassment and intimidation have been thoroughly covered as items B.1, B.3, B.5, and B.6, in Attachment B of CG&E's response on February 24, 1982 by Mr. W. H. Dickhoner to the NRC Office of Inspection and Enforcement.

CG&E immediately responded to the May 28, 1982 NRC report (Attachment 175) by taking the firmest possible actions to emphasize the commitment by the Company that the jobsite remain free of physical harassment and intimidation. The actions and commitments by the Company are well known and have successfully controlled the incidence of harassment and intimidation expressed by this allegation.

ALLEGATION 206

"In a June 29, 1982 affidavit (Attachment 177), Mr. Thomas Applegate...reported that he has continued to suffer harassing phone calls almost every week for the last two and one-half years...Mr. Applegate further reported that on February 21, 1982, he was followed and harassed by two cars, at least one of which had a license plate traceable to a holding company for Columbus and Southern Ohio Electric Company, a partial owner of Zimmer."

Response:

This allegation relies entirely on a June 29, 1982 affidavit (Attachment 177) supplied by Mr. Thomas Applegate. CG&E denies ever having harassed Mr. Applegate. As Mr. Applegate states in his affidavit, he has reported these incidents to the appropriate telephone companies and law enforcement agencies along with all of the pertinent information that he was able to supply. The Cincinnati Gas & Electric Company will assist in any way that it can in the investigation of the complaints by any of these telephone companies or law enforcement agencies.

ALLEGATION 207

"Mr. Applegate's allegations are not unique. Other witnesses have contacted counsel directly or indirectly to report threats of physical harm. One witness reported...he was being followed...that members of his family had been followed."

Response:

In this case, the petition contains no information upon which CG&E can respond. CG&E denies any knowledge of any activity described in this allegation and will cooperate in any way possible with investigating authorities.

ALLEGATION 208

"...The May 24, 1982 report (Attachment 152, supra) is both revealing and chilling. Item 3 in the 'NR Action Plan' calls for 'Heart-To-Heart' talks by 'WAH' and 'HRS.'...The planned results? -- 'Identify individuals for corrective action.'...Under this premise, retaliation is inevitable."

Response:

Allegation 208 is essentially a rewording of Allegation 165 since each is based on a misinterpretation of a May 24, 1982 Report (Attachment 152). As it did in the prior allegation, petitioner has taken language from that report out of context in an attempt to imply, with no factual basis, sinister intentions by CG&E to take retaliatory actions against individual inspectors. This is another example of deliberate distortion by petitioner in reading its own biased assumptions into project documents written for wholly legitimate purposes.

As CG&E has previously stated in response to Allegation 165, the May 24, 1982 Analysis Report is a working document which relates to several topics and areas, one of which is the proper dispositioning of NR's. The Report shows a sincere and legitimate interest in reviewing the effectiveness of the NR Program and making improvements where possible. Where the Report recommends that individual inspectors be identified for corrective action, the sole purpose was to insure that inspectors are well trained and familiar with the project procedures so that inspection requirements and techniques, including those pertaining to preparing nonconformance report, fully conform to project procedures and are uniformly applied.



ALLEGATION 209

"...Personnel reprisals have continued. To illustrate, CG&E officials responded to Mr. Jones' disclosures by rewriting his professional history at Zimmer...On June 15, CG&E Vice President Borgmann testified under oath before the Ohio Public Utilities Commission that Mr. Jones had 'some kind of document review clerical type job and was not per se in a position to review quality assurance matters' (Attachment 178). After Mr. Jones publicly testified, employees who expressed support for him on site or openly fraternized with him were laid off (Attachment 179) or subjected to charges of petty misconduct (Attachment 180)..."

Response:

In Allegation 209 the phrases from Attachment 178 that petitioner cites to allege CG&E officials have rewritten Mr. Jones' employment history are taken out of context from Mr. Borgmann's statement. Review of the complete statement made by Mr. Borgmann to the Public Utilities Commission of Ohio on June 15, 1982 clearly shows the exact questions which were asked of Mr. Borgmann and his complete responses. When asked by Mr. Weston before the Public Utilities Commission of Ohio to clarify Mr. Jones' job position as clerical or management, Mr. Borgmann responded that "he was never in a management position." In response to the question of whether Mr. Jones was in a position to review quality assurance matters, Mr. Borgmann responded "not per se."

Mr. Borgmann's statement to the Public Utilities Commission of Ohio does not rewrite or revise Mr. Jones' employment history at Zimmer. Mr. Jones' activities at Zimmer are a matter of record and have not been altered. It is evident from Mr. Jones' record of employment at Zimmer that he was not in any sort of a management position and that his knowledge and experience of

quality assurance matters would be limited to the particular documents and procedures for which he was responsible.

The statements in Attachment 179 are mere bootstrap and provide no additional substantive information.

It is not possible to address specifically the vague allegation from Attachments 179 and 180 that individuals who supported Mr. Jones were laid off, but it is denied that charges of misconduct were based on fraternizing with Mr. Jones. The allegedly harassed individual did not claim in his memorandum to Kaiser's QA Manager that his reprimand was based upon his association with Mr. Jones. Moreover, the QA Manager, Mr. Hedzik, investigated the alleged harassment and determined that none had occurred.

Mr. Jones was laid off in July 1982, without objection at the time or subsequently, along with others as part of a reduction in force. He has made no formal claim, to CG&E's knowledge, that this action was other than a normal reduction in force.

ALLEGATIONS 212 AND 225

212. "The Quality Confirmation Program ('QCP') is the principal solution that arose from the April 8, 1981 Immediate Action Letter....Unfortunately, the Quality Confirmation Program has not worked...the increased bureaucracy and paperwork have not created an effective QA program. Instead, the traditional approach at Zimmer is being applied in a broader context."
225. "Every QCP-imposed repair also confirms the ill-effects of CG&E's own deficient leadership over the last decade...From a policy perspective, it is naive to establish a 'final solution' that relies on management to admit the full consequences of its own mismanagement."

Response:

This allegation contains a number of characterizations which merely express petitioner's views on the effectiveness of the Quality Confirmation Program. The full record compiled to date on the progress and accomplishments of the QCP, which the Staff has comprehensively reviewed, inter alia, in the preparation of its periodic Systematic Assessment of Licensee Performance reports, adequately speaks for itself. Accordingly, there are no specific matters within this allegation that relate to work at Zimmer to which a response can be addressed.

ALLEGATION 213

"Empirically, the Immediate Action Letter and the QCP have not stopped QA violations, and repeated violations. 101 instances of issues raised in this petition have arisen since April 8, 1981. Indeed, despite CG&E's public praise for the QCP, its internal reports admit that the inspectors are still not finding the flaws; are writing up Nonconformance Reports so poorly that the results from over 1600 had to be thrown out; and are providing evidence of a continuing management breakdown. Indeed, on November 4, 1981, two employees of the outside auditor SAI who were working directly for CG&E as the Lead Electrical Supervisor and as QCP Inspector, respectively, contacted the NRC. The NRC memorandum (Attachment 183) summarized their by-now familiar concerns as follows: 1) lack of response to NR and CAR originators; 2) inadequate QCP due to unqualified management; 3) inadequate document control; 4) QC inspectors trained to outdated procedures; 5) construction personnel serving as QC inspectors for CG&E; 6) uncontrolled Construction Inspection Plans."

Response:

This collection of statements is based upon a memorandum which summarizes unsubstantiated opinions and hearsay of third parties. Nor is any weight added by reference to the other 101 allegations, which are similarly based on hearsay or misconstrued facts.

The allegation that QC inspectors "are writing up Nonconformance Reports so poorly that the results from over 1600 had to be thrown out" is not only incorrect, but also directly contradicts what petitioner itself acknowledged in Allegation 231, which stated that the "April 30 report put all 1,685 NR's... 'on hold for reinspection." Due to changes in inspection criteria after a preliminary review of QCP Task I, a large number of Nonconformance Reports were placed on hold to be cancelled after verification that all potential deficiencies have been properly resolved.

The two contract personnel supplied by SAI, identified in Attachment 183, were not members of the SAI management audit team, as petitioner would suggest. One was a QC inspector and the other was a QCP inspector. Petitioner's assertion of a "lack of response to NR and CAR originators" is so vague as to be meaningless. Moreover, it should be understood that there is no requirement for direct response to NR or CAR originators. The second statement that there was "inadequate QCP due to unqualified management" is an unsubstantiated opinion in reference to a task coordinator for cable separation, who is alleged to have inadequate QA or nuclear experience. This graduate electrical engineer had met the requirements to perform his function. Assertion of "inadequate document control" is also an unsubstantiated conclusion. No basis is supplied and therefore no response is warranted.

"QCP inspectors trained to outdated procedures" is an opinion unsubstantiated by this allegation. QCP personnel are required to inspect per the latest revision of a design document; design document changes are included in an inspection package.

The assertion of "construction personnel serving as QC inspectors for CG&E," is incorrect. In one instance, construction personnel were used as aides for QC electrical inspections. However, they were not used as QC inspectors. Finally, no basis is supplied for the last assertion regarding uncontrolled inspection plans and therefore no specific response is warranted.

