

[7590-01]

NUCLEAR REGULATORY COMMISSION  
[Docket No. 50-358]

CINCINNATI GAS AND ELECTRIC COMPANY  
(William H. Zimmer Nuclear Power Station)

Issuance of Director's Decision Under 10 CFR 2.206

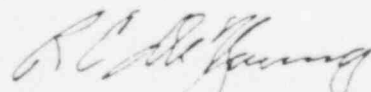
Notice is hereby given that the Director, Office of Inspection and Enforcement, has issued a decision concerning a petition dated May 25, 1983, filed by Thomas Devine of the Government Accountability Project as counsel for the Miami Valley Power Project. The petitioner had requested that the Commission take certain actions with respect to the William H. Zimmer Nuclear Power Station. The Director, Office of Inspection and Enforcement, has decided to deny the petitioner's request.

The reasons for this decision are explained in a "Director's Decision under 10 CFR 2.206" (DD-83-19), which is available for public inspection in the Commission's public document room, 1717 H Street, N.W., Washington, D.C., and in the local public document room for the Zimmer facility, located at the Clermont County Library, Third and Broadway Streets, Batavia, Ohio, 45103.

Dated at Bethesda, Maryland this 16th day of December, 1983.

FOR THE NUCLEAR REGULATORY COMMISSION

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Richard C. DeYoung, Director  
Office of Inspection and Enforcement

Enclosure 2

DEC 1 3 1983

Docket No. 50-358

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

Gentlemen:

The NRC has reviewed and considered the Cincinnati Gas & Electric Company (CG&E) proposed Course of Action (COA) dated October 5, 1983; supplemental information on the COA dated October 27, 1983; CG&E responses to NRC comments on the COA dated November 9, 21, and 29, 1983; the CG&E response to comments on the COA by Torrey Pines Technology (TPT) dated November 29, 1983; CG&E oral answers to NRC questions on the COA during meetings between the NRC and CG&E on October 13, 1983; and November 1, 1983; and comments on the COA provided by interested persons. The NRC staff evaluation is enclosed.

Based on our review and evaluation of the above, we conclude that the COA and supplemental information describes an acceptable organizational structure with qualified management personnel that should ensure that construction of the Zimmer plant can be completed in conformance with the Commission's regulations and construction permit.

This letter constitutes approval of the basic COA which responds to Section IV.B(1)(b) of the Commission's Show Cause Order dated November 12, 1982. This letter does not constitute approval of the comprehensive plan to verify the quality of construction or the comprehensive plan for the continuation of construction. Similarly, it does not authorize any safety-related work activities prohibited by the Commission's Order. The staff is prepared to consider CG&E's submittals in response to the remaining steps of the Order. Our review of these submittals will include evaluation of the details of the Zimmer Oversight Committee. Our review of the independent design review proposed in the COA is being handled separately. We also will be monitoring the role of the Henry J. Kaiser Company in the transfer of their construction responsibilities to Bechtel.

We will discuss any questions you may have regarding this letter.

Original signed by  
James G. Keppler

James G. Keppler  
Regional Administrator

Enclosure: NRC Staff Evaluation

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Cincinnati Gas and Electric  
Company

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cc w/encl:

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STAFF EVALUATION  
OF THE PROPOSED COURSE OF ACTION  
WM. H. ZIMMER NUCLEAR POWER STATION

A. Introduction

On November 12, 1982, the Commission issued an "Order To Show Cause and Order Immediately Suspending Construction" (CLI-82-33). Section IV of this Show Cause Order (SCO) is reproduced below.

IV.

Accordingly, pursuant to Sections 103, 161i, 182 and 186 of the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR Parts 2 and 50, IT IS HEREBY ORDERED THAT:

- A. Effective immediately, safety-related construction activities including rework of identified deficient construction, shall be suspended.
- B. The licensee shall show cause why safety-related construction activities, including reworking activities, should not remain suspended until the licensee:
  - (1) Has obtained an independent review of its management of the Zimmer project, including its quality assurance program and its quality verification program, to determine measures needed to ensure that construction of the Zimmer plant can be completed in conformance with the Commission's regulations and construction permit.
    - (a) The independent organization conducting this review shall be knowledgeable in QA/QC matters and nuclear plant construction and shall be acceptable to the Regional Administrator. The independent organization shall make recommendations to the licensee regarding necessary steps to ensure that the construction of the facility can be completed in conformance with the Commission's regulations and the construction permit. A copy of the independent organization's recommendations and all exchanges of correspondence, including drafts, between the independent organization and CG&E shall be submitted to the Regional Administrator at the same time as they are submitted to the licensee. In making recommendations, the independent organization shall consider at a minimum the following alternatives for management of the Zimmer project and shall weigh the advantages and disadvantages of each alternative:

1. Strengthening the present CG&E organization.
  2. Creation of an organizational structure where the construction management of the project is conducted by an experienced outside organization reporting to the chief executive officer of CG&E.
  3. Creation of an organizational structure where the quality assurance program is conducted by an experienced outside organization reporting to the chief executive officer of CG&E.
  4. Creation of an organizational structure with both quality assurance and construction project management conducted by an experienced outside organization reporting to the chief executive officer of CG&E.
- (b) The licensee shall submit to the Regional Administrator the licensee's recommended course of action on the basis of this independent review. In evaluating the recommendations of the independent organization, the licensee shall address why it selected particular alternatives and rejected others. The licensee's recommendations and its schedule for implementation of those recommendations shall be subject to approval by the Regional Administrator.
- (2) Following the Regional Administrator's approval in accordance with Section IV.B(1)(b).
- (a) Has submitted to the Regional Administrator an updated comprehensive plan to verify the quality of construction of the Zimmer facility and the Regional Administrator of NRC Region III has approved such plan. In preparing this updated comprehensive plan, the licensee shall review the ongoing Quality Confirmation Program to determine whether its scope and depth should be expanded in light of the hardware and programmatic problems identified to date. The updated plan shall include an audit by a qualified outside organization, which did not perform the activities being audited, to verify the adequacy of the quality of construction; and
  - (b) Has submitted to the Regional Administrator a comprehensive plan, based on the results of the verification program, for the continuation of construction, including reworking activities, and the Regional Administrator has confirmed in writing that there is reasonable assurance that construction will proceed in an orderly manner and will be conducted in accordance with the requirements of the Commission's regulations and the Construction Permit No. CPPR-88.

- (3) The Regional Administrator may relax all or part of the conditions of Section IV.B for resumption of specified construction activities provided such activities can be conducted in accordance with the Commission's regulations and the provisions of the construction permit.

To comply with Section IV.B(1)(a) of the SCO, CG&E initially proposed that Bechtel conduct the independent management review. CG&E had previously announced its intent that Bechtel would have an active role in completing the Zimmer project. By letter dated February 23, 1983, the NRC determined that Bechtel would be acceptable to conduct one of the management tasks for Zimmer, but not both. CG&E reassessed Bechtel's role in the Zimmer project and decided to use Bechtel in the project completion. Subsequently, CG&E proposed Torrey Pines Technology (TPT) as the organization to conduct the independent review of the management of Zimmer. By letter dated April 15, 1983, the NRC staff found that TPT met the independence and competence criteria outlined in the Commission's letter of February 1, 1982, and was, therefore, acceptable to conduct the management review. In a meeting in Cincinnati on April 25, 1983, TPT presented its program plan for the independent review of the Zimmer project management to the NRC staff. The meeting was open to the public. Following responses to questions by TPT, the Region III Administrator authorized TPT to start the review. By letter dated August 19, 1983, TPT transmitted its report to CG&E with copies to the NRC staff. On September 28, 1983, TPT briefed the Commission on its review of CG&E management.

In response to Section IV.B(1)(b) of the SCO, the licensee submitted, by letter dated October 5, 1983, its proposed Course of Action (COA). The COA describes CG&E's proposed organizational structure and the qualifications of management personnel for completing plant construction. The COA addresses the recommendations made by TPT in its final report, including a discussion of differences between the proposed CG&E organizational structure and that recommended by TPT. The COA also describes CG&E's preliminary Plan To Verify Quality of Construction (PVQC), CG&E's preliminary Plan for the Continuation of Construction (CCP), and a plan for an independent design review (IDR). The NRC staff has reviewed the organizational structure proposed to conduct these plans. Comprehensive plans for verification of the quality of construction and for continuation of construction are required by Section IV.B(2) of the Commission's November 12, 1982, Order to be submitted following the Region III Administrator's approval of the Course of Action, and will be evaluated by NRC staff at that time. The plan for an independent design review, although not required by the Order, has been described in some detail by CG&E's letter dated October 26, 1983, with a request for NRC staff concurrence. The NRC staff has begun its review of CG&E's proposed independent design review program as described in its December 1, 1983, letter to the licensee.



