Dockets: 50-445
50-446
EA 83-64

AUG 29 1983

Texas Utilities Generating Company
ATTN: R. J. Gary, Executive Vice
President & General Manager
2001 Bryan Tower
Dallas, Texas 75201

Gentlemen:

This refers to the results of an investigation and hearing conducted by the Department of Labor into a complaint by Mr. Charles A. Atchison. In his complaint, Mr. Atchison alleged that he was transferred and discharged as a result of writing nonconformance reports while serving as a Quality Control Inspector for Brown & Root, Inc., the prime contractor for construction of the Comanche Peak Steam Electric Station. In a Decision and Final Order dated June 10, 1983, the Secretary of Labor affirmed that a violation of the employee protection provisions of the Energy Reorganization Act of 1974, as amended, had occurred in that Mr. Atchison was transferred and fired for engaging in protected activities, the writing of nonconformance reports.

These adverse actions taken by Brown & Root with respect to a Quality Control Inspector also constitute a significant violation of Criterion I of Appendix B to 10 CFR Part 50. This criterion requires that construction permit holders establish and execute a quality assurance program such that persons and organizations performing quality assurance functions have sufficient authority and organizational freedom: (1) to identify quality problems; (2) to initiate, recommend, or provide solutions; and (3) to verify implementation of solutions. Although the work of establishing and executing this program may be delegated to others, the construction permit holder retains the responsibility for the program.

To emphasize the need to assure that your quality assurance program is being properly executed, I have been authorized after consultation with the Director of the Office of Inspection and Enforcement, to issue the attached Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Forty Thousand Dollars ($40,000) for the violation set forth therein. This violation has been classified at Severity Level III in accordance with the NRC Enforcement Policy

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

RIV				
RPSA	RPB	D-DRRP&E	EO	RA
DHunnicutt	GMadsen	JGagliardo	TWesterman	JCollins
8/26/83	8/30/83	8/26/83	8/26/83	8/26/83

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(10 CFR Part 2, Appendix C), published in the Federal Register, 47 FR 9987 (March 9, 1982). It is considered to be a significant violation because there was a deficiency in the implementation of your quality assurance program for construction and the NRC has determined that QA personnel should in no way be deterred or discouraged from vigorously implementing the QA program.

You are required to respond to this letter and should follow the instructions in the Notice when preparing your response. Your reply should detail the actions you have taken or plan to take to ensure that there is no chilling effect from the underlying violation of Section 210(a) of the Energy Reorganization Act by your contractor and that all quality assurance program personnel retain the necessary organizational freedom to identify and follow problems to correction. Your reply to this letter and the results of future inspections will be considered in determining whether further enforcement action is appropriate.

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

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

Should you have any questions concerning this matter, we will be pleased to discuss them with you.

Sincerely,

"Original Signed by:
J. T. COLLINS"

John T. Collins
Regional Administrator

Enclosure:
Notice of Violation and Proposed
Imposition of Civil Penalty

cc w/enclosures:
Texas Utilities Generating Company
ATTN: H. C. Schmidt, Project Manager
2001 Bryan Tower
Dallas, Texas 75201

ES:IE	ELD	D:ES	D:IE
RRosano:mk	JLieberman	JAxelrad	RCDeYoung
8/22/83	8/22/83	8/22/83	8/22/83

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Texas Utilities Generating Company
Comanche Peak Steam Electric Station

Dockets: 50-445/83-03
50-446/83-01
Permits: CPPR-126
CPPR-127
EA 83-64

Based on the results of an investigation and hearing conducted by the Department of Labor (DOL Case 82-ERA-9) and the resulting Decision and Final Order of the Secretary of Labor dated June 10, 1983, in the case of complainant Charles A. Atchison, and in accordance with the NRC Enforcement Policy (10 CFR Part 2, Appendix C), 47 FR 9987 (March 9, 1982), the NRC has determined that a significant violation of its regulations has occurred. In order to emphasize the need for an applicant to assure that the quality assurance program is being properly executed, the Nuclear Regulatory Commission proposes to impose a civil penalty in the amount of Forty Thousand Dollars ($40,000) for the violation set forth in this Notice. In accordance with the NRC Enforcement Policy, and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended, 42 USC 2282 and 10 CFR 2.205, the particular violations and the associated civil penalty are set forth below:

VIOLATION ASSESSED CIVIL PENALTY

10 CFR Part 50, Appendix B, Criterion I, states that construction permit holders are responsible for the establishment and execution of a quality assurance program, that they may delegate this work to others such as contractors, but they retain the responsibility for the program. Criterion I further states that persons performing quality assurance functions shall have sufficient organizational freedom to identify quality problems; initiate, recommend, or provide solutions; and to verify implementation of solutions.

Brown & Root, Inc. (Brown & Root) is the prime contractor for construction of the Comanche Peak facility and has thus been delegated quality assurance functions by the licensee. Brown & Root QA Manual describes Quality Control Inspectors as members of the Quality Assurance Division and states that the Quality Assurance Division has been assigned sufficient organizational freedom to identify quality problems.

Contrary to the above, the Brown & Root Quality Assurance Program did not provide Quality Control Inspectors sufficient organizational freedom to identify quality problems in that a Brown & Root Quality Control Inspector was transferred and discharged on April 12, 1982 for filing nonconformance reports identifying quality problems.

This is a Severity Level III violation (Supplement II)
(Civil Penalty - $40,000)

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Pursuant to the provisions of 10 CFR 2.201, the Texas Utilities Generating Company is hereby required to submit to the Director, Office of Inspection and Enforcement, USNRC, Washington, D.C., 20555, within 30 days of the date of this Notice a written statement or explanation, including for the alleged violation: (1) admission or denial of the alleged violation; (2) the reasons for the violation if admitted; (3) the corrective steps which have been taken and the results achieved; (4) the corrective steps which will be taken to avoid further violations; and (5) the date when full compliance will be achieved. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the Texas Utilities Generating Company may pay the civil penalty in the amount of Forty Thousand Dollars ($40,000) or may protest imposition of the civil penalty in whole or in part by a written answer. Should the Texas Utilities Generating Company fail to answer within the time specified, the Director, Office of Inspection and Enforcement, will issue an order imposing the civil penalty in the amount proposed above. Should the Texas Utilities Generating Company elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, such answer may: (1) deny the violation listed in this Notice in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty in whole or in part, such answer may request mitigation of the penalty. In requesting mitigation of the proposed penalty, the five factors contained in Section IV.B of 10 CFR Part 2, Appendix C should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The Texas Utilities Generating Company's attention is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty. Upon failure to pay any civil penalty due, which has been subsequently determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, U.S.C. 2282.

FOR THE NUCLEAR REGULATORY COMMISSION

John T. Collins

John T. Collins
Regional Administrator

Dated at Arlington, Texas
this 29 day of August 1983

DMB

Docket Nos. 50-445
50-446
EA 83-132

DEC 22 1983

Texas Utilities Generating Company
ATTN: R. J. Gary, Executive Vice
President & General Manager
2001 Bryan Tower
Dallas, Texas 75201

Gentlemen:

This refers to the investigation conducted by the NRC Office of Investigations from January 7 through August 3, 1983 of paint Quality Control (QC) activities authorized by NRC Construction Permits CPPR-126 and CPPR-127 at the Comanche Peak Steam Electric Station (CPSES). The investigation was initiated as a result of allegations made to the NRC Office of Investigations by paint QC inspectors employed by Texas Utilities Generating Company (TUGCo). The findings of the investigation were discussed during an Enforcement Conference held in our Region IV office on December 12, 1983, between the Regional Administrator, Region IV, and members of the NRC staff, and you and other members of your staff.

The investigation was based on interviews of QC personnel and revealed that a TUGCo quality control supervisor at CPSES had intimidated QC personnel working for him inspecting paint coatings. The QC supervisor threatened the QC personnel with withdrawal of QC certifications if they continued to write "nitpicking" Nonconformance Reports which had been the subject of complaints from craft management personnel.

The intimidation of coatings QC inspectors by the QC supervisor constitutes a significant violation of Criterion I of Appendix B to 10 CFR Part 50. This criterion requires that construction permit holders establish and execute a quality assurance program such that persons and organizations performing quality assurance functions have sufficient authority and organizational freedom to identify quality problems.

To emphasize the need to assure that the TUGCo quality assurance program is being properly executed, and that QC personnel are not discouraged from vigorously implementing the quality assurance program, I have been authorized by the Director of the Office of Inspection and Enforcement to issue the attached Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Forty Thousand Dollars for the violation set forth therein. The violation has been categorized as a Severity Level III violation in accordance with the NRC Enforcement Policy, 10 CFR Part 2, Appendix C.

In addition to this enforcement action, the Director of the Office of Inspection and Enforcement has decided to require TUGCo management and quality assurance personnel and Brown and Root management and quality assurance personnel to meet with him and with me to discuss this violation and the corrective actions being taken to assure that quality assurance personnel are guaranteed the organizational freedom necessary to vigorously implement a QA program at Comanche Peak. We will inform you of the time and place and the attendees for the meeting in the near future.

You are required to respond to this letter and should follow the instructions in the Notice when preparing your response. Your reply to this letter and the results of future inspections will be considered in determining whether further enforcement action is appropriate.

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

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

Should you have any questions concerning this matter, we will be pleased to discuss them with you.

Sincerely,

Original signed by
John T. Collins

John T. Collins
Regional Administrator

Enclosure:
Notice of Violation and Proposed
Imposition of Civil Penalty

cc w/enclosures:
Texas Utilities Generating Company
ATTN: H. C. Schmidt, Project Manager
2001 Bryan Tower
Dallas, Texas 75201

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Texas Utilities Generating Company
Comanche Peak Steam Electric Station

Docket Nos. 50-445
50-446
Construction Permit Nos. CPPR-126
CPPR-127

EA 83-132

Based on the results of an investigation conducted by the NRC Office of Investigations at the Comanche Peak Steam Electric Station (CPSES) in Glen Rose, Texas, from January 7 through August 3, 1983, the NRC has determined that a significant violation of its regulations has occurred. The investigation revealed that a Texas Utilities Generating Company (TUGCo) quality control (QC) supervisor at CPSES had intimidated QC personnel working for him inspecting paint coatings. The QC supervisor threatened the QC personnel with withdrawal of QC certifications if they continued to write "nitpicking" Nonconformance Reports which had been the subject of complaints from craft management personnel.

To emphasize the need to assure that the TUGCo quality assurance program is being properly executed and that QC personnel are not discouraged from vigorously implementing a quality assurance program, the Nuclear Regulatory Commission proposes to impose a civil penalty for the violation set forth in this Notice. The violation has been categorized as a Severity Level III violation.

In accordance with the NRC Enforcement Policy, 10 CFR Part 2, Appendix C, and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended, 42 USC 2282 and 10 CFR 2.205, the particular violation and the associated civil penalty are set forth below:

> 10 CFR Part 50, Appendix B, Criterion I, states that construction permit holders are responsible for the establishment and execution of a quality assurance program. Criterion I further states that persons performing quality assurance functions shall have sufficient organizational freedom to identify quality problems; initiate, recommend, or provide solutions; and to verify implementation of solutions.
>
> Contrary to the above, the Texas Utilities Generating Company Quality Assurance Program did not provide quality control inspectors sufficient organizational freedom to identify problems in that a TUGCo civil quality control supervisor, on January 5-7, 1983, intimidated QC personnel working for him inspecting paint coatings. The QC supervisor threatened the QC personnel with

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withdrawal of QC certifications if they continued to write "nitpicking" Nonconformance Reports which had been the subject of complaints from craft management personnel.

This is a Severity Level III violation (Supplement II)
(Civil Penalty - $40,000)

Pursuant to the provisions of 10 CFR 2.201, the Texas Utilities Generating Company is hereby required to submit to the Director, Office of Inspection and Enforcement, USNRC, Washington, D.C., 20555, within 30 days of the date of this Notice a written statement or explanation, including for the alleged violation: (1) admission or denial of the alleged violation; (2) the reasons for the violation if admitted; (3) the corrective steps which have been taken and the results achieved; (4) the corrective steps which will be taken to avoid further violations; and (5) the date when full compliance will be achieved. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the Texas Utilities Generating Company may pay the civil penalty in the amount of Forty Thousand Dollars ($40,000) or may protest imposition of the civil penalty in whole or in part by a written answer. Should the Texas Utilities Generating Company fail to answer within the time specified, the Director, Office of Inspection and Enforcement, will issue an order imposing the civil penalty in the amount proposed above. Should the Texas Utilities Generating Company elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, such answer may: (1) deny the violation listed in this Notice in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty in whole or in part, such answer may request mitigation of the penalty. In requesting mitigation of the proposed penalty, the five factors contained in Section IV.B of 10 CFR Part 2, Appendix C should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The Texas Utilities Generating Company's attention is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty. Upon failure to pay any civil penalty due, which has been

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

FOR THE NUCLEAR REGULATORY COMMISSION

John T. Collins

John T. Collins
Regional Administrator

Dated at Arlington, Texas
this 22nd day of December 1983

DCS

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

MAY 02 1986

Docket Nos. 50-445
50-446
License Nos. CPPR-126
CPPR-127
EA 86-09

Texas Utilities Electric Company
ATTN: Mr. W. G. Counsil
Executive Vice President
400 North Olive, Lock Box 81
Dallas, Texas 75201

Gentlemen:

This refers to the extensive review of construction activities at the Comanche Peak Steam Electric Station (CPSES), Unit 1, performed by the Technical Review Team (TRT) that began on July 9, 1984. This effort was designed to complete a portion of the review necessary for the staff to reach its decision regarding the licensing of CPSES. The review encompassed a number of areas, including allegations of improper construction practices at the facility. A separate special inspection to evaluate the CPSES Unit 1 as-built cable tray inspection program was also conducted by Mr. T. F. Westerman, members of the Region IV Comanche Peak Group, and NRR during the period November 18 - December 18, 1985. Discussions of this issue were held with Mr. R. E. Camp and other members of your staff on November 22, 1985 and December 5, 1985, and with you and Mr. J. W. Beck on December 18, 1985. The inspection report describing this matter was sent to you on March 26, 1986. Another special inspection was conducted to evaluate procurement and installation practices involving electrical penetration assemblies furnished by the Bunker Ramo Corporation during the period January 1 - March 14, 1986. Discussions of this issue were held with Mr. J. F. Streeter and other members of your staff on February 5, 1986. The inspection report describing this matter was sent to you on March 27, 1986. As a result of these efforts, violations of NRC requirements were identified. An Enforcement Conference to discuss the violations was held in the Region IV office on April 3, 1986.

The NRC has devoted substantial resources to evaluating the adequacy of construction at the CPSES facility. In addition to the routine and special inspections conducted by NRC Region IV, a Construction Appraisal Team inspection was conducted by the Office of Inspection and Enforcement (IE) on January 24 - February 4, 1983 and February 14 - March 3, 1983 (Reference NRC Inspection Report 50-445/83-18 and 50-446/83-12). From April 13 - 18, 1984 a review by the Special Review Team (SRT) was conducted by representatives of NRC Region II. Subsequently, the TRT was assembled which consisted of approximately 50 specialists from NRC headquarters, NRC Regional Offices, and consultants, to evaluate and resolve technical issues and issues identified as a result of allegations. The results of the review of the issues by the TRT are documented in Safety Evaluation Report (SER) NUREG-0797, Supplements 7, 8, 9, 10, and 11.

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

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The violations referenced in Part I of the first enclosed Notice of Violation and Proposed Imposition of Civil Penalties (NOV) (Appendix A) were identified as a result of the TRT efforts and are considered significant by the NRC staff. These violations have been discussed with you in numerous oral and written communications and your views on these issues have been provided in the "Comanche Peak Response Team Program Plan and Issue-Specific Action Plans." Other violations of NRC requirements were identified as a result of the considerable inspection time expended by the TRT that were evaluated as isolated instances of minor safety significance and were not included in this package because you have addressed the technical concerns elsewhere. In addition, several of the concerns identified by the TRT regarding the construction of the CPSES facility were not included in this package because they did not involve violations of NRC requirements. However, these concerns are discussed in detail in the referenced Supplements to the SER (NUREG-0797).

Violation IA in the enclosed NOV (Appendix A) involves your failure to ensure that quality control inspectors were properly qualified and certified in accordance with NRC requirements and the CPSES FSAR commitments. The TRT found numerous deficiencies in the site inspector qualification and certification programs including no verification or work experience for approximately twenty percent of 102 quality control inspectors training records reviewed, and questionable qualification records for seven quality control inspectors in the sample of inspection records reviewed. The TRT also noted that eighty percent of all site line quality control inspectors were qualified to the leniency allowed by the ANSI standard, establishing the "exception to the rule" clause as a practice at CPSES.

Violation IB involves multiple examples of problems identified by the TRT due primarily to ineffective interactions between the various engineering and construction groups. This is reflected by examples where (1) design requirements were not translated into instructions, (2) design criteria used in construction procedures and instructions were not appropriate or were not approved, (3) design analyses of field changes were not commensurate with the original designs, and (4) seismic analyses were not appropriately performed.

Violation IC involves deficiencies identified in your quality control program. These deficiencies were identified by the TRT inspections after your quality inspection (or in most cases, reinspections) were completed, and are indicative of a failure on the part of your inspectors to follow design documents and quality procedures for inspection. While many of the as-built hardware deficiencies identified by the TRT may not have an effect on the safe operation of CPSES, they do reflect significant weaknesses in the implementation of your quality control program.

Violation ID involves three significant examples of your failure to properly implement the site's corrective action program which are indicative of a failure to ensure that conditions adverse to quality were promptly identified and corrected, and appropriately evaluated. These examples, in conjunction

with the fact that the TRT identified approximately forty different forms and reports other than formalized Nonconformance Reports to document deficiencies that may require evaluation, are indicative of an ineffective and poorly applied corrective action program. It appears from these examples as well as other weaknesses identified that your corrective action program did not provide the necessary confidence that nonconformances requiring evaluation were appropriately evaluated or promptly corrected.

Each of these violations represent significant weaknesses that have existed in the implementation of your quality programs during construction. Some of these are similar to violations previously identified by Region IV, as well as the Construction Appraisal Team. Inspector qualification issues have been previously discussed with you and have existed throughout the construction phase of the CPSES facility. The Construction Appraisal Team, in early 1983, found a number of instances where nonconforming conditions were identified; however, various methods were used to address and resolve these nonconformances that did not comply with requirements to identify nonconforming conditions and provide corrective actions to prevent recurrence. Document control and inspection program deficiencies have also been previously identified. Although you apparently took extensive actions to correct document control program deficiencies, inspection program deficiencies existed as you could not ensure inspections were being performed to the latest design document.

The staff acknowledges that you are currently taking extensive actions to verify the adequacy of construction at CPSES. Construction activities are now under new management, and the "Comanche Peak Response Team Program Plan and Issue-Specific Action Plans" is being implemented. In fact, the charter of the Comanche Peak Response Team (CPRT) is to respond and to resolve these past issues, and to advise current management whether CPSES has been designed, constructed, and tested such that it is capable of being operated without undue risk to the public.

Notwithstanding your more recent efforts to address serious deficiencies in your performance, to emphasize the significance of the weaknesses in your quality assurance program that existed during construction and that were discovered during the NRC's inspections, I have decided to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalties in the amount of Two Hundred Thousand Dollars ($200,000) for the violations in Appendix A. The violations described in Part I of the Notice have each been categorized as a Severity Level III problem in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1985). In determining the civil penalty amount, we have considered when the violations occurred, the duration of the violations, the potential safety significance of the violations, the existence of prior notice of many of these violations, and the fact that many of the violations contain multiple examples. The cumulative civil penalties for the violations are distributed equally among the violations.

The violations in Part II of the Notice have been characterized as a Severity Level IV problem. No civil penalty is being proposed for these violations.

Part I of the second Notice of Violation and Proposed Imposition of Civil Penalties (Appendix B) describes significant violations identified during recent NRC inspections of the as-built cable tray inspection program and the procurement and installation of electrical penetration assemblies. Apparently, because of your philosophy to continue construction installation and quality inspection processes prior to "final" design, many reinspections have been required to establish confidence in the "final" hardware installations at CPSES. Violation IA of Appendix B involves one of these reinspection efforts and describes your failure to properly reinspect and document as-built cable tray attributes, and involves your failure to conduct audits of the as-built cable tray inspection program as required. We recognize that after these violations were identified, you took extensive actions to address the problems, but are concerned that these problems existed so late in the process.

Violation IB in the second Notice describes significant weaknesses we identified in your procurement and installation of electrical penetration assemblies in both Units 1 and 2. These significant weaknesses, like those in Appendix A, have existed during the construction of CPSES. However, these violations were discovered during our review of your implementation of the CPRT and are also applicable to Unit 2.

To emphasize the need for increased attention to the control and oversight of your reinspection activities, I have decided to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalties in the amount of Fifty Thousand Dollars ($50,000) for the violations in the second enclosed Notice (Appendix B). The violations described in Part I of the second Notice have been categorized as a Severity Level III problem in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1985). The base civil penalty for a Severity Level III problem is $50,000, and neither escalation nor mitigation of the base civil penalties was considered appropriate in this case.

The violation in Part II of the Notice was characterized as a Severity Level IV violation for which no civil penalty is being proposed.

You would be normally required to respond to the enclosed Notices within 30 days. However, because of the extensive nature of the Notices, we are extending the period for response to 60 days. Your response should follow the instructions contained in the Notices and should be directed to the following areas: first, you should confirm the completeness of the actions you have taken to correct the examples cited in the Notices; second, you should address how you have changed or strengthened the implementation of your quality assurance program and implementing procedures so that there will not be similar violations in these subject areas during future construction activities; and third, since the enforcement action deals with weaknesses in your program for assuring quality in your approved Quality Assurance program for construction, you should describe the steps you have taken to ensure that a similar failures will not occur during your verification efforts, and that continuing attention by management will be provided to prevent recurrence of these failures. Your responses to these three areas may be submitted separately and you may reference previous submittals where appropriate.