ALLEGATION 214

"The QCP is compromised by CG&E's unrealistic timetable for starting operations. For instance, at the June 10, 1982 Congressional Hearing, CG&E officials estimated the QCP would be finished by December, 1982. NRC witnesses had to point out that the time frame did not take into account the time required for necessary repairs."

Response:

The above allegation does not support the contention that the QCP is compromised by CG&E's timetable for startup operations and is therefore denied. First, the testimony to which petitioner refers gave only an estimated time frame and did not, as petitioner has done, link completion of the QCP to startup. Obviously, it has always been recognized by CG&E that an operating license for Zimmer will be issued only after the NRC is satisfied that regulatory requirements, including those of 10 CFR Part 50, Appendix B have been met. This necessarily includes satisfactory completion of the QCP.

Second, the QCP is not responsible for taking actions on repair work or estimating such time schedules. Nonconformances identified in the QCP are dispositioned through channels independent of the QCP.

ALLEGATIONS 215, 216, and 217

These allegations pertain to the development of the QCP and are therefore answered together.

215. "...Initially, the premise of the program is a piecemeal -- rather than comprehensive investigation. While NRC officials stated at the June 10 Congressional Hearings that the QCP is 'dynamic,' Region III Administrator James Keppler admitted that the issues and investigative scope were established by the Findings in last November's IE Report No. 50-358/81-13. (April 20, 1982 telephone conversation between Mr. Keppler and Thomas Devine.)"
216. "In fact that explanation was optimistic. On June 8, 1981 CG&E's W.D. Waymire sent to RIII a June 3, 1981 draft of the QCP program. (Attachment 184A.) The draft represented CG&E's write-up of agreements reached with the NRC...in response to 'eighteen inspection report items identified by NRC/III on March 27, 1981.' In other words, the initial QCP was a response to the first 18 preliminary findings after the first three months of an investigation that was not even complete enough for an 'interim' report until November, 1981."
217. "Theoretically, the QCP should have adjusted and expanded 'dynamically' during the summer of 1981...Instead, the major change between the June 3 QCP Draft and the Final August 21 version was to accept the proposed June 6 modifications, such as limiting the scope of 100% reinspection projects to 'accessible' items unless CG&E could 'justify less.' The 'dynamism' at the birth of the QCP was to reduce the number of pieces in a piecemeal approach."

Response:

This collection of statements presents petitioner's subjective conclusions regarding the development of the QCP and contains no specific allegations regarding the quality of work at the Zimmer facility. In general, these allegations illustrate that petitioner's notion of the purpose of the QCP is distorted. The QCP is a comprehensive program which the Company established in cooperation with the NRC to demonstrate its commitment to building the Zimmer Station to meet all regulatory requirements. The implication that the initial QCP was only a response to the

first 18 preliminary findings is misleading in that the tasks in the presently defined QCP go beyond the scope of the findings of NRC IE Report 81-13.

Contrary to the allegation that the QCP has not been "dynamic," in fact, the QCP has expanded the scope of its investigations for issues not present in its original scope such as cable tray hangers in the control room (Task IX).

As the NRC is well aware, the "justify less" approach to reinspection is not construed as a means to reduce the necessary workload. Justification of less than 100% reinspection under the Zimmer QCP would be based on an approach approved by the NRC, consistent with its prior acceptance of the program's scope and content.



ALLEGATIONS 218 AND 219

These two allegations contain generalized assertions concerning the scope of the Quality Confirmation Program.

218. "The QCP does not even purport to address the causes of the QA breakdown at Zimmer. Its sole function is to 'confirm' the quality of completed work...CG&E's own internal assessments have recognized since 1973 that corrective action is not adequate unless the causes are identified and addressed. (See Page 54, and Attachment 111, supra.) Unfortunately CG&E did not respect this premise over the years. Neither does the QCP."
219. "The QCP does not provide a unique independent internal structure...QCP inspectors who write NR's still funnel them through personnel from the existing system -- including Kaiser Management...The new QCP Staff is little better than a massive team of research assistants. They do not have the organizational freedom to enforce their decisions."

Response:

These statements illustrate petitioner's lack of understanding of the purpose of the Quality Confirmation Program. The Quality Confirmation Program is one element in the CG&E Quality Assurance effort which, in addition to the QCP, consists of the following groups: Document Verification, Operations Quality Assurance, Auditing, Quality Engineering and Corrective Action, and Procedure Development, and Training and Administration.

In Allegation 218, petitioner alleges that the QCP does not address the causes of the QA deficiencies at Zimmer. No support is supplied to specifically support this opinion. In Allegation 218, Attachment 111 has been cited in an apparent attempt to relate cause and corrective action, in general, to the QCP. No relevance of this 1973 memorandum to the QCP has been shown. Attachment 111 is also the basis for Allegation 130, where it is further addressed.

In Allegation 219, petitioner attempts to show a lack of independence in the QCP. While QCP inspectors write NR's, it is the responsibility of the Quality Engineers, not the QCP Inspectors, to "enforce their decisions." NR's are processed through the normal channels, independent of the QCP, in accordance with quality assurance procedures. In addition, NR documentation in conjunction with the QCP is controlled and approved by CG&E.

ALLEGATION 220

"The QCP as presented on August 21 does not disclose or justify the objective standards used to evaluate reports presented by the QCP Staff as will be seen (infra, at 98-99). What's good enough for decision makers within Kaiser and CG&E managements may not be good enough for other authorities."

Response:

This allegation is simply a characterization by petitioner that expresses its opinion on how the QCP should be managed. Obviously, the standards by which the QCP's results are being evaluated by CG&E's QA staff as well as the NRC, particularly in its periodic Systematic Assessment of Licensee Performance, are inherent in the requirements of the Immediate Action Letter of April 8, 1981, which set the basic parameters and objectives of the QCP. Full compliance with all NRC regulations under the governing standard of "reasonable assurance" imposed by the Atomic Energy Act is necessarily required in the performance of all licensed activity. However, there are no specific factual matters raised by this allegation for which a response is required.

ALLEGATION 221

"The QCP is still basically a paperwork review. As Mr. Keppler explained at a June 29, 1982 public meeting, the QCP will not require inspections for QA records that have 'pedigrees.' In other words, there will be no inspections unless the paperwork reveals a problem. It is hard to imagine what kind of new 'pedigree' could be developed for the mutant strain of QA records at Zimmer."

Response:

This allegation merely expresses petitioner's opinion as to quality records at Zimmer and contains no specific allegations regarding the quality of work. The status of quality records at Zimmer is addressed in response to several allegations in this petition. Currently, Kaiser Quality Records Management is performing a formal document review under the surveillance of CG&E. This review will determine whether necessary documents have been supplied on systems or components to satisfy applicable requirements. After this document review is complete, the records are turned over to CG&E for final review and acceptance. Such documentation will demonstrate that requirements are met. Once the review has been completed in accordance with applicable codes and standards, the records will accurately reflect the "as built" quality of the Zimmer plant.

Moreover, the assertion that "the QCP will not require inspections for QA records that have 'pedigrees'" is incorrect. In many cases, the QCP is inspecting even where the QA records have pedigrees. For example, heat numbers are being verified in the field, under Task III, for small bore piping and large bore piping affected by field modifications.

ALLEGATION 222 AND 223

222. "...In short, the QCP 'reform' exacerbates, instead of correcting, effects of suspect paperwork."
223. "...the utility may lose the warranty if it breaks the seal to check the quality of vendor components already assembled (supra, at 35.). Similarly, the vendors may no longer have records available to demonstrate they had a reliable QA Program up to eight years ago which CG&E failed to verify at the time. ...The QCP has not even identified the number of missing NR's (supra, at 75), let alone propose a piecemeal way to identify problems first disclosed on documents now irretrievably lost."

Response:

These allegations are other generalized characterizations that express petitioner's opinion on the effectiveness of the Quality Confirmation Program. Essentially, petitioner challenges the adequacy of the QCP to establish the baseline quality of the Zimmer Station. To the contrary, when fully implemented the QCP will establish the quality and integrity of the Zimmer Station to the satisfaction of the NRC. Petitioner's argumentative speculation within this allegation does not warrant a response.

The remainder of Allegation 223 is merely a repetition of several allegations which have been addressed individually. See responses to Allegations 86, 59, 68, 47, and 178, respectively.

ALLEGATION 224

"Most significantly the QCP relies on decision makers who have a built in conflict of interest...it is CG&E management that primarily decides which documents have a 'pedigree.' The NRC Staff cannot second-guess the thousands of CG&E value judgments except on a token basis. But every paperwork pedigree that CG&E denies -- and every inspection or subject repair that approves -- represents costly delays. The financial impact could range up to \$15 million per month according to CG&E's own figures. (See July 13, 1982 Cincinnati Post article, enclosed as Attachment 184B.)"

Response:

CG&E denies that there is any conflict of interest which could affect upon the Quality Confirmation Program. The allegation consists merely of unsubstantiated conclusions.