During its review of the COA, the NRC staff met with the licensee several times to discuss the COA, as described below.

- On October 13, 1983, a meeting between the NRC and CG&E, which was open to members of the public, was held in Bethesda, Maryland. CG&E presented an overview of the COA to members of NRC Headquarters management and answered questions regarding the COA.
- On November 1, 1983, a meeting between the NRC, CG&E and TPT, which was open to the public, was held in Cincinnati. CG&E explained the COA in detail and answered NRC questions.
- On November 1, 1983, a meeting was held by the NRC staff in Cincinnati during the evening for the purpose of receiving comments on the COA from public officials and members of the public. The meeting was attended by several hundred people, and oral comments were given by approximately 50 people. The NRC staff included several of the comments from interested persons in the NRC request to the licensee for additional information dated November 15, 1983.
- On November 21, 1983, a meeting was held with the licensee to discuss the role of Kaiser at Zimmer based upon findings to date from the investigation at Zimmer by the NRC Office of Investigation. Based on information obtained from the ongoing investigation, the NRC staff concluded it could not approve the proposed COA for the Zimmer project with the described role for the Henry J. Kaiser Company. By letter to CG&E dated November 21, 1983, the Regional Administrator notified Mr. Dickhoner of this decision. The letter explained that although the results of the NRC investigation, which was not expected to be completed for several months, may prove more favorable to Kaiser, the NRC staff could not approve the COA with the information the NRC had developed to date.

As part of its review, the NRC staff also requested additional information from the licensee by letters dated October 28, 1983 and November 15, 1983. At the request of the NRC staff, Torrey Pines Technology provided comments on CG&E's proposed COA by letter dated November 16, 1983.

In response to requests and comments from the NRC staff, TPT, and the public, the licensee has provided additional information to supplement and amend its COA. In its evaluation, the NRC staff considered the additional information identified below as a part of the licensee's COA.

- October 27, 1983, letter enclosing additional details of the Zimmer Oversight Committee (ZOC) and its Advisory Staff and resumes of CG&E, Bechtel, Kaiser, Sargent and Lundy, and General Electric personnel assigned to Zimmer.
- November 9, 1983, letter providing responses to NRC staff's October 28, 1983, requests, including policy statements on harassment, more detailed resumes, position descriptions, and more detailed organization charts.

- November 18, 1983, letter describing more detailed scope of visual and physical inspections of structures, systems and components.
- November 21, 1983, letter providing responses to NRC staff's November 15, 1983, requests, including an expanded scope for the audit of PVQC, expanded membership of the ZOC Advisory Staff, and information regarding the Board of Directors' commitment and nuclear experience.
- November 23, 1983 letter informing the NRC that CG&E had decided to replace Kaiser with Bechtel in the role of constructor.
- November 29, 1983, letter providing additional responses to NRC staff's November 15, 1983, letter, including a more detailed description of document review, and information giving more detail on long-term and newly hired employees in management positions.
- November 29, 1983, letter providing responses to TPT's comments in the November 16, 1983, letter to NRC, including quality assurance (QA) program management experience in CG&E's QA organization, coordination of document control, and monitoring of Bechtel engineering by CG&E.

## 2. Evaluation of the Course of Action

The NRC staff reviewed the Torrey Pines Technology (TPT) report. TPT considered sixteen alternatives in its evaluation; the four required by the SCO, ten suggested by TPT and one each proposed by CG&E and Bechtel. The changes recommended by TPT are more extensive than any one of the four alternatives in the SCO. The TPT recommended organizational structure is shown in Figure 1. The staff concludes that TPT has adequately considered alternative organizational structures. The staff also concluded that the TPT recommended organizational structure appears adequate. In reaching these judgements the staff relied heavily on TPT's independence and competence.

The proposed organizational structure described in the COA is given in Figure 2. Bechtel will be the "experienced outside organization" that will conduct both quality assurance and construction project management and will assume responsibilities of construction. The Project Director (Bechtel) will report to the Assistant Vice President, Nuclear Projects (CG&E). The Project Director (Bechtel) will have direct access to the CG&E Senior Vice President, Nuclear Operations, if needed. The Project Director (Bechtel) will be responsible for assessing the adequacy and implementing of the QA programs of the contractors they manage.

CG&E has responsibility for the overall QA program. The Assistant Vice President, Quality Assurance, reports directly to the Senior Vice President, Nuclear Operations, but will have direct access to the Chief Executive Officer, if needed. CG&E will review and approve the QA programs of all contractors that perform safety-related work, including the Project Director (Bechtel).



The NRC staff compared the TPT recommendations for an organizational structure presented in Section 6 of the TPT report with the organizational structure proposed in the COA. CG&E appears to have considered and adopted the principal recommendations of TPT. The staff notes that TPT recommended that the Henry J. Kaiser Company should be retained to perform all construction activities under the management of a newly-hired architect-engineer/contractor firm. However, the NRC staff recently informed CG&E that, because of an ongoing investigation by the NRC Office of Investigations at Zimmer, it could not approve the course of action, with the described role for Kaiser, at this time. By letter dated November 23, 1983, CG&E informed the NRC that it had decided to reallocate the responsibilities described in the COA and that Bechtel would assume the responsibilities of the constructor in addition to its role as Project Director.

The NRC staff has also compared the Zimmer project organizational structure and management personnel proposed in this COA to that which existed prior to the show cause order. Figure 3 gives the Zimmer project organization and key managers that existed prior to the SCO. By comparison to Figure 2, it may be seen that principal changes are: (1) a restructured and strengthened CG&E project and QA management; (2) addition of an experienced constructor and architect-engineering firm, and; (3) addition of a Zimmer oversight committee. These changes are discussed below:

1. A Restructured and Strengthened CG&E Project and QA Management

The proposed COA restructures the CG&E project organization generally as recommended by TPT. The Board of Directors will take a more active interest in the management of the Zimmer project. In addition, a new Director having nuclear experience will be added to the Board. Consistent with TPT's recommendation, the Board of Directors will create a subcommittee, the Zimmer Oversight Committee (ZOC), to provide oversight of the project. In restructuring its organization, CG&E will approximately double the size of its staff, thereby being able to pursue a more dominant role in the project.

The Senior Vice President - Nuclear Operations will report to the President and Chief Executive Officer (CEO), and will have overall responsibility for the Zimmer project, which will be his only responsibility. The Senior Vice President has access to the Board of Directors through both the CEO and the ZOC. Reporting to the Senior Vice President will be four Assistant Vice Presidents who will be responsible for Nuclear Operations, Quality Assurance, Nuclear Projects, and Nuclear Engineering. The Manager of the Nuclear Licensing Department will also report to the Senior Vice President - Nuclear Operations.

The Senior Vice President and his Assistant Vice Presidents have had broad, extensive experience in responsible positions in naval reactor programs and/or commercial nuclear projects. The NRC staff and IPT questioned the marginal QA experience of the CG&E Assistant Vice President, Quality Assurance, and of the CG&E QA Manager. To strengthen the QA management, two Deputy Managers with extensive QA experience will each manage three functions under the QA Manager. The staff finds this acceptable.

The staff has reviewed the qualifications and experience of the key individuals proposed in the COA who have responsibility for managing and supervising the work at the Zimmer site. Input to the staff's review included the information supplied in CG&E's submittal of October 5, 1983, and the supplemental information supplied by letters dated October 27, 1983, and November 9, 1983. The NRC staff interviewed the key CG&E management personnel and contacted references or former employers. The staff concludes that the individuals proposed to manage the Zimmer project are competent and acceptable for the positions they will fill.

CG&E has set forth the steps it has taken to preclude future acts of harassment and intimidation of quality assurance personnel on site. Statements provided by CG&E and site contractors clearly indicate that intimidation and harassment will not be tolerated and provide a mechanism for reporting any such acts should they occur and preventing their recurrence. The staff concludes that initiatives taken by CG&E should avoid a repetition of previous problems in the area of harassment and intimidation. The staff will, however, be alert to reports of alleged intimidation or harassment.

## 2. Addition of an Experienced Constructor and Architect-Engineering Firm

CG&E proposes to use Bechtel Power Corporation, an experienced constructor and architect-engineering firm, as the Project Director and constructor. Bechtel has acted as Project Director to complete construction on three other nuclear plants (South Texas, Diablo Canyon, and WNP-2) for which construction was partially completed by other firms.

The staff reviewed the resumes of key Bechtel personnel assigned to the project and conducted interviews and reference checks of a selected sample of the personnel. Based on this review, the staff concluded that Bechtel has assigned well-qualified people to key positions on the Zimmer project.