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

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Sincerely,

James M. Taylor, Director
Office of Inspection and Enforcement

Enclosures:
1. Appendix A - Notice of Violation and Proposed Imposition of Civil Penalties
2. Appendix B - Notice of Violation and Proposed Imposition of Civil Penalties

cc w/encls: J. W. Beck, Vice President, TUGCO

APPENDIX A

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTIES

Texas Utilities Electric Company
Comanche Peak Steam Electric Station
Units 1 and 2

Docket Nos. 50-445
50-446
Permit Nos. CPPR-126,
CPPR-127
EA 86-09

During an NRC Technical Review Team (TRT) Inspection which began on July 9, 1984, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1985) the Nuclear Regulatory Commission proposes to impose civil penalties pursuant to section 234 of the Atomic Energy Act of 1954, as amended, ("Act"), 42 U.S.C. 2282, PL 96-295, and 10 CFR 2.205. The particular violations and associated civil penalties are set forth below:

I. Violations Assessed a Civil Penalty

A. 10 CFR Part 50, Appendix B, Criterion II requires, in part, that the quality assurance program provide control over activities affecting the quality of the identified structures, systems, and components to an extent consistent with their importance to safety. It further requires that this program provide for indoctrination and training of personnel performing these activities affecting quality as necessary to assure that suitable proficiency is achieved and maintained.

The Comanche Peak Steam Electric Station (CPSES) Final Safety Analysis Report (FSAR), by Amendment 15 (April 30, 1981) commits to NRC Regulatory Guide 1.58, Revision 1, "Qualification of Nuclear Power Plant Inspection, Examination, and Testing Personnel," with minor modifications. This Regulatory Guide endorses, with comments, ANSI N45.2.6-1978, "Qualification of Inspection, Examination, and Testing Personnel for Nuclear Power Plants." ANSI N45.2.6-1978 provides guidelines and criteria for the evaluation and qualification of inspection personnel.

1. ANSI N45.2.6-1978 requires in paragraph 2.4 that the qualification of personnel be certified in writing in an appropriate form for the basis used for certification of qualification, including education and employment experience. Paragraph 3 of this standard defines the minimum capabilities that qualify personnel to perform inspections, examinations, and tests.

Contrary to the above, since April 30, 1981, the quality assurance program did not adequately ensure that quality assurance/quality control QA/QC inspectors were appropriately qualified and trained to inspect activities affecting quality. Of 102 ASME and non-ASME inspector qualification records reviewed by the TRT, twenty percent did not contain verification of education or employment experience to substantiate their qualifications as required. In addition,

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the TRT identified seven instances where the inspectors did not meet the minimum capabilities of the qualification requirements defined in ANSI N45.2.6-1978. These individuals were certified to the Level II capability within one to eight months of their transfer to the quality control program, even though they possessed no prior inspection experience. The recommended years of related experience defined in the standard for the Level II capability for these individuals was three years.

Reference (Ref): Safety Evaluation Report, Supplement (SSER) 11, 0-107.

2. ANSI N45.2.6-1978 requires that quality assurance program personnel who plan and set up inspections, supervise or maintain surveillance over inspections, supervise and certify lower level personnel, report inspection results, and evaluate the validity and acceptability of inspections be certified to Level II capability.

Contrary to the above, at the time of the TRT inspection, the coating quality assurance program personnel who planned and set up inspections, supervised or maintained surveillance over inspections, supervised and certified lower level personnel, reported inspection results, and evaluated the validity and acceptability of inspections were certified to a Level I capability in lieu of the required Level II.

Ref: SSER 9, M-121.

B. 10 CFR Part 50, Appendix B, Criterion III requires in part that measures must be established to assure that applicable regulatory requirements and design bases, as defined in §50.2 and as specified in the license application, for those structures, systems, and components to which this appendix applies, are correctly translated into specifications, drawings, procedures, and instructions. These measures must include provisions to assure that appropriate quality standards are specified and included in design documents and that deviations from such standards are controlled. The design control measures must provide for verifying or checking the adequacy of design, such as by the performance of design reviews, by the use of alternate or simplified calculational methods, or by the performance of a suitable testing program. In addition, design changes, including field changes, must be subject to design control measures commensurate with those applied to the original design.

CPSES FSAR, Section IA(b) commits to the guidance provided in Regulatory Guide 1.64, "Quality Assurance Requirements for the Design of Nuclear Power Plants," which endorses ANSI N45.2.11 (Draft 2, Revision 2-5/73).

1. CPSES FSAR Section 8.3.1.4 specifies that the criteria used to establish the minimum requirements for preserving the independence of redundant Class IE systems are defined in IEEE Standard 384-1974, "Trial-Use Standard Criteria for Separation of Class IE Equipment and Circuits."

IEEE Standard 384-1974, Section 5.6.2 requires in part that the minimum separation distance between redundant Class IE equipment and wiring internal to the control switchboards be established by analysis of the proposed installation. Where the control switchboard materials are flame retardant and an analysis is not performed, the minimum separation distance shall be six inches. In the event the above separation distances are not maintained, barriers must be installed between the redundant Class IE equipment and wiring.

Contrary to the above, at the time of the TRT inspection, the applicant had failed to satisfy the minimum separation requirements of IEEE Standard 384-1974. The TRT inspection identified several instances where these requirements were not translated into instructions for separation in the Unit 1 control room. Both safety and nonsafety-related cables were in direct contact with other safety-related cables within flexible conduits and no analysis was provided that demonstrated the acceptability of the design and installation.

Ref: SSER 7, J-37.

2. ANSI N45.2.11, "Quality Assurance Requirements for the Design of Nuclear Power Plants," in paragraph 8, requires that design changes be justified and subjected to design control measures commensurate with those applied to the original design.

   Contrary to the above, in July 1983, the applicant reported to the NRC that during hot functional testing excessive air temperatures were documented near the vessel flange and in the ex-core detector wells. A subsequent review by the TRT indicated that prior to the installation of the reactor pressure vessel reflective insulation, the vendor requested and incorporated a design change to permit the installation of the reflective insulation support channel outside the insulation. This design change effectively reduced the gap between the vessel insulation assemblies and the shield wall thus restricting the cooling air flow. This design change was not justified and subjected to design control measures commensurate with those applied to the original design in that had this condition not been detected during start-up testing, the integrity of the reactor vessel shield wall could not be assured after long-term exposure to elevated temperatures. In addition, the sensitivity of the source range detectors in the neutron detector well area could not be assured.

   Ref: SSER 8, K-99.

3. CPSES FSAR Section 3.7B.2.8 requires that non-Category I equipment and components located in Seismic Category I buildings are to be investigated by analysis or testing (or both) to ensure that structural integrity is maintained under the prescribed earthquake loading so that earthquakes do not adversely affect the integrity or operability (or both) of any designated Seismic Category I structure, equipment, or component.

Contrary to the above, the TRT inspection identified non-seismic components in the Unit 1 control room ceiling and other Category 1 areas that were not analyzed in accordance with FSAR Section 3.7B.2.8 that ensures earthquakes do not adversely affect the integrity or operability (or both) of any Seismic Category I structures, equipments, or components in these areas. In addition, the analyses performed for the Category II light fixtures, the non-seismic drywall ceiling, and the lack of analysis for the non-safety-related conduits two inches (or less) in diameter, did not ensure that the structural integrity is maintained under the prescribed earthquake loadings.

Ref: SSER 8, K-83.

4. CPSES FSAR, Sections 3.7B.2.8 and 3.7B.3.13 require that the effects on seismic Category I piping from non-Category I piping and structures be considered.

   Contrary to the above, the NRC Region II Special Review Team (SRT) and the TRT identified a Category I and non-Category I interaction for which an analysis could not be produced that showed compliance with the CPSES FSAR requirements for the piping at the Electrical Control Building/Turbine Building interface.

   Ref: SSER 10, N-238.

5. CPSES FSAR, Section 3.7B.2.8 requires that non-Category I equipment and components located in seismic Category 1 buildings are investigated by analysis or testing, or both, to ensure that under the prescribed earthquake loading, structural integrity is maintained, or the non-Category I equipment and components do not adversely affect the integrity or operability, or both, of any designated seismic Category I structure, equipment, or component to the extent that these seismic Category I items cannot perform their required functions.

   Contrary to the above, the TRT found that the design analysis for non-Category I equipment effects on seismic Category I structures, equipments, or components was incomplete. The support installation for nonsafety-related conduits less than or equal to 2 inches was inconsistent with seismic requirements and no evidence could be found that substantiated the adequacy of the installation for nonsafety-related conduit of any size.

   Ref: SSER 7.

6. ASME Section III, NF-4725 requires that threaded fasteners, except high-strength bolts, be provided with locking devices to prevent loosening during service. Brown & Root Instruction QI-QAP-11.1-28, Revision 25 in Section 3.7.1 requires that exposed threads be free of extraneous material.

Contrary to the above, measures were not established to ensure that the standards for locking devices were specified and included in design documents. On May 24, 1984 Texas Utilities Electric Company (TUEC) engineering issued a memorandum (CPPA 38997) that approved paint, when applied to Unit 1 component supports, including fasteners, and when set or hardened, would act on bolt and nut threads to prevent the nut from loosening. In addition, suitability testing did not justify the use of paint as a substitute locking device per the ASME code. The use of paint in this manner is contrary to the ASME and site procedural requirements.

Ref: SSER 11, O-244.

7. ANSI N45.2.11, in paragraph 4.1 requires that design activities be prescribed and accomplished in accordance with procedures of a type sufficient to assure that applicable design inputs are correctly translated into specifications or procedures. TUEC Procedure CP-EP-4.0, "Design Control," Revision 3 dated July 11, 1982 requires that design inputs, on which final design is based, be identified, documented, and approved.

   Contrary to the above, at the time of the TRT inspection, engineering criteria defined in Bechtel Corporation Specification 10466-M-204, Appendix D governing the cold springing of piping systems during installation was used at CPSES as the basis for the final design of the piping systems. However, this criteria was never formally identified, documented, or authorized in CPSES TUEC engineering documents.

   Ref: SSER 10, N-99.

8. ANSI N45.2.11 in paragraph 3.1 requires that design inputs, such as design bases, be identified, documented, and their selection reviewed and approved. Changes from specified design inputs, including the reasons for the changes, shall be identified, approved, documented and controlled.

   Contrary to the above, at the time of the TRT inspection, the applicant failed to adequately identify design bases and inputs including specific Design Basis Accident (DBA) test reports, and failed to properly perform and document review and analysis of design and design inputs, especially design changes. For example, allowable coating thicknesses applied to the inside of the Containment Liner were repeatedly changed without engineering evaluation and review to demonstrate that the coatings of different thickness would survive testing under DBA conditions.

   Ref: SSER 9, M-11.

9. CPSES FSAR, paragraph 6.1B.2, states, in part, "Coating systems used on exposed surfaces in the Containment have been qualified in accordance with ANSI N101.2 and N512 and are applied in accordance with NRC Regulatory Guide 1.54." The CPSES FSAR, Section 17A, including Table 17A-1, and the CPSES Specification 2323-AS-31, in paragraphs 2.0b and 3.0a, require that coatings shall be tested and approved for application in areas exposed to radiation by Oak Ridge National Laboratories and the coating manufacturer in accordance with ANSI N101.2 and N512.

   Contrary to the above, at the time of the TRT inspection, the applicant could not provide evidence to demonstrate that coating systems used at CPSES had been tested and qualified by Oak Ridge National Laboratories and the coating manufacturer, in accordance with ANSI N101.2 and N512. This deficiency applies to the originally specified coating systems and to subsequent design changes.

   Ref: SSER 9, M-50.

C. 10 CFR Part 50, Appendix B, Criterion X requires, in part, that a program for inspection of activities affecting quality be established and executed by or for the organization performing the activity to verify conformance with the documented instructions, procedures, and drawings for accomplishing the activity.

1. Texas Utilities Generating Company (TUGCO) Procedure QI-QP-11.3-28 Rev. 21 "Class IE Cable Terminations," paragraph 3.1.c states that "All Class IE and associated cable splices and terminations that utilize splice connectors shall be witnessed."

   Contrary to the above, the TRT reviewed twelve quality control inspection reports for butt splices of 600 volt control and instrument connections and found three incidents where the applicant's quality control inspector failed to witness the splice as required in paragraph 3.1 of procedure QI-QP-11.3-28.

   Ref: SSER 7, J-29.

2. Gibbs & Hill Specification 2323-MS-46A, Revision 5 requires that nuclear safety-related Class 1, 2, and 3 pipe hangers and supports meet the requirements of the ASME Code, 1974 Edition, Section III Subarticle NF-431 which states that "Defects in materials which were accepted on delivery or which are discovered during the process of fabrication or installation may be eliminated or repaired by welding, provided the defects are removed, repaired, and examined in accordance with the requirements of NF-2500 for the applicable product form." Subarticle NF-2500 requires that defects may be repaired as permitted by the material specifications.

   Brown & Root Procedure WES-029, "Welding Specification for Field Fabrication and Erection of Structural Steel" delineates the instructions and documentation required to perform weld repairs (i.e., plug wells of misdrilled holes).

Contrary to the above, cable tray supports were found by NRC Region IV staff personnel to contain undocumented plug welds. It was not possible to determine if the plug weld repairs were acceptable because quality control inspections were not performed to ensure that the welds were performed in accordance with the applicable codes and procedures.

Ref: SSER 10, N-57.

3. TUEC procedure QI-QP-11.14-1, "Inspection of Site Fabrication and Installation of Structural and Miscellaneous Steel," delineates inspection criteria for support bolts. Work package MKB-0550-012-RB authorized the cutting of 1-1/2 inches off the 9-inch length of 144 bolts. The bolts were purchased to hold the steam generator lateral supports to the wall plates but were ordered 1-1/2 inches too long.

   Contrary to the above, required quality control inspections for the installation of the steam generator upper lateral restraint anchor bolts were not performed.

   Ref: SSER 10, N-57.

4. TUGCO Procedure QI-QP-11.10-1, Revision 29, Paragraph 3.5.2 includes the requirement to inspect a support for configuration. TUGCO Procedure QI-QP-11.21-1, Revision 8, "Requirements of Visual Weld Inspection," sets forth the criteria and requirements to be used when performing visual inspections of welds and other applicable instructions for conduit support and cable tray hanger inspections.

   Contrary to the above, the TRT performed an independent inspection of previously accepted welds and identified the following deficiencies that indicated that quality control inspections in this area were inadequate as evidenced by the following:

   (a) The TRT found that cable tray hanger CTH 5824 (Containment Building) had been fabricated with forty more stiffeners and eighty more welds than required or shown on drawing FSE-00159, sheet 5824, 2 of 2, Detail L_2. Inspection Report ME-1-0006155 verified final QC inspection and acceptance on January 3, 1984.

   (b) Cable tray hanger CTH-6742 (Auxiliary Building), Clip MK-12, should be 6 inch x 6 inch x 3/4 inch angle stock in accordance with FSE-00159, sheet 6742. The actual "as-built" flange thickness of Clip MK-12 was 3/8 inch.

   (c) During inspection of hanger CTH-6742, the TRT found that two structural welds were made in the wrong location. The 3/16 inch shop welds which join MK-10 and MK-11 were made horizontally instead of vertically, as shown on drawing FSE-00159, sheet 6742.

   Ref: SSER 11, O-244.

5. Brown & Root Procedure QI-QAP-11.1-28, Revision 19, "Fabrication, Installation, and Inspection of Safety Class Component Supports" provides instructions for material dimensional control and fabrication tolerances. The procedure limits base plate hole centerline locations to ±1/4 inch or as shown on the design drawing.

   Contrary to the above, quality control inspections were inadequate in that the TRT discovered at the time of its inspection that the horizontal member of support CC-1-126-010-F33R was three inches lower at its centerline relative to the upper bolthole centerline than shown on the vendor-certified drawing. Other supports with similar hole-location violations included CC-X-039-007-F43R, CC-1-126-011-F33R, and CC-1-126-012-F33R.

   Ref: SSER 11, 0-244.

6.a. Brown & Root Procedure QI-QAP 11.1-28, Revision 25, "Fabrication, Installation and Inspection of Safety Class Component Supports," paragraph 3.7.3.1 states that "a sufficient number of spacers shall be used to prevent the spherical bearings from becoming dislodged..." and "in no case shall the resulting gap be more than the thickness of one vendor-supplied spacer."

   Contrary to the above, quality control inspections were inadequate in that the TRT inspection identified an excessive free gap between spherical bearing and washers on the sway strut assembly of support CC-1-126-015-F43R. Other supports with similar bearing gap anomalies identified during the TRT inspections included supports RC-1-052-016-C41K, RC-1-052-020-C41K, and MS-1-416-001-S33R.

   b. QI-QAP-11.1-28, Revision 22, paragraph 6.1 states in part that "...bearing internal and external surfaces shall be free of rust and foreign material, and bearings shall move freely within the housing."

   Contrary to the above, quality control inspections were inadequate in that the TRT inspection identified paint contamination in the bearings of both snubber assemblies on Class 1 component support SI-1-090-006-C41K of the Unit 1 Safety Injection System that severely obstructed the bearing cavities and limited their movement. A similar condition existed on support MS-1-416-002-S33R.

   Ref: SSER 11, 0-244.

7. TUGCO Instruction CP-EI-4.5-1, Revision 10, "General Program for As-built Piping Verification" requires verification in the field to ensure that actual hanger mark numbers agree with the mark numbers shown on the drawing and that the hanger type agrees with that shown on the support drawing.

Brown & Root Procedure QI-QAP-11.1-28, Revisions 19 and 24, require that at installation inspection, the quality control inspector verify the hanger number, material type, grade and heat number, and that vendor-supplied NPT-stamped component supports bear markings traceable to the design drawing.

Contrary to the above, the TRT inspection identified in six instances (from an inspection of 42 supports) where these procedural requirements were not followed during the final quality control inspections. These instances are as follows:

(a) Model numbers of installed snubbers for pipe support SI-1-090-006-C41K did not match the model number on the design drawing. A similar problem existed with pipe support RC-052-020-C41R.

(b) A replacement part (sway strut eyerod) for pipe support CT-1-013-014-S32R had no apparent material identification either on the hardware or in the documentation package for the support. The Material Identification Log did not list any identification traceable to the origin of the replacement part. A similar problem existed with pipe supports CC-1-126-012-F33R, CC-X-039-005-F43R, and AF-1-035-011-S33R.

Ref: SSER 11, 0-244.

8. Brown & Root procedure QI-QAP-11.1-28, Revision 25 defines criteria for the examination of welds, including inspection parameters for acceptable weld sizes. ASME B&PVC Code Section III, Subsection NF. Subarticles NF-4424 and NF-5360 set forth acceptance standards for the examination of welds.

Contrary to the above, the following deficiencies found during the TRT inspection that were not identified during the applicant's quality control inspection process for the following piping supports:

(a) Support AF-1-001-001-S33R had porosity, insufficient weld leg, incomplete welds, and insufficient fill.

(b) Support CT-1-013-014-S32R exhibited excessive overgrinding of welds which resulted in notching of the sway strut rear brackets.

(c) Support AF-1-002-702-S33R had two more welds than required. The extraneous welding was not documented on the "as-built" drawing. One of the required welds, was undercut (1/16 inch - 3/32 inch deep, for a length of 2 inches) beyond limits of acceptance.

(d) Support Drawing CC1-126-013-F33R required a 1/2 inch fillet weld to connect item 5 to item 6. This weld was omitted in the field.

(e) Support CC-1-126-013-F33R had some welds performed with no quality control inspector initials or signature on the corresponding blocks of the weld data card for the support inspection package.

(f) Support CC-X-039-007-F43R, had a 5/16-inch all-around fillet weld with an approximately 1/16-inch undersized weld leg across the top.

(g) Support RH-1-006-012-C42R had an all-around 1/4-inch fillet weld connecting item 5 to item 7 which was undersized by 1/32 inch to 1/16 inch across the top.

(h) Support AF-1-037-002-S33R exhibited a 1/16-inch to 3/32-inch reduction in plate thickness and weld size due to excessive grinding of the weld at the base plate. Base material thickness of the support plate was reduced beyond the limits of acceptance in three locations.

Ref: SSER 11, 0-244.

D. 10 CFR Part 50, Appendix B, Criterion XVI requires, in part, that measures be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures must assure that the cause of the condition is determined and corrective action taken to preclude repetition.

1. Brown & Root Procedure QI-CP-QCI-2.4-9 delineates the inspection and documentation requirements to ensure the removal of elastic joint filler (rotofoam) material between seismic Category I structures. In addition, procedure QI-QP-11.0-3 details the inspection activities for Seismic Air Gaps.

   Contrary to the above, measures were inadequate to assure that conditions adverse to quality were promptly identified and corrected in that quality control inspections between September 14, 1978 and October 17, 1978 documented that five of six seismic Category I structure gaps contained foreign material. These unsatisfactory conditions were not officially resolved until April 18, 1983 in response to Nonconformance Report C-83-01067. However, during the TRT inspection, foreign material was again identified between the Unit 1 safeguards building and the auxiliary building. The continued existence of foreign material in the air gaps indicates that measures were ineffective in assuring that nonconformances were promptly identified and corrected.

   Ref: SSER 8, K-75.

2. Brown & Root Procedure CP-QAP-16.1, "Control of Nonconforming Items," requires that the approval of the disposition of Nonconformance Reports (NCR's) be reviewed for adequacy and conformance to applicable specifications, procedures, and code requirements.

   Contrary to the above, the dispositions of NCRs M-4015S, Revisions 0-5 and NCR M-4942S were inadequate. Their dispositions did not address fit-up or ASME code requirements nor the stress effects resulting from the out-of-roundness which occurred during installation. These NCRs are related to the installation of a 10-inch Spool Piece CT-1-SB-014, piece number 38, installed in the Unit 1 Containment Spray System CT-1-012-301R-2 in September 1982. At the time of installation, the item was on hold per NCR M-4015S because the pipe was 1/2 inch out-of-round and in excess of the 1/8 inch allowed by the ASME Code for 10-inch pipe. After the installation, NCR M-4942S and NCR M-40155 Revision 5 dispositioned the pipe "use-as-is" based on acceptable fit-up inspection results.

   Ref: SSER 10, N-155.

3. Brown & Root Procedure CP-QAP-12.1, "Inspection Criteria and Documentation Requirements prior to N-5 System Certification," paragraph 3.8 and attachment 5 required reinspection of skewed welds for size determination during the inspection of the hangers. Brown & Root Procedure QI-QAP-11.1-28, paragraph 3.5.5.5 and attachment 23 provide requirements and techniques for the proper inspection methods of welds that exhibit a skewed profile.

   Contrary to the above, on December 28, 1983, TUEC failed to provide adequate corrective action in their reinspection program for ASME Class 1, 2, and 3 component support skewed welds.

   Certain types of skewed welds, those existing at the intersection of curved members used as structural members, were not included in the skewed weld reinspection program for component supports.