For example, there is no basis for asserting that extensive value judgments are required in determining whether a record has a pedigree. In the context of Allegations 221 and 224, a pedigree is a non-suspect QA record. If a record reveals potential problems, it is not a pedigree and will be reviewed. Furthermore, as noted in response to Allegation 221, even certain pedigree documents will be reinspected by the QCP.

As is evidenced by extensive QCP investigations, CG&E is systematically and thoroughly reviewing required documents. Contrary to the petitioner's assertion, CG&E has every incentive to identify and resolve problems at this time, rather than having to repeat the process if later inspections or NRC audits find them. There is also no basis for the assertion that NRC's review of the QCP results would be other than professional and thorough.

ALLEGATION 226

"The CG&E-prepared QCP Monthly Status Reports describe general trends. They rarely define specific QCP management decisions nor the basis for them...Attachment A to last November's NRC report summarizes Kaiser QC inspections and S&L Engineers' opinions that S&L improperly waived non-destructive examinations on certain welds in the primary containment. The explanation for the waiver was 'ease of construction.' Visual inspection later revealed the welds to be of poor quality...The November report also cited six noncompliances based on S&L violations relating to electrical cable trays...By contrast, the QCP has given a clean bill of health for all S&L engineering decisions: 'No problems have been found with the quality of S&L work. Their system has been made more formal. Report will be written.' (Attachment 100)"

Response:

This allegation arises from a complete misconception of the purpose of the QCP Monthly Status Reports. Their purpose is to inform management of the status of the program and not to document in detail its methodology or results. Thus, the absence of "specific QCP management decisions [or] the basis for them" is not a deficiency. In any event, petitioner is confused regarding the matter raised. The statement that "[n]o problems have been found with the quality of S&L work" refers specifically to QCP Task VIII, which concerns potential problems with design control and verification. This statement is a conclusion for this specific task. It has been taken out of context by petitioner and applied to "all S&L engineering decisions." The items addressed in Task VIII concern changes made to the FSAR and procedures addressing verification of design calculations and design deviations as they pertain to IE Report No. 81-13, Exhibit 17. Audit Report No. 82-39 was performed by CG&E to verify that these items were addressed by S&L.

It should be noted that aspects of S&L work are being reviewed in other tasks; for example, Task VI, Cable Separation, Task IX, Design Document Changes, and Task XI, Audits.



ALLEGATION 227

"At the June 10 Congressional Hearings, CG&E and the NRC also clashed over the significance of QCP findings on structural steel welding. Mr. Keppler rejected CG&E's subjective evaluation that structural steel welding deficiencies were insignificant and cosmetic."

Response:

In this allegation, petitioner mischaracterizes the statements at congressional hearings. Mr. Borgmann correctly testified at the June 10 Hearing: "while some minor hardware deficiencies have been detected, when we analyzed the deficiencies detected, none of these deficiencies have proven significant relative to impacting the safe operation of the Zimmer Station."

The progress in the QCP to date substantiates the CG&E's position that the deficiencies were basically insignificant from a safety standpoint. Specifically, findings on structural steel show that over three-fourths of the deficiencies merely required superficial rework, such as weld grinding. CG&E does not imply that all deficiencies were insignificant and cosmetic, as the petitioner would suggest.

ALLEGATION 228

"In at least one instance, the QCP authorities have been overruled both by the NRC and the ASME Survey Team. In effect, through a 'code inquiry' CG&E appealed to ASME whether up to 18,079 radiographs...could be accepted since 'most radiographs meet other requirements for quality and sensitivity.' (Attachment 100, supra, at 10.)...CG&E's April 30 QCP Status Report estimated that the shimming 'task is approximately 95% complete.'...Mr. Jagger's May 12 letter tersely rejected CG&E's position: 'The National Board Audit Team is of the opinion that this [CG&E 'conformation' program]...will not satisfy the requirements of the Code, Appendix IX, Paragraphs IX-3334.4 and IX-3334.4 (sic). Further, all radiographs not meeting code requirements are unacceptable.' (Attachment 37, supra, at 12.)"

Response:

Task V of the Quality Confirmation Program has addressed the concern of penetrometer shimming requirements. This effort resulted in a disposition consistent with an approach acceptable to the State of Ohio as indicated in a National Board letter dated November 2, 1981 by Richard E. Jagger.

18,079 pieces of film were reviewed and it was determined that the film allowed accurate interpretation/verification of the quality of the welds. It is the methodology that was in question, not the results. Neither the NRC or ASME has disagreed with this approach.

ALLEGATIONS 229, 232, 233, 234, 237, AND 240

Allegations 229 through 240 involve the content of QCP Monthly Status Reports. The following allegations are based on general statements regarding apparent irregularities in the Monthly Status Reports and therefore are grouped together.

229. "A detailed task by task review of QCP Status Reports leads to two alternative findings: (1) The results disclosed in the reports do not address all specific concerns supposedly covered by the QCP Task; or (2) Where the issues are confronted, successive QCP Status Reports can't keep their confirmations straight. In addition to the April 30 Status Report (Attachment 100, supra), reports current to the January 29, 1982 (Attachment 185); February 5, 1982 (Attachment 186); March 9, 1982 (Attachment 187); April 2, 1982 (Attachment 188); and May 31, 1982 (Attachment 189) are enclosed."
232. "The disclosures for Task II - 'Weld Quality' -- are also incomplete and inconsistent. To illustrate, the February 5 QCP Report is the last to mention mandatory American Welding Society inspection criteria for welder qualifications or filler material that were deleted. (Attachment 186, supra.)"
233. "Task II Reports have been reliably inconsistent. For the piping weld records review, the QCP Reports first begin taking credit on March 9 for a list of large bore welds for review. As the March 9 report explained, 'This will define scope and facilitate finding the inspection records.' In the April 2 QCP Status Report, they added a list of about 29,000 small bore welds which had been identified for review. On February 5 however -- before the QCP Reports discussed efforts to compile lists that would define the scope of the project -- the QCP Report claimed 'approximately 45% of the piping weld records have been reviewed.' Conversely, the May 31 Report -- issued just after the list of 29,000 plus welding records had been compiled -- did not mention review of pipe welding records. (Attachments 186-189, supra, Task II.)"
234. "Task II also included 'Welder Qualifications' as a concern. To illustrate the inconsistencies, an April 30 QCP Report identified 165 NR's, 15 of which had been dispositioned. The May 31 report identified 273 NR's of which 11 had been dispositioned. (Attachments 100 and 189, supra, Task II.)"
237. "Again, the statistics did not match. To illustrate, the March 9 Status Report claimed 'Over 1900 drawings have been reviewed to date out of a total of 2615.' The April 2 Report said that 73 more drawings were reviewed in March. Somehow the authors added: ('Over 1900 plus 73 and answered 'over 2474' in the April 2 Report. The incon-

sistencies went in both directions. From April 30 to May 31, the Status Report figures on reviewed drawings shrank from 2488 to 2354 a net negative 134. A similar Task II (sic). inconsistency involves review of purchase order ('P.O.') documents. The April 30 report credited QCP 3206 PO reviews. The May 31 report disclosed that 669 more purchase order reviews have been completed that month for a total of 4788. CG&E had somehow added an additional 913 welds to the total." (Attachments 100, 185-189)

240. "The progress reports for some tasks were so vague as to be nearly meaningless. To illustrate, Task X concerned subcontractor QA programs in general and Bristol Steel in particular. At best, the status reports have revealed that 'many audits were deficient, without specific quantification.' Otherwise, the reports do not disclose any results. Through May 31, the disclosures solely concern the methodology. There should be some discussion of results since the May 31 report claimed the task was 53% complete. Despite the scope of the vendor QA breakdown, there is no discussion of nonconformances or any other corrective action." (Attachments 100, 185-189)

Response:

In general, petitioner does not understand the purpose of QCP monthly status reports and attempts to demonstrate that the reports are not a fair reflection of the QCP activities. The QCP monthly status report is and was intended to be an administrative tool for the management of the QCP tasks. The QCP is a dynamic program which is continually changing and evolving to insure that concerns are met. The reports are aimed at providing administrative overview to check manpower requirements, develop schedules, assess priorities and provide information to plan and coordinate interface with other departments. It is emphasized that these reports are not required or "controlled" documents.

In many cases, best-estimate numbers were used, based on the knowledge at the time, to establish some target against which progress could be measured. Estimates will vary and often do change because they deal with actual pieces of paper not easily

quantifiable, and because methods of counting may change. Thus, to persons not familiar with the program, monthly QCP reports may seem inconsistent. They do, however, fairly reflect the activities of the QCP. Based on a proper assessment of the QCP status reports, these allegations are denied.

In addition, some of the allegations raise specific issues. For example, Allegation 232 asserts that certain welding criteria were deleted from the status reports. In light of the limited purpose of the QCP reports, the alleged deletion of such criteria is irrelevant. In Allegation 234, petitioner has misrepresented the facts. The April 30, 1982 report stated that 15 NR's were in the final engineering disposition process. Eleven of the 15 were dispositioned during May, which was reflected in the May 31 report. Finally, Allegation 240 asserts that the QCP reports are vague and do not disclose any results with respect to Task X. In fact, Task X concerns the review of subcontractor/vendor audits and the progress is disclosed in the reports.