CG&E will retain the role of Project Manager, with overall management responsibility. This will include continuous oversight of Bechtel, as well as other contractors. With its new top management and increased resources, CG&E appears capable of providing effective oversight of Bechtel.

Bechtel has been assigned responsibility for verification of the quality of completed construction, the completion of construction, and QA/QC surveillance of contractors.

In the COA CG&E has described a Plan To Verify the Quality of Construction (PVQC) in sufficient depth to enable the staff to determine the organizational structure and key managers involved in conducting the program. The PVQC will be conducted by a separate organization within Bechtel under an Assistant Project Director and include comprehensive visual inspections, physical inspections, and reviews of documents. The PVQC will also include an independent third-party audit to verify the quality of construction. In response to staff comments, the licensee has committed to an audit that, initially, will be a comprehensive assessment of the adequacy of the PVQC procedures and programs and observation of the implementation of the PVQC to determine acceptability of CG&E's and contractors' performance. After performance is shown to be acceptable and when approved by the NRC staff, the scope of the independent audit may be reduced to a conventional audit. The competence and independence of the third-party auditor will be reviewed by the staff as part of the review of the PVQC.

CG&E has also described a continuation of construction plan (CCP). The primary function of the CCP is to provide a program that will ensure that continued construction, including correction of nonconformances, will be accomplished with proper control of quality. All work on the PVQC and the CCP will be performed in accordance with the requirements of CG&E's approved quality assurance program. By letter dated November 23, 1983, CG&E committed to expand the independent audit of the PVQC to cover the QA/QC aspects of the CCP.

By letter dated November 23, 1983, CG&E informed the NRC that it had decided to reallocate the responsibilities described in the COA and that Bechtel would assume the responsibilities of the constructor in addition to its role as Project Director. The letter stated that Kaiser would remain on site in a limited capacity for the time required to ensure a smooth transition of specific construction responsibilities. The letter went on to explain that Kaiser would be solely responsible for preparing Code Data Reports for fabrication and installation work on ASME Section III systems and components for which they have the Code responsibility. As an ASME Certificate Holder, Kaiser has an agreement with an authorized inspection agency to provide third-party inspection and audit services. Code stamps on ASME equipment are only applied with the authorization of the Inspector after completion of Data Reports, which will provide adequate assurance of acceptable quality of construction. In addition, all safety-related ASME components and systems will be evaluated under the PVQC, which is independent of Kaiser. This proposed transition of construction responsibilities from Kaiser to Bechtel appears acceptable. The staff will continue to monitor this transition.

### 3. Addition of a Zimmer Oversight Committee

CG&E has proposed a Zimmer Oversight Committee (ZOC) to be composed of five members of the CG&E Board of Directors, none of whom have had previous line management responsibility for Zimmer. The five members have not yet been chosen. However, at least one member will have previous nuclear experience.

The purpose of the ZOC is to provide an independent oversight of the project for the Board of Directors. The Senior Vice President - Nuclear Operations will report on a regular basis to the ZOC regarding the progress and status of activities during completion of construction, with the ZOC advising the Board of Directors on these matters. The establishment of the ZOC is intended to improve the flow of information in both directions between the Board of Directors and project management.

CG&E proposes to establish an Advisory Staff to the ZOC composed of individuals with expertise in nuclear power plant project activities. The Advisory Staff is also expected to include one representative of each of the other two owners of Zimmer (Dayton Power and Light Company and Columbus and Southern Ohio Electric Company) and at least three representatives of the public, including at least one elected official. To the extent possible, the public representatives will include one member of the community served by each owner utility. The members of the Advisory Staff have not yet been chosen, but CG&E has committed to provide their names to the staff as they are selected.

The staff concludes that the organizational structure of the ZOC and its Advisory Staff proposed by CG&E are consistent with the recommendations made by Torrey Pines Technology, and are acceptable. The NRC staff will verify that qualified members are selected for the ZOC and its Advisory Staff.

### C. Consideration of Public Comments

The NRC staff has encouraged public participation in its review process by holding most meetings in Cincinnati and making them open to the general public. Elected officials and interested members of the public were provided copies of the TPT and COA reports and were advised of the meeting dates and their opportunities to provide comments. The attachment to this evaluation provides the NRC staff's consideration of written and oral comments on the COA.

One of the major comments received was a resolution passed by the Council of the City of Cincinnati expressing its support for creation of a Zimmer oversight committee composed of four members appointed by elected officials of State and local government and one member appointed by intervenors in the Zimmer licensing proceeding. The City Council proposed that this oversight committee be made a requirement in the NRC's approval of the COA, and that the utility owners of Zimmer be required to fund the committee. By letter to the Mayor of Cincinnati, dated November 25, 1983,

the Regional Administrator advised the City Council that the staff had taken, and planned to take, various steps to ensure that State and local public officials and members of the public will be kept informed of actions under the SCO, and will have the opportunity to provide comments on those actions. The Mayor was advised, however, that the staff did not believe that there was any basis to require as a condition of approval of the COA that the oversight committee proposed by the City of Council be created and funded by the Zimmer owners.

#### D. Conclusion

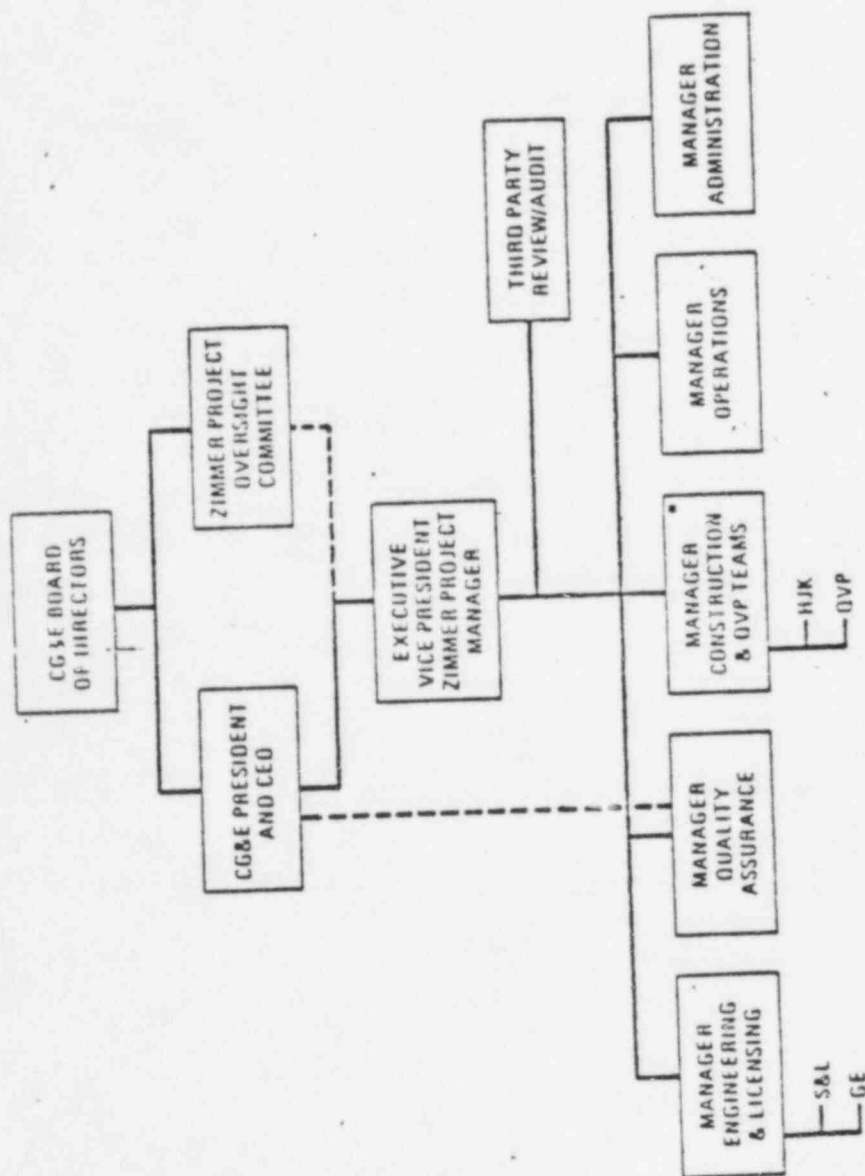
Based on its review of documentation submitted and information presented at various meetings by CG&E, assessment of the qualifications of personnel, consideration of comments by members of the public, and consideration of TPT comments on CG&E's COA, the NRC staff concludes that CG&E has given careful consideration to the independent management review required to be conducted under Section IV.B.(1)(a) of the show cause order (SCO) and that its proposed management personnel and organizational structure to verify quality of construction and complete construction is acceptable. The proposed organization should enable CG&E to complete construction in conformance with the Commission's regulations and the construction permit.