   Ref: SSER 10, N-202.

Collectively, Violations A-D have been categorized as a Severity Level III problem (Supplement II).

(Civil Penalties - $200,000 assessed equally among the violations.)

II. <u>Violations Not Assessed a Civil Penalty</u>

A. 10 CFR Part 50, Appendix B, Criterion VI requires, in part, that measures be established to control the issuance of documents, such as instructions, procedures, and drawings, including changes thereto, which prescribe all activities affecting quality. These measures assure that documents, including changes, are reviewed for adequacy and approved for release by authorized personnel and are distributed to and used at the location where the prescribed activity is performed.

1. Procedure DCP-3 "CPSES Document Control Program," Revision 18 states, in part, that "If, for any reason, a superseded document is retained, the face of the document must be stamped or marked 'VOID.' When no longer required, superseded documents should be destroyed." DCP-3 also states, in part, that "Controlled documents affected by design change documentation shall be stamped as follows: 'THIS DOCUMENT AFFECTED BY DESIGN CHANGE.'

   Contrary to the above, the following conditions were found in satellite 307 on July 31, 1984:

   (a) Document package I-002-S-09 listed eighteen design changes outstanding; however, twenty changes were in the package, including one superseded and one voided package that were not appropriately marked.

   (b) Two voided design changes were listed and included as current in design packages (CMC 62535, Revision 0 against MI-2607 and DCA 13170, Revision 0 against MS-084) but the changes were not appropriately marked.

   (c) Superseded drawing RH-1-SB-006, Revision 13 was found in the files on July 31, 1984, but was not appropriately marked.

   (d) Drawings 2323-MI-2301-10, -2304-01, and -2304-05 were in the drawing satellite files on July 31, 1984, and Drawing DO-2-099-709-S53R was in the hands of hanger craft personnel. However, these drawings were not stamped "This document affected by design changes," even though each document was affected by changes.

   Ref: SSER 11, O-51.

2. The TUGCO Quality Assurance program is included in Chapter 17 of the CPSES FSAR. Section 17.1.6, for document control, states that "TUGCO has established requirements to assure that documents, including changes, are reviewed for adequacy and approved for release by authorized personnel."

   Contrary to the above, measures were not effective in assuring that drawings reflecting the as-built conditions were properly released for use in that the TRT identified six cables, five safety-related, that were not terminated in accordance with drawings effective at the time of the inspection.

   Ref: SSER 7, J-29.

B. 10 CFR Part 50, Appendix B, Criterion V requires in part that activities affecting quality be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstance and that these activities be accomplished in accordance with these instructions, procedures, or drawings.

Brown & Root Procedure CP-CPM-9.9, "NNS Seismic Category II Supports," Section 3.1, states, in part, "Fabrication/Installation shall be accomplished in accordance with the Hanger Package. The Hanger Package will consist of the BRH drawing and Weld Filler Material Log (WFML) for each hanger listed on the BRH."

Brown & Root Procedure CCP-21, Fabrication of Miscellaneous Steel, Section 3.1.3, requires that all work be accomplished in accordance with controlled drawings.

Contrary to the above, the TRT identified that iron fab shop work was performed to sketches and memos without the availability of the hanger package, traveler, or controlled drawing at the location where the activity was performed.

Ref: SSER 11, 0-146.

Violations A and B have been categorized as a Severity Level IV problem (Supplement II).

Pursuant to the provisions of 10 CFR 2.201, Texas Utilities Electric Company is hereby required to submit to the Director, Office of Inspection and Enforcement, U.S. Nuclear Commission, Washington, D.C. 20555, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region IV, within 60 days of the date of this Notice, a written statement or explanation in reply, including for each alleged violation: (1) admission or denial of the violation; (2) the reasons for the violation if admitted; (3) the corrective steps which will be taken and the results achieved; (4) the corrective steps which have been taken to avoid further violations; and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, the Director, Office of Inspection and Enforcement, may issue an order to show cause why the license should not be modified, suspended or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath of affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the Texas Utilities Electric Company may pay the civil penalties in the amount of Two Hundred Thousand Dollars ($200,000) or may protest imposition of the civil penalties in whole or in part by a written answer. Should the Texas Utilities Electric Company fail to answer within the time specified, the Director, Office of Inspection and Enforcement, will issue an order imposing the civil penalties in the amount proposed above. Should the Texas Utilities Electric Company elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalties, such answer may: (1) deny the violation listed in this Notice in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice, or (4) show other reasons why the penalties should not be imposed. In addition to protesting the civil penalties in whole or in part, such answer may request mitigation of the penalties.

In requesting mitigation of the proposed penalties, the factors contained in Section V.B of 10 CFR Part 2, Appendix C (1985) should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The Texas Utilities Electric Company's attention is directed to the other provisions of 10 CFR 2.205 regarding the procedure for imposing a civil penalty.

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

FOR THE NUCLEAR REGULATORY COMMISSION

James M. Taylor, Director
Office of Inspection and Enforcement

Dated at Bethesda, Maryland
this 2nd day of May 1986.

APPENDIX B

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTIES

Texas Utilities Electric Company
Comanche Peak Steam Electric Station
Unit 1

Docket No. 50-445
Construction Permit CPPR-126
EA 86-09

As a result of an NRC inspection conducted November 18, 1985 - December 18, 1985, two violations of NRC requirements were identified. In accordance with "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1985) the Nuclear Regulatory Commission proposes to impose civil penalties pursuant to Section 234 of the Atomic Energy Act of 1954, as amended, ("Act"), 42 U.S.C. 2282, PL 96-295 and 10 CFR 2.205. The particular violations and the associated civil penalties are set forth below:

I. VIOLATION ASSESSED A CIVIL PENALTY

A. 10 CFR Part 50, Appendix B, Criterion X requires, in part, that a program for inspection of activities affecting quality be established and executed by or for the organization performing the activity to verify conformance with the documented instructions, procedures, and drawings for accomplishing the activity. In addition, Criterion XVIII requires, in part, that a comprehensive system of planned and periodic audits be carried out to verify compliance with all aspects of the quality assurance program and to determine the effectiveness of the program.

The Comanche Peak Steam Electric Station (CPSES) Final Safety Analysis Report (FSAR), Section 17.1.10, states, in part, ". . . inspection planning is utilized to assure conformance to procedures, drawings, specifications, codes, standards, and other documented instructions." The CPSES FSAR, Section 17.1.18 states, in part, with respect to audits, "TUGCO requires that planned and periodic audits be performed to verify compliance with all aspects of the quality assurance program to determine effectiveness of the program . . . ."

Section 3.0 of Texas Utilties Generating Company (TUGCO) Nuclear Engineering Procedure TNE-AB-CS-1, Revision 1, dated September 30, 1985, "As-Built Procedure, Cable Tray Hanger Design Adequacy Verification," states, in part, " . . . The 'as-designed' drawing will be marked up by the 'as-built' walkdown team in red . . . to denote actual dimension/configuration of the CTH attributes that are to be 'as-built.' The QC inspector will verify all dimension/configuration on the red-lined drawing . . . ."

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Contrary to the above, as of the inspection from November 18 - December 18, 1985, attributes of a number of cable tray hangers located in the Reactor Building and Fuel Building related to tray size, tray span, tray clamps, member size, weld qualitative measurements, dimensional measurements, bolt size, and member orientation were not either correctly determined by walkdown engineers or correctly verified by quality control inspectors for 15 of 32 cable trays that had been walked down prior to the NRC inspection. In addition, the licensee failed to perform audits of these activities.

B.1. 10 CFR Part 50, Appendix B, Criterion V, as implemented by the TUGCO Quality Assurance Plan (QAP), Section 5, Revision 1, dated April 16, 1979, requires that activities affecting quality be prescribed by documented instructions, procedures, or drawings of a type appropriate to the circumstances and be accomplished in accordance with these instructions, procedures, or drawings.

a. Paragraph 3.1.2 of Brown & Root (B&R) Procedure CPM-6.3, Revision 8, dated April 2, 1981, states, "The traveler package shall contain, or may reference if normally available, the drawings, procedures, instructions, manufacturer's manuals/guidelines, etc., necessary to accomplish the activity."

Contrary to the above, at the time of this inspection, January 1 - March 14, 1986, construction operation travelers for installation of electrical penetration assemblies (EPAs) 1E76, 1E77, 1E78, and 1E79 referenced a type of inboard cable support assembly that was attached to the EPA header plate instead of the EPA nozzle as required by the applicable Bunker Ramo Corporation (BRC) Drawing 50022078, Revision F.

b. Drawing 2323-E1-0514, Revision 7, dated April 13, 1984, requires that conductor entry conduit, through which cables from certain EPAs were routed into junction boxes, must be sealed as specified.

Contrary to the above, during this inspection, the junction boxes to which cables were routed from EPAs 1E44, 1E45, 1E46, and 1E47 were observed to have unsealed conductor entry conduit.

c. Paragraph 6.5 of B&R Engineering Instruction EEI-22, Revision 0, dated October 4, 1982, and paragraph 3.1.3 of TUGCO Instruction QI-QP-11.3-49, Revision 0, dated October 1, 1982, states, "Pigtail conductors must be supported a maximum of 36 inches from the penetration header plate or conductor support."

Contrary to the above, during this inspection, the pigtail conductors for the Conax modules in EPA 1E14 were observed to be supported on the inboard side (inside the reactor containment building) at distances of 43 inches to 60 inches from the penetration header plate.

d. TUGCO Instruction QI-QP-11.3-28, Revision 26 "Class IE Cable Terminations" allowed the limited use of cable splices in raceways. The licensee committed to follow Reg Guide 1.75 in its Final Safety Analysis Report (FSAR) which allows the use of these splices if an analysis was made and submitted as part of the FSAR.

Contrary to the above, at the time of this inspection, this procedure was not adequate in that it allowed the limited use of cable splices in raceways when no analysis of this practice had been included in the FSAR.

2. 10 CFR Part 50, Appendix B, Criterion VI requires in part that measures be established to control the issuance of documents, such as drawings, including changes thereto, which prescribe activities affecting quality. These measures assure that documents, including changes, are reviewed for adequacy and approved for release by authorized personnel and are distributed to and used at the location where the prescribed activity is performed.

The TUGCO QAP, Section 6.0, Revision 0, dated July 1, 1978, requires in part that Gibbs & Hill be responsible for implementing quality assurance programs off-site that ensure appropriate documents are controlled and that changes required as a result of comments, nonconformance, or engineering work are incorporated into revised documents.

Contrary to the above, at the time of this inspection, vendor documents were not appropriately controlled by Gibbs & Hill in that BRC drawings of record for installed EPAs had not been revised to reflect resolution of handwritten comments on the drawings pertaining to design acceptability and required rework.

3. 10 CFR Part 50, Appendix B, Criterion VII as implemented by the TUGCO QAP, Section 7.0, Revision 0, dated July 1, 1978, requires in part that measures be established to assure that purchased material, equipment, and services conform to the procurement documents. These measures include provisions, as appropriate, for source evaluation and selection, objective evidence of quality furnished by the contractor or subcontractor, inspection at the contractor or subcontractor source, and examination of products upon delivery. Documentary evidence that materials and equipment conform to the procurement requirements must be available at the nuclear power plant site prior to installation or use of such material and equipment.

Paragraph 3.1 of B&R Procedure CP-QAP-7.2, Revision 3, dated March 19, 1979, states, in part, "The B&R QC Engineer/Inspector shall perform detailed receiving inspection in accordance with the provisions of this procedure and supplementary instructions and document the results of the inspection on the QC Receiving Inspection Report (RIR) . . . " Paragraph 3.2.b of this procedure states, in part, "For TUSI/Gibbs & Hill, and Brown & Root procured items that do not receive a final inspection release by these agencies, the B&R QC Engineer/Inspector shall perform a receipt inspection prepared by B&R

for the applicable item. Similarly, checklists shall be used to complete individual inspections waived by these agencies. All such checklists will be filed with the RIR in the QA Records Vault . . ."

Contrary to the above, at the time of this inspection, the completed checklist filed with the RIR in the QA Records Vault for EPAs 1E76, 1E77 and 1E78 involved cable tray parts rather than the referenced EPAs. In addition, detailed receiving inspections were not performed for EPAs 1E79, 2E76, 2E77, 2E78, and 2E79, as evidenced by numerous attibutes on the checklists being marked by the receipt inspector as not verified.

4. 10 CFR Part 50, Appendix B, Criterion X as implemented by the TUGCO QAP, Section 10.0, Revision 1, dated July 31, 1984, requires that a program for inspection of activities affecting quality be established and executed by or for the organization performing the activity to verify conformance with the documented instructions, procedures, and drawings for accomplishing the activity.

   Contrary to the above, as of the time of this inspection, Quality Control inspectors had failed to identify that:

   a. An inboard cable support assembly was not present for EPAs 1E76, 1E77, 1E78, and 1E79 even though Quality Control inspections had verified these installations.

   b. Vendor installed splices for the pigtail assemblies of EPAs 1E76, 1E77, 1E78, 1E79, 2E76, 2E78, and 2E79 failed to comply with the staggering requirements of BRC Drawings 50028232, Revision C, and 50020346, Revision F.

5. 10 CFR Part 50, Appendix B, Criterion XVI as implemented by the TUGCO QAP, Section 16.0, Revision 0, dated July 1, 1978, requires in part that measures be established to assure that conditions adverse to quality such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected.

   Contrary to the above, at the time of this inspection, EPAs with vendor installed splices of insufficient heat shrinkable tubing (HSIT) length to satisfy requirements of the HSIT manufacturer were not identified as nonconforming and corrected by rework in accordance with the BRC procedure furnished to TUGCO by Gibbs & Hill to resolve this type of nonconformance.

6. 10 CFR Part 50, Appendix B, Criterion XVII as implemented by the TUGCO QAP, Section 17.0, Revision 5, dated October 18, 1985, requires in part that sufficient records be maintained to furnish evidence of activities affecting quality. The records must include closely related data such as qualifications of personnel, procedures, and equipment.

   Paragragh 2.1.3 of TUGCO Nuclear Engineering Procedure TNE-DC-15, Revision 6, issue date February 11, 1986, requires that vendor submitted

documents necessary to establish the final equipment qualification shall be reviewed and listed on the Documentation Review Form.

Contrary to the above, at the time of this inspection, records could not be located which provided a basis for establishing the equipment qualification adequacy of the field rework procedure (BRC Procedure 123-2286, approved June 26, 1982) for EPA cable splices and the procedure was not listed on the Documentation Review Form for BRC EPAs as being a reviewed document.

Collectively, Violations A and B have been characterized as a Severity Level III problem (Supplement II).

(Civil Penalties - $50,000 assessed equally among the violations.)

II. VIOLATION NOT ASSESSED A CIVIL PENALTY

10 CFR Part 50, Appendix B, Criterion IX requires, in part, that measures be established to assure that special processes, including welding, are controlled and accomplished by qualified personnel using qualified procedures in accordance with applicable codes and standards.

The CPSES FSAR, Section 17.1.9 states, in part, with respect to control of special processes, "TUGCO requires of its prime contractors that written procedures and controls be prepared to assure that special processes including welding . . . are accomplished by qualified personnel using qualified procedures, in accordance with applicable codes, standards, ..."

The CPSES FSAR, Table 17A-1 and Gibbs and Hill (G&H) Specification 2323-SS-16B dated May 7, 1975, require use of the American Institute of Steel Construction (AISC) Code for cable tray hanger supports. The AISC Code and the G&H specification require that welding be performed in accordance with the American Welding Society (AWS) D1.1 Code. AWS D1.1-75, Section 2.9.2.4 states with respect to prequalified weld groove angles, "The groove angle is a minimum. It may be detailed to exceed the dimension shown by no more than 10 degrees."

Contrary to the above, at the time of the NRC inspection the weld groove angles for hanger CTH-1-5538 (full penetration weld #2) and hanger CTH-1-5517 (½-inch plate full penetration weld) were found to be below the prequalified weld minimum groove angle indicated on the hanger drawings by 15 degrees and 7-9 degrees, respectively.

This is a Severity Level IV violation (Supplement II).

Pursuant to the provisions of 10 CFR 2.201, Texas Utilities Electric Company is hereby required to submit to the Director, Office of Inspection and Enforcement, U.S. Nuclear Commission, Washington, D.C. 20555, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region IV, within 60 days of the date of this Notice, a written statement or explanation in reply, including for each alleged violation: (1) admission or denial of the alleged violation; (2) the reasons for the violation if admitted; (3) the corrective steps which have been taken and the results achieved; (4) the

corrective steps which have been taken to avoid further violations; and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, the Director, Office of Inspection and Enforcement, may issue an order to show cause why the license should not be modified, suspended or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the Texas Utilities Electric Company may pay the civil penalties in the amount of Fifty Thousand Dollars ($50,000) or may protest imposition of the civil penalties in whole or in part by a written answer. Should the Texas Utilities Electric Company fail to answer within the time specified, the Director, Office of Inspection and Enforcement, will issue an order imposing the civil penalties in the amount proposed above. Should the Texas Utilities Electric Company elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalties, such answer may: (1) deny the violation listed in this Notice in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice, or (4) show other reasons why the penalties should not be imposed. In addition to protesting the civil penalties in whole or in part, such answer may request mitigation of the penalty.

In requesting mitigation of the proposed penalties, the factors contained in Section V.B of 10 CFR Part 2, Appendix C (1985) should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The Texas Utilities Electric Company's attention is directed to the other provisions of 10 CFR 2.205 regarding the procedure for imposing a civil penalty.

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

FOR THE NUCLEAR REGULATORY COMMISSION

James M. Taylor, Director
Office of Inspection and Enforcement

Dated at Bethesda, Maryland
the 2nd day of May 1986.

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

MAY 0 2 1986

Docket Nos. 50-445
50-446
Construction
Permit Nos. CPPR-126
CPPR-127
EA 86-63

Texas Utilities Electric Company
ATTN: Mr. William G. Counsil
Executive Vice President
400 North Olive
Lock Box 81
Dallas, Texas 75201

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTIES

Gentlemen:

The NRC Office of Investigations (OI) conducted numerous investigations into allegations regarding discrimination and intimidation and harassment of Quality Control (QC) personnel at Comanche Peak Steam Electric Station (CPSES). In addition, several actions were initiated by present and former CPSES workers with the Department of Labor (DOL) for alleged discrimination for raising safety concerns. The NRC initiated two enforcement actions for intimidation incidents at CPSES. Two civil penalties were proposed for violations involving QC personnel (EA 83-64 and EA 83-132). You responded to the proposed civil penalties on September 28, 1983 and January 23, 1984 respectively and supplemented your response on April 9, 1986. In your April 9, 1986 response you indicated you would not continue to contest the civil penalty proposed for EA 83-132 and subsequently paid the civil penalty on April 17, 1986. Your responses to EA 83-64 are still under consideration by the NRC staff.

As a result of the numerous allegations of intimidation, harassment, and discrimination, and the relevance of this issue to the contentions in the ongoing operating license hearing, the NRC undertook a comprehensive review and evaluation of the allegations of intimidation, harassment, and discrimination at CPSES. A report prepared by an NRC Comanche Peak Intimidation Panel (Panel) aided by a Study Team of consultants was transmitted to you on November 4, 1985. ("Report of the Review and Evaluation of Allegations of Intimidation and Harassment of Employees at Comanche Peak Steam Electric Station Units 1 and 2," October 1985 (hereinafter "Panel report")). The NRC staff has reviewed the Panel report, the completed DOL discrimination cases regarding CPSES, the OI reports, and your responses regarding intimidation at CPSES including your February 7, 1986 response.

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RETURN RECEIPT REQUESTED

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This letter and its enclosed Notice of Violation contain the results of the NRC staff's review. The Notice of Violation describes three incidents identified as violations by the NRC staff during its review of the NRC Panel report and OI investigation reports. This letter also describes several other incidents of possible intimidation and harassment identified in the NRC Panel report which have not been cited as violations for various reasons. An Enforcement Conference to discuss the violations was held in the Region IV office on April 3, 1986.

The first violation described in the Notice involves the intimidation of a QC inspector at CPSES in early 1983. A former Brown & Root, Inc. QC inspector at CPSES alleged that she was instructed by her supervisors to sign off a number of liner plate travelers which the inspector believed were inadequately documented. The Panel reviewed this incident and concluded that it was one of intimidation. A subsequent OI investigation (OI Report 4-84-039) concluded that the independence and organizational freedom of the QC inspector was interfered with by at least one of the QC inspector's supervisors. This is a violation of 10 CFR Part 50, Appendix B, Criterion I.

The second violation involves the so-called "T-shirt" incident. On March 8, 1984, eight electrical QC inspectors from the Unit 1 Safeguards Building wore T-shirts to work with the lettering: "Comanche Peak Nit Picker. I am in the business of picking nits." The QC inspectors were sequestered for several hours in a room, escorted whenever they left the room, and eventually sent home with pay. While they were sequestered, a Quality Assurance (QA) specialist supervisor and two security guards searched their work areas upon the direction of the QA/QC Manager. They confiscated papers including personal effects. The personal effects were eventually returned and the other documents were turned over to the NRC resident inspectors as a result of instructions by Region IV management.

The NRC Panel reviewed this incident and concluded that it was one of intimidation. The CPSES management response, highly visible to other QC inspectors, was an unwarranted over-reaction by CPSES management that was reasonably likely to dissuade QC inspectors from reporting safety concerns.

The third violation involves a confrontation that occurred in early 1983 at the CPSES site QA audit office between the site QC supervisor and members of two QA audit groups. The site QC supervisor mistakenly believed that one of the QA auditors with whom he had a continuing personality conflict had directed craft personnel to remove a weld on a support in contravention of an existing agreement between QA and QC management. Another QA auditor, the one actually involved in identifying the suspect weld, explained to the QC supervisor that craft personnel had initiated the issuance of an item removal notice for the weld of their own volition. Subsequent to the auditor's explanation, the site QC supervisor made a statement that physical or political harm could come to an auditor as a result of his audit activities. A CPSES investigative report concluded that although the QC supervisor's behavior was improper, none of the QA auditors had been intimidated.