ALLEGATION 230

"Task I addresses 'Structural Steel.' None of the QCP Status Reports specifically discusses three identified 'concerns' -- 'some welds were painted prior to inspection'; 'some beams installed but not shown on design drawings'; and 'heat number traceability but not shown on design drawings.'"

Response:

The QCP Status Reports are not required to specifically discuss "concerns." This allegation does not warrant a response; however, a clarification will be provided. The three concerns have been addressed in the QCP as follows: (1) Paint was removed from all painted welds inspected by QCP personnel. (2) This concern is addressed in Task I through inspection of welds and configurations. To date, inspections have revealed that some beams were installed out of position, thus conflicting with the locations specified on design drawings. All such deficiencies have been documented on NR's. (3) Structural steel traceability requirements are covered in Task III.

ALLEGATION 231

"Unfortunately, the progress reports offer inconsistent data. As of March 9, 1982, the QCP report disclosed: '1,046 Nonconformance Reports have been written identifying 4,261 [welding] deficiencies'...CG&E estimated that the task was 72% complete and should be finished by June 4, 1982. The April 2 QCP Report added another 439 NR's for welding deficiencies but added 'IV. Due to preliminary NR review data, Task I inspections were stopped 4/8/82. V. Procedures...are being revised to include new and clarified inspection criteria.' (Attachment 188, supra, Task I.) The April 30 report put all 1,685 NR's, involving 7,170 deficiencies, 'on hold for reinspection'...NR's were included in the 1,685 NR's on the 7,170 welds which were all placed on hold."

Response:

See generally response to Allegations 229 et al. Petitioner alleges that the progress reports offer inconsistent data. The March 9 report states that Task I was 72% complete but the April 30 report put all 1,685 NR's on hold for reinspection. This allegation demonstrates no inconsistencies. To the contrary, it illustrates that when CG&E identified problems during the course of a QCP review, e.g., preliminary NR review, Task I inspections were stopped. Task I QCP inspectors were sent for additional training and inspections were restarted. Furthermore, the actions regarding the 1,685 deficiencies do not show any fault in the QCP. See response to Allegation 117, supra.

ALLEGATION 235

"...Task II refers to 'some heat numbers' that have been 'whited out' on KE-1 forms for weld rods. The status reports consistently pledged that 'deficiencies will be resolved during large bore and small bore piping walkdowns.' (Attachments 100, 185-189, supra.) But weld rods are transformed into molten metal during the welding process. As Mr. Reiter pointed out, it is not possible to read the weld rod number by looking during a walkdown when the number has already disappeared through welding."

Response:

See generally response to Allegations 229 et al. Petitioner has incorrectly asserted that "weld rod numbers" (heat numbers) will be verified during piping "walkdowns." Petitioner has misstated the manner in which the Quality Confirmation Program will verify the accuracy of welding material heat numbers. The assurance of proper weld filler metal verification/control is covered by QCP Task II and will be accomplished by review of site welding documentation.



ALLEGATION 236

"The QCP effort on heat numbers Task III suffers from the same inconsistency flaws as Task II -- the generation of conclusions such as NR's before establishing a reliable data base; as well as inconsistent if not impossible statistical tallies. The January 29, 1982 Status Report pledged 'Nonconformance Reports will be written after heat number log has been verified (estimated completion 2/1/82).' (Emphasis Added.) (Attachment 185, supra, Task III.) This commitment was not honored. The subject of heat number records verification next arose in the March 9 report. Through May 31, it was referred to as an ongoing activity without reference to the log. Meanwhile, the reports disclosed 'Nonconformance Reports are being processed.' Despite the increasing scope overview, the QCP consistently found missing heat numbers at a 20% rate. (Attachments 100, 185-189, supra, Task III.)"

Response:

To establish the scope of work for Task III, heat numbers were recorded from construction purchase orders onto a preliminary heat number log. In addition, a confirmed acceptable heat number list, with supporting documentation, is being compiled. QCP Task III heat number traceability for small bore piping is verified as follows: (1) if no heat number is found, a Nonconformance Report is written (independent of the heat number log); (2) if a heat number is found, it is verified with the confirmed acceptable heat number log; and (3) if the heat number conflicts with the confirmed acceptable log, an NR is written. Therefore, NR's which were written per step (1) were not in conflict with the heat number log methodology, as petitioner erroneously implies. In any event, the exact percentage of missing heat numbers is irrelevant since QCP Task III will result in the identification, and documentation, of heat number discrepancies.

ALLEGATION 238

"Task VII, 'Nonconformances,' illustrates another case of work to unapproved procedures. The January 29 report stated that procedures for punchlist review procedures were out for comments. Simultaneously the report disclosed that the 'punchlist review is 5% complete...' (Attachment 185, supra Task VII.) This could indicate that the QCP again is confirming and reaffirming bad habits through uncontrolled repairs."

Response:

Contrary to petitioner's conclusions, this allegation does not illustrate that work in Task VII has been performed to unapproved procedures. The January 29, 1982 QCP Status Report, when taken in proper context, discloses that the task of punchlist review is 5% complete, meaning 5% of the manpower for this task was utilized in developing the procedures. Therefore, petitioner incorrectly assumes that 5% of the punchlist review was completed using unapproved procedures.

ALLEGATION 239

"Task VII...avoided a key issue that was included in the November, 1981 Report -- NR's that are missing because they were voided as 'not issued'...Instead the reports make oblique references that 'Letters to inspectors requesting information on potential nonconformance not previously entered into the system is (sic) being issued.' This may be another uncontrolled effort. The reports do not disclose how many letters have been sent out or whether they were sent with postal service proof of mailing or guarantees of receipt...Mr. Reiter also reports however that he never received a letter from CG&E inquiring into missing NR's (Attachment 23, supra, at 6.)"

Response:

This allegation is based on unsubstantiated conclusions and an unsigned, undated "affidavit" attributed to Mr. Reiter. Under the cognizance of the NRC, certified letters requiring proof of receipt are being sent to former QC Inspectors. These letters request information on potential nonconformances that were not previously entered into the NR system. Petitioner's critique of this procedure is unfounded and certainly premature. Additionally, Mr. Reiter's personnel records reveal that he was a technical draftsman for piping systems and, for a short period of time, was an inspector trainee performing document review. Therefore, he never was a QC Inspector and therefore was not sent an inquiry letter. This allegation raises no questions about the quality of work at the Zimmer Facility and is denied.

ALLEGATION 241

"...On July 15, the Commission provided more specific QCP results to Congressman Udall. (Attachment 190.) Out of 259 cable tray connections inspected, there were 253 with nonconforming conditions. In the drywell steel, 93 out of 161 beams inspected to date have nonconforming welds. There were 369 welding deficiencies. In the gallery steel, 39 beams out of 106 inspected were nonconforming with 126 deficiencies on 1200 welds. There were problems with the control room structural steel welds. Also with nonconformances on 150 beams out of 200 inspected and 1835 deficient welds out of approximately 2500 inspected. In short, the July 15 letter confirms that the QA breakdown has led to a wide-ranging hardware breakdown."

Response:

This allegation is a repetition of welding related matters which have been identified through the implementation of the QCP. Petitioner cites examples where large quantities of deficiencies have been identified and concludes incorrectly that this necessarily reflects a "wide-ranging hardware breakdown." The examples cited above refer solely to welding deficiencies identified in the QCP, which concern weldments and connections. The petitioner refers to such deficiencies as "hardware" problems. This logic does not follow from the facts presented.

In the July 15 letter to Congressman Udall, (Attachment 190), Chairman Palladino puts these QCP findings into proper perspective by stating the following:

"The emphasis of the licensee and the NRC is being placed on the number of weld deficiencies identified with those 'weldments' and 'connections' rather than on the number of deficient welds. One weld could have multiple deficiencies (e.g., undercut, lack of fusion, undersized, profile) due to nonconformance with different aspects of the applicable specifications...The licensee must resolve identified non-compliances by determining if the deficiencies are acceptable as is based on engineering evaluations or by reworking the welds. Where possible, the licensee has decided to resolve deficiencies with the 'weldments' and 'connections' by rework to bring them into conformance with the

specifications rather than attempt to disposition the nonconforming conditions through engineering evaluations."

Thus, the mere number of the deficiencies identified by QCP Task I do not show any particular safety significance. For example, the number of deficiencies is magnified due to the large number of welds per beam or connection. There are an average of 12 welds per beam inspected in the drywell steel, gallery steel, and control room structural steel. In addition, there are an average of four welds in the cable tray foot connections.

The disposition of these nonconformances confirms the Company's position. Most of these nonconformances have been dispositioned to be reworked, as necessary, to correct the nonconforming conditions. Other deficiencies have been determined by CG&E to be acceptable as is. The NRC is reviewing the Company's evaluations of these deficiencies. Obviously, the NRC will be fully knowledgeable as to the final disposition of each such item within the framework of the QCP.