Figure 1 - TPT Recommended Zimmer Project Organizational Structure

Figure 2 - CG&E Recommended Zimmer Project Organizational Structure

Figure 3 - Zimmer Project Organizational Structure Prior to SCO (1982)

Attachment - NRC Response to Comments on CG&E's COA



\*EXPERIENCED EXTERNAL ORGANIZATION

FIGURE 1 TORREY PINES TECHNOLOGY RECOMMENDED ZIMMER PROJECT ORGANIZATIONAL STRUCTURE



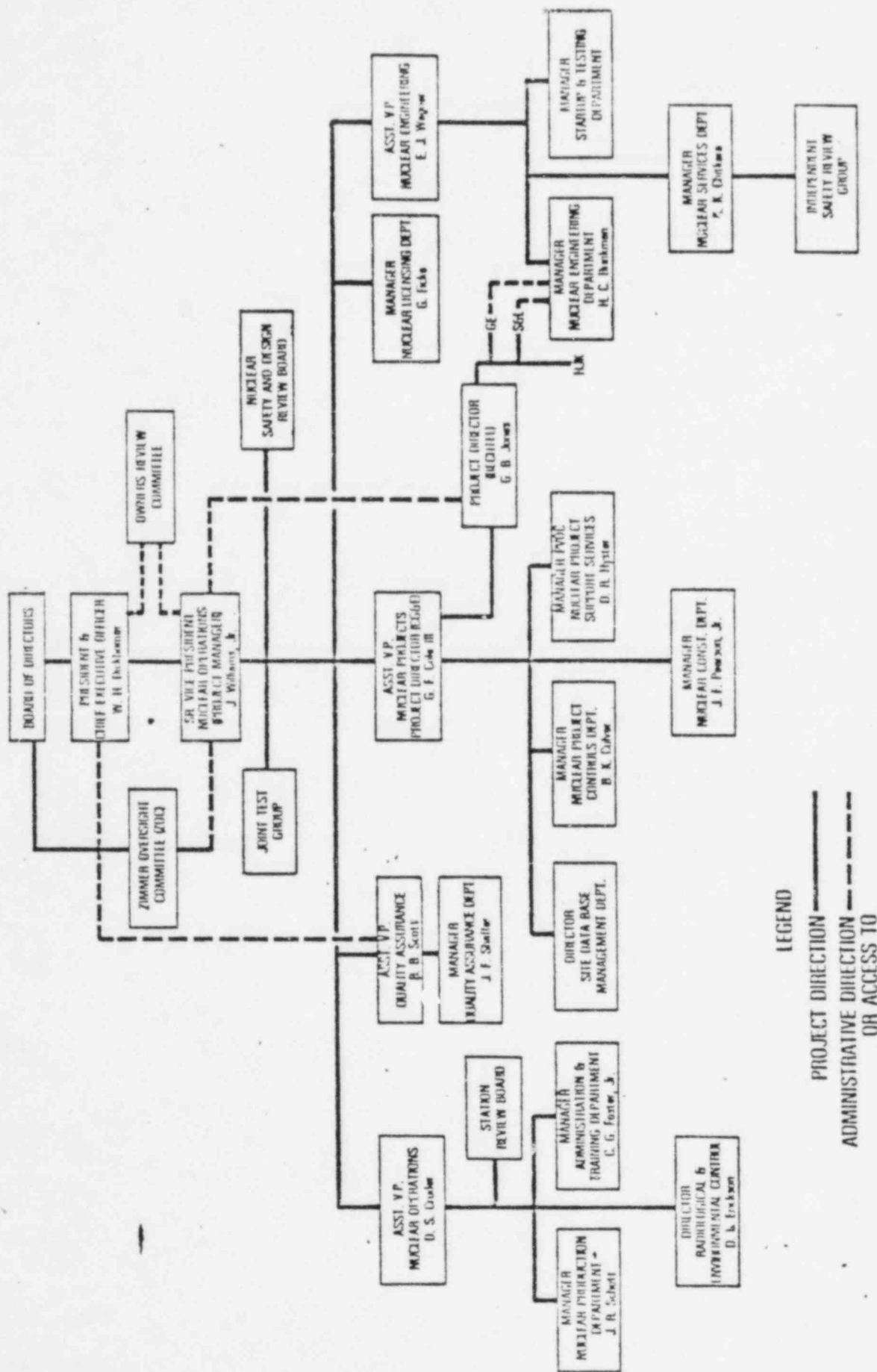


FIGURE 2 CGGE PROPOSED ZIMMER PROJECT ORGANIZATIONAL STRUCTURE

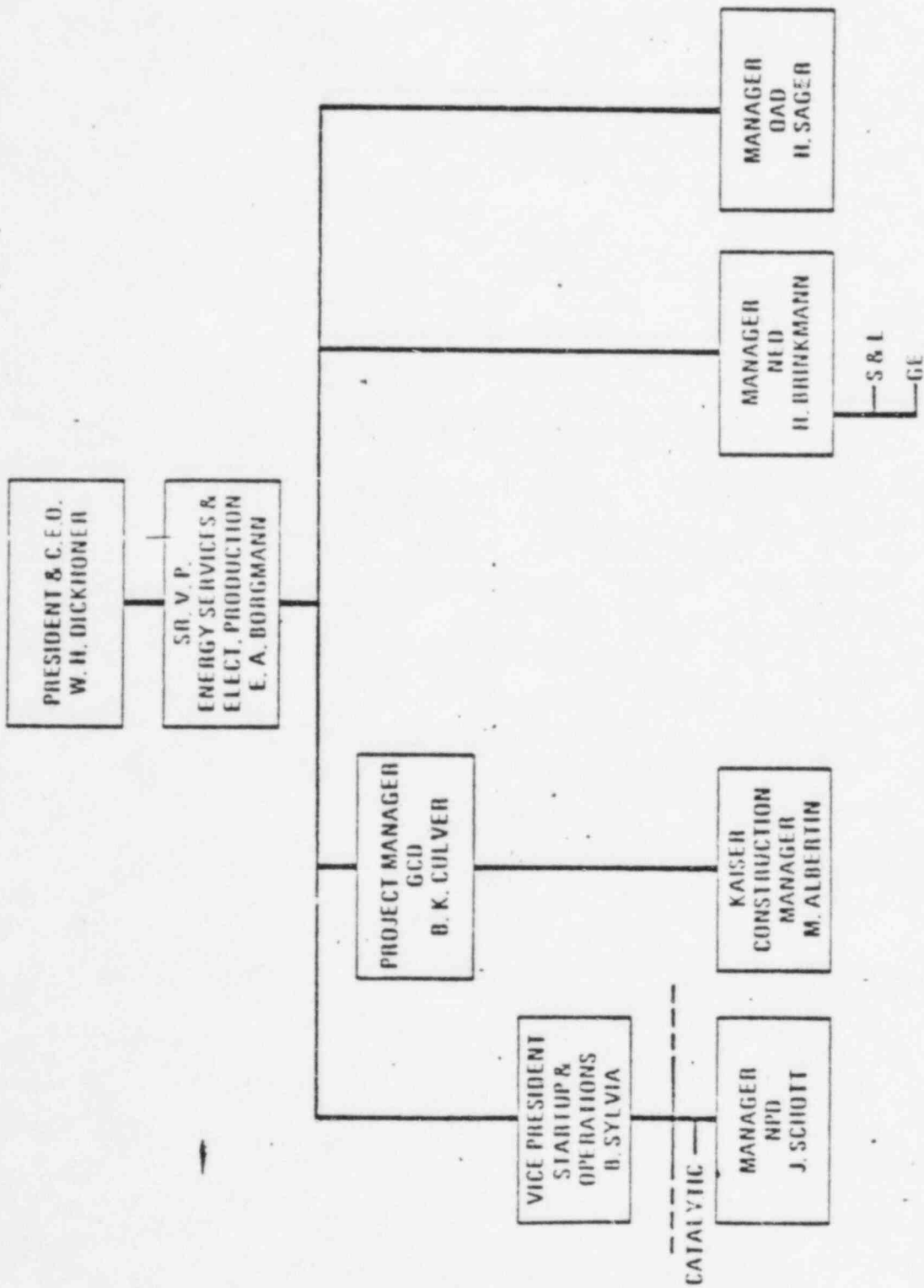


FIGURE 3 ZIMMER PROJECT ORGANIZATIONAL STRUCTURE PRIOR TO THE  
SHOW CAUSE ORDER (1982)

## ATTACHMENT

### NRC RESPONSE TO COMMENTS ON CG&E'S COURSE OF ACTION

Listed below are responses to comments received by the NRC with respect to the proposed Zimmer COA. The thrust of many of the comments provided to the NRC orally or in writing were covered by several of the written submittals. Therefore, a separate response has not been prepared to each specific comment; rather an attempt has been made to respond to each concern raised.