In November 1984, one of the QA auditors who had been present during the 1983 confrontation in the audit office made an allegation to the NRC that the site QC supervisor threatened and attempted to intimidate the QA auditors. A copy of the utility's investigative report on the incident was reviewed by OI. The utility staff investigators were also interviewed, and they reported that the notes from their interviews with the witnesses had been destroyed following the issuance of the report in consideration of the confidentiality they had granted the employees. An OI investigation was initiated. The OI investigation (OI Report 4-84-050) concluded that the QC supervisor's statement to the QA auditors was improper, was intended to influence audit findings, and was in contravention of the intended independence of the QA audit program. This is a violation of Criterion I of Appendix B to 10 CFR Part 50.

We recognize that many management and organizational changes have taken place at CPSES. However, we conclude that a civil penalty is appropriate for these violations to emphasize the need for lasting and effective corrective actions to ensure that quality control inspectors and auditors have sufficient organizational freedom to report safety concerns. The Study Team of consultants which reviewed allegations of intimidation at CPSES concluded, and the NRC Panel concurred, that while these instances of intimidation occurred, there was no pervasive climate of intimidation at CPSES. Despite this finding, the violations are significant incidents in the area of organizational freedom under 10 CFR Part 50, Appendix B, Criterion I. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1985), each of the violations involving intimidation of QC personnel has been classified as a Severity Level III violation. The base civil penalty for a Severity Level III violation at the time the violations occurred was $40,000. Therefore, a civil penalty of $120,000 is being proposed.

The mitigation and escalation factors were considered. Most of the incidents cited involved management practices which subsequent changes in personnel at CPSES may have corrected. Also, your February 7, 1986 response to the NRC Panel report describes management initiatives which should correct those past practices that may have contributed to the incidents of intimidation. However, the prior poor performance on the part of Texas Utilities Electric Company in the area of employee harassment and intimidation was also considered and no adjustment of the base civil penalty was deemed appropriate.

Additional incidents of possible intimidation and harassment were identified in the NRC Panel report but are not included in the enclosed Notice of Violation. One incident not cited in the Notice concerns the publicity given employees who provided testimony before the Licensing Board Panel. CPSES management focused unfavorable attention on employees who testified through an article in the CPSES site newsletter, the "Circuit Breaker." Highlighting the fact that an employee has testified against the company could deter other employees from coming forward in a public way to identify safety concerns. This incident is not cited, however, because the facts associated with this incident do not appear to be sufficient for a violation of 10 CFR Part 50, Appendix B or 10 CFR 50.7.

Another incident not cited in the Notice concerns the discharge of Mr. W. Dunham, a QC inspector at CPSES. Mr. Dunham had spoken out against intimidation of inspectors in the presence of other inspectors. Because of this, his subsequent discharge, albeit for reasons which the Department of Labor determined to be justified, left the impression among inspectors that Mr. Dunham had been terminated for speaking out. Based on the Department of Labor finding, we have determined that no citation for a violation of 50.7 or Appendix B is appropriate. However, your failure to try to correct the perception among the inspectors could have had the effect of discouraging them from reporting safety concerns.

Other incidents of possible intimidation and harassment not cited in the Notice of Violation concern a number of discussions directed toward a particular coatings inspector in response to the inspector's having raised several concerns. Singling out an inspector in repeated meetings where the inspector is required to explain his actions regarding deficiencies he has reported could be intimidating even though no adverse action is taken against the inspector.

We direct your attention to all of these incidents including those that have not been cited in the enclosed Notice. Regarding those incidents not cited in the Notice, you should recognize that although they did not amount to actual violations for various reasons, the underlying problems leading to the incidents deserve your attention.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. Your response to these enforcement actions will be examined during future inspections to determine whether further enforcement action should be taken.

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

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

Sincerely,

James M. Taylor, Director
Office of Inspection and Enforcement

Enclosures:
1. Notice of Violation and Proposed Imposition of Civil Penalties

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTIES

Texas Utilities Electric Company
Comanche Peak Steam Electric Station

Docket Nos. 50-445
50-446
Permit Nos. CPPR-126
CPPR-127
EA 86-63

The NRC's Office of Investigations (OI) conducted several investigations into allegations of employment discrimination and intimidation at Comanche Peak Steam Electric Station. An NRC Comanche Peak Intimidation Panel subsequently reviewed the OI reports and other pertinent materials and documented its review in an NRC "Report of the Review and Evaluation of Allegations of Intimidation and Harassment of Employees at Comanche Peak Steam Electric Station, Units 1 and 2," October 1985. As a result of the review, apparent violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for Enforcement Actions," 10 CFR Part 2, Appendix C (1985), the Nuclear Regulatory Commission proposes to impose civil penalties pursuant to Section 234 of the Atomic Energy Act of 1954, as amended, ("Act"), 42 U.S.C. 2282, PL 96-295, and 10 CFR 2.205. The violations and the associated civil penalties are set forth below:

10 CFR Part 50, Appendix B, Criterion I, states that construction permit holders are responsible for the establishment and execution of a quality assurance program, that they may delegate this work to others such as contractors, but they retain the responsibility for the program. Criterion I further states that persons performing quality assurance functions shall have sufficient organizational freedom to identify quality problems; initiate, recommend, or provide solutions; and to verify implementation of solutions.

The Texas Utilities Electric Company (TUEC) Quality Assurance Manual describes Quality Control Inspectors and Quality Assurance Audit Groups as members of the Quality Assurance Division and states that the Quality Assurance Division has been assigned sufficient organizational freedom to identify quality problems.

A. Contrary to the above, the Texas Utilities Electric Company Quality Assurance Program did not provide Quality Control Inspectors sufficient organizational freedom to identify problems in that the TUEC QA/QC Manager, on March 8, 1984, initiated an unwarranted and over-reactive response to eight electrical QC inspectors wearing T-shirts with an inspection-related slogan printed on the shirts. The reaction, highly visible to other QC inspectors, was reasonably likely to dissuade QC inspectors from reporting safety concerns.

This is a Severity Level III violation (Supplement II).
Civil Penalty - $40,000

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B. Contrary to the above, the Texas Utilities Electric Company Quality Assurance Program did not provide Quality Assurance personnel sufficient organizational freedom to identify problems in that in early 1983, a TUEC Quality Control Supervisor made a statement before the Quality Assurance audit groups that physical or political harm could come to an auditor as a result of his audit activities. This statement was reasonably likely to improperly influence audit findings.

This is a Severity Level III violation (Supplement II).
Civil Penalty - $40,000

C. Brown & Root, Inc. is the prime contractor for construction of the Comanche Peak Steam Electric Station facility and has thus been delegated quality assurance functions by the licensee. The Brown & Root Quality Assurance Manual describes Quality Control Inspectors as members of the Quality Assurance Division and states that the Quality Assurance Division has been assigned sufficient organizational freedom to identify quality problems.

Contrary to the above, in early 1983, the Brown & Root Quality Assurance Program did not provide Quality Control Inspectors sufficient organizational freedom to identify quality problems in that a Brown & Root Quality Control Inspector was instructed by her supervisor to sign off a number of liner plate travelers which the inspector believed were inadequately documented.

This is a Severity Level III violation (Supplement II).
Civil Penalty - $40,000

Pursuant to the provisions of 10 CFR 2.201, Texas Utilities Electric Company is hereby required to submit to the Director, Office of Inspection and Enforcement, U.S. Nuclear Regulatory Commission, Washington, D. C. 20555, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 1000, Arlington, Texas 76011, within 30 days of the date of this Notice a written statement or explanation in reply, including for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, Texas Utilities Electric Company may pay the civil penalties in the amount of One Hundred Twenty Thousand Dollars ($120,000) or may protest imposition of the civil penalties in whole or in part by a written answer. Should Texas Utilities Electric Company fail to answer within the time specified, the Director, Office of Inspection and Enforcement will issue an order imposing the civil penalties in the amount proposed above. Should Texas Utilities Electric Company elect to file an answer in accordance with 10 CFR 2.205

protesting the civil penalties, such answer may: (1) deny the violations listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalties should not be imposed. In addition to protesting the civil penalties, in whole or in part, such answer may request remission or mitigation of the penalties.

In requesting mitigation of the proposed penalties, the five factors contained in Section V.B of 10 CFR Part 2, Appendix C should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201 but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of Texas Utilities Electric Company is directed to the other provisions of 10 CFR 2.205 regarding the procedure for imposing a civil penalty.

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

FOR THE NUCLEAR REGULATORY COMMISSION

James M. Taylor, Director
Office of Inspection and Enforcement

Dated at Bethesda, Maryland,
this 2nd day of May 1986.

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

August 4, 1987

Docket Nos.: 50-445; 50-446
Permit Nos.: CPPR-126; CPPR-127
EA 87-122

Texas Utilities Electric Company
ATTN: Mr. W. G. Counsil
Executive Vice President
400 North Olive Street, Lock Box 81
Dallas, Texas 75201

Gentlemen:

SUBJECT: NOTICE OF VIOLATION (NRC INSPECTION REPORT NO. 50-445/8707; 50-446/8706)

This refers to the inspection conducted during the period from March 1-April 30, 1987 at the Comanche Peak Steam Electric Station (CPSES) of activities authorized by NRC Construction Permit Nos. CPPR-126 and 127. During that inspection, two potential violations were identified, as described in the referenced inspection report which was issued to you by letter dated June 25, 1987. An enforcement conference was held at the site office of the Comanche Peak Project Division on July 6, 1987 to discuss the inspection findings.

The violaton identified in the enclosed Notice of Violation (NOV) concerns your failure to make a timely report of a significant construction deficiency, pursuant to 10 CFR 50.55(e), regarding inadequate mounting conditions for the 6.9 kv switchgear in both Unit 1 and Unit 2. Although in a letter dated September 5, 1986, the switchgear vendor indicated that a seismic event could cause the breakers to malfunction, the NRC was not notified of this deficiency until February 13, 1987. We consider this violation to be significant because the NRC should have been given the opportunity to monitor the substantial corrective actions that occurred during the intervening period.

In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1987), the violation described in the enclosed Notice has been classified as a Severity Level IV. The staff had considered escalated enforcement action for this violation because of the significance of the deficiency and the lateness of the report; however, the violation was categorized at Severity Level IV, consistent with our practice at other facilities, because a report was filed before NRC action was taken.

The second potential violation identified in the referenced inspection report concerned a failure to establish adequate measures to require documentation for all nonconforming conditions, as required by 10 CFR Part 50, Appendix B, Criterion XV. After reviewing the additional information you presented during the enforcement conference, the staff has concluded that no violation occurred. The additional information clarified that the procedures referred to in the

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inspection report provide that a "work request/work order" can be used in place of a nonconformance report (NCR) in specific circumstances. The staff had not previously considered this provision because this practice is usually found in the procedures for an operating plant rather than a plant under construction. After our review of the procedures in that light, the staff concludes that, while the procedures could be improved with respect to reporting requirements under 10 CFR Part 21 and 10 CFR 50.55(e), the work order/work request system provides for the tracking, evaluation and reporting required by Criterion XV.

In a related manner, the overall process for evaluating and reporting construction deficiencies at CPSES was discussed in a management meeting between the NRC and you and your staff on June 24, 1987. While the NRC staff recognizes the unique nature of CPSES with respect to the large number of nonconforming conditions evolving from, and possibly mooted by, your various corrective action programs, there is still a need for a comprehensive and coordinated plan to track, evaluate, and report significant construction deficiencies. During that meeting, you committed to develop such a plan. You should refer to your efforts in that regard in your response to this letter.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence.

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

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L. No. 96-511.

Sincerely,

CI Grimes

Christopher I. Grimes, Director
Comanche Peak Project Division
Office of Special Projects

Enclosures:
1. Notice of Violation
2. July 6, 1987 Meeting Presentation

cc w/enclosure:
See next page

ENCLOSURE 1

NOTICE OF VIOLATION

Texas Utilities Electric Company
400 North Olive Street, Lock Box 81
Dallas, Texas 75201

Docket Nos. 50-445; 50-446
Permit Nos. CPPR-126; CPPR-127
EA 87-122

During an NRC inspection conducted during the period from March 1 through April 30, 1987, the NRC staff reviewed the circumstances associated with a construction deficiency related to the floor mounting conditions for the 6.9 kv switchgear. The NRC was notified of this reportable deficiency on February 13, 1987. The failure to report this deficiency in September 1986 when the vendor identified the significance of the deficiency constitutes a violation of NRC requirements. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1987), the violation is set forth below:

> 10 CFR Part 50.55(e) requires, in part, that the Commission be notified within 24 hours of each deficiency in design and construction which, were it to remain uncorrected, could have affected adversely the safety of operations at any time throughout the expected life of the plant, and which represents a significant deficiency in construction which will require extensive evaluation, extensive redesign, or extensive repair to meet the criteria and bases stated in the safety analysis report or to establish the adequacy of the structure or component to perform its intended safety function.
>
> Contrary to the above, TU Electric Company did not report a construction deficiency within twenty-four hours of notification of its significance. By letter dated September 5, 1986, Brown-Boveri notified TU Electric that deficiencies in the installation of Class 1E 6.9 kv switchgear could cause failure of the equipment in a seismic event. On February 13, 1987, approximately five months later, TU Electric notified the NRC of the deficiency. The deficiency required extensive repair to establish the adequacy of the components.
>
> This is a Severity Level IV violation (Supplement II).

Pursuant to the provisions of 10 CFR 2.201, TU Electric Company is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why

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the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this reponse shall be submitted under oath or affirmation.

The response to this Notice should be addressed to: U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Director, Office of Special Projects, and a copy to the NRC Resident Office at the facility which is the subject of this Notice.

FOR THE NUCLEAR REGULATORY COMMISSION

Christopher I. Grimes

Christopher I. Grimes, Director
Comanche Peak Project Division
Office of Special Projects

Dated at Bethesda, Maryland,
this 4th day of August, 1987

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

JAN 9 1988

Docket No. 50-445
Permit No. CPPR-126
EA 88-310

Mr. W. J. Cahill, Jr.
Executive Vice President, Nuclear
TU Electric
400 North Olive Street, L.B. 81
Dallas, Texas 75201

Dear Mr. Cahill:

SUBJECT: NOTICE OF VIOLATION
(NRC INSPECTION REPORT NO. 50-445/88-47; 50-446/88-42)

This refers to the inspection conducted on July 7 through August 2, 1988, at the Comanche Peak Steam Electric Station, Glen Rose, Texas, of the Station Service Water System coating removal. During the inspection, violations of NRC requirements were identified. At the conclusion of the inspection, the findings were discussed with you and members of your staff. At your request, the results and conclusions of TU Electric's review and evaluation of the coating removal activities were presented by your staff in a public meeting held at the plant site on September 13, 1988. Your September 23, 1988 letter provided an engineering report on the Station Service Water System coating removal project. The NRC inspection findings were also discussed in an enforcement conference held with you and members of your staff at the NRC offices in Rockville, Maryland on November 9, 1988.

The NRC staff had initially considered the collective significance of the violations at a Severity Level III, i.e., a significant regulatory concern. However, after careful review of the information presented in the engineering report, the public meeting and the enforcement conference, we have concluded that the enclosed violations do not fit the examples in Supplement II of the Enforcement Policy (10 CFR Part 2, Appendix C) for a Severity Level III violation. While in themselves the violations do not represent a significant regulatory concern, they are more than a minor concern. For example, although special measures were taken in planning and monitoring the coating removal activity, management controls were not adequate with respect to implementing the activity as evidenced by the problems encountered early in the coating removal project. The staff is also concerned that once it was recognized that the coating removal process needed to be modified, adequate measures were not taken to inspect damage caused by the early process problems. Accordingly, since these violations if not fully corrected may lead to more significant concerns, we are issuing the enclosed Notice of Violation for four Severity IV violations associated with the coating removal project.

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Mr. W. J. Cahill, Jr. JAN 9 1988

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response you should document the specific actions taken and any additional actions you plan to take to prevent recurrence. Because our evaluation indicated that schedular interests may have been a contributing factor, your response should also address whether schedular pressures may have contributed to the violations and what action will be taken to assure that such pressures are minimized. After reviewing your response to this Notice, including your proposed corrective actions, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

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

The responses required by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget, as required by the Paperwork Reduction Act of 1980, Pub. L., No. 96-511.

Sincerely,

Original Signed by
James H. Sniezek for

James G. Partlow, Associate Director
for Special Projects
Office of Nuclear Reactor Regulation

Enclosures:
1. Notice of Violation
2. Meeting Presentation dated November 9, 1988

cc w/enclosures:
See next page

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DATE	1/03/89	1/03/89	1/03/89	1/05/89	1/9/89		

OFFICIAL RECORD COPY

ENCLOSURE 1

NOTICE OF VIOLATION

TU Electric
Comanche Peak Steam Electric Station

Docket No. 50-445
Construction Permit No. CPPR-126
EA 88-310

During an NRC inspection conducted on July 7 through August 2, 1988, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1988), the violations are listed below.

A. 10 CFR Part 50, Appendix B, Criterion IV requires that measures be established to assure that requirements which are necessary to assure adequate quality are suitably included or referenced in the documents for procurement of services.

Procedure ECE-6.02-03, Revision 1, "Engineering Review of Procurement Documents for Services," indicates the services review summary and the procurement requisition must define all technical, quality assurance, and documentation requirements clearly and explicitly. It also requires the responsible engineer to determine the appropriate ASME classification. It indicates that the Technical and Quality Assurance Requirements Package typically contains the scope of activity, technical requirements, quality assurance requirements, and a document submittal summary.

Procedure NPI-5.0-2, Revision 1, "Control of TU Electric Requisition on Purchasing Department," requires the originator to provide the intended use and list the applicable specification, drawing, work document number (NCR, DR, CAR, DCA/CMC) for which the requisitioned item applies.

Contrary to the above:

1. Purchase Requisition 6R-350338 approved on March 25, 1988 did not clearly and explicitly define all quality and documentation requirements. The original quality assurance requirements, "The entire blasting operation shall be under TU Electric's quality assurance plan," was lined out and the following note was added, "Prior to performing work, contact [name and phone number were listed] whereby QA surveillance activities may be scheduled." Neither wall thinning nor the documentation of problems were described.

2. The Technical and Quality Assurance Requirements page of Purchase Requisition 6R-350338 did not address wall thinning or the documentation of problems.

3. The responsible engineer indicated on the Services Review Summary of Purchase Requisition 6R-350338 that the ASME classification was not applicable. It should have been ASME Section XI. Therefore, the authorized nuclear inspector was not given an opportunity to review the proposed work or inspect the completed work.

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4. Purchase Requisition 6R-350338 and associated documents did not reference applicable documentation for which the requisitioned item applies including Problem Report 85-532, Nonconformance Report 88-0820, or Design Modification Request Construction 88-1-020.

   This is a Severity Level IV violation (Supplement II).

B. 10 CFR Part 50, Appendix B, Criterion IX requires that measures be established to assure special processes are controlled and accomplished by qualified personnel using qualified procedures in accordance with applicable codes. Sandblasting was authorized by a Start-up Work Authorization in accordance with Station Administrative Procedure (SAP)-6. SAP-6 requires work to be accomplished by an approved site procedure.

   Contrary to the above:

   1. Measures established to control the special process of removing the coating from the Station Service Water System piping (QCP-1, Revision 2, "Coating Removal by Abrasive Blasting of Interior of Station Service Water Piping" dated April 18, 1988) were inadequate. For example, QCP-1 did not address wall thinning, air pressure, spinblaster travel rate, the rate of sandblasting, or documentation of problems.

   2. Procedure QCP-1 was not an approved site procedure. QCP-1 had been reviewed and approved by Engineering but not by Quality Assurance.

   This is a Severity Level IV violation (Supplement II).

C. 10 CFR Part 50, Appendix B, Criterion X requires a program for inspection of activities affecting quality to be established and executed to verify conformance with documented instructions, procedures, and drawings for accomplishing the activities. It requires inspection and process monitoring when control is inadequate without both.

   Construction Procedure QCP-1 requires inspection of the small bore piping (in this case the 10-inch piping) by the use of video taping equipment.

   Engineering Document Change Notice (EDCN)-03 to Mechanical Engineering Technical Procedure EME 3.21-08, "Engineering Verification of Protective Coatings Applied to Steel Surfaces Subject in Immersion Service," was initiated to include requirements for coating removal in the Station Service Water piping in paragraph 6.9.

   Volume I of the FSAR, Appendix 1A(B)-25, commits to Regulatory Guide 1.58 which endorses ANSI N45.2.6. ANSI N45.2.6 paragraph 2.2 requires persons verifying conformance of work activities to quality requirements to be certified as being qualified to perform the assigned work.

Contrary to the above:

1. Between April 18, 1988 and May 18, 1988, prior to making improvements to the sandblasting equipment, the process was not adequately monitored. As a result, a 1/2-inch hole was sandblasted through the pipe wall in one location and several other deep sandblasting indentations were made in the 10-inch piping and not identified until the piping was filled with water.

2. Review and monitoring of the video tapes by TU Electric or its representative failed to identify either the hole in the pipe wall or any of the several other deep sandblasting indentations in the 10-inch piping. The deficiencies were not identified until after the piping had been filled with water.

3. Procedure EME 3.21-08 fails to provide adequate inspection instructions in that the procedure addresses verification of the coating removal and acceptance criteria but does not address metal removal or wall thinning.

4. Persons reviewing and evaluating the video tapes were not certified to ANSI N45.2.6.

This is a Severity Level IV violation (Supplement II).

D. 10 CFR Part 50, Appendix B, Criterion XVI, requires that conditions adverse to quality be promptly identified and corrected.

Contrary to the above:

1. Problems with the sandblaster stalling and with sand building up in the piping were experienced by O. B. Cannon personnel during the initial blasting operations, approximately April 18, 1988 to May 18, 1988. These problems were not documented on nonconformance reports and conditions adverse to quality caused by the sandblaster stalling were not promptly identified and corrected.

2. The NRC inspector identified concerns with, among other things, wall thinning due to the coating removal process, monitoring of the special process, and the adequacy of the video tape inspections. Various inspector concerns were discussed with the utility representatives on May 27, June 20, July 7, July 14, and August 2, 1988, and documented in inspection reports 50-445/88-34, 50-446/88-30 and 50-445/88-40, 50-446/88-36. There are no records to support that the inspector's concerns were reviewed, evaluated, or addressed by the TU Electric task force responsible for the coating removal project.

This is a Severity Level IV violation (Supplement II).

Pursuant to the provisions of 10 CFR 2.201, TU Electric is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy

to the Director, Office of Special Projects, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) the reasons for the violation if admitted; (2) the corrective steps that have been taken and the results achieved; (3) the corrective steps that will be taken to avoid further violations; and (4) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in the Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown.