ALLEGATION 242

"Apparently the findings are not significant to CG&E. A June, 1982 'Open letter to all employees' from CG&E President Dickhoner stated that the QCP 'is now 66% complete and I am pleased to report that, to date, no serious safety problems have been found.'... (Attachment 191.) Mr. Dickhoner's letter mirrored CG&E's position at the June 10 Congressional Hearings and the June 16 NRC Briefing. It was repeated in a July 27, 1982 news article (Attachment 192)... The determined CG&E position to 'see no evil' raises serious questions about its definition of 'serious safety problems.' Moreover, it raises a cloud over all QA judgments by CG&E top management."

Response:

This allegation is an unsubstantiated opinion by petitioner which raises no specific concerns about the quality of work at the Zimmer facility and is therefore denied. The Company is well aware of the deficiencies which have been identified through the QCP and is committed to correct them to the satisfaction of the NRC. The statements by Messrs. Dickhoner and Borgmann reflect the Company's confidence that the as-built quality of the plant upon completion of all necessary reviews, including all tasks of the QCP, will fully satisfy all applicable regulatory and industry standards. It is CG&E's commitment to completing the Zimmer station in a quality manner and the NRC's assessment of these efforts in light of its regulatory requirements which are determinative of safety at the facility, not petitioner's subjective views and characterization of management's attitude. No further response is warranted.

ALLEGATION 243

" . . . . Lack of corporate character and competence, through omission or commission, generally is sufficient basis to deny an operating license...At Zimmer the issue is decisive for ongoing construction and corrective action. CG&E has extraordinary responsibilities under the QCP to assess the damage from its own decade-long failure."

Response:

This paragraph is merely a general characterization by petitioner of the importance of corporate character and competence. The brief reference to the Commission's decision in Houston Lighting & Power Company (South Texas Project, Units 1 and 2), CLI-80-32, 12 NRC 281 (1980), adds nothing to the allegation. In South Texas, in fact, the record of noncompliance was unusually extensive involving, inter alia, twelve separate investigations over a two and one-half year period and five Immediate Action Letters, which prompted the Commission to authorize the Licensing Board to conduct a hearing on QA allegations. At Zimmer, by contrast, the Commission has expressly determined that the Staff is capable of resolving outstanding deficiencies. Aside from the fact that South Texas involved quality assurance issues, petitioner has shown absolutely no reason why the South Texas decision is relevant.

In particular, no specific factual allegations are made to support the claim by petitioner's witness that there is no commitment to Quality Assurance at Zimmer. To the contrary, the Company's actions in establishing and implementing the objectives, scope and content of the Quality Confirmation Program and other components of the quality assurance functions at Zimmer

clearly demonstrate its commitment to building the Zimmer facility to meet all regulatory requirements.



ALLEGATION 244

"...[E]ffective July 6, 1981 Mr. Mark Albertin was appointed Project Manager for Zimmer...Mr. Albertin quickly tipped his hand. On June 10 Mr. Jones testified, 'As the new site manager told us when he arrived, his objective was to return to the pre-April 1981 mode...'"

Response:

Applicants have committed their resources to the completion of the Quality Confirmation Program in such a manner as to provide the highest level of confidence in the as built quality of the Zimmer Station. Petitioner's mere speculation to the contrary in this allegation is not a factual issue, but is nonetheless denied.

Shortly after his arrival, Mr. Albertin met with all Kaiser personnel in large groups to emphasize his and Kaiser's commitment to quality assurance and to address other matters. Mr. Albertin stressed the importance of a positive approach to quality assurance and denies stating to these groups that his objective was "to return to the pre-April, 1981 mode." Specifically, it is denied that Mr. Albertin stated that his objective as the new Site Construction Manager was to "return" to any previous "mode" in order to build "one of the cheapest plants in the country."

The continuing commitment by CG&E to upgrade quality assurance at Zimmer is demonstrated by its implementation of the terms of the April 8, 1981 Immediate Action Letter and by its other recent actions such as rigorous implementation of the Quality Confirmation Program.

ALLEGATION 245

"CG&E's 'pre-reform' and 'post-reform' philosophies have not changed, either. In 1971-75 Messrs. Borgmann, Dickhoner, Pandorf and Schwiens instituted the basic CG&E approach to QA - do as little as possible." (Attachment 86)

Response:

In attempting to denigrate the Company's current quality assurance efforts, petitioner quotes a portion of a letter dated January 15, 1975 from CG&E to Kaiser (Attachment 86), in which the Company confirmed its authorization for Kaiser to hire additional non-manual personnel. CG&E merely stated in the letter that Kaiser should insure that existing personnel were being utilized effectively. Indeed, CG&E flatly stated: "Quality rather than quantity is the real answer on a project of this nature..." The language quoted by petitioner, in particular, deals strictly with the level of construction efforts and construction schedule. It is denied that CG&E's approach was "to do as little as possible".

ALLEGATION 247

"At the June 16 NRC briefing Mr. Borgmann still believed in the early decisions to deny QA staffing to Kaiser. He said the problem was that Staff requests had to be justified; that Kaiser had to show the people would be busy...In short, the only true commitment CG&E management has demonstrated is to deny any previous mistakes, deny there is a serious problem beyond public relations, and attack the motives of outside groups worried about the effects of CG&E's policies. Creating diversions and scapegoats will not make Zimmer safe. CG&E should be disqualified from the QCP on the basis of its current position, even if offered in good faith. The extraordinary responsibility requires an extraordinary commitment to quality assurance. That commitment does not exist in CG&E top management."

Response:

In this allegation, petitioner discusses two different statements by Mr. Borgmann, CG&E Senior Vice President. In the first, petitioner attempts to disparage management's commitment to quality assurance based upon comments by Mr. Borgmann to Zimmer workers. In essence, the allegation simply notes that Mr. Borgmann said that press coverage of events at Zimmer was not even-handed and that the claims by petitioner frequently distorted the truth. There is certainly nothing inconsistent with that position and the commitment by CG&E's management to upgrading quality assurance efforts and improving procedures in order to meet legitimate concerns based upon CG&E's ongoing reviews and other input.

In speaking to the Zimmer workers, there was nothing to be gained in improving employee morale by engaging in the kind of self-flagellation apparently desired by petitioner. To the contrary, Mr. Borgmann simply reassured the workers that he had full confidence in their ability and reminded all employees that "I'm available for anybody who has any comments or any thoughts

or anything you want to discuss with me or CG&E." The purpose of Mr. Borgmann's remarks was, therefore, not to castigate Zimmer employees but rather to engender their full support for the completion of the facility in a quality manner.

In his remarks to the NRC at the public meeting on June 16, 1982, Mr. Borgmann clearly distinguished between CG&E's review of personnel needs from an administrative standpoint and the Company's involvement in the Zimmer Quality Assurance Program in the early stages. As discussed in response to similar Allegations herein, the Company fully understands that improvements have been required in quality assurance matters at Zimmer.

ALLEGATION 248

"There is serious question whether CG&E has acted in good faith. Last November, the major public justification to keep CG&E at the helm was the utility's claimed ignorance of Kaiser QA violations...Even at the June 10, 1982 congressional hearings and NRC briefing, CG&E officials maintained their ignorance of the Kaiser QA program (Attachment 97.) In short, CG&E consistently has maintained that its only real failure was inadequate oversight of its contractor."

Response:

The allegations in this paragraph pertain to CG&E's oversight of the Kaiser Quality Assurance Program, an area in which the Company has undertaken to implement improvements pursuant to various commitments to the NRC, including its response to the Immediate Action Letter of April 8, 1981. To put the matter in proper perspective, it must be understood, as Mr. Borgmann testified before the Udall Subcommittee, construction at the Zimmer Station commenced during a transition period in the nuclear industry from "turnkey" operations to those in which the utility purchased major components and a main constructor had primary responsibility for building the station. See Oversight Hearing before the Subcommittee on Energy and the Environment, Committee on Interior and Insular Affairs, 97th Cong., 2nd Sess. at 26-27 (June 10, 1982).

As Mr. William H. Dickhoner, President and Chief Executive Officer of CG&E, testified before the NRC at the public meeting on June 16, 1982, in the earlier stages of the project "the contractor was doing the QA/QC and we were acting in an overview role." (Tr. 29). However, in terms of licensing Zimmer and evaluating current quality assurance efforts, petitioner's opinions as to these past matters are irrelevant. CG&E's

commitments described in response to previous allegations demonstrate its good faith.

ALLEGATIONS 249 AND 250

These two allegations are grouped for response because they both deal with CG&E's awareness of Kaiser's quality assurance activities.

249. "CG&E's 'blissful ignorance' position is categorically false. Conceptually, since CG&E controlled the purse strings, it would have been difficult not to notice that Kaiser's QA program was unnaturally limited. Second, the evidence proves the utility's intimate knowledge of the QA issues, beyond a reasonable doubt..."

250. "The Zimmer employee witnesses had little question about the issue. Mr. Yates observed:

"I do not understand how the NRC could have concluded that CG&E was unaware of Kaiser's Quality Control miseries. It would have been impossible. CG&E officials certainly had a visible presence at the plant. CG&E officials were in the office frequently. Further, the problems were too well-known to miss."  
(Attachments 33, 16, 61)

Response:

In these paragraphs, petitioner continues to rehash matters relating to CG&E's oversight of the Kaiser QA program. As discussed in response to Allegations 247 and 248, CG&E has testified publicly before the NRC and Congress as to its previous oversight of Kaiser QA activities and has more recently taken positive steps to implement a greater, active involvement. These measures required under the Immediate Action Letter have been fully aired with NRC, which is well aware of developments in quality assurance procedures at Zimmer and the steps taken to implement improvements.