Comment 1: "The Course of Action (COA) fails to address the problems of the missing nonconformance reports. To the extent that there may be literally thousands of nonconformance problems for which no report currently exists, the Zimmer Nuclear Power Plant (ZNP) cannot be deemed safe. The COA should address a plan to discover the substance of any existing problem for which no nonconformance report exists."

NRC Response 1: The NRC recognized this concern in 1981 and, as a part of CG&E's Quality Confirmation Program (QCP), required CG&E to contact by letter each past and present QC inspector to solicit Nonconformance Reports that were not entered into the NR system. The initial solicitation resulted in only seven responses. The NRC reviewed this matter and found that the letter was deficient and that many of the QC inspectors had not been contacted. QCP personnel rewrote the solicitation letter, which was subsequently approved by CG&E management. Issuance of the letter to inspectors not reached by the first solicitation began on September 30, 1983. This matter remains open pending review by the NRC of the results of the second solicitation.

As part of the Plan to Verify the Quality of Construction (PVQC), CG&E will inspect safety-related structures, systems, and components (SSC) to identify nonconforming conditions.

Comment 2: "Page 23 of the COA states that the inaccessible portions of the systems, structures and components (SSC) may be visually inspected or they may be physically inspected. The language employed by CG&E does not mandate that an inspection take place. Office of Consumers' Counsel (OCC) believes that all SSC should be subject to at least a visual inspection." (Emphasis in original) (Suggestions focused on 100% reinspection of the plant, a 100% physical audit,

reinspections performed by a company independent of CG&E, reinspections performed by a company independent of the nuclear industry, rework performed by an independent company, and a followup audit by someone like IPT to see if the COA was actually implemented.)

NRC Response 2:

Although the details of the PVQC have not yet been submitted by CG&E and evaluated by the NRC, the staff posed questions to clarify the types of inspections intended under the PVQC. As clarified by CG&E, the PVQC will include the following reviews and inspections:

- . comprehensive visual inspections to determine the as-constructed condition of each accessible SSC and to identify nonconforming conditions;
- . reviews of documents associated with the materials and construction installation of each SSC;
- . physical inspections (non-destructive and/or destructive), as necessary, of SSC's for which there is not adequate supporting documentation; and physical inspections, on a sampling basis, of SSC's for which the documentation is in order.

CG&E has stated that those portions of SSC's known to be inaccessible will be physically inspected, as necessary and appropriate, based upon an evaluation of the severity of possible deficiencies. The staff will require that a detailed description of the physical inspection program for inaccessible portions of SSC's be included in the PVQC.

NRC review of the COA indicates that CG&E has provided an acceptable Quality Assurance organizational structure and has selected personnel capable of conducting a proper inspection program.

In its submittal on the COA, CG&E indicated that Kaiser would carry out the PVQC under the direction of Bechtel. However, in response to NRC concerns in this area, CG&E has restricted Kaiser's role to the certification of work, including identification of deficiencies, performed under their N-Stamp authorization. Bechtel will be responsible for implementing the PVQC. The NRC finds this approach acceptable. (Also see Response 32.)

The primary responsibility for determining whether the COA is being properly implemented will be CG&E's. NRC staff will review the implementation of the actions and commitments forwarded to the NRC in the October 5, 1983 COA, and subsequent related correspondence. Additionally, the implementation of the PVQC will be reviewed under the independent audit required by Section IV.B.2(a) of the Show Cause Order ("SCO"). Therefore, the staff does not believe it is necessary to require a company independent of CG&E or the nuclear industry to perform the reinspection effort.

Comment 3:

"Page 23 of the COA states that physical inspection of safety-related SSC's will be conducted on a sample basis. The NRC should require identification of the size of the sample and the method or basis for choosing a particular SSC."

NRC Response 3:

The COA does not contain the details of the PVQC or the CCP. Following NRC approval of the COA, the licensee will submit the PVQC, including details, for NRC review, evaluation, and approval. The NRC will require CG&E to describe in their PVQC submittal their basis for determining sample size and acceptance criteria. The NRC will also review how SSC's will be selected for physical inspections, the types of physical inspections that will be made, and the portion of total safety-related SSC's that will be selected for initial physical inspection.

Comment 4:

"Pages 27-29 list serious safety problems which CG&E claims will be resolved by the Continuation of Construction Plan (CCP) and the Plan to Verify the Quality of Construction (PVQC); however, CG&E does not elaborate on how these problems will be handled. Such detail is vital to the overall safety and integrity of the plant."

NRC Response 4:

The NRC agrees. The NRC will require CG&E to provide in their PVQC and CCP submittals additional details on how the resolution of these problems will be accomplished by the PVQC and the CCP.

Comment 5:

"In its section on the CCP, CG&E admits on page 25 that the details of the CCP have not yet been formulated. These details should be provided before the Course of Action is approved since the CCP is at the core of the entire COA."

NRC Response 5:

NRC considers the COA to be an organizational plan, while the PVQC and the CCP are intended to be more specific and detailed plans. The NRC staff has requested, and received from CG&E, clarification of these aspects of the COA, the PVQC, and the CCP that the staff considered necessary in order to approve the COA. Details of the PVQC and the CCP

will be reviewed, additional questions asked as appropriate, and the plans approved separately, consistent with the SCO and the NRC's Plan of Action, dated December 17, 1982. It should be noted that approval of the COA, by itself, does not constitute authorization to undertake safety-related construction.

Comment 6:

"On Page 47, it states that personnel performing QA/QC activities are to be appropriately trained. A reference to being qualified only appears where it is required by codes and standards. Irrespective of codes and standards, the COA should unequivocally hold CG&E to the requirements that all personnel not only be trained, but also qualified. CG&E should be required to ascertain that this be the case by whatever means necessary."

NRC Response 6:

Personnel participating in the PVQC and the CCP will be required to be qualified and appropriately trained. NRC inspectors will review the licensee's plans and preparations for training on the PVQC and CCP before allowing the training to begin. The NRC will also monitor, on a sampling basis, the training as it is being given and the examinations given at the conclusion of training.

Comment 7:

"On page [49] CG&E states that it is collecting and reviewing data related to generic concerns such as welder qualifications, etc., in order to determine appropriate corrective action. CG&E should be required to report what that corrective action is, why that particular means of correction was chosen, how the corrective action was implemented, the results of the corrective action, and the cost of the corrective action."

NRC Response 7:

For construction deficiencies which meet the criteria of 10 CFR 50.55(e), such as many of the generic concerns listed on page 49 of the COA, the licensee is required to submit and has submitted written reports to the NRC providing a description of the deficiency, an analysis of the safety implications and the corrective action taken, and sufficient information to permit analysis and evaluation of the deficiency and of the corrective action. NRC inspection followup on 10 CFR 50.55(e) reports includes reviewing the adequacy of the response and implementation of corrective actions. The NRC will not require CG&E to submit to it the costs of corrective actions, although other agencies may require that information to be submitted.



- Comment 8: "A Public Advisory Committee (PAC) to assist in the selection of the PVQC audit would greatly enhance public acceptance of the results of the audit. Due to the tremendous controversy and heightened public awareness surrounding this plant, public acceptance is crucial to the ultimate operation of the plant."
- NRC Response 8: The PVQC independent auditor will be nominated by CG&E and submitted to the Regional Administrator for approval. The information submitted in support of the nomination will be provided by the NRC to interested persons for comment. In reviewing the qualification of the nominee, the NRC staff assessment will focus on the nominee's independence and competence, as well as the scope of the proposed audit program. The public will be provided an opportunity to comment on the PVQC auditor, as well as the PVQC itself, and public comments will be considered as part of the staff's evaluation.
- Comment 9: "The tasks of the PVQC auditor should include an evaluation of the elements of the PVQC following corrective actions taken as a result of inadequacies which were revealed through the audit process."
- NRC Response 9: The NRC will require that the audit of the PVQC include an overview of the program, procedures, and implementation of the PVQC. NRC will require that the auditor review the "corrective actions taken as a result of inadequacies which were revealed through the audit process."
- Comment 10: "Provisions for implementing corrections with regard to the PVQC should be detailed."
- NRC Response 10: The NRC will require the licensee to address in the PVQC how necessary actions to correct elements of the PVQC will be implemented.
- Comment 11: "The auditor for the Independent Design Review (IDR) should be approved by the NRC along with the auditor for the PVQC. Again, the creation of a PAC with respect to this audit would be an asset. At a minimum, the public should be afforded the opportunity to submit comments on the auditors chosen by CG&E for either the PVQC or the IDR."
- NRC Response 11: The company nominated by CG&E to perform the IDR and the company nominated by CG&E to audit the PVQC will be subject to approval by the NRC. There will not be a separate "auditor" of the IDR. The public will be provided opportunity to review and comment on the party nominated by CG&E to conduct the IDR and the party nominated by CG&E to conduct the audit of the PVQC.