FOR THE NUCLEAR REGULATORY COMMISSION

James H Sniezek/for

James G. Partlow, Associate Director
for Special Projects
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland
this 9th day of January 1989

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

FEB 28 1989

Docket No. 50-445
License No. CPPR-126
EA 88-278

Mr. William J. Cahill, Jr.
Executive Vice President, Nuclear
Texas Utilities Electric Company
400 North Olive Street, L. B. 81
Dallas, Texas 75201

Dear Mr. Cahill:

SUBJECT: NOTICE OF VIOLATION

This relates to the matter of the expiration of the facility construction permit CPPR-126 for the Comanche Peak Steam Electric Station, Unit 1. This situation was brought to your attention during discussions with the NRC on January 28, 1986.

The violation described in the enclosed Notice of Violation involves your failure to submit a timely application for extension of your construction permit. The construction permit originally was issued on December 19, 1974, extended once in 1982, and expired on August 1, 1985. No timely request to extend the construction permit was filed pursuant to 10 CFR 2.109. However, construction activities were continued until January 29, 1986 despite the expired construction permit, at which time you filed a request for an extension. This omission, which appears to have been due to an administrative oversight on your part, demonstrated a significant failure to adequately monitor a regulatory constraint. It was incumbent on you, as an NRC licensee, to assure that administrative actions necessary prior to the expiration date were taken on a timely basis and your failure has led to needless expenditure of time and resources by the Commission.

The NRC recognizes that its regulatory activities did not change substantially with the expiration of the construction permit on August 1, 1985 and that the staff issued an extension of the permit on February 10, 1986. While the failure did not have a direct safety impact, the lack of adequate administrative controls and sensitivity to regulatory requirements to assure schedules are met could potentially lead to violations with serious consequences. Therefore, the failure of TU Electric to submit a timely request for extension to the NRC to assure that requirements are met in a timely manner is a significant regulatory concern.

In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1988), the violation described in the enclosed Notice has been classified as a Severity Level III violation. A civil penalty is considered for a Severity Level III violation. However, after consultation with the Commission and the Deputy Executive

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Director for Regional Operations, I have decided to exercise enforcement discretion and not propose a civil penalty in this case. The extensive corrective action programs which were just getting under way at the time of the violation, but which had not yet been fully implemented, have since resulted in considerable improvements in management policies and procedures. This corrective action, as well as the age of the violation and overall safety significance of the violation, were considered in this decision. Furthermore, it does not appear likely that this particular violation will be repeated.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

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

The responses directed by this letter and its enclosure are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, P.L. No. 96-511.

Sincerely,

Original signed by:

Dennis M. Crutchfield, Acting Associate Director
for Special Projects
Office of Nuclear Reactor Regulation

Enclosure:
Notice of Violation

cc w/enclosure:
See next page

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*Concurrence Per SECY-89-032

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NOTICE OF VIOLATION

Texas Utilities Electric Company
Comanche Peak Steam Electric Station
Unit 1

Docket No. 50-445
License No. CPPR-126
EA 88-278

During discussions with the NRC on January 28, 1986, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1988), the violation is listed below:

> 10 CFR 50.10(b) states that no person shall begin the construction of a production or utilization facility on a site on which the facility is to be operated until a construction permit has been issued.
>
> 10 CFR 50.55(b) states that if construction of a facility is not completed by the latest completion date, the permit shall expire and all rights thereunder shall be forfeited.
>
> 10 CFR 2.109 provides that if a timely application is made at least thirty days prior to the expiration date, the existing license will be deemed not to have expired.
>
> Contrary to the above, Construction Permit CPPR-126 expired on August 1, 1985 and although the applicant failed to file a timely request for extension as provided by 10 CFR 2.109, activities at Unit 1 for which a construction permit is required continued until at least January 29, 1986, at which time the applicant filed for an extension. The extension was approved by the staff on February 10, 1986.
>
> This is a Severity Level III violation (Supplement II).

Pursuant to the provisions of 10 CFR 2.201, Texas Utilities Electric Company (applicant) is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of the letter transmitting this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include: (1) admission or denial of the violation, (2) the reason for the violation if admitted, (3) the corrective steps which have been taken and the results achieved, (4) the corrective steps which will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice,

an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown.

FOR THE NUCLEAR REGULATORY COMMISSION

Dennis M. Crutchfield

Dennis M. Crutchfield, Acting Associate Director
for Special Projects
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland
this 28th day of February 1989.

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

May 17, 1990

Docket Nos. 50-445
and 50-446
EA-90-020

Mr. William J. Cahill, Jr.
Executive Vice President
TU Electric
400 North Olive Street, L.B. 81
Dallas, Texas 75201

Dear Mr. Cahill:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $25,000 (NRC INSPECTION REPORT 50-445/90-05; 50-446/90-05)

This refers to the inspection conducted by Mr. R. M. Latta during the period January 3 through January 30, 1990, concerning allegations and issues associated with the receipt inspection of Therm-A-Lag conduit sections, the controversy over the documentation of deficient conditions on this material on a nonconformance report, the intimidation of QC receipt inspectors, TU Electric's corrective actions, and followup on previously identified Therm-A-Lag discrepancies. The NRC inspector's findings were documented in Inspection Report 50-445/90-05; 50-446/90-05 and were discussed with you and members of your staff on January 30, 1990 at the inspection exit meeting and again during an Enforcement Conference at NRC Headquarters in Rockville, Maryland, on February 7, 1990.

Specifically, the matters of concern to the NRC staff involve the events which transpired on November 2 and 3, 1989, relative to the direction which was provided by a QC supervisor and QC Level III inspector to QC receipt inspection personnel not to document deficient Therm-A-Lag dimensional discrepancies on a nonconformance report. Subsequent to a brief but heated discussion on November 2, 1989 between the QC supervisor, the QC Level III, and QC receipt inspection personnel who wanted to document the subject deficiencies on a nonconformance report, as they believed was required by Receiving Inspection Procedure NQA-3.09-11.03, one of the QC receipt inspectors, who was involved in the confrontation with QC supervision was coincidentally included in a reduction-in-force.

As a result of these events, the message which was perceived by the QC receipt inspectors was that, in spite of procedural requirements, QC supervisory personnel would not allow Therm-A-Lag discrepancies to be documented on a nonconformance report and to do so could result in termination. However, it should be noted that despite that perception, the inspector of record and the lead QC inspector subsequently documented the Therm-A-Lag deficiencies on a nonconformance report on November 3, 1989.

TU Electric's response to the allegations submitted to SAFETEAM by the QC receipt inspector who was laid off and the corresponding corrective actions which were implemented by TU Electric were determined to be generally superficial and ineffective. This determination was based on the results of NRC interviews which concluded that, despite the issuance of the nonconformance report and subsequent to TU Electric's corrective actions, there was still a strong perception within the QC Receipt Inspection organization that the disagreement between QC receipt inspectors and QC supervision on November 2 and the coincidental termination of a QC receipt inspector were related. As a result, QC receipt inspectors felt restricted in their job performance and that they could be terminated if they openly disagreed with QC management.

The NRC staff is concerned that TU Electric's response to this issue initially failed to recognize the significance of this event and that the corresponding corrective actions were not effective.

The NRC staff recognizes that appropriate corrective actions were subsequently taken when the full scope of the problem was recognized. These actions included a management change in the QC Receiving organization, management meetings with the affected inspectors, and dissemination of TU Electric's policy on the importance of properly identifying deficient conditions. These actions, along with the relatively isolated nature of this incident, constituted the basis upon which the NRC staff concluded that this issue had been adequately resolved for the purpose of issuing the low-power license.

Nevertheless, to emphasize the importance of management sensitivity to potential intimidation, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) in the amount of $25,000 for the Severity Level III violation described in the enclosed Notice in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1989). The base value of a civil penalty for a Severity Level III violation is $50,000. The escalation and mitigation factors in the Enforcement Policy were considered and as discussed below 50% mitigation of the base civil penalty was deemed appropriate.

In this case, neither escalation nor mitigation of the base civil penalty is warranted for identification and reporting as this violation was identified to TU Electric through an allegation. With regard to corrective action, again, neither escalation nor mitigation was found appropriate. As discussed earlier, while TU Electric ultimately took appropriate corrective actions, they were not timely given the information initially available regarding this matter. Notwithstanding this incident, TU Electric's performance in the specific area of minimizing harassment and intimidation of quality assurance personnel has, over the last few years, significantly improved considering your historical performance in this area and therefore on the basis of that performance, mitigation for past performance is appropriate. However, after considering that specific performance

along with TU Electric's overall performance in the area of quality assurance activities, which has only been generally acceptable, 50% rather than 100% mitigation for past performance is being applied. Finally, the base civil penalty in this case was not adjusted for prior notice or multiple examples.

The enclosed Notice also identifies a Severity Level IV violation associated with the related receipt inspection procedure. The lack of clarity in that procedure was a major contributing factor to the communication breakdown between the QC supervisors and the QC receipt inspectors.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to the Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with 10 CFR 2.790 of the Commission's regulations, a copy of this letter, the enclosures, and your response to this letter will be placed in the NRC Public Document Room.

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

Sincerely,

Dennis M. Crutchfield

Dennis M. Crutchfield, Associate Director
for Special Projects
Office of Nuclear Reactor Regulation

Enclosures:
1. Notice of Violation and Proposed Imposition of Civil Penalty
2. Enforcement Conference Slides

cc w/enclosures:
See next page

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

TU Electric
Comanche Peak Steam Electric Station
Units 1 and 2

Docket Nos. 50-445 and 50-446
License No. NPF-87
Construction Permit No. CPPR-127
EA 90-020

During an NRC inspection conducted on January 3 through January 30, 1990, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1989), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2282, and 10 CFR Part 2.205. The particular violation and associated civil penalty are as follows:

I. Violation Assessed a Civil Penalty

10 CFR Part 50, Appendix B, Criterion I, as implemented by Section 1.0, Revision 1, of the TU Electric Quality Assurance Manual requires that the applicant or licensee shall be responsible for the establishment and execution of the quality assurance program. Furthermore, the personnel performing the quality assurance functions shall be provided with adequate authority and organizational freedom to identify quality problems; to initiate, recommend, or provide solutions; and to verify implementation of solutions.

Contrary to the above, on November 2, 1989 Quality Control (QC) receipt inspectors were not provided with adequate authority and organizational freedom to identify quality problems and initiate, recommend and provide solutions in that, they were told by their supervisors that defective Therm-A-Lag conduit sections were not to be documented on nonconformance reports as required by station procedures.

This is a Severity Level III Violation. (Supplement II and VII) (445/9005-V-02) Civil Penalty - $25,000.

II. Violation Not Assessed a Civil Penalty

10 CFR Part 50, Appendix B, Criterion V, as implemented by Section 5.0, Revision 1, of the TU Electric Quality Assurance Manual, requires that activities affecting quality be prescribed by and accomplished in accordance with documented procedures. CPSES Receiving Inspection Procedure NQA 3.09-11.03, paragraph 6.1.3, requires that items which do not conform to the specified requirements shall be documented in accordance with Procedure NEO 3.05, "Reporting and Control of Nonconformances" and references NQA 3.05, paragraph 6.1.1.b.

Contrary to the above, on November 2, 1989, subsequent to the completion of receipt inspection activities on Therm-A-Lag conduit sections, TU Electric failed to document defective material conditions on a nonconformance report as specified in Procedure NQA-3.09-11.03, paragraph 6.1.3 and failed to document the condition using NQA paragraph 6.1.1.b because of that procedure's interpretative nature.

This is a Severity Level IV Violation. (Supplement II) (445/9005-V-01)

Pursuant to the provisions of 10 CFR 2.201, TU Electric is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U. S. Nuclear Regulatory Commission, within 30 days of the date of this Notice of Violation and Proposed Imposition of Civil Penalty (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, and if denied, the reasons why, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the licensee may pay the civil penalty by letter addressed to the Director, Office of Enforcement, U. S. Nuclear Regulatory Commission, with a check, draft, money order, or electric transfer payable to the Treasurer of the United States in the amount of the civil penalty or may protest imposition of the civil penalty, in whole or in part, by a written answer addressed to the Director, Office of Enforcement, U. S. Nuclear Regulatory Commission. Should the licensee fail to answer within the time specified, an order imposing the civil penalty will be issued. Should the licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violation(s) listed in this Notice, in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, in whole or in part, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section V.B in 10 CFR Part 2, Appendix C (1989) should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may

incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

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

The response noted above (Reply to Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U. S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the U. S. Nuclear Regulatory Commission, Comanche Peak Project Division and a copy to the NRC Resident Staff at the Comanche Peak Steam Electric Station.

FOR THE NUCLEAR REGULATORY COMMISSION

Dennis M. Crutchfield

Dennis M. Crutchfield, Associate Director
for Special Projects
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland
this 17th day of May 1990.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TEXAS 76011

DEC 6 1982

Docket No: 50-382
EA 82-109

Louisiana Power and Light Company
ATTN: L. V. Maurin, Vice President
Nuclear Operations
142 Delaronde Street
New Orleans, Louisiana 70174

Gentlemen:

This refers to the inspection conducted under the Resident Inspection Program by Messrs. G. L. Constable and J. E. Cummins of our staff during the period May 16 to July 15, 1982, of activities authorized by NRC Constrution Permit CPPR-103 for the Waterford Steam Electric Station, Unit 3, and to the discussion of our findings with Messrs. D. B. Lester, G. Rogers, and other members of your staff at the conclusion of the inspection. These findings were also discussed during the enforcement conference held in your corporate offices on August 20, 1982, and during a subsequent conference held at the Waterford facility on November 23, 1982.

This inspection identified a significant violation of NRC requirements as illustrated by the numerous deficiencies and discrepancies noted by your startup and QA organizations in both the as-built condition of systems offered for startup testing by your prime contractor, and deficiencies in the supporting quality documentation. As noted by Mr. G. D. McLendon during the November 23, 1982, meeting, the principal cause of this breakdown was insufficient participation by Louisiana Power and Light Company (LP&L) in the implementation of quality assurance programs. LP&L failed to exercise adequate oversight and control over contractors, to whom implementation of quality assurance programs had been delegated, and dedicated only minimal LP&L resources to quality assurance programs.

The Nuclear Regulatory Commission places great emphasis on the need for licensees to maintain proper control over all aspects of safety-related activities. This includes the implementation of a quality assurance program that identifies and corrects construction deficiencies in a timely manner. An effective quality assurance program must operate at each tier, from subcontractor through contractor to the owner. While we recognize that the quality assurance program did not totally breakdown, there was a breakdown in the subtier programs of your contractor and subcontractor. This violation is categorized at a Severity Level III as described in the NRC Enforcement Policy published in the Federal Register, 47 FR 9987 (March 9, 1982). According to this policy, for a Severity Level III

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violation a base civil penalty of $40,000 is normally assessed. However, the Enforcement Policy permits consideration of mitigating circumstances. Based upon a careful review of the circumstances associated with this violation, we have concluded that mitigation of 50% of the civil penalty is appropriate. The bases for this mitigation are the corrective action you have initiated (the extensive revision of your system turnover process) and your role in identifying and reporting the breakdown of quality assurance programs to NRC. Therefore, after consultation with the Director of the Office of Inspection and Enforcement, I have been authorized to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $20,000 as set forth in the Notice appended to this letter. This action is being taken in order to emphasize the importance of your participation in quality assurance activities and your responsibility to ensure that contractors are properly implementing quality assurance programs.

You are required to respond to this letter and should follow the instructions in the Appendix when preparing your response. Additionally, your response should address actions planned or taken which would ensure that work completed prior to the identification of this breakdown was properly accomplished. This should include work performed by other subcontractors as well as the subcontractors already identified as having deficient inspection programs. These actions should include verification of as-built plant configuration and review of related quality documentation. Your response should also address measures taken or planned to ensure that your quality assurance procedures are adequate and that as-built verification requirements are clearly stated. Your reply to this letter and the results of future inspections will be considered in determining whether further enforcement action is appropriate.

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

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

Sincerely,

/S/

John T. Collins
Regional Administrator

Enclosure:
Appendix - Notice of Violation and Proposed Imposition of Civil Penalty

cc w/encl:
F. J. Drummond, Project Support Manager
T. F. Gerrets, QA Manager
D. B. Lester, Plant Manager

APPENDIX

NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY

Louisiana Power and Light Company
Waterford 3 Steam Electric Station

Docket No. 50-382
Construction Permit: CPPR-103
EA 82-109

During April, May, and June 1982, EBASCO submitted four Emergency Core Cooling Systems (ECCS) to the Louisiana Power and Light Company (LP&L) for turnover. Following an LP&L audit of these systems, they were rejected by LP&L. LP&L reported its audit findings to the NRC. LP&L found that records for these systems did not represent their true as-built status. As a result NRC conducted an inspection during the period May 16 to July 15, 1982.

During this inspection a significant violation of NRC quality assurance requirements was identified. As discussed in inspection report 50-382/82-14, the four ECCS systems were not QA/QC acceptable. Installation of safety-related instrument impulse piping was found to have been improperly conducted and documented. Further NRC and LP&L reviews identified hanger weld and orientation problems involving these safety-related systems.

In order to emphasize the importance of your participation in quality assurance activities and your responsibility to ensure that contractors are properly implementing quality assurance programs, the NRC proposes to impose a civil penalty of $20,000 for these matters. In accordance with the NRC Enforcement Policy (10 CFR Part 2, Appendix C), 47 FR 9987 (March 9, 1982), and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended ("Act"), 42 U.S.C. 2282, PL 96-295, and 10 CFR 2.205, the particular violations and the associated civil penalty are set forth below:

VIOLATION ASSESSED CIVIL PENALTY

10 CFR 50 Appendix B, Criterion II, requires that, "The quality assurance program shall provide control over activities affecting the quality of the identified structures, systems, and components to an extent consistent with their importance to safety. Activities affecting quality shall be accomplished under suitably controlled conditions."

Contrary to the above, Louisiana Power and Light Company failed to adequately control activities affecting the quality of safety-related work. Specifically, LP&L failed to ensure that Ebasco Services, Inc., as construction manager, was adequately controlling the quality of safety systems and providing the complete and accurate documentation of quality required for these systems. This failure is illustrated by the fact that on April 30, May 20, May 22, and June 22, 1982, Ebasco QA signed four ASP-IV-50-6 forms indicating that four safety systems were ready for turnover to LP&L. These safety systems were containment spray, low pressure

safety injection, safety injection tanks, and high pressure safety injection. The pertinent fabrication and installation records specified that these systems were ready for turnover. Subsequently, the LP&L construction QA and startup organizations rejected all four system turnover packages due to numerous findings which the quality records and exception lists did not accurately identify. These findings included previously unidentified installation errors, as-built drawings that did not match actual field installation, field installations which included work that was not in compliance with procedures and specifications, QC inspections that had not identified unacceptable field installations, and QC records that were not consistent with current as-built drawings. These deficiencies in the control of activities affecting quality should have been identified by LP&L prior to system turnover.

This is a Severity Level III Violation (Supplement II)
Civil Penalty - $20,000

Pursuant to the provisions of 10 CFR 2.201, the Louisiana Power and Light Company is hereby required to submit to the Director, Office of Inspection and Enforcement, USNRC, Washington, D.C., 20555, within 30 days of the date of this Notice a written statement or explanation, including for each alleged violation: (1) admission or denial of the alleged violation; (2) the reasons for the violation if admitted; (3) the corrective steps which have been taken and the results achieved; (4) the corrective steps which will be taken to avoid further violations; and (5) the date when full compliance will be achieved. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the Louisiana Power and Light Company may pay the civil penalty in the amount of $20,000 or may protest imposition of the civil penalty in whole or in part by a written answer. Should the Louisiana Power and Light Company fail to answer within the time specified, the Director, Office of Inspection and Enforcement, will issue an order imposing the civil penalty in the amount proposed above. Should the Louisiana Power and Light Company elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, such answer may: (1) deny the violation listed in this Notice in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty in whole or in part, such answer may request mitigation of the penalty. In requesting mitigation of the proposed penalty, the five factors contained in Section 10(B) of 10 CFR Part 2, Appendix C should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set

forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The Louisiana Power and Light Company's attention is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

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

FOR THE NUCLEAR REGULATORY COMMISSION

John T. Collins

John T. Collins
Regional Administrator

DEC 6 1982

Dated at Arlington, Texas
this 6 day of December 1982

Enclosure

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TEXAS 76011

MAY 24 1985

Docket: 50-382
EA 85-10

Louisiana Power & Light Company
ATTN: R. S. Leddick, Sr. Vice President
Nuclear Operations
142 Delaronde Street
New Orleans, Louisiana 70174

Gentlemen:

In 1983 the NRC began to receive allegations that related to the adequacy of the Louisiana Power and Light Company (LP&L) Quality Assurance Program at Waterford 3 Steam Electric Station. Several inspections were conducted by the NRC to review and evaluate the issues associated with these allegations. Other routine and special safety inspections were also conducted as part of the NRC Inspection Program. In June of 1983, the NRC Inquiry Team was formed to gather information relating to the allegations that were received (Reference NRC Inspection Report 50-382/84-34 and NUREG 0787, Supplement 7). In February and March of 1984, the NRC Construction Appraisal Team (CAT) conducted an inspection to evaluate the construction activities at the Waterford facility (Reference NRC Inspection Report 50-382/84-07). In April of 1984, the NRC Waterford Task Force began an on-site review of the issues that were relevant to the Quality Assurance Program (Reference NUREG 0787, Supplement 7 and NRC Inspection Reports 50-382/84-24 and 50-382/84-32). As a result of these efforts potential violations of NRC regulations were identified and forwarded to NRC Region IV for disposition. The review of the issues and potential violations is documented in NUREG 0787, Supplements 7 and 9 and in NRC Inspection Reports 50-382/84-30 and 50-382/84-43 and 50-382/84-45. As was discussed with you, we have not held an Enforcement Conference for these specific violations since the violations have been discussed with you in numerous oral and written communications and your views on the issues have been provided.

This enforcement package is unusual in that it encompasses violations identified during a major NRC effort involving more than fifty NRC personnel and contractors over nearly a year (approximately 20,000 manhours). It is also unusual in that it is being issued after the results of the NRC review, inspection, and evaluation of these allegations and related issues have been extensively documented. The NRC recognizes that the violations identified in the enclosed Notice of Violation and Proposed Imposition of Civil Penalties occurred at various times during the multi-year construction phase of your facility and that their correction has required aggressive action on your part. However, each of these violations illustrates weaknesses that existed in LP&L's implementation of its Quality Assurance program during construction. Although these violations do not appear to have led to an end-product of unacceptable quality, the violations are of concern to the NRC because your responsibility for quality assurance does not end with the receipt of an operating license. Rather, you are responsible for

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ensuring that an adequate quality assurance program continues to function now that Unit 3 is operating.