Petitioner's desire to dwell in the past in order to oppose the licensing of Zimmer and the idle speculation of some of its witnesses are truly irrelevant to the central issue of what actions are presently being taken by the Company to insure its

complete control and oversight of the quality assurance function  
at Zimmer.



ALLEGATIONS 251 AND 252

251. "In a July 8, 1981 interview (Attachment 174, supra) with NRC investigators...Kaiser QA Manager Phillip Gittings illustrated the comprehensive nature of CG&E's oversight...Gittings added that he had to report everything through Bill Schwiers, QA Manager for CG&E."
252. "Ignorant or not, on June 10 Mr. Borgmann told Congress (Attachment 197, supra) that CG&E --

...obviously should have had deeper involvement. We should have completely controlled the program. But to say the program was not carried out because we deliberately told Kaiser to short cut it or not carry it out is false."

Response:

In these allegations, petitioner again confuses the differences between CG&E's oversight of the Kaiser Quality Assurance Program and its approval or disapproval of requisitioning additional manpower. Nonetheless, at the time of the interview of Mr. Gittings, upon whose statement petitioner relies, he stated that the Quality Assurance organization for Kaiser was currently staffed at a "substantially higher level" than at his time of arrival or initial assignment at the site. At the meeting with the Commissioners on June 16, 1982, CG&E noted that its constructor had added new top level and key supervisory personnel within its quality assurance organization and had increased the size of its quality assurance department at the Zimmer site to approximately 250 personnel (Tr. 7). CG&E's own Quality Assurance staff has similarly been expanded to number at that time some 212 quality assurance inspectors, engineers and other persons. (Tr. 38).

In any event, any past differences over manpower levels cannot be equated with CG&E's knowledge of or concurrence in past Quality Assurance practices at Zimmer. The formulation and implementation of an acceptable Quality Assurance Program was Kaiser's responsibility. Petitioner's assertions notwithstanding, CG&E, as the client, held its contractor, Kaiser, accountable. However, contrary to what petitioner would have one believe, "accountability" is not synonymous with "control."

ALLEGATIONS 253 AND 255

253. "These statements are absolutely wrong. 112 of the instances of the issues herein involve active CG&E participation in - and in direct control when necessary of - the Zimmer QA program. While specific problems may have slipped past, for major policy decisions the problem at Zimmer is that CG&E did control the Quality Assurance Program. It overruled Kaiser on staffing; which construction activities to cover with Quality Assurance; when to conduct audits, surveys, and inspections; whether to even have an audit program; when to write up the findings and how, on which forms; and similar decisions."
255. "Kaiser construction manager Robert Marshall and Phillip Gittings reportedly were identified in last November's report as officials responsible for the QA breakdown on specific issues. But in the July 8 interview (Attachment 174, supra), Mr. Gittings illustrated the extent of CG&E's control...In short, the statement of CG&E/Kaiser QA officials demonstrate that far from being uninformed and hesitant to interfere, CG&E ruled over the Zimmer QA Program with an iron fist. Kaiser's job was to implement the utility policies."

Response:

Petitioner's claims in Allegation 253 of CG&E's direct control of Kaiser's performance under its Quality Assurance Program are not supported by the statements therein and are denied. The vast majority of the activities discussed in the referenced sections of the petition deal with events which occurred prior to or during the period in which the Company and its contractors were reevaluating quality assurance procedures for possible improvements and were also re-examining quality assurance procedures and documents in order to determine the as built quality of the Zimmer facility. The Company's pursuit of these matters at that time certainly does not establish its cognizance of the need for greater involvement during earlier stages of the project.

As to the particular items alleged, petitioner has merely referred to other allegations in previous sections to which CG&E has already provided a response. Essentially, these two paragraphs repeat petitioner's charge of CG&E's control over the Kaiser Quality Assurance organization. No further response is warranted.

Allegation 255 is simply a repetition of petitioner's charges that CG&E management understaffed the Kaiser QA function. The Company reiterates that the formulation and implementation of an acceptable QA program was the responsibility of Kaiser. CG&E did not in any manner subvert the Quality Assurance Program or its implementation. As noted, contrary to what petitioner would have one believe, "accountability" is not tantamount to "control." As to the current status of quality assurance staffing, See responses to Allegations 251-252, supra.

ALLEGATION 254

"The evidence suggests that CG&E historically has maintained ultimate control over QA programs, to the point of firing Kaiser QA managers who fell out of favor. An affidavit from a former Kaiser Assistant Quality Control Manager (Attachment 76, supra) summarized the phenomenon...."

Response:

The hearsay allegation in this paragraph that the Kaiser QA Manager was replaced at the request of CG&E due to a disagreement over the operation of the Quality Control Program at Zimmer is denied. Mr. Friedrich resigned in early 1977 and accepted a position with another company. As the allegation makes clear, it is based entirely upon a hearsay statement previously given to NRC inspectors and appropriately investigated at that time.

ALLEGATIONS 256, 257, 258, AND 259

256. "CG&E also has contended repeatedly that no one warned them about the effects of cost consciousness. At the June 16 NRC briefing, Mr. Borgmann stated that CG&E was unaware of problems before the Fall of 1980, when the NRC raised issues in connection with a Systematic Appraisal of Licensee Performance ('SALP')..."
257. "Again, Mr. Borgmann's statement was categorically false. As seen earlier, on October 14, 1974, Mr. Friedrich wrote to Mr. Borgmann that additional Staff were 'absolutely necessary' to meet the requirements of 10 CFR 50 Appendix B."
258. "The NRC also tried to warn CG&E (and Mr. Borgmann), again to no avail. In his March 6, 1981 interview with Messrs. Gambel and Sinclair of the Commission's OIA, NRC official (and former Zimmer Project Manager) Terry Harpster recalled that during his 1977-79 tenure at Zimmer, he was concerned about severe problems such as lack of resources and experienced personnel..."
259. "It is hard to believe that Mr. Borgmann truly forgot these warnings of illegality. In each case he either threatened or attempted to engage in reprisals against those who brought the bad news...In sum, it is true that CG&E lacked the technical competence to adequately construct a nuclear plant for the first 97% of the job. But even more significant, Messrs. Dickhoner, Borgmann and their subordinates knew better, and they either ignored or attempted to retaliate against those who tried to warn them."

Response:

These allegations likewise pertain to earlier correspondence between Kaiser and CG&E regarding requests for additional staffing. Petitioner's gratuitous, ad hominem attacks on Messrs. Dickhoner, Borgmann and CG&E management are denied. The document upon which petitioner primarily relies is dated October 14, 1974. In this letter, Kaiser requests additional quality assurance personnel in order to maintain its current level of activity. Contrary to petitioner's inference, this request for additional manpower carried no implication that any violation of 10 CFR Part 50, Appendix B might result if the request were

denied. Thus, no ominous "warning of illegality" came from Mr. Friedrich.

The response from Mr. Dickhoner dated October 30, 1974 does not, as alleged by petitioner, even indicate, much less direct, Kaiser to deviate from the necessary inspection requirements under existing quality assurance procedures. Nor did Mr. Dickhoner suggest that Kaiser should do anything less than that which would be required for compliance with 10 CFR Part 50, Appendix B. Rather, Mr. Dickhoner simply stated that the overall projection of necessary quality assurance personnel had changed in view of the change in the project completion date and the unanticipated availability of inspection efforts from subcontractors which would relieve Kaiser of certain responsibilities. Mr. Dickhoner also expressed his willingness to consider additional QA staffing on a case-by-case basis if "individual areas of obvious weakness in inspection capability become evident."

In any event, it is difficult to understand how this eight-year old document bears upon the existing situation at Zimmer in the context of ongoing efforts to upgrade quality procedures and to audit the management function to insure compliance with 10 CFR Part 50, Appendix B.

Petitioner's allegations concerning former NRC inspector Terry Harpster are also without merit. As the NRC is well aware, Mr. Harpster's responsibilities for Zimmer did not relate to construction. In any event, the NRC does not "warn" an applicant as to potential or existing problems. Mr. Harpster, who referred to the NRC's requirements as a "joke" in his interviews certainly

understood the process for noticing violations of Appendix B. As regards petitioner's allegations of contact between CG&E management and Region III, it is certainly appropriate and customary for an applicant or licensee to question the findings of a particular NRC inspector or inspection report. Again, however, it is entirely unclear what relevance inspection reports prepared years ago or other dated documents have upon CG&E's presently constituted Quality Assurance Program and third-party audit reviews.



ALLEGATION 260

"Proposed NRC regulations recognize the significance of personal misconduct such as intoxication, theft or other criminal activities for plant safety. (Attachment 199a.) Last November's NRC report passed along observations that liquor, drugs, gambling, prostitution and petty theft were common occurrences at Zimmer..."