Comment 12:

"According to CG&E, on page 60, the Zimmer Oversight Committee (ZOC) will consist of members of the Board of Directors only. It will be assisted by an advisory staff of professional technical advisors and one community leader. It is unclear whether the professional technical advisors will come from within CG&E or whether they will include professionals within the community. Nevertheless, the inclusion of only one community leader is clearly insufficient. The ZOC's membership should be more diverse than just CG&E's Board of Directors. Moreover, the advisory staff should include a cross-section of the general public and not be limited to one community leader. It should be noted that Zimmer is owned by three utilities and will serve three distinct service territories. Therefore, at a minimum, all three territories should be represented."

NRC Response 12:

The ZOC will be comprised of five members of the CG&E Board of Directors. At least one member will have previous nuclear experience and none of the members will have had previous line responsibility for Zimmer. The Torrey Pines recommendation was that the Board of Directors needed to become more closely involved in the Zimmer project and this could be accomplished through the creation of the ZOC. The staff considers this recommendation to be constructive. Both Torrey Pines and the staff find CG&E's proposals for implementing this recommendation to be acceptable. With respect to the technical advisors on the Advisory Staff, they will be from organizations other than CG&E.

With respect to CG&E's nomination of only one community leader, the NRC recommended to CG&E (by letter dated November 15, 1983) that the ZOC Advisory Staff include at least three community leaders, that one of them be an elected official, and that these members be representative of the communities serviced by the owner utilities. CG&E has agreed to this recommendation, assuming individuals suitable to the utilities are willing to serve.

Comment 13:

"The co-owners of Zimmer who are Columbus and Southern Ohio Electric Company (CSOE) and Dayton Power and Light Company (DP&L) should be given a greater opportunity to participate in decisions concerning Zimmer. The Owners Review Committee (ORC) does not provide such an opportunity. It merely appears to fulfill a perfunctory obligation on the part of CG&E."

NRC Response 13:

Representation on the ZOC advisory staff together with participation on the ORC should give DP&L and CSOE opportunity to provide input to the Zimmer decisionmaking process. If further representation is desired, that is a matter to be resolved among the co-owners.

Comment 14: "The qualifications of Henry J. Kaiser's new top management team for Zimmer should be supplied to ascertain their level of expertise and experience in rebuilding nuclear power plants."

NRC Response 14: By letter dated November 21, 1983, the NRC informed CG&E that, based upon information obtained to date from the Office of Investigation's ongoing investigation at Zimmer, the NRC staff was not able to approve the COA with the described role for the H. J. Kaiser Corporation. As a result, CG&E has given Bechtel the responsibilities of Constructor in addition to their role as Project Director. Kaiser's limited remaining role will not involve independent assessments or decisions on their part. With this significant reduction in Kaiser's responsibilities, the staff has not found it necessary to review the resumes of Kaiser personnel submitted as part of the COA. The staff will monitor the transition from Kaiser to Bechtel.

Comment 15: "CG&E is responsible for performing electrical tests with regard to the construction of Zimmer. Due to CG&E's inferior expertise in this area when compared to Bechtel, it might be more beneficial to have Bechtel perform such tests."

NRC Response 15: The NRC will review the licensee's program for construction tests and preoperational tests before the licensee is ready to begin the tests. The NRC review will include an evaluation of the testing program and the organization and people performing the tests. The testing program and organization must be acceptable to the NRC.

Comment 16: "CG&E remains firmly in charge. There is no provision for an independent QA program free from either financial pressures or construction scheduling pressures."

NRC Response 16: The SCO did not require removal of CG&E from responsibility for the QA program, although it required that the independent management reviewer consider as an option that an experienced outside organization reporting to the CEO of CG&E conduct the QA program. TPT recommended, instead, that CG&E increase its resources in the QA area. Consistent with this recommendation, CG&E has substantially upgraded its QA program. The approach proposed is consistent with 10 CFR 50 Appendix B.

Comment 17: "CG&E has only offered token public participation through one 'public' representative of its choosing to the Board of Directors, and with undefined duties/authority. Despite the absence of licensing hearings, the Course of Action proposes the weakest public participation plan in the country for a repair program."

NRC Response 17:

In response to this comment and other similar comments, CG&E has increased the number of public representatives on the advisory staff of the Zimmer Oversight Committee (ZOC) from one member to three members, including at least one elected official. The ZOC will advise the CG&E Board of Directors on the progress of the Zimmer project including quality assurance matters.

Comment 18:

"The Course of Action is premature. All of the presumptions about the necessary scope of corrective action may be changed by a massive report of the NRC's Office of Investigations scheduled tentatively for January completion, and the results of an American Society of Mechanical Engineers (ASME) show-cause proceeding whether the Henry J. Kaiser Company should lose its N stamp. It is irresponsible to make any plans or approve any program even in principle until the results are out from these two major projects."

NRC Response 18:

The NRC staff has considered in its review of the COA the findings to date of the investigation being conducted by the Office of Investigation (OI) (See NRC Response 14.) The NRC staff does not find it necessary to postpone a decision regarding the COA. If the OI investigation or other new developments point to a need to modify the COA at a later date, action will be taken at that time.

Comment 19:

"The bulk of the Course of Action describes QA controls for new construction (the last 3%), but fails to extend the improved QA program to identifying and fixing the flaws in the first 97%."

NRC Response 19:

The revised CG&E QA program will apply to all safety-related work at Zimmer, including identifying and correcting any flaws in construction work already done.

Comment 20:

"Sargent and Lundy (S&L) can manipulate the scope of the quality verification program by controlling whether items are included on a safety-related Q list. S&L's previous program was so deficient that it will all be subjected to an independent design review."

NRC Response 20:

The FSAR (Section 3-2) identifies what SSCs are "Q listed"; the NRC will require that all of these SSCs are included in the PVQC. In addition, NRC staff will review the more detailed listing prepared by CG&E.

The staff is unaware of any indication that S&L has "manipulated" the Q list. As part of the COA there will, however, be an independent design review which will include a review of S&L activities.

Comment 21: "There is no requirement for the PVQC to even address the charges raised by intervenors and whistle blowers. CG&E can ignore any public allegation that it decides is not sufficiently 'relevant'."

NRC Response 21: The NRC will assure that allegations, important to safety, are fully considered and resolved. The licensee will address those allegations known to it. Allegations provided in confidence to the NRC have not been shared with the licensee. Those allegations will be addressed by the NRC.

Comment 22: "Bechtel will control the disposition of NR's and can avoid repairs through engineering analyses that predictably predict no safety consequences from the defect. Any such engineering analyses used to avoid repairs should be performed by an independent organization, free from conflicts-of-interest."

NRC Response 22: The disposition of all nonconformance reports must be reviewed and concurred in by representatives of appropriate engineering disciplines, QA, and management. This process includes review by CG&E. This process is consistent with industry practice. The NRC will audit dispositioned NR's to make an independent determination of their adequacy.

Comment 23: "QC inspectors will participate as parts of a stable team, rather than providing an independent check on construction as required by 10 CFR 50, Appendix B, Criterion 1."

NRC Response 23: QC inspectors will not report to construction supervisors, but rather to QC supervisors. Appendix B, Criterion I is not violated by this approach. The specific role of the QC inspectors in the PVQC and CCP will be considered in the staff's approval process.

Comment 24: "Resumed construction will be permitted with NRC approval in each system after a determination that it will not conflict with the PVQC. This loophole would encourage further shrinkage of the reinspection program in order to speed up construction. The only way to guarantee not getting in the way is to specify in advance that an area will not be inspected. Further, since none of the areas will receive 100% inspections, new problems are bound to be identified and lessons learned for a particular type of work or hardware that had been missed in another part of the plant where construction had been resumed. Early construction would only be feasible if it tagged behind a 100% reinspection program."

NRC Response 24: Construction, modifications, or repairs, will not be permitted to start in any SSC until the inspections have been completed in that SSC. (Also see Response 40)

Comment 25: "There is no provision in the program to track deficiencies solely written up on the most informal substitutes for nonconformance reports, such as inter-office memoranda, construction punchlists and Requests for Information. Unfortunately, these practices were widespread at Zimmer and represent the instances where the quality assurance program was missed entirely. Apparently, the PVQC will miss them also."