To emphasize the significance of the weaknesses in your quality assurance program that were discovered during these intensive inspections and investigations and to ensure that these weaknesses are not carried over to your operational quality assurance programs, and after consultation with the Director, Office of Inspection and Enforcement, I have been authorized to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalties in the amount of One Hundred Thirty Thousand Dollars ($130,000) for the violations described in the enclosed Notice. The violations have been categorized as a Severity Level III problem in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 49 FR 8583 (March 8, 1984). In determining the civil penalty amount we have considered when the violations occurred, the duration of the violations, the potential safety significance of the violations, the existence of prior notice of many of these violations, and the fact that many of the violations contain multiple examples. The cumulative civil penalties for all of the violations are distributed equally among the violations.

You are normally required to respond to the enclosed Notice within 30 days. However, because of the extensiveness of this package we are extending the period for response to 60 days. Your response should follow the instructions contained in the Notice and should be directed at the following three areas: first, you should confirm the completeness of the actions you have taken to correct the examples cited in the violations; second, you should address how you have changed or strengthened the implementation of your quality assurance program and implementing procedures so that there will not be similar violations in these subject areas during future modification or maintenance activities; and third, since the enforcement action deals with weaknesses in your program for assuring quality in the approved LP&L Quality Assurance program for construction, you should describe the steps you have taken to ensure that a similar process failure in the LP&L Quality Assurance program for operations will not occur, and that continuing attention by management will be provided to prevent recurrence of these failures. Your responses to these three areas may be submitted separately and you may reference previous submittals where appropriate. In addition, you are also requested to respond to the enclosed Notice of Deviation.

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

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

Sincerely,

Robert D. Martin
Regional Administrator

Enclosure:
Notice of Violation and Proposed
Imposition of Civil Penalty

cc w/enclosure:
Louisiana Power & Light Company
ATTN: G. E. Wuller, Onsite
Licensing Coordinator P. O. Box B
Killona, Louisiana 70066

Louisiana Power & Light Company
ATTN: R. P. Barkhurst, Plant Manager
P. O. Box B
Killona, Louisiana 70066

Middle South Services
ATTN: Mr. R. T. Lally
P. O. Box 61000
New Orleans, Louisiana 70161

Louisiana Power & Light Company
ATTN: K. W. Cook, Nuclear Support
and Licensing Manager
142 Delaronde Street
New Orleans, Louisiana 70174

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTIES

Louisiana Power & Light Company
Waterford 3 Steam Electric Station

Docket 50-382
License NPF-38
EA 85-10

During 1983 and 1984, the NRC conducted numerous inspections and investigations at the Waterford 3 Steam Electric Station. As a result of these inspections and investigations, numerous violations of NRC requirements were identified. These findings have been grouped into thirteen distinct areas. Each of the violations illustrates weaknesses in LP&L's implementation of its quality assurance program. Although these violations do not appear to have led to an end product of unacceptable quality, the violations are of concern to the NRC. To emphasize the significance of the weaknesses in your quality assurance program that were discovered during these intensive inspections and investigations, and to ensure that these weaknesses are not carried over to your operational quality assurance programs, and after consultation with the Director, Office of Inspection and Enforcement, I have been authorized to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalties in the amount of One Hundred Thirty Thousand Dollars ($130,000). In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, as revised, 49 FR 8583 (March 8, 1984), and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2282, PL 96-295, and 10 CFR 2.205, the particular violations and associated civil penalties are set forth below. The detailed underlying documentation for each of the violations is contained in NUREG 0787, Supplement 7 and 9 and in NRC Inspection Reports 50-382/84-07, 84-24, 84-32, and 84-34 and the pertinent sections of these documents are referenced below.

I. Failure To Take Adequate Corrective Action

Criterion XVI of 10 CFR 50, Appendix B requires that measures be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition.

Louisiana Power and Light (LP&L) Quality Assurance (QA) Manual Section QR 16.0, Revision 2, "Corrective Action," paragraph 16.3, requires, in part, that LP&L and its major contractors implement procedures for correction of significant conditions adverse to quality which include determining the cause(s) of the significant adverse conditions,

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taking prompt corrective action to prevent repetition of the adverse conditions, and documenting and reporting the adverse conditions along with their determined cause(s) and corrective actions to appropriate levels of management for review and assessment.

Contrary to the above:

A. LP&L failed to adequately determine the cause and extent of the partial QA breakdown between Ebasco and Mercury as described in NRC Inspection Report No. 50-382/82-14, issued December 6, 1982. Specifically, LP&L failed to implement comprehensive and periodic audits of the Mercury and Ebasco QA program after identifying the partial QA breakdown. This failure is illustrated by the the fact that LP&L did not identify the following Mercury and Ebasco Company QA audit deficiencies that existed prior to December 6, 1982, and continued until Mercury's departure from the site in 1984.

Mercury Company had not audited Mercury Quality Assurance Manual (QAM) Section 5 from 1978 through 1982; QAM Sections 12, 17, and 18 in 1980; and QAM Sections 12, 14, and 16 in 1981. Even though Ebasco identified these deficiencies in Audit No. SW-82-6-1, previous Ebasco Audits NB-78-9-5, NB-80-8-3, and NB-81-5-1 of Mercury did not identify these deficiencies. The NRC staff discovered that Mercury had not audited QAM Sections 5, 11, 12, 13, 14, 15, and 16 in 1983. Secondly, Mercury Company had not audited the following Mercury Company Procedures during the life of the project: MCP-2140, 2170, 2175; SP-650, 651, 652, 653, 654, 655, 656, 657, 658, 661, 662, 663, 668, 670, 672; WPS-B, P, G; B-1; and WPS-WE-4. Ebasco Audit SW-82-6-1 does document the finding that Mercury procedures had not been audited up through 1982.

Ref: NUREG-0787, Supp. 7, "Safety Evaluation Report Related to the Operation of Waterford Steam Electric Station Unit No. 3," Allegation No.48 (SSER 7:A-48)

B. LP&L failed to take adequate actions to address concerns identified in the Notice of Violation issued on April 13, 1985 and described in NRC Inspection Report No. 50-382/83-13 which identified heating, ventilation, and air conditioning (HVAC) supports that had additional loads attached that were not shown on detail drawings. In addition, the allowable load capacity calculations were not performed for the additional loads. Even though LP&L responded to this violation on May 17, 1983, and corrective action was initiated, a subsequent inspection by the NRC revealed that 18 electrical cable trays and HVAC supports carried loads not shown on detail drawings. Six cable tray supports contained loads in excess of the stated allowable with no evidence of the required engineering analysis.

Ref: NRC Construction Appraisal Team (CAT) Report No. 50-382/84-07, Section VIII.B.4 (CAT: Section VIII.B.4)

C. LP&L failed to take adequate corrective actions to address concerns identified in the Notice of Violation issued on October 14, 1981 and described in NRC Inspection Report 50-382/81-23 which identified problems with the care and maintenance of station batteries and safety-related motors. Even though LP&L responded to this violation on November 13, 1981, and corrective action was initiated, a subsequent Notice of Violation was issued in NRC Inspection Report 50-382/82-05 on April 7, 1982 regarding the maintenance of safety-related motors. Notwithstanding, a subsequent inspection by the NRC identified that LP&L was still not maintaining electrical motors in accordance with the required preventative maintenance procedures for equipment transferred to plant operations.

Ref: CAT, Section VIII.B.4.

D. LP&L failed to take adequate actions to correct two Significant Construction Deficiencies (SCD) 73 and 78 which they issued on April 11, 1983, and April 28, 1983, respectively, to address welding deficiencies by American Bridge in the Reactor Containment Building and the Reactor Auxiliary Building. A comprehensive reinspection program was initiated by LP&L and rework has been completed. A subsequent inspection by the NRC of approximately 380 welds fabricated by Peden Steel Company, which was an American Bridge subcontractor, revealed several welds which did not meet the specified acceptance criteria.

Ref: CAT, Section VIII.B.4.

E. LP&L failed to take adequate corrective actions to address concerns identified in the Notice of Violation issued on April 13, 1983 and described in NRC Inspection Report 50-382/83-13, which identified the lack of acceptance criteria for potential clearance problems between piping and adjacent structures. Even though LP&L responded to this violation on May 17, 1983, and corrective action was initiated, a subsequent inspection by the NRC identified several instances where clearance between piping and adjacent structures did not meet the criteria specified in Design Change Notice (DCN) NY-MP-804. Twelve selected piping isometric drawings were reviewed for approximately 1000 feet of Class 2 and 3 piping and inspected for conformance to design requirements.

Ref: CAT, Section VIII.B.4.

F. Significant Construction Deficiency (SCD) 70 was issued on February 18, 1983, to address deficiencies with General Electric (GE) 480-V switchgear trip coils not dropping out after tripping. The licensee reported by letter to the NRC dated December 2, 1983 (W3K83-1881) that all corrective action and testing had been completed and NCR No. W3-5737 had been closed. The NRC inspector

reviewed NCR No. W3-5737 and determined that the breakers included in the NCR had in fact been rexamined and modified. However, the licensee failed to follow through on corrective action to modify three breakers that were not included in the above NCR. Thus, the wiring changes specified in DCN 1425R2 had not been incorporated. These breakers are as follows:

Cabinet	Cubicle
3B31	6C
3B31	7B
3A31	7B

Ref: NRC Inspection Report No. 59-382/84-24, paragraph 2.C.

G. LP&L failed to take adequate corrective actions in response to the Notice of Violation issued on August 13, 1984 and described in NRC Inspection Report 50-382/84-32 which identified that the licensee had not implemented the corrective actions as described in their January 4, 1983 response letters to the Notice of Violation and Proposed Imposition of Civil Penalty described in NRC Inspection Report 50-382/82-14 in that there was no documentation to demonstrate the performance of audits by Tompkins-Beckwith of hanger reinspection and/or hanger inspection on a monthly basis. There were no individual audit plans (Forms GP-723-28 and GP-723-29) or audit reports (Forms GP-723-30, GP-723-31, and GP-723-58) as prescribed by Tompkins-Beckwith QA Procedure TBP-8, "Quality Assurance Audit," Sections 6.2 and 6.4, respectively. In addition, the licensee could not demonstrate the surveillance of hanger installations by Tompkins-Beckwith that were to continue through the system release and turnover process.

Ref: NRC Inspection Report 50-382/84-32

II. Failure to Ensure Qualification of QA Personnel

Criterion II of 10 CFR 50, Appendix B requires that the applicant establish at the earliest practical time, consistent with the schedule for accomplishing the activities, a QA program which complies with the requirements of this appendix. The program shall be documented by written policies, procedures, or instructions, and shall be carried out throughout plant life in accordance with these policies.

LP&L QA Manual Section QR 10, Revision 2, "Inspection," paragraph 10.6, requires that inspections be performed by qualified individuals who are independent of the individuals or groups performing the activity being inspected. Inspectors shall be qualified through experience, education, and training to perform the assigned inspection tasks. Where required by code, inspectors shall be formally examined and certified. A current file shall be maintained of the credentials for each inspector.

A. Mercury Quality Control Procedure QCP-3050, "Qualification of Inspection, Examination, and Test Personnel," paragraph 5.I, describes the educational and experience requirements for the three levels of inspector qualification. These factors are not absolute when other factors provide reasonable assurance that a person can competently perform a particular task.

Contrary to Mercury QC Procedure QCP-3050, the following were instances identified where Mercury quality control (QC) inspectors did not meet the described requirements. In addition, documentation was not available to verify capability in a given job through previous performance or satisfactory completion of proficiency testing.

1. Twelve Mercury QC inspectors were incorrectly certified due to insufficient education or experience.

   Ref: SSER-7:A-01,02.

2. Three Mercury Company Level III QC inspection personnel lacked the necessary prior experience to qualify as candidates for Level III certification.

   Ref: SSER-7:A-57.

B. Tompkins-Beckwith (T-B) Procedure TBP-4, Indoctrination, Training, and Certification of QA/QC Personnel," paragraph 6.2, states that the level of certification for inspection personnel shall be as defined in ANSI N45.2.6-1973. Section 3 of this ANSI standard describes the educational and experience requirements for the three levels of inspector certification unless other factors demonstrate capability in a given job through previous performance or satisfactory completion of proficiency testing.

Contrary to ANSI N45.2.6, 1973, 14 T-B QC inspectors were certified to levels of capability for which they were not qualified. LP&L was unable to produce documentation that showed capability through previous performance or satisfactory completion of proficiency testing.

Ref: SSER-7:A-02,28.

C. Fegles QA Procedure QAP 303-21, "Qualification of Inspection Personnel," paragraph 6, describes the educational and experience requirements for the three levels of inspector qualifications.

Contrary to Fegles Procedure QAP 303-21, two Fegles QC inspectors did not meet the qualification requirements. The first Fegles QC inspector was certified as a Level III QC inspector without the necessary experience. The second Fegles QC inspector performed the duties of the project QA manager (PQAM) while certified as a Level II inspector. To serve as the PQAM, the Fegles requirement is that the individual must be a certified Level III inspector.

LP&L could not produce documentation to show that either QC inspector was qualified to perform the assigned work, based on previous experience or completion of proficiency testing.

Ref: SSER-7:A-110.

D. J. A. Jones Procedure POP-N-702, "Personnel Training, Qualification, and Certification," paragraph 6.3.1, requires that all training and certification be in accordance with J. A. Jones Construction Company's QA personnel training and certification program. This program describes the educational and experience requirements for each level of inspector certification.

Contrary to the J. A. Jones QA Program, five J. A. Jones QC inspectors did not meet the certification requirements.

One J. A. Jones inspector was not properly certified as a Level I QC inspector; however, he was performing the duties of the PQAM while the original PQAM was absent from the site. J. A. Jones Company requires that the individual performing the duties of the PQAM be a certified Level III inspector.

Three of the five J. A. Jones QC inspectors were certified as Level I inspectors even though they lacked the required experience, while one of these inspectors had not completed the formal classroom training and passed the proficiency exam.

The fifth inspector who was certified as Level II did not have the required experience and there was no record of passing the proficiency exam.

Ref: SSER-7:A-110,160.

III. <u>Failure To Adequately Disposition Conditions Adverse to Quality</u>

Criterion XVI of 10 CFR 50, Appendix B requires that measures be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition.

LP&L QA Manual Section QR 16.0, "Corrective Action," paragraph 16.2, requires in part that the major contractors and their suppliers establish written procedures for identifying, for determining the cause of, for evaluating, and for correcting conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances.

A. Ebasco Procedure ASP-III-7, Issue K, "Processing of Nonconformances," paragraph 4.3, defines a nonconformance as a condition in characteristics, documentation, or procedure which renders the quality of the item or service unacceptable or indeterminate. Attachment 7.1, Item 15, requires that the recommended disposition provide specific resolution to correct the nonconforming condition, including program changes necessary, i.e., revision to specifications, procedures, retraining of personnel, etc. In addition, Item 20 requires that a separate individual evaluate the disposition to ensure that the recommended disposition provides justification as applicable to support and document compliance with applicable codes and standards or makes reference to the appropriate analysis reports.

Contrary to the above, the disposition for the following examples of Ebasco NCRs was not adequate to resolve the identified nonconformance.

NCR-7139 - Involved field inspections of horizontal seismic supports for radiation monitors RE-HV 5021S, and RE-HV 0200.65. Only the data for the RE-HV 5021S support was the correct attachment.

NCR-3912 - Fit-up inspection for nine 23J-2 type supports was bypassed. The original NCR disposition failed to address the actions required to prevent the reuse of the items.

NCR-5563 - Identified that a J. A. Jones QA inspector trainee dispositioned NCR-W3-1728 regarding the fuel handling building crane for J. A. Jones QA department. The inspections in question were signed off on August 27, August 28, and November 6, 1979, and then by a co-signature on February 4, 1983, by a QA inspector who claimed to be present at the first inspection. This co-signature of the inspections in question eliminated the requirement for a reinspection called for in the recommended disposition.

NCR-6159 - Inspection of tubetrack welding identified that prior to July 1982, an unknown quantity of welding was performed using WPS-"B" procedure without backing plates. Traceability problems were not identified and addressed by the NCR-6159. In addition, the sample used for tensile testing the welds should have been representative of the weakest weld joint in lieu of the strongest (i.e., worst case example should have been used to conduct tests).

NCR-3919 - A tubing crack discovered during a system hydrostatic test of instrument line PT-RC-0173, system 52A2 (reactor coolant) resulted in significant construction deficiency (SCD) No. 61 being issued. The tubing failure was a result of a manufacturing defect (process, not metallurgical), and an attempt was made to ascertain that all tubing of this specific heat number was reinspected.

Corrective action was to reinspect all tubing installations to locate this heat of defective tubing. The reinspection reportedly located all installation locations. Review of this NCR revealed that operational control record (OCR) installation packages indicated that approximately 530 feet more tubing was installed than was received on site. This was also verified by a review of warehouse issuance records. The "Requisition on Warehouse" form had been changed using liquid paper and a subsequent entry had been crossed out with ink.

NCR-7547 - Noted discrepancies against OCR-1830 and Mercury NCR-0806. The disposition was based on passing hydrostatic test for acceptability of fitup discrepancy between the union and tubing. The disposition does not account for the effects of service conditions such as vibration and cyclic loads; and an engineering evaluation was not performed.

NCR-1650 - Identified that the pressure gauge on the anchor bolt tension tester was out of tolerance, reading +450 psi higher than actual. The NCR disposition was to retest all anchor bolts installed prior to the date the tension test gauge was determined to be out of calibration. However, the affected bolts cannot be identified since the torquing procedure, QCP-309, did not require the recording of the tester serial number.

NCR-6623 - Identified that a heat number and signature had been falsified. The tubing in question was removed and replaced in accordance with Mercury NCR 3696. The NCR's disposition did not address why the heat number and signature had been falsified.

NCR-5586 - Weld Testing Laboratory was not surveyed (audited) and placed on the Approved Vendors List by Mercury prior to welder performance qualification taking place. This item was not addressed in the NCR disposition. Also, the statement provided by the test lab that "a Mercury inspector reviewed all tests" is not adequate.

NCR-6165 - States ". . .welder R-1 is not qualified to this procedure. . ." The disposition states, ". . .Measures taken to preclude recurrence is required. . ." No indications of the actions taken could be located.

NCR-7099 - Identified improper weld on cabinets 48A and 48B. FCR-IC-P-416, Revision 1, Sk-1, called for a fillet weld where a flare bevel weld was required. Weld size and length were not adequately addressed. The evaluation of disposition by Ebasco states, "Evaluation indicates that the stresses are low." There is no documentation indicating what stresses were being referred to. In addition, the recommended disposition "that ESSE (Ebasco Site Support Engineering) evaluate the cabinet base metal cracks" was not addressed.

NCR-4137 - Identified material and weld problems on supports on SCR-238. This NCR was closed out but failed to have 3 of 4 required welds on "M" gusset plates completed.

NCR-4088 (Mercury-491) - This NCR identified numerous discrepancies found during a walkdown performed against drawing 160-T-035-A. No documentation was available that verified work had been accomplished or completed.

NCR-5974 - Identified a problem with loss of heat number traceability for safety and non-safety grade related materials. This NCR was used to disposition approximately 150 to 200 DNs with "Q" prefix. The disposition did not address the possibility that safety and non-safety grade materials could have become mixed.

NCR-6786 - Identified that many Mercury NCRs were issued concerning the lack of heat numbers. These NCRs were closed by referencing a generic series of Ebasco NCRs. The Ebasco disposition stated that the possible heat numbers will be documented on the Mercury as-built drawings. This data is not recorded on the as-built drawings. However, the Mercury Company NCRs have been closed. The disposition of this NCR does not address where the required heat numbers were recorded or how traceability was maintained.

NCR-7177 - Fischbach and Moore (F&M) violated Procedure QCP-309, 6.3.2.4, that is, they failed to test three additional expansion anchors for every anchor that failed. In addition an uncalibrated pressure gauge was used on the tension tester and tension tester serial numbers were not recorded. The NCR disposition stated that "QCP-309 did not require recording of serial numbers"; this violates ANSI N45.2, Section 13, that requires the traceability of measuring and test equipment to point of usage. F&M should have written an NCR. Inspection Report (IR) 311-06-70 and IR 310-36-43 identified bolt failure due to excessive slippage. Dispositions prescribed by these IRs were in violation of QCP 309, Section 6.3.2.2(d) and 6.4.3.

NCR W3-5564 - Involved lack of records to verify the inspection of bolting and welding by J. A. Jones on Seismic Category I stairs between elevations -34.75' and -8.0' in the fuel handling building. The recommended disposition included inspection of welds and bolted connections by Ebasco QC. Welding repairs for four welds were completed and inspected on July 26, 1983. Dispositioning of the NCR was not acceptable with regard to inspection of welds without removing the paint. The paint precludes adequate visual inspection of the welds.

NCR W3-5565 - Involves witnessing and acceptance of reeving of the FHB bridge crane by a QC inspector trainee who was not certified as a Level 1 inspector at the time of inspection. The recommended disposition was for Ebasco QC to reinspect the work by a certified inspector and process the required documentation. Records were not available to verify that the required reinspection had been performed by a qualified QC inspector.

NCR-7182, NCR-7180, NCR-7181, NCR-7184, NCR-6723 - These NCRs also involve a violation of ANSI N45.2, Section 13 requirements in that QCP 309 did not require the tension testing equipment's serial number, calibration date, and pressure gauge number to be recorded.

NCR-6514* - The problem of traceability for the weld being performed was still in question; not addressed. The NCR also questioned use of some Bergen-Patterson designed supports installed by Mercury without traceability. This problem was also not addressed by referenced attachment.

NCR-3941-RI* - Identified that support number one fitup inspection was bypassed and the support had been completely welded out with only the welder's ID.

NCR-6621 - Identified that weld control records were signed off by an individual who was not a certified Level II inspector. Sign-off was based on Letter of Designation. The NCR disposition referred to the T-B (April 1, 1980) Quality Manual that was not in effect at the time the Letter of Designation was written (January 8, 1979). Also, a reference given in the Letter of Designation did not allow designee sign-offs and was in effect as of March 15, 1983; the Letter of Designation also failed to meet the requirements of ANSI N45.2.6.