Response:

Contrary to petitioner's allegation of drinking, drug abuse and criminal activities as "common occurrences at Zimmer," the findings of the NRC in IE Report No. 81-13 in Section 5.14.6 indicate no items of noncompliance. The IE Report at Section 5.14.5 states that, while some evidence of drinking and drug use on site existed, a "widespread problem was not evident" and that regional and site inspectors did not consider the situation at the Zimmer site "to be worse than other construction sites." Nothing new has been cited by petitioner, including the statement by former NRC inspector Terry Harpster (Attachment 81), which was considered by the NRC in its investigation. None of the other matters alleged by petitioner on the basis of a statement by Jeffrey J. Hyde (Attachment 200), also considered by the NRC at the time it prepared IE Report No. 81-13, was borne out by the NRC's investigation and are expressly denied.

ALLEGATION 261

"Intentional falsification of QA records is not only a criminal offense, it is valid grounds to deny an operating license. (Houston Power and Light, supra.) Last November's IE Report alluded to a case where Mr. Terry Dakin's signature appeared in a liquid penetration report, but the handwriting did not match his usual signature. (NRC IE Report No. 50-358/81-13, Exhibit 36.)...Counsel has submitted to the NRC 21 examples of welder qualification records that demonstrated 11 possible techniques of intentional falsification (supra, at 60-61.)"

Response:

The statement in Allegation 261 that "counsel has submitted to the NRC 21 examples of welder qualification records" appears to refer to the same 21 examples of welder qualification records which are discussed in Allegation 145. For a discussion of those examples of welder qualification records, see the response to Allegation 145. The specific allegation relating to Terry Dakin's signature on a liquid penetration report derives from a statement by Richard Price taken by the NRC in its investigation culminating in IE Report No. 81-13. See Exhibit 37 at pages 4-5. The NRC did not substantiate this allegation.

ALLEGATION 262

"Traditional practices on-site...mask deliberate falsification...in an April 5, 1979 memorandum (Attachment 201) Kaiser QA Manager R. E. Turner called for an end to the traditional practice of whiting-out changes on inspection records...'Effective this date, white-out shall not be used...'"

Response:

CG&E denies petitioner's statement in Allegation 262 that whiting-out on inspection records is a traditional practice at Zimmer. Contrary to petitioner's allegation, the April 5, 1979 memorandum from Kaiser QA Manager R. E. Turner to his lead inspectors and QA engineers does not state or imply that whiting out changes on inspection records was a traditional practice. Rather, the memorandum was prompted by Mr. Turner's awareness and disapproval of "[s]everal instances" of the use of white-out in accomplishing changes to CIP's or other inspection records.

Kaiser procedures QRM-1, Rev. 2 at 8 (May 24, 1982), and QAPO-5, Rev. 2 (October 15, 1982) at 13, specify that the use of white-out is unacceptable and identify the necessary corrective action to be taken if white-out is found on quality assurance documents. The matter of white-out was previously investigated by the NRC. See IE Report No. 81-13 at page 18. CG&E responded to this item in its submittal on February 26, 1982, Attachment B, pages A-6 through A-8.

ALLEGATION 263

"Another tradition that facilitated abuse was the practice of predating QA inspection documents... (Attachment 202)... These packages have been final inspected per M-12 by R. Freeman on 9-1-81. Mr. Freeman left the site on 8-12-81... this has been a past practice in HJK to pre-date the inspection report to insure that CG&E has two full days to reinspect... This evidence suggests that intentional falsification may have occurred during the first five months after the Immediate Action Letter..."

Response:

The September 8, 1981 memorandum (Attachment 202) cited by petitioner states that Mr. R. Freeman left Zimmer on Monday, August 31, 1981, not August 12, 1981 as alleged. This attachment relates to the requirement of QACMI G-23 that CG&E perform reinspection of Kaiser inspection work within two days. While what Mr. Freeman may have done is clearly not authorized by Zimmer QA/QC procedures, this does not constitute a "tradition" of intentional falsification of QA documents as petitioner alleges. Furthermore, as soon as CG&E personnel discovered this unauthorized departure from established procedures, corrective actions were taken as indicated by Attachment 202.

Kaiser and CG&E realized that although the two-day reinspection requirement was intended to require timely inspection, it was difficult to implement and apparently led to the post-dating of reports. In view of unnecessarily restrictive time requirements on CG&E reinspection, QACMI G-23 was replaced by GIP-12. GIP-12, Revision 1, does not impose the requirement that CG&E reinspect Kaiser work within two days. Furthermore, it permits CG&E and Kaiser QA personnel when possible to perform their inspection simultaneously.

ALLEGATION 264

"...On December 7, 1981, a Kaiser QC Inspector found that two weld rod forms were marked 'void' and thrown in the trash,...(Attachment 50, supra.)...The rod slip had been attached and discarded, which 'is a direct violation of SPPM 3.3 Rev. 9...' The CAR concluded, both weld rod slips show 100 rod each issued to craft, no rod returned. We have lost control of 200 weld rods. (Id.)...September 2, 1981 memorandum (Attachment 203) that reported another KE-1 form from Mr. Puckett's office that was 'altered by writing in ink, void on the original.'"

Response:

It is correct that CAR-037 found that two weld rod forms had been voided and discarded; however, as noted in the corrective action to CAR-37, all the weld rod issued on a weld rod form was returned unused. In such circumstances, the general practice prior to 1981 was to void and discard the weld rod form. Thus the weld rod forms at issue in CAR-037 were not discarded in order to hide them from the inspector. It is therefore denied that Kaiser "lost control" of any of the weld rod which was the subject of CAR-037. As explained in the Kaiser Corrective Action statement for CAR-037, all 200 weld rod issued were returned unused. Kaiser now keeps copies of all weld rod forms, even when all weld rods issued are returned unused by the welder. Additional details regarding CAR-037 are provided in response to Allegation 53.

In CAR-038, (Attachment 48), the inspector documented his inability to obtain requested weld rod forms (Attachment 48). In the Corrective Action Statement for CAR-038, Mr. Puckett explained that the inspector could have obtained the requested forms if he had followed the proper procedures for requesting such information.

Contrary to petitioner's allegation, Attachment 203 does not state that KE-1 Form 3334 was in the possession of Puckett's office at the time it allegedly was marked void. The document package which contained the KE-1 Form 3334 was signed out of the records vault by the Document Review Department and there is no indication that the voided form was in Mr. Puckett's possession or that Mr. Puckett voided it.

Kaiser responded to Attachment 203 with a memorandum written on September 9, 1981 which suggested corrective action in accordance with QACMI G-31, pursuant to which document was placed in the document deficiency tracing system for review and disposition in accordance with QACMI G-31.

ALLEGATION 265

"Traceability records for weld rods or heat numbers at Zimmer may in fact be as suspect as welder qualification and procedure records. For instance...CG&E Field Audit #285 (Attachments 39A-C) showed that a nonconformance was 'correct[ed]' by changing a heat number from 52470 to 524710 on the records. The unexplained handwritten change was made to a typed copy. In another instance...conflicting heat numbers in Item #14...CG&E dispositioned the inconsistency with the following instruction: 'Delete Item 14 entirely from the report.'"

Response:

These two allegations of a handwritten change to a typed copy and the deletion of an audit item are disproved by examination of the attachments from which they originate.

The "unexplained handwritten change to a typed copy" refers to Page 1 of Attachment 39B. The handwritten change was made to an audit deficiency, which is not necessarily a nonconformance. Petitioner has incorrectly used words such as "deficiency" and "inconsistency" interchangeably with "nonconformance" when those words do not meet the project definition of nonconformance. In this instance, the handwritten change was made to correct a typographical error. This is evident when the entire paragraph is read. In the subsequent sentence, heat number "524710" is correctly and fully typed, though excluded from the Allegation.

Item No. 14 seemed to have been deleted from the Audit Report because in the follow-up letter which contained corrections to Audit Report No. 285, the findings of Items 12 and 14 were combined into one item, Item 12. Therefore, the finding of Item 14 was not in fact deleted from the audit.

ALLEGATION 266

"Mr. Reiter's May 13, 1982 affidavit also described six examples of possibly deliberate falsification or inaccurate traceability and design records. One case involved an NPP-1 form that supplies history and traceability data for piping spools. The records indicate that two piping 'elbows' were installed in five different locations. Since the two parts can only exist in two locations, Mr. Reiter suspected deliberate deception. (Attachment 16 supra, at 3)"

Response:

In his affidavit (Attachment 16), Mr. Reiter has not identified the particular NPP-1 form involved. Kaiser has attempted to identify the form, but has been unable to do so in the absence of additional information.

Mr. Reiter's affidavit is unclear as to how he concluded from traceability data that two piping elbows were supposedly installed in five different locations, thereby indicating "deliberate falsification." Fittings such as piping "elbows" (joints) are normally identifiable only by heat number; fittings of the same size could have the same heat number. Thus, it appears likely that Mr. Reiter has simply noted that the records reflected the result of installation of several piping elbows which in fact are traceable to identical heat numbers. There are no other specific matters in this allegation to which a response can be addressed. No corrective action is required as a result of the investigation of this allegation.