NRC Response 25: Task VII of the Quality Confirmation Program addressed the problem of nonconformances not being documented or being documented in a less formal system (surveillance reports, punchlists, exception lists), and required CG&E to take action to correctly document all nonconforming conditions. This work and any new nonconformance reports are being tracked. As has been stated previously, a major purpose of the PVQC is to identify, document and track nonconforming conditions. The COA permits only one type of document, entitled a Nonconformance Report (NCR), to report, control, and disposition nonconforming items.

Comment 26: "[T]here is no rational basis for Zimmer to have a less stringent reinspection program, nor to have lesser opportunity for public oversight than Midland[.]"

NRC Response 26: The COA for Zimmer is similar to the Construction Completion Program at Midland. Both contain provisions for the comprehensive reinspection of hardware to identify existing problems. Both contain provisions for correcting problems and completing construction. Both contain provisions for review of documentation. Both contain provisions for upgrading training and qualification of personnel. Both contain provisions for NRC hold points and for third party overview.

Public participation will be similar to that established for Midland, including the conduct of meetings, open to the public, as part of the approval process for the PVQC, the CCP, and third party organizations to conduct the PVQC audit and the IDR. In addition, monthly meetings, similar to those being conducted at Midland, will be held by the NRC staff with CG&E, Bechtel, and others as appropriate to discuss ongoing activities relative to the SCO.

Comment 27: "[P]rohibit any training or document review until the Final Safety Analysis Report (FSAR) and all procedures have been approved by the NRC, after public evaluation and comment for both FSAR and procedures unless licensing hearings are reopened[.]"



NRC Response 27: The FSAR is a document which was prepared by the licensee, and reviewed by the NRC, as part of its operating license application, and will be revised and updated when necessary. Although the NRC reviews changes to the FSAR, the staff does not require that these revisions be approved before they are implemented. The NRC does not routinely approve licensee procedures as part of the licensing process; however, the NRC staff will review procedures on a sampling basis and provide comments or request revisions, if needed. This procedure review will be done at the site as part of the NRC inspection program. The NRC does not intend to solicit public comment on licensee procedures or FSAR changes.

Comment 28: "[I]nstitutionalize an end to the era of secret NRC-utility meetings that approve suspect loopholes -- by requiring prior public notice, opportunity for comment and open meetings before NRC approval of any CG&E request to relax terms of the Commission's November 12, 1982 Show Cause Order[.]"

NRC Response 23: Section IV.B.3 of the SCO provides that:

The Regional Administrator may relax all or part of the conditions of Section IV.B for resumption of specified construction activities, provided such activities can be conducted in accordance with the Commission's regulations and the provisions of the construction permit.

The Regional Administrator will not approve any such request based upon information provided in a private meeting between the staff and CG&E and/or its agents. Any request for relaxation will be required to be in writing and will be provided to those persons on the Region III standard distribution list for Zimmer. Comments received by the Regional Administrator on a request under Section IV.B.3 to resume specified construction activities will be considered. The Regional Administrator's determination will be in writing, with copies to those on the Region III standard distribution list. Additionally, the NRC would expect that requests for relaxation of the SCO would be discussed during the monthly meetings with CG&E and its contractors, which will be open to the public.

Comment 29: "[C]ommit to meeting the current standards in all professional codes with safety significance, including the electrical code which has been enforced by county building inspectors for Zimmer's office buildings, but previously waived by the NRC for the nuclear plant[.]"

NRC Response 29: CG&E's commitments to nationally recognized codes and standards are contained in the PSAR and QA program. Any deviations from these commitments must be reviewed and approved by the NRC.

The referenced code, used for the Zimmer office buildings, is not applicable to the remainder of the plant.

Comment 30: "[I]nclude provision for a dry run on a representative system to test the workability and reliability of the program, after the PVQC and CCP have otherwise obtained approval, with provision for necessary modifications after the dry run[.]"

NRC Response 30: The NRC made a similar suggestion earlier and CG&E plans to implement it. For example, CG&E has determined that safety-related protective coatings must be removed and replaced. CG&E plans to first remove the protective coating from a non-safety-related area using the same procedures and controls proposed for safety-related work. On the basis of this experience the NRC staff will determine CG&E readiness to remove the coatings from safety-related areas prior to authorizing work to commence. Whether or not dry runs will be required in the future will be determined on a case-by-case basis.

Comment 31: "[S]trengthen enforceability through proposing the PVQC and CCP as amendments to the construction permit[.]"

NRC Response 31: The SCO provides the authority for enforcing the implementation of the PVQC and CCP.

Comment 32: "[P]revent CG&E from retaining Kaiser for any quality verification responsibilities, particularly work covered by the American Society of Mechanical Engineers code?"

NRC Response 32: CG&E has substantially limited the role of Kaiser at Zimmer. (See Response 14.) The National Board of Boiler and Pressure Vessel Inspectors, however, requires that Kaiser certify the work that was done under its N-stamp authorization. Therefore, Kaiser must be retained to perform this certification. However, in providing this certification, their work will be verified on a one-for-one basis by Bechtel. Bechtel will complete all further N-stamp work, including repair of deficiencies identified during the certification process. This approach is acceptable to the NRC.

Comment 33: "[R]equire CG&E to replace the Ann Arbor Power Division as Bechtel corporate leader of the Zimmer project?"

NRC Response 33: Each Bechtel Division has had its "successes" and its "problem cases." Rather than focus on a Division, the NRC has assured itself that Bechtel has provided a strong team at Zimmer.

Comment 34: "[R]equire CG&E to publicly disclose which jobs will require psychological tests as a condition of employment, and to justify any questions about organizational loyalty, dissent or other topics that could be used to screen out whistleblowers?"

NRC Response 34: There is no regulatory basis to require CG&E to disclose which jobs will require psychological testing or to justify questions on the test.

Comment 35: "[R]equire CG&E to make a written record of all communications and policy decisions that significantly affect quality?"

NRC Response 35: This comment related to a concern over remarks made by Mr. Williams at the November 1, 1983, meeting in Cincinnati. A review of the transcript discloses that Mr. Williams was not talking about the oral identification and resolution of QA problems. The NRC will expect written records of the identification and resolution of QA problems, consistent with 10 CFR 50 Appendix B.

Comment 36: "[R]equire CG&E to withdraw its reliance on paperwork "pedigrees" to screen out physical inspections?"

NRC Response 36: The NRC will require, as a part of the PVQC and CCP, that all documentation relied upon for final acceptance of a safety-related SSC, be verified to be authentic and technically acceptable. Additionally, the NRC is requiring inspection of all accessible safety-related SSC's to identify nonconforming conditions, and performance of tests, inspections and reviews of inaccessible safety-related hardware on a sampling basis for the same purpose. The degree of sampling will be reviewed as part of the PVQC process.

Comment 37: "[R]equire CG&E to disclose the criteria to expand its inspection sample after deficiencies are identified?"

NRC Response 37: The NRC will require that the basis for determining sample size and acceptance criteria be clearly delineated in the PVQC. The licensee will submit the PVQC, including details, for NRC review, evaluation and approval after NRC approval of the COA.

Comment 38: "[R]equire Mr. Williams to disclose the methodology for his assertion that nearly all of the welds performed under illegal weld procedures can be tracked and identified?"

NRC Response 38:

CG&E is developing a Computerized Welding Information System (CWIS) data base intended to provide a computerized collection of field welding data to assist in the review, verification, and acceptance of field welding documentation. Specifically, it is anticipated that the CWIS will aid in resolving the following:

- (1) Was the welder qualified when he performed the weld?
- (2) Was the qualification current?
- (3) Was the weld procedure qualified for the weld that was made?
- (4) Was the weld filler material correct, certified and traceable?
- (5) Were the base materials correct, certified and traceable?
- (6) Were the required inspections performed by a qualified inspectors?
- (7) Have the field welds required by the design been documented?

As previously discussed, all documentation that will be relied upon for final acceptance of a safety-related SSC will be verified to be authentic and technically correct.

Additionally, the NRC will require that the PVQC clearly identify how the CWIS will be utilized for the acceptability of a safety-related SSC.

Comment 39:

"[R]equire Mr. Williams to disclose publicly the methodology for his assertion that he can identify the effects of inadequate weld procedures, based on a paperwork review, since the procedures were so vague that both illegal and legal practices were permitted?"

NRC Response 39:

As previously discussed, CG&E will be required to verify the authenticity and technical acceptability of all documentation to be relied upon for final acceptance of a safety-related SSC.

Additionally, the NRC will require, as a part of the PVQC, that CG&E reinspect all welds for which no records exist, or for which the records are questionable as well as a sampling of welds with adequate records to increase the confidence in the review.

Comment 40: "[R]equire CG&E to honor the November 12 Show Cause Order finishing the entire verification plan before resuming construction?"