NCR 6511 (Mercury-3336) - Stated that "during final inspection of installed I-beam for support 1117-1114m weld to existing beam 1A was rejected." The NCR only addressed the fact that the maximum gap was violated, but the weld was rejected for: (1) undersize, (2) lack of fusion, (3) arc strikes, and (4) undercut. Mercury NCR 3336 recommended weld removal and rework. This recommendation was crossed out and only the nonconforming fitup gap was addressed. There were no records of rework or reinspection, and only copies of Mercury's NCR were attached to Ebasco's NCR.

NCR-4219 (Mercury-614) - Identified a violation of QCP 3110.4, paragraph 6. The sample system piping had been bent downward causing a low point in the piping. The piping was being forced down by support SLRR-188. QCP-3110.4 stated that "tubing must be properly routed." This disposition stated that ". . .tubing was reevaluated after support SLRR-188 and sample line were installed, after completion of Penetration 29 work." There were no records for rework or reinspection to indicate satisfactory reinstallation of supports and sample lines.

NCR-7432 - Identified a problem with concrete preplacement and post-placement documentation. The documentation could not be matched because the identification of the various placements were on different QC forms. Also, this NCR was dispositioned by stating ". . .this problem was addressed on other NCRs and therefore voided. . ." No specific references were used; therefore, this disposition is unacceptable. Also, a QA engineer approved the recommended disposition and then voided the NCR.

Ref: SSER-7:A-33 (applicable to all above NCRs).

NCR-7724 - Addressed problems with the qualification of Mercury welders. Ebasco's disposition of this NCR failed to determine if (1) welder M-109 had performed welds to WPS-Y for which he was not qualified; (2) welder M-101 had performed welds to WPS-Y for which he was not qualified; (3) welder M-85 had performed welds to WPS-D after his qualifications record had been voided.

Ref: SSER-7:A-215.

NCR-6234 - Identified problems with the sampling frequency of cadwelds for tensile testing for all positions and bar sizes after a cadweld was visually rejected. The data presented in the NCR was not sufficient to determine if the required tensil test sampling frequency was resumed after each visual reject.

Ref: SSER-7:A-146.

NCR-6719/R1 - Identified problems with Mercury hydrostatic test conditions. The Ebasco disposition of the NCR was based on analyzing the "worst case" hydrostatic test conditions; however, only one test was reviewed by Ebasco.

Ref: SSER-7:A-49.

NCR-5997 - Identified problems with the certification of personnel inspecting the clam shell filler blanket under the nuclear plant island. Ebasco's response to the NCR was that the J. A. Jones QC inspector cited was qualified when he performed the inspection although his employer certification did not exist. This response was determined to be incorrect because the J. A. Jones QC inspector had no testing or inspection experience prior to coming to Waterford 3.

Ref: SSER-7:A-114.

NCR-1579 - Documented the heat numbers, after paint was removed, for 1" to 1-1/2" adapters. The closure of the NCR documented heat numbers for 1-1/2" to 1" reducers on the same instrument installation. A visual inspection of the installation by the NRC inspectors did not reveal the heat numbers. The disposition of this NCR is questionable based on how the QC inspector was able to verify the heat numbers.

Ref: SSER-7:A-220.

*These NCRs were closed out by referring to Ebasco letter F-61147E. The problem is that this letter did not close out these or other NCRs.

B. Mercury Procedure SP-669, "Procedure for Handling of Nonconformances and Corrective Action," paragraph 4.2, defines a disposition as, "Those actions required to resolve a nonconformance."

Contrary to the above, the recommended disposition for the following examples of Mercury NCRs was not adequate to resolve the identified nonconformance.

NCRs 313, 322, and 337 - Identified seven ½" stainless steel lines for P2 instruments that were damaged by weld spatter. The NCR stated that the lines were replaced and documented as such in operational control record (OCR) 995 and OCR 1020, but it could not be ascertained from these rework packages that the repair and reinspection was either started or completed. There was no documentation with these NCRs to prove that corrective action was completed.

NCR 363 - Indicated a problem with fitup of emergency diesel generator fuel oil tank "A". This was a safety-related system; therefore, an authorized nuclear inspector (ANI) review should have been performed, but was not.

NCR 554 - Noted numerous problems with supports during a walkdown. There was no proof of work being performed to correct these problems other than a memo (Form 211) stating that work was performed.

NCR 658 - Identified problems with OCR 1671 seismic Category I support, B-430-x23-J-42. The NCR stated "the disposition has been completed, all rework documented." There was no other documentation in the package other than the NCR W3-7317 acceptance letter.

NCR 572 - Noted that the weld on support location #26 was undersized. The NCR stated that the weld was reworked and weld metal added to bring weld to sufficient size. There was no reference as to what OCR was issued to perform this rework or traceability of weld metal used in the performance of this job. Also, there were no inspection reports identified or contained in the package.

NCRs 673-678 - These NCRs were closed out by the statement: "Administratively closed B31.1 to be tracked and resolved by Mercury Engineering Department." This resolution was unacceptable as the requirements of 10 CFR 50, Appendix B apply to safety-related installations as committed to by LP&L. (Also, all of these NCRs were reviewed by Ebasco under NCR W3-7317 and accepted "as-is.")

NCR 673 - Identified problems with instrument tubing installed by OCR #723.

NCR 674 - Identified problems with the electromagnetic control panel worked by OCR #1246.

NCR 675 - Identified problems with instrument tubing installed by OCR #720.

NCR 675 - Identified problems with instrument tubing installed by OCR #720.

NCR 677 - Identified problems with instrument tubing installed by OCR #1332.

NCR 678 - Identified problems with instrument tubing installed by OCR #723.

NCR 888 - Indicated problems with personnel qualifications; e.g., "Several QC type personnel have been certified Level II without documented indications of qualification requirements per QCP 3110, paragraph 1.4 and ANSI N45.2.6." Recommended disposition was marked "N/A" yet the recommended disposition as completed stated "This NCR not processed:

(1) Initiator not a Mercury employee at time of writing;
(2) QCP 3110-...does not apply to W3; (3) ANSI N45.2.6 previously incorporated by QCP 3050 is approved. All M Co. QC techs are trained and tested per QCP 3050 prior to performing inspection or tests."

NCR 889 - Indicated problems dealing with piping supports installed by Mercury in that the installed hangers were different than those noted in Mercury's QC support installation documentation. As with NCR 888, the recommended disposition was marked "N/A" and the recommended disposition was completed by saying "This NCR not processed:

(1) Initiator not a Mercury employee at time of writing;
(2) QCP 3110-...does not apply to W3; (3) ANSI N45.2.6 previously incorporated by QCP 3050 is approved. All M Co. QC techs are trained and tested per QCP 3050 prior to performing inspection or tests."

NCR 3149 - Indicated that there was no documented indications that welder M-343 was qualified to welding procedure specification D (WPS-D). Disposition of this problem was by use of a weld test coupon subsequently found on April 27, 1983, but no longer available. No documentation existed on the qualification of this welder or on his retest. Thus, all welds made by this welder were suspect.

Ref: SSER-7:A-232.

C. Ebasco Procedure ASP-IV-70, "Handling of Engineering Discrepancy Notices," in paragraph 4.1 defines a discrepancy as "A deviation from the specified requirements (including procedures) than can be readily corrected in accordance with standard approved operating procedures or specifications based on good engineering practices. Discrepancies do not require an elaborate engineering evaluation or disposition for correction. They are deviations from good engineering practice and procedures."

Contrary to the above, LP&L and its contractor Ebasco demonstrated a pattern of dispositioning EDNs "accept as is" or "use as is" when Ebasco Procedure ASP-IV-70, "Handling of Engineering Discrepancy Notices," did not allow this disposition. The correct disposition of an EDN is to bring the subject item into conformance or generate a nonconformance for disposition.

Examples of EDNs dispositioned "accept as is" are:

1. EDN-EC-1648 Arc strikes and undercut

2. EDN-EC-1618 Procedural violations on rework of emergency diesel generator component

3. EDN-EC-1476 MT or PT on the weld root pass was bypassed.

Ref: SSER-7:A-302.

IV. Failure to Establish QA Program for Application of Nuclear Protective Coatings

Criterion II of 10 CFR 50, Appendix B requires that the applicant establish at the earliest practicable time, consistent with the schedule for accomplishing the activities, a QA program which complies with the requirements of this appendix. This program shall be documented by written policies, procedures, or instructions and shall be carried out throughout plant life in accordance with those policies, procedures, or instructions. The QA program shall provide control over activities affecting the quality of the identified structures, systems, and components to an extent consistent with their importance to safety.

LP&L committed to meet ANSI N101.2-1972, "Protective Coating (Paints) for Light Water Nuclear Reactor Containment Facilities," in their Preliminary Safety Analysis Report (PSAR) and Final Safety Analysis Report (FSAR) for coatings application to the interior of the containment vessel until September 1983, when the FSAR was revised to include only parts of ANSI N101.2-1972. Paragraph 7.5 (utilization) of this standard requires that the application of a given coatings system, including surface preparation, will be specified to meet the QA program established for the nuclear project utilizing this coating system.

Contrary to the above, LP&L did not require Chicago Bridge and Iron (CB&I) to establish a QA program for the application of nuclear protective coatings to the interior of the containment vessel. As a result, CB&I did not maintain documentation on the basic materials which would support the acceptability of the coatings material or its application. The only documentation available for coatings applied to the containment vessel were the Ebasco QC surveillance inspection reports. There was no established method of documenting the coating work until flaking and delamination of Carbo Fine 11 (primer) occurred after postweld heat treatment was completed by CB&I.

Ref: SSER-7:A-256,271.

V. Failure To Maintain Quality Assurance Records

Criterion XVII of 10 CFR 50, Appendix B requires that sufficient records be maintained to furnish evidence of activities affecting quality. The records shall include at least the following: operating logs and the results of reviews, inspections, tests, audits, monitoring of work performance and material analyses. The records shall also include closely related data such as qualifications of personnel, procedures, and equipment. Inspection and test records shall as a minimum, identify the inspector or data records, the type of observation, the results, the acceptability, and the action taken in connection with any deficiencies noted. Records shall be identifiable and retrievable. Consistent with applicable regulatory requirements, the applicant shall establish requirements concerning record retention, such as duration, location, and assigned responsibility.

LP&L QA Manual Section QR-2.0, "Quality Assurance Program," Table 2.1, states that LP&L is committed to guidance document ANSI N45.2.9, "Requirements for Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Plants," draft 11, Revision 0, January 1, 1973. This ANSI standard requires that the licensee retain QA records in accordance with the retention periods listed in Appendix A of this standard. The following is a sample list of types of records with the retention periods indicated.

Record Type	Permanent	Years After Commercial Operation
Concrete Placement Records	x	
Soil Compaction Test Reports	x	
Field Inspection Report and Release	x	
Material Properties Reports	x	
Performance Test Procedures and Results Records	x	
Nonconformance Reports	x	
Welding Personnel Qualifications		2
Welding Procedures	x	
Welding Inspection Reports (Magnetic, Liquid Penetrant, Radiographic, Ultrasonic)	x	
Welding Filler Metal Material Reports	x	

Contrary to the above, the NRC inspectors noted that the following QA documents had not been maintained as required by ANSI N45.2.9.

A. Mercury Construction Company did not maintain proper accountability of all Mercury Nonconformance Reports (NCRs) to demonstrate NCR retention requirements of ANSI N45.2.9 were satisfied prior to 1982.

Ref: SSER-7:A-232

B. Ebasco did not maintain the following voided NCRs as part of their QA records: W3-27, W3-814, W3-859, W3-981, W3-1053, W3-1102, W3-1109, W3-1228, W-1349, and W3-1438.

Ref: SSER-7:A-18.

C. Chicago Bridge and Iron did not maintain records of coating materials purchased from Carboline for applications to the inside of the containment vessel.

Ref: SSER-7:A-256.

D. GEO Construction Testing Company did not maintain quality assurance records for the qualification of construction materials testing personnel prior to 1982.

Ref: Inquiry Team [IT] Report, Sections II.A.1.e and III.A.3.d.

E. Concrete placement package 593-S01-16 is missing sheet 3 of 5 of the concrete test records.

Ref: SSER-7:A-109.

F. Concrete placement package 593-S01-UZ4FHAA does not contain the original concrete curing log.

Ref: SSER-7:A-112.

G. Backfill records for the seven placement fills surrounding the foundation walls do not contain the in-place testing frequency records for the first 3 feet of backfill in fill area #7 or the first 5 feet of backfill in area #5.

Ref: SSER-7:A-138.

H. Inspection documentation does not exist for several bolted connections on the east and west main steam line framing (elevation +46 and above).

Ref: SSER-7:A-30.

I. Two common foundation pour packages (499-S02-6 and 499-S03-13B) are missing approximately 5 pages of the in-process test records.

J. CCW system structure (cooling tower) pour package (499-804-8A1). The top of the wall pour was identified as not being covered with water for one day during that airing period. Discrepancy Notice (DN) L308 specified that the normal curing period be extended two extra days. Curing information for the final day was not in the package.

Ref: CAT, Section V.B.1.

VI. Failure to Adequately Review Quality Assurance Records

Criterion XVII of 10 CFR 50, Appendix B requires that sufficient records be maintained to furnish evidence of activities affecting quality. The records shall include at least the following: operating logs and the results of reviews, inspections, tests, audits, monitoring of work performance, and material analyses. The records shall also include closely related data such as qualifications of personnel, procedures, and equipment. Inspection and test records shall, as a minimum, identify the inspector or data records, the type of observation, the results, the acceptability, and the action taken in connection with any deficiencies noted. Criterion V of 10 CFR 50, Appendix B requires that activities be accomplished in accordance with procedures appropriate to the circumstances.

Ebasco QA Instruction QAI-9, "Review and Handling of Construction - Installation Records," describes the requirements that QA records must be reviewed for to verify their acceptability.

Contrary to the above, the following QA record deficiencies should have been identified and corrected during Ebasco's QA document reviews that were performed to verify their acceptability.

A. Deficiencies existed in N1 instrument records of installation and inspection in zones classified under ANSI B31.1 prior to April 7, 1982. The record deficiencies included weld reports, welder identification, weld filler material, base material, and weld inspection reports.

Ref: SSER-7:A-197.

B. QC inspection weld records for the instrument cabinet support structures inside the containment building do not indicate if the welds were accomplished by welders working in positions for which they were qualified.

Ref: SSER-7:A-160.

C. Component cooling water (CCW) system structure (cooling tower) pour package (499-S04-1A3 and 1A4), test values slightly exceeding specification was recorded but not identified as being nonconforming conditions.

Ref: CAT, Section V.B.1

VII. Improper Welder Certification

Criterion XVI of 10 CFR 50, Appendix B requires that measures be established to assure that special processes, including welding, heat treating, and nondestructive testing, are controlled and accomplished by qualified procedures in accordance with applicable codes, standards, specifications, criteria, and other special requirements.

LP&L QA Manual Section QR 9.0, Revision 2, "Control of Special Processes," requires that "Special process control records shall provide objective evidence that special processes were performed in compliance with approved special process control procedures by qualified personnel. Results of nondestructive examinations, inspections and tests shall be recorded in accordance with applicable codes, standards and specifications. Special process control shall be retained by the vendor and/or supplied to LP&L as required by contract or purchase order. Qualifications records of procedures, equipment, and personnel associated with special processes shall be established, filed, and kept up-to-date."

Contrary to the above, the following examples of Mercury welder certification records indicated the welders were certified to welding procedures for which they were not qualified.

A. Welder M-44 - Was originally qualified to WPS-B but the record had been retyped and incorrectly indicated the welder was qualified to WPS-Y. The NRC staff reviewed the welder's qualifications record, but could find no qualification to WPS-Y.

B. Welder M-109 - The NRC staff found that the welder's WPS-Y qualifications record was dated November 26, 1982, and voided October 22, 1983; however, the welder qualification status record did not show qualification or welding performed to WPS-Y.

C. Welder M-9 - This welder's qualification status record reflected dates different than those recorded on the welder qualifications record for WPS-E. This record had been revised to change the qualification test date form December 18, 1979 to December 18, 1978. However, the welder qualification status record indicated the test was performed on December 18, 1979, as originally dated.

D. Welder M-101 - This welder was originally qualified to WPS-B but the welder's qualification test record had been revised and the qualification changed to WPS-Y. The NRC staff reviewed the welder's qualification record, but could find no qualification to WPS-Y.

Ref: SSER-7:A-215.

VIII. Failure to Properly Identify Conditions Adverse to Quality

Criterion XVI of 10 CFR 50, Appendix B, requires that measures be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material, and equipment, and non-conformances are properly identified and corrected.

LP&L QA Manual Section 16.0, "Corrective Action," paragraph 16.2, requires, in part, that the major contractors and their suppliers establish written procedures for identifying, for determining the cause of, for evaluating, and for correcting conditions adverse to quality such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances.

A. Mercury Procedure SP-664, "Procedure for Handling of Nonconformances and Corrective Action," paragraph 5.0, requires that the individual or department that identifies a nonconforming condition initiate an NCR.

Contrary to the above, drawing 172-L-012-C, Revision 4, had a handwritten note which identified two lines, DPT-RC-9116 SMB (HP) and DPT-RC-9116 SMA (HP), where the line separation criteria had been violated for startup system (SUS) 52A. This condition was not addressed on an NCR until discussed with the licensee.

Ref: SSER-7:A-279.

B. EBASCO Procedure ASP-III-7, "Corrective Action," Paragraph 6.2.1, requires, in part, that a nonconformance report be issued if the condition cannot be corrected within the scope of approved engineering drawings, specifications, or procedures, or if elaborate engineering evaluation is required, or involves items designed ASME Section III. Paragraph 4.3 of this procedure defines a nonconformance as "a condition in characteristic, documentation, or procedure which renders the quality of an item or service unacceptable or indeterminate. Examples of nonconformances include: physical defects, test failures, incorrect or inadequate documentation, or deviation from prescribed inspection or test procedures."

Contrary to the above, the following deficiencies were identified during performance of EBASCO Quality Assurance Instruction QAI 9, "Review and Handling of Construction - Installation Records:"

1. Q3-CC-1C-16 - *9.2 dated May 5, 1983, reviewed Item 1 - Torque wrench CT-339 was designated by field instructions for torqueing of bolts to 90 ft/lbs. This wrench, designated for work between 0-600 ft/lbs. had not been calibrated for use in the lower range. Resolution was "use as is" since the bolts are evenly torqued, but resolution did not address the problem with the calibration of the torque wrench. An NCR should have been issued.

2. Q2-ST-1C 89 - *9.2 dated March 24, 1983, reviewed Item 17 - Dravo certified material test report (CMTR) which indicated the piping material specified was 376TP304. The bill of material specified the material as 358TP304. An NCR should have been issued.

3. Q2-W3-SI-10-F/E - *9.2 reviewed Item 11 - Supplemental data was added to quality assurance records. The additions were neither initialed or dated, as required by ANSI N4.5.2.9, paragraph 3.2.6. An NCR should have been issued.

4. QMC-HYPO P11E - *9.2 reviewed Items 43, 78, 81 - Penetration test reports were generated as a result of the work required by CIWA 820914 and FCR 1490 R1 for the installation of seal rings in penetrations. The work performed was not inspected or documented. An NCR should have been issued.

*Refers to Quality Assurance Instruction QA1-9, Attachment 9.2, "Construction - Installation Records Deficiency Report."

Ref: SSER-7:A-05.

C. T-B Procedure TPB-12, "Nonconformance and Discrepancies," states in Section 6.2, "DNs are required to be upgraded to Ebasco NCRs when the following criteria applies . . " (as defined in Section 4.1)

"Nonconformance - A deficiency in characteristic, documentation or procedures which renders the quality of an item or service unacceptable or indeterminate. Examples of a nonconformance include: physical defects; test failure, incorrect or inadequate documentation or deviation from prescribed inspection or test procedures, drawings, code and contract equirements."

Contrary to the above, T-B failed to upgrade DNs into Ebasco NCRs as required. The following DNs are examples that should have been upgraded:

1. T-B DN-5047 documented a welder using the wrong procedure to complete a weld. The procedure used was judged by a welding engineer to be metallurgically compatible with the correct procedure. Consequently, the weld record was revised after the completion of the weld to require either the originally required procedure or the procedure used. This DN was never upgraded to an NCR.

2. T-B DN-W-728 documents a missed ANI witness hold point to a PT inspection. The inspection was redone with the ANI present. This incident was not upgraded to an NCR.

3. T-B DN-W-4112 documents 3000# couplings being installed where 6000# couplings were required. Engineering evaluated the installed material and determined its acceptability, but the nonconforming material was never upgraded to a nonconformance.

Ref: SSER-7:A-302.

IX. Inadequate Procedures to Control Activities Affecting Quality

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

LP&L QA Manual Section QP-5.0, Revision 2, "Instructions, Procedures and Drawings," required that "Safety-related activities of LP&L and its major contractors shall be described in documented instructions, procedures, drawings, specifications, checklists, or manuals appropriate to the circumstances. Activities such as design, procurement, manufacturing, construction, installation, testing, inspection and auditing shall be accomplished in accordance with these documents."

Contrary to the above, review of the following procedures revealed that the instructions were inadequate to ensure that activities affecting quality were correctly executed.

A. Ebasco Procedure ASP-IV-18, Issue Q, "Receiving, Storage, Issuing and Control of Welding Electrodes and Filler Materials," does not meet the storage and rebake requirements for storage of AWS A5.1 (7018), electrodes, as described by AWS D1.1-1980, to which Ebasco is committed. American Welding Society AWS D1.1-1980 requires that low hydrogen electrodes conforming to AWS A5.1 be purchased in hermetically sealed containers or be dried for at least 2 hours between 450°F and 500°F before they can be used. Electrodes shall be dried prior to use if the hermetically sealed container shows evidence of damage. Immediately after opening of the hermetically sealed container or removal of the electrodes from drying ovens, electrodes shall be stored in ovens held at a temperature of at least 250°F (120°C). After the opening of hermetically sealed containers or removal from drying or storage ovens, electrode exposure to the atmosphere shall not exceed 4 hours prior to being returned to the storage area. In the case that electrodes are exposed for a period greater than 4 hours, the electrodes are required to be redried.

Ebasco Procedure ASP-IV-18 requires that electrodes be stored in ovens of a temperature between 200-300°F for approximately 8 hours following removal from the hermetically sealed container and prior to use. Covered electrodes are not to be exposed to ambient temperatures for more than 4 hours and if unused are to be returned to the storage ovens for 8 hours prior to reissuance. No instructions are given for electrodes exposed for a period greater than 4 hours.

Ref: SSER-7:A-215.

B. LP&L Construction QA transferred systems to LP&L Operations without using approved procedures for conducting reviews prior to the transfer on or before March 22, 1984. An approved procedure was issued on March 22, 1984 for conducting these reviews.

Ref: IT:Sections II.A.1.m and III.A.5.c.

X. Failure to Control Conditionally Released Equipment

Criterion XVII of 10 CFR 50, Appendix B requires that sufficient records be maintained to furnish evidence of activities affecting quality. . . The records shall also include closely-related data such as qualifications of personnel, procedures, and equipment.

EBASCO Procedure ASP-IV-86, "Conditional Release of Nonconforming or Deficient Items," Section 6.1, requires, in part, that nonconforming or deficient items released on a conditional release basis be approved by the QC supervisor and assigned a QC log number.

Contrary to the above, a list of deficiencies associated with the conditional certification of equipment was found for equipment supplied by Combustion Engineering, Inc. (C-E). One conditional certification of equipment involved the reactor vessel and internals. This certification was issued because as-built drawings, material certifications, and the fabrication plans had not been forwarded when equipment was delivered to LP&L in 1976. This condition existed since July 25, 1976 until it was identified in April or May of 1984, indicating that the system used to control conditional releases was not adequate to ensure that all releases were appropriately approved and assigned. Furthermore, records were not sufficient to verify that all conditional releases have been identified.

Ref: SSER-7:A-165.

XI. Failure to Maintain Design Control

Criterion III of 10 CFR 50, Appendix B requires that measures be established for the identification and control of design interfaces and for coordination among participating design organizations for review, approval, release, distribution, and revision of documents involving design interfaces.

EBASCO Procedure ASP-IV-58, Revision E, "Attachment to Seismic Supports," requires added loads be reported to engineering for inclusion into the "Seismic Allowable Load Chart."

Contrary to the above, the NRC CAT examination of 28 seismic cable tray and HVAC supports revealed that 18 exhibited loads were not shown on design documents and were not reported to engineering included in the "Sesmic Allowable Load Chart."

The following cable tray supports exhibited this condition:

C-459	C-1406	C-1435
C-512	C-1407	C-1989
C-517	C-1418	C-8031
C-874	C-1428	C-2318
C-744	C-1429	33E838

Additionally, NRC CAT observed that six of the 15 supports listed above contained loads in excess of the stated allowable and should have been individually analyzed by engineering. These supports are:

C-1407	317% of allowable
C-1418	161% of allowable
C-1420	249% of allowable
C-1429	162% of allowable
C-1435	164% of allowable
C-2031	151% of allowable

Ref: CAT:Section VIII.B.4

XII. Failure to Adequately Perform Document and Design Control Reviews

Criterion VI of CFR 50, Appendix B requires that measures be established to control the issuance of documents such as instructions, procedures and drawings including changes thereto, which prescribe all activities affecting quality. These measures shall assure that documents, including changes, are reviewed for adequacy and approved for release by authorized personnel and are distributed to and used at the location where the prescribed activity is being performed.

LP&L Quality Assurance Manual, Section QR 6.0, Revision 2, "Document Control" paragraph 6.1 requires that "LP&L and its major contractors shall establish document control programs to control the review, approval, and issuance of documents, such as instructions. procedures, and drawings, including changes thereto, to assure that the documents are adequate and that the quality requirements are stated. . ."

Contrary to the above, discrepancies were identified with controlled documents as described in the following examples:

A. Drawing Stick Files

1. Drawings within the following design groups of Ebasco Site Services Engineering (ESSE) were not properly posted with the applicable Field Change Request (FCR) and Design Change Notice (DCN) numbers.

Design Group	Dwg. No.	Rev.	FCR/DCN Not Posted
ESSE Electrical	G310 sh4	3	DCN-E-1193
ESSE Electrical	G314	8	FCR-E-3192 R3 DCN-E-825 R4
ESSE Mechanical	G435 sh6	3	FCR-IC-P-602 DCN-IC-1247 R1

2. Drawing stick files which contained controlled drawings within the following design groups of ESSE were not kept current with respect to the latest drawing revisions.

Design Group	Dwg. No.	Revision Found	Latest Revision
ESSE Mechanical	G432 sh8	7	8
ESSE Mechanical 4305 1893	EMDRAC	3	4
ESSE I&C Mech.	G161 sh2	6	14
ESSE I&C Mech.	G164 sh3	8	10
ESSE I&C Mech.	G164 sh4	Missing	2

3. The following errors were identified in the Drawing Closeout Schedule of January 20, 1984.

Drawing	Improper FCR/DCN Listing	FCR/DCN Not Listed But Outstanding
G435 sh5 R3		FCR-IC-P-602
G190 sh3 R3	DCN-MP-704 R1	
G162 sh2 R11		FCR-MP-2474
G162 sh4 R1	FCR-MP-2474	FCR-MP-2589
G310 sh2 R2	FCR-E-850	
G310 sh3 R3	DCN-E-1444	
G311 sh1 R8	DCN-E-1023	
G315 R6	FCR-E-533 FCR-E-988 R3 FCR-E-1089 FCR-E-1188 DCN-E-463 R2 FCR-E-2567	DCN-E-1345 R2
G319 sh1 R8		
G320 sh1 R8		FCR-E-1444
G320 sh1 R10		FCR-E-1444
G432 sh5 R7	DCN-IC-1179 R2	FCR-IC-P-37

B. General Specification MC-1, "General Specification Covering Installation of Mechanical Equipment."

1. A copy of specification MC-1 did not have the correct posting upon receipt from field Document Control. Specifically, the revisions to FCR-CH-110 were not posted.

   The missed posting in Document Control occurred because the originating and reviewing organizations of FCR-CH-1101 Rev. 2 and Rev. 3 did not correctly identify that specification MC-1 was an affected document. As a consequence, Document Control could not properly post these two revisions against the document.

2. ESSE Mechanical's controlled copy of specification MC-1 did not have the following applicable FCRs posted:

FCR-M-13	FCR-M-110	FCR-M-118	FCR-M-123
FCR-M-129	FCR-M-196	FCR-CH-1237R1	FCR-M-1101R3

   From a review of the dates of approval of these FCRs, it can be concluded that posting of applicable FCRs against specification MC-1 was not performed after April 4, 1981.

Ref: CAT, Section VII.B.1.

XIII. Failure to Implement an Adequate Inspection Program

Criterion X of 10 CFR 50, Appendix B requires that a program for inspection of activities affecting quality be established for and executed by or for the organization performing the activity to verify conformance with the documented instructions, procedures, and drawings for accomplishing the activity.

LP&L QA Manual Section 10, "Inspection," paragraph 10.1 requires, in part, that LP&L's major contractors establish programs for inspection during manufacturing and construction to assure conformance with applicable instructions, procedures, drawings, specifications, and contract requirements.

Contrary to the above, the licensee did not ensure that an adequate inspection program was implemented by their contractors:

A. For the verification of electrical raceway separations. This is established by the number of observed raceway cable trays and conduits, listed in Table I-1, which do not maintain the required separation between divisions.

TABLE I-1

SEPARATION VIOLATIONS

This Raceway	Violates Separation	With This Raceway	This Raceway	Violates Separation	With This Raceway
C205B-NA		C202-SA	35073B-NB		C202-SB
C206K-NA		L202-SB	3001D-PA		34324-NA
C106-SA		C114-NB	3H051BA-SB		3H051AA-SA
L202B-SB		C206M-NB	3H051AB-SA		39148-NA
L201B-SA		C205B-NA	37855-SMB		36231-NB
31551H-SA		31551T-SB	37666-SMB		36379-SMA
P104-SB		30285-NA	32596B9-SA		3112981-SB
P-104-SB		30285C-NA	31246A-SB		31243A-SA
P104-SB		32087E-NA	31246B-SB		L208-NB
P104-SB		30287C-NA	31243B-SA		31246A-SB
C106D-NB		C102-SB	31243B-SA		35223-NB
L201B-SA		C205M-NA	31246A-SB		35D51A2-NA
C205M-NA		C201B-SA	32661D-SB		37709-NB
C205M-NA		P201B-SA	39956-SB		36225-NB
L203B-NA		C201B-SA	39956-SB		36226-NB
C205L-NA		L201-SA	L201D-SA		30203L-NB
C201A-SA		C205E-NA	L201D-SA		35210H-NA
C201A-SA		P204B-NA	39559-SA		34004-NAB
C201A-SA		L204-NA	39787-SA		398228-NB
C201A-SA		37798-NA	C202E-SB		3100X-NB
C201A-SA		31172K-NB	C202D-SB		311004-NB
C202-SA		P204B-NA	C202D-SB		C201C-SAB
35261-SB		C102-SA	39578-SA		39821-SB
C102-SA		C103-SB	38743-SMC		L203-NB
C102-SA		32807R-NA	38743-SMC		L203D-NA
C102-SA		32807S-NA	35369-SB		L203D-NA
C102-SA		32810X-NA	37963-NA		C201-SAB
C102-SA		32810Y-NA	39851-SAB		3CPR005-NA
C102-SA		32810H-NA	3952L-SMA		39516A-SMD
C102-SA		32810S-NA	37243-SMD		37691-NB
C102-SA		32812N-NA	37172-SMA		30199M-NA
C105M-NA		C101C-SA	C204A-SA		36941-NA
C205-NA		C202-SA	C204A-SA		36942-NA
C203-SB		C202-SA	37666-SMB		37901-NA
32847F-NA		C202-SB			
3FD30A-NA		31509K-SB			

Ref: CAT, Section II.B.1.

B. To ensure that piping supports/restraints were constructed in accordance with design requirements.

Ref: CAT, Section III.B.2.

C. To ensure that HAVC restraints were inspected to the actual as-built configuration.

Ref: CAT, Section III.B.3.

These violations have been categorized in the aggregate as a Severity Level III problem (Supplement II).
(Cumulative Civil Penalties - $130,000 assessed equally among the violations.)

Pursuant to the provisions of 10 CFR 2.201 Louisiana Power and Light Company is hereby required to submit to the Director, Office of Inspection and Enforcement, USNRC, Washington, DC 20555, with a copy to this office, within 60 days of the date of this Notice, a written statement or explanation in reply, including for each alleged violation: (1) admission or denial of the alleged violation; (2) the reasons for the violation, if admitted; (3) the corrective steps that will be taken and the results achieved; (4) the corrective steps that will be taken to avoid further violations; and (5) the date when full compliance will be achieved. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, Louisiana Power and Light Company may pay the civil penalties in the amount of $130,000 or may protest imposition of the civil penalties in whole or in part by a written answer. Should Louisiana Power and Light Company fail to answer within the time specified, the Director, Office of Inspection and Enforcement, will issue an order imposing the civil penalties in the amount proposed above. Should Louisiana Power and Light Company elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalties, such answer may: (1) deny the violations listed in the Notice in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the penalties should not be imposed. In addition to protesting the civil penalties in whole or in part, such answer may request remission or mitigation of the penalties. In requesting mitigation of the proposed penalties, the five factors contained in section V.B of 10 CFR Part 2, should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of Louisiana Power and Light Company is directed to the other provisions of 10 CFR 2.205 regarding the procedure for imposing a civil penalty.

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

FOR THE NUCLEAR REGULATORY COMMISSION

Robert D. Martin

Robert D. Martin
Regional Administrator

Dated at Arlington, Texas
this 24 day of May 1985

Official

APR 03 1991

Docket Nos. 50-390, 50-391
License Nos. CPPR-91, CPPR-92
EA 91-19

Tennessee Valley Authority
ATTN: Mr. D. A. Nauman
Senior Vice President
Nuclear Power
6N 38A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

Gentlemen:

SUBJECT: SUMMARY OF MARCH 12, 1991, TVA/NRC MEETING ON CORRECTIVE ACTIONS FOR WORK CONTROL AND WORK QUALITY ISSUES

This refers to the meeting conducted at our request in the Region II Office on March 12, 1991. The purpose of the meeting was to discuss the status of ongoing and planned activities related to the stop work order, including the conditions necessary for resumption of work. A list of attendees, a narrative summary of the meeting, and a copy of your handout are enclosed.

It is our opinion that this meeting was beneficial in that it provided an understanding of the actions you have taken with respect to the work control problems at Watts Bar, your plans to perform certain cable testing activities prior to lifting the stop work order and your plans to gradually resume work under increased management controls.

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

Should you have any questions concerning this matter, please contact us.

Sincerely,

Original Signed By
BRUCE A. WILSON

Bruce A. Wilson, Chief
TVA Projects

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PDR ADOCK 05000390
A PDR

Enclosures:
1. List of Attendees
2. Meeting Summary
3. Handout

cc w/encls: (See page 2)

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ENCLOSURE 1

LIST OF ATTENDEES

TVA/NRC MEETING ON WATTS BAR WORK CONTROL

MARCH 12, 1991

Nuclear Regulatory Commission:

S. D. Ebneter, Regional Administrator, Region II
J. L. Milhoan, Deputy Regional Administrator, Region II
A. F. Gibson, Director, Division of Reactor Safety
B. A. Wilson, Chief, TVA Projects
K. P. Barr, Section Chief, Watts Bar
G. A. Walton, Senior Resident Inspector, Construction
H. H. Livermore, Senior Project Engineer
A. R. Long, Project Engineer

Tennessee Valley Authority:

D. E. Nunn, Vice President, Nuclear Projects
J. H. Garrity, Vice President, Watts Bar Site
M. O. Medford, Vice President, Nuclear Assurance, Licensing and Fuels
M. Bellamy, Projects Manager, Watts Bar
J. A. Scalice, Plant Manager, Watts Bar
E. G. Wallace, Acting Watts Bar Site Licensing Manager
S. W. Crowe, Watts Bar Site Quality Manager
R. L. George, Engineering and Modifications Manager

ENCLOSURE 2

MEETING SUMMARY

TVA/NRC MEETING ON WATTS BAR WORK CONTROL

MARCH 12, 1991

A management meeting between the NRC and Tennessee Valley Authority was held in the NRC's Region II Office on March 12, 1991, to discuss the status and plans for activities associated with the December 1990 Watts Bar Nuclear Plant Stop Work Order. The objectives of the meeting included discussions of the status of activities, conditions necessary for lifting the stop work order and resuming normal work activities, and TVA's plans for conducting limited work activities under controlled conditions prior to lifting the order. The enclosed handout provides the detailed technical information which was presented at the meeting.

The NRC Regional Administrator, Mr. Stewart Ebneter, opened the meeting by briefly summarizing the NRC concerns. The Watts Bar Site Vice President, Mr. John Garrity, then introduced TVA's formal presentation with an outline of the objectives to be covered during the meeting, and stated that permission would be requested to undertake limited cable testing activities under the control of the Operations organization rather than Construction.

Following the opening remarks by Mr. Garrity, Mr. Dwight Nunn, TVA's Vice President of Nuclear Projects, provided an overview of the causes of the work control problems at Watts Bar. The identified causes included a loss of accountability, and complex and unworkable work procedures which placed an undue burden at the foreman level without providing effective support from management or interfacing organizations. Mr. Nunn stated that the goals of TVA's corrective action plans included streamlining the work control process, and providing the craft with adequate technical support and proper procedures. He indicated that major management changes would be made in order to improve performance.

Mr. Nunn also addressed the sizeable backlog of open issues at Watts Bar, which includes both incomplete corrective actions and a number of unassessed quality concerns. Numerous open items exist in the construction area. Mr. Nunn stated that the schedule for resuming construction is uncertain, but TVA anticipates the stop work order will not be lifted until at least August 1991. TVA plans to resume construction at a low level, and monitor activities closely for quality.

An overview of recent actions, and management objectives prior to restart, were presented by Mr. John Garrity. Mr. Garrity stated that TVA would demonstrate that they understand issues from the past, and will show that they won't recurr. Principle corrective action objectives included having improved workplans and procedures in place, having approximately 36 training modules written and pilot tested by one training class, more management involvement at the work site and with QA and QC on a regular basis with feedback to improve performance, and resolution of the backlog of problems bearing on construction

quality or records. Mr. Garrity stated that there would be a number of organizational changes to clarify responsibilities for quality-related activities. A matrix will be developed to ensure that all quality-related responsibilities have been appropriately assigned and reflected in plant procedures.

Mr. Garrity stated that the Watts Bar self-assessment had been expanded from the work areas originally addressed in the stop work order, to include all areas of work on the site, and would also go back to the Nuclear Performance Plan, Employee Concerns Program special reports, Condition Adverse to Quality Reports, Corrective Action Tracking Documents, and other sources of previously identified problems to assure all issues are adequately addressed.

Mr. Garrity noted that recent TVA efforts had produced a definite decrease in the backlog of open issues. When reviewing documentation processed under various previous corrective action programs, for rollover into the new program, TVA personnel evaluated the quality of the closure and the work itself. He stated that open item closures are now receiving a higher level of management overview than they have in the past.

Mr. Michael Bellamy, the Watts Bar Projects Manager, presented the licensee's shutdown and root cause assessments, and corrective action status. The self-assessment included a study of pre-indicators of problems with work control, and evaluations of all hardware and significant documentation deficiencies. A trend analysis showed that a significant percentage of findings from NRC inspections and various licensee programs have been in the work control area.

Root causes identified by the licensee were divided into four major components, as described in the meeting handouts. For each of the root cause categories, Mr. Bellamy discussed the types of problems in the category, the causative factors, and the anticipated corrective actions. Watts Bar managers have been charged with ensuring that work quality is acceptable, that workers are properly trained, that procedures are adequate, and that data sheets are correct.

The Engineering Modifications Manager, Mr. Ronald George, and the Plant Manager, Mr. John Scalice, presented information on near term discovery work items being conducted while the construction stop work order remains in effect. The first type included walkdowns which involve no craft support, and have been conducted with appropriate approved procedures, and with adequate coordination to assure the quality of the data. Mr. George stated that independent Quality Control inspections of the work had yielded favorable results. The second type of near term discovery work included visual inspection walkdowns involving craft support for insulation, scaffolding, or operation of equipment. TVA emphasized that walkdowns do not involve altering hardware, although the results of the walkdowns can be used to determine if hardware conditions are acceptable.

The NRC Senior Resident Inspector for Construction, Mr. Glenn Walton, stated that based on recent NRC findings, it was unclear whether or not outdated Construction Process Instructions (CPIs) had been used for work under

Maintenance Requests after the CPI update process was put on hold as a result of the stop work order. There was also some question whether work may have been performed outside of the scope of Maintenance Request instructions. TVA was aware of these issues but additional information was needed before any final conclusion could be reached.

TVA requested NRC approval to conduct hi-pot testing of spare and abandoned cables as part of their continuing discovery work. They stated that they were not asking for approval for other types of work at this time. The planned testing activities will include a minimum of wet testing, and work quality is to be ensured through pre-job briefings, extra in-process management checks, enhanced technical support of testing, coordination, immediate review of completed packages with ongoing feedback to management, management participation in closeout and resolution of issues, and quality control at higher levels of management. Procedures used for this testing will be up-to-date, self-contained, and supported by completed and approved engineering evaluations. If a cable fails the hi-pot testing, it will be removed and sent for laboratory analysis, but will not be reinstalled without NRC approval. NRC agreed to the hi-pot testing of the spare and abandoned cable and to removal of cables which fail the testing, with the understanding that NRC would have the opportunity to review the work controls prior to commencement of testing.

The NRC Regional Administrator reiterated that TVA would be expected to demonstrate design and construction adequacy before obtaining an operating license for Watts Bar, and closed the meeting by thanking TVA for the presentation.

In addition to the planned action items described in the meeting handout, and the previously described commitments concerning the conduct of cable testing, the licensee agreed to the following specific actions prior to lifting the stop work order and resuming construction activities:

- The licensee will construct and implement a matrix of quality responsibilities, which will be provided to the NRC for review.

- For each of the near term work activities conducted with the stop work order in effect, TVA will demonstrate how quality was ensured and that all work was performed in accordance with up-to-date procedures and current requirements.

- As part of a continuing self-assessment, TVA will reevaluate the use of Maintenace Requests and ensure that up-to-date standards are used.

- Before resuming construction work, TVA will demonstrate that each Corrective Action Tracking Document (CATD) is either closed or will not affect quality. Specifically, CATD 11 200-09 will be closed.

- TVA will review all CPIs and ensure that they are acceptable before plant activities will resume.

ENCLOSURE 3

TVA - NRC MEETING
WATTS BAR NUCLEAR PLANT
STOP WORK

MARCH 12, 1991

TVA - NRC MEETING
WATTS BAR NUCLEAR PLANT
STOP WORK

MARCH 12, 1991

AGENDA

I.	INTRODUCTION	DWIGHT NUNN
II.	MANAGEMENT OBJECTIVES PRIOR TO RESTART	JOHN GARRITY
III.	OVERVIEW OF RECENT ACTIONS	
IV.	SHUTDOWN ASSESSMENTS	MIKE BELLAMY
V.	ROOT CAUSES	
VI.	CORRECTIVE ACTION STATUS	
VII.	NEAR TERM WORK ITEMS	RON GEORGE/ JOHN SCALICE
VIII.	SUMMARY	DWIGHT NUNN

MEETING OBJECTIVES

- BRIEFLY DISCUSS THE STATUS OF ONGOING AND PLANNED ACTIVITIES RESULTING FROM THE STOP WORK ORDER
- BRIEFLY DISCUSS THE CONDITIONS NECESSARY FOR RESUMPTION OF QUALITY WORK UNDER ENHANCED MANAGEMENT CONTROLS
- INFORM NRC OF THE LIMITED WORK ACTIVITIES WHICH ARE ONGOING OR WILL BE INITIATED AND THE STRICT CONTROLS GOVERNING THEM PRIOR TO THE LIFTING OF THE STOP WORK ORDER

MANAGEMENT OBJECTIVES

RESTART OF CONSTRUCTION

NEW WORKPLAN FORMAT & PROCEDURES, RELATED PROCEDURES SIMPLIFIED & COMBINED

TRAINING

QUALITY MONITORING PIPELINE & QUALITY PERFORMANCE INDICATORS IN PLACE

BACKLOGGED PROBLEMS ADDRESSED

OTHER PROCESS IMPROVEMENTS

ORGANIZATION CHANGES

ENGINEERING AHEAD OF CONSTRUCTION