ALLEGATION 267

"...Mr. Reiter discovered a traceability gap when heat numbers were ground off certain flanges...Mr. Reiter saw that a new heat number, 'BV7,' had been punched into the flange. Unfortunately, the next (sic) heat number was in the wrong location and did not correspond to any existing code. The number did appear to match some symbols in Mr. Reiter's notes, however. (Id. at 3-4.)"

Response:

It is unclear from either the allegation or Mr. Reiter's affidavit (Attachment 16) whether Mr. Reiter is referring to one or more flanges in this allegation. Kaiser cannot identify the specific flange installation(s) described here without additional information. Therefore, it is not possible to respond to the allegation that a heat number was incorrectly located on certain flange(s).

Kaiser purchase order, No. 7070-24126, along with its associated documents, identifies three 2½ in. flanges, received in 1978, that were supplied from the heat number BV7. Therefore, Mr. Reiter has erroneously stated that "there is no such thing as a heat number code 'BV7.'" It doesn't exist and cannot possibly be correct." There are no other specific matters within this allegation to which a response can be addressed.

ALLEGATION 268

"...case of potentially deliberate falsification discovered by Mr. Reiter...addition of traceability markings with a white paint stick...the relevant drawing was revised...in an attempt to reconcile a discrepancy on a nonconformance report Mr. Reiter had written. While the red-line changes were identical to the new white paint traceability markings, they had no other basis in fact (Id., at 5.)"

Response:

A Nonconformance Report which corresponds to this alleged incident has not been identified. In his affidavit (Attachment 16 at 5) Mr. Reiter accuses Mr. Arch Lanham, a member of the Kaiser QA Department, of submitting improperly revised pipe documents which contained fictitious traceability markings. However, Mr. Reiter provided no specific identification of the components or Nonconformance Report to which he referred. Mr. Lanham has no recollection of this incident and therefore cannot respond further without greater specificity in the allegation. Mr. Lanham denies that he has ever fabricated heat numbers. Additionally, traceability of essential material will be verified by CG&E Document Verification Group.

ALLEGATION 269

"...Mr. Reiter...helped write an NR on piping that did not appear to have traceability...new markings were used in an attempt to resolve the Nonconformance Report...the original traceability markings were later discovered, Mr. Reiter felt that the new markings represented deliberate falsification as a way to answer even a mistaken NR. (Id., at 6.) The example suggests...that some...deliberate falsification..."

Response:

This allegation is also based upon an unspecified Nonconformance Report, which Mr. Reiter claims someone attempted to resolve through alteration of traceability markings. Without specific information about the work in question, it is not possible to locate the Nonconformance Report to which this allegation refers but does not identify. In his affidavit (Attachment 16 at 6) Mr. Reiter states that he discussed the problem at the time with Mr. Arch Lanham, a member of Kaiser's Quality Assurance Department. Mr. Lanham does not recall the incident and denies that he ever falsified traceability markings.

By Mr. Reiter's own account of this incident, he erroneously initiated this Nonconformance Report because, in his examination of the piping elbow, he failed to see the original traceability markings on it (Attachment 16 at 6). In addition, it is noted that Reiter claimed that his "suspicion" was founded in part on mistaken belief that there was no heat code BV7. It has previously been shown in the response to Allegation 267 that Mr. Reiter's speculation regarding heat code BV7 was unfounded.

ALLEGATION 270

"The significance of the above 30 examples suggesting deliberate falsification goes beyond the issue of criminal intent. They cast a shadow over the whole 'paperwork pedigree' premise of the Quality Confirmation Program. Intentionally falsified QA records are not a legitimate method to decide which work must be reinspected. These circumstances require 100% reinspection by a third party whose integrity is beyond question; not a paperwork review by the same organizations that may have tampered with the paperwork."

Response:

This allegation provides no substantiation to support the generalized conclusion of "deliberate falsification". While nothing specific is provided in the allegation to which a response can be addressed, the NRC is well aware of ongoing efforts by CG&E in the Quality Confirmation Program and by the CG&E Document Verification Group to review quality assurance documents at Zimmer for accuracy and completeness. Petitioner's proposal of a "100% reinspection by a third party whose integrity is beyond question" is completely lacking in justification. Such a requirement can only add to the delays and costs of the Zimmer Project, without providing a commensurate improvement in the quality of the facility.

ALLEGATION 271

"As seen above, CG&E has made statements to the public and to Congress that are so inaccurate that they are difficult to accept as good faith errors...At the June 16, 1982 NRC briefing Mr. Borgmann again asserted CG&E's lack of interference with the Kaiser QA effort, a position now thoroughly discredited. Similarly, Mr. Sylvia made six statements about In-Process Inspection Deficiency Records that did not square with available evidence." (Attachment 79)

Response:

Applicant denies petitioner's totally baseless allegations of deception by CG&E before the NRC and Congress for the reasons discussed in the preceding responses to Allegations 243-259. Petitioner has inaccurately attempted to characterize CG&E's position that Kaiser justify its manpower requests as a control of Kaiser's day-to-day inspection activities.

To the contrary, as discussed in the preceding responses, there is absolutely no evidence of any interference with the functioning of the Kaiser Quality Assurance Program. Moreover, the statements by Mr. Sylvia to the Commissioners during the June 16, 1982 briefing are entirely consistent with the further explanation provided the Commissioners in his letter dated August 27, 1982. Far from any "deception" being evidenced, the record simply demonstrates petitioner's misunderstanding of quality assurance procedures at Zimmer.

ALLEGATION 272

"These 1982 examples also reflect old practices. Mr. Harpster recalled a 1978 incident when he told CG&E plant manager James Schott that Schott's July 13, 1978 testimony to the NRC's Advisory Committee on Reactor Safety [sic] was inaccurate...Mr. Harpster even recalled that Mr. Schwiers used to call the Chicago Region III office to persuade the NRC to change inspection records."

Response:

Petitioner alleges that Terry Harpster, a former NRC Region III inspector, accused CG&E plant manager James Schott of inaccurate testimony before the ACRS. The NRC has long since investigated and disproved this unfounded charge. In IE Report No. 79-21 (July 30, 1979), the NRC concluded that "no information was developed to show that there was any intent on the part of the Licensee to mislead the ACRS with regard to staffing of the Zimmer plant." As the Report notes, Mr. Schott did not change his testimony before the ACRS because he never agreed that it was inaccurate.

Although apparently disposed of at the time, the allegation again resurfaced in an attempt by this very petitioner to disqualify NRC Staff attorney Charles Barth from the Zimmer proceeding. As the Commission noted in denying that petition, the IE Report in question was forwarded to the parties and the Licensing Board in the proceeding. Accordingly, the Commission was fully apprised of this matter and found no evidence of any impropriety on the part of CG&E. See Zimmer, "Order," CLI-82-36, 16 NRC \_\_\_\_\_ (November 24, 1982).

As noted previously in response to Allegation 259, there is certainly nothing extraordinary in a discussion between an

applicant and an NRC regional office regarding the accuracy of findings in an inspection report.

ALLEGATION 273

"Whether due to bad faith, ignorance or incompetence CG&E's policies have been responsible for the QA breakdown, both before and after the Immediate Action Letter. That is not to deny that Kaiser implemented the policies. But the utility called the shots...By any measure of 'fitness' CG&E has not demonstrated the character and competence necessary to qualify for leadership of the Quality Confirmation Program."

Response:

This paragraph contains only petitioner's characterization and self-serving conclusions regarding CG&E's management. The opinions expressed by petitioner, a long-standing, staunch opponent of the Zimmer project, are not allegations of fact requiring a response, but are nonetheless denied. The activities of CG&E's management have been under extraordinary scrutiny by the NRC and, while the Commission has required the Company to implement a third-party management review plan, it has in no way determined that management lacks the competence and dedication to comply fully with the NRC's requirements under Part 50, Appendix B.

At its briefing on June 16, 1982 by CG&E's top management, the Commissioners were able to question CG&E's officers directly about the various procedures and programs implemented to upgrade quality assurance at Zimmer. In order for Applicants to fulfill the requirements set forth by the Commission in its Order to Show Cause, the Company will necessarily have to demonstrate its management's character and capability to assure a successful completion of the Quality Confirmation Program as well as the construction of the Zimmer facility in a quality manner.



UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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

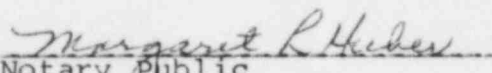
AFFIDAVIT

Earl A. Borgmann, being duly sworn, states that he is Senior Vice President of The Cincinnati Gas & Electric Company; that he is authorized to sign and file with the Nuclear Regulatory Commission the document entitled "The Cincinnati Gas & Electric Company, et al., Response to the U.S. Nuclear Regulatory Commission - RIII Demand for Information, Issued September 24, 1982"; and that such document is true and correct to the best of his knowledge, information and belief.

  
Earl A. Borgmann

State of Ohio )  
County of Hamilton ) ss

Sworn to and subscribed before me this 28<sup>th</sup> day of February, 1983.

  
Notary Public

MARGARET L. HUBER  
Notary Public, State of Ohio

My Commission Expires:

Aug 13, 1983

My Commission Expires Aug. 13, 1983