NRC Response 40: The SCO does not require that construction be deferred until the entire verification plan has been completed. The essence of the SCO is that construction cannot proceed for a given SSC until all verification has been completed for that SSC. CG&E has proposed, in the COA, a two step process for approving construction: the first step is the submittal of an overall plan for the continuation of construction, the second step is a submittal of requests for construction of particular SSC's. Therefore, consistent with the SCO, the staff intends that approval of continuation of construction will also be a two step process with the final approval withheld until the necessary verification has been completed.

Comment 41: "[R]equire authority for the originator to follow through and insure proper corrective action for defects identified in Nonconformance reports?"

NRC Response 41: Appendix B to 10 CFR 50 does not require the originator of a nonconformance report to be involved in the disposition of the nonconforming condition. The required division of responsibility between the PVQC and the CCP was intentionally established by the NRC to assure that the evaluation of completed work and the implementation of rework is orderly and well controlled. The NRC inspections and the independent audit will assure that the licensee has a program to properly disposition nonconformance reports.

Comment 42: "[R]equire hold points with NRC and third party review and approval for every significant step of the Course of Action?"

NRC Response 42: NRC hold points will be required for the PVQC and CCP. The details of these hold points, including the role of the PVQC auditor, will be considered in the PVQC and CCP approval process.

Comment 43: "[R]equire CG&E to obtain and publish both the exit interviews for all personnel who have left Zimmer as well as the turnover rates for all QA personnel since the shutdown."

- NRC Response 43: The NRC staff does not intend to require CG&E to make the records of the exit interviews public. The NRC resident inspectors have interviewed a sample of individuals who have resigned or been terminated from the Zimmer site and have audited the notes of exit interviews conducted by management. The NRC staff will continue this effort and include the results in NRC inspection reports. The turnover rates of QA personnel will also be monitored by the NRC.
- Comment 44: "[R]equire CG&E to make public the new welding and QA procedures for public comment?"
- NRC Response 44: The NRC will review the revised welding and QA procedures as part of its onsite inspection program. The findings from inspection activities will be documented in NRC inspection reports. The NRC does not plan to require CG&E to publish these procedures for public comment.
- Comment 45: "[E]xtend the public participation program to include outside audits and design reviews."
- NRC Response 45: Third party organizations for performing an independent audit of the PVQC and the independent design review will be nominated by CG&E. The NRC staff will review these nominations for competence and independence, as well as evaluate the scope of the proposed programs. Opportunity will be provided for public comment regarding these nominations.
- Comment 46: "[I]mpose reasonable criteria for withholding public advisory staff materials from public disclosure."
- NRC Response 46: The NRC will receive copies of the ZOC Advisory Staff reports and will make them public, except for matters which are exempt from public disclosure under 10 CFR 9.
- Comment 47: "[R]equire CG&E to adopt the Environmental Advisory Council -- Case -- public participation plan?"
- NRC Response 47: As indicated in the Regional Administrator's letter of November 25, 1983 to Mayor Brush, the NRC recognizes the need for citizens of the community to be informed regarding activities affecting the construction of the Zimmer plant. In this regard, the following actions have been taken or planned:
- Meetings, open to the public, will be held with CG&E and its agents to discuss the PVQC and CCP prior to their approval. Opportunity for comment will be afforded at the close of the meetings.



Periodic meetings, initially on a monthly basis, open to the public, will be held with the PVQC auditor, CG&E, Bechtel, and other contractors to CG&E to discuss the progress of the PVQC and CCP. Opportunity for public comment will be afforded at the close of each meeting.

Periodic meetings will be held with elected officials to discuss the status of CG&E's activities under the Show Cause Order.

CG&E has been requested to expand public representation on the Advisory Staff to the ZOC from one to three respected members of the community -- one each from the communities served by the owner utilities.

These steps should permit state and local government representatives and members of the public to be kept informed of actions being taken by CG&E and the NRC under the PVQC and CCP and will provide opportunities for comment by the public. The staff does not believe there is a basis to require as a condition of our approval of CG&E's Course of Action that the public oversight committee proposed by the Environmental Advisory Council be created and funded by the Zimmer owners.

Comment 48:

The ZOC should have a minority membership of CG&E representatives and other representatives from DP&L and C&SOE, and an equal number of concerned citizens as voting members.

NRC Response 48:

The problem which Torrey Pines identified in proposing the creation of the ZOC was the need for the Board of Directors to become more involved in the Zimmer project. Torrey Pines also recommended that a member of the community be included on the ZOC Advisory Staff. As a result of public comments and an NRC staff recommendation, the public representation of the Advisory Staff is being expanded. The central purpose of the ZOC, however, remains unchanged: to strengthen the management of the project through increased Board of Directors involvement. The staff sees no basis to require that CG&E and its co-owners have only a minority membership on the ZOC.

Comment 49:

In light of its track record at Zimmer, Region III can only hope to regain public credibility by sharing oversight responsibilities with the affected community, instead of shutting the public out again.

- NRC Response 49: The NRC staff has no intention of "shutting out" public input regarding CG&E's actions under the SCO. The responsibility for regulating the construction of Zimmer, whether referred to as "oversight" or by some other term, is the statutory responsibility of the NRC. That responsibility cannot be shared with members of the public.
- Comment 50: "DP&L's Board and management believe that the COA fails to adequately recognize DP&L's sizable investment in the Zimmer project by not giving DP&L any meaningful participation in the oversight of the project. We believe that a meaningful role for DP&L can be achieved without creating licensing concerns relating to CG&E's responsibility to the NRC."
- NRC Response 50: The ZOC Advisory Staff has been expanded to include representation by the other owner utilities. (See Response 13.)
- Comment 51: The COA doesn't address two matters that were discussed in the ASLB hearings a few years ago. The two matters are:
- a. "[I]nstead of taking photographs of individual welds to verify that all welds were done properly, 200 duplicates of a single [radiograph] of a single weld were made to erroneously document the work on those welds."
  - b. "[M]ore electrical wires/cables were stuffed into a single sheath/tray than was safe and there was a failure to insure proper segregation of electrical cables."
- "There is nothing in CG&E's Course of Action for Zimmer to assure that these safety violations will be corrected."
- NRC Response 51: Although the COA doesn't discuss these two items specifically, the COA does address how matters such as these will be resolved. First, documents will be reviewed to establish that they are valid. Second, hardware will be visually inspected and/or physically tested to establish its acceptability. Third, all identified safety concerns will be evaluated and corrected if necessary.
- The licensee's Quality Confirmation Program (QCP) does address some problems with welds and radiographs and it also addresses cable tray overloading. These matters will, however, be completely addressed in the PVQC and the CCP.
- Comment 52: "As a concerned citizen of Cincinnati, I expect, first and foremost, that Zimmer be proven safe before it begins to operate."

NRC Response 52: The major purpose of the COA, the PVQC, the CCP and the preoperational/startup testing programs is to provide reasonable assurance that the plant is safe to operate. In accordance with 10 CFR 50.57, Zimmer will not be allowed to operate until the NRC finds that construction has been completed in conformance with the construction permit and there is reasonable assurance that the activities authorized by the operating license can be conducted without endangering the health and safety of the public.

Comment 53: The changes in CG&E management appear to just be a reshuffling of the same people.

NRC Response 53: While many CG&E managers and supervisors have been retained in the restructured organization, new individuals have been brought in at top levels. The submitted qualifications of the key CG&E personnel have been reviewed by the staff and selected key individuals have been interviewed. The staff finds the key CG&E personnel to be well-qualified for their positions. The staff has also reviewed the qualifications of key Bechtel personnel, and conducted interviews with most of them and also found them well-qualified for their positions.

Comment 54: The NRC should obtain and publicly disclose all information received and/or generated by Torrey Pines during its management review.

NRC Response 54: The staff has determined that it is not necessary to obtain or require disclosure of the TPT data base. The recommendations of TPT were accepted largely on the basis of the independence and competence of TPT. While the staff reviewed portions of the voluminous data base, it did not find it necessary to review the complete data base in order to review the recommendations. The data base is available for NRC inspection and will be required to be retained by CG&E as "quality" documents.

Comment 55: The NRC staff should: "Thoroughly question Torrey Pines representatives on the nature and basis for the underlying assumptions and values used by Torrey Pines in selecting and evaluating options for management structures to complete the Zimmer Nuclear Power Station, as well as the criteria for assigning weight to the different variables used in the evaluation."

NRC Response 55:

On September 28, 1983, TPT briefed the Commission on its report. The staff also visited TPT to clarify aspects of their report. However, as indicated in Response 54, the staff relied heavily on the expertise in management reviews of TPT, in addition to the staff's own experience with various utility organizational formats, in its consideration of the TPT recommendations. Consequently, the staff did not find it necessary to review all of the backup material used for the report in the manner suggested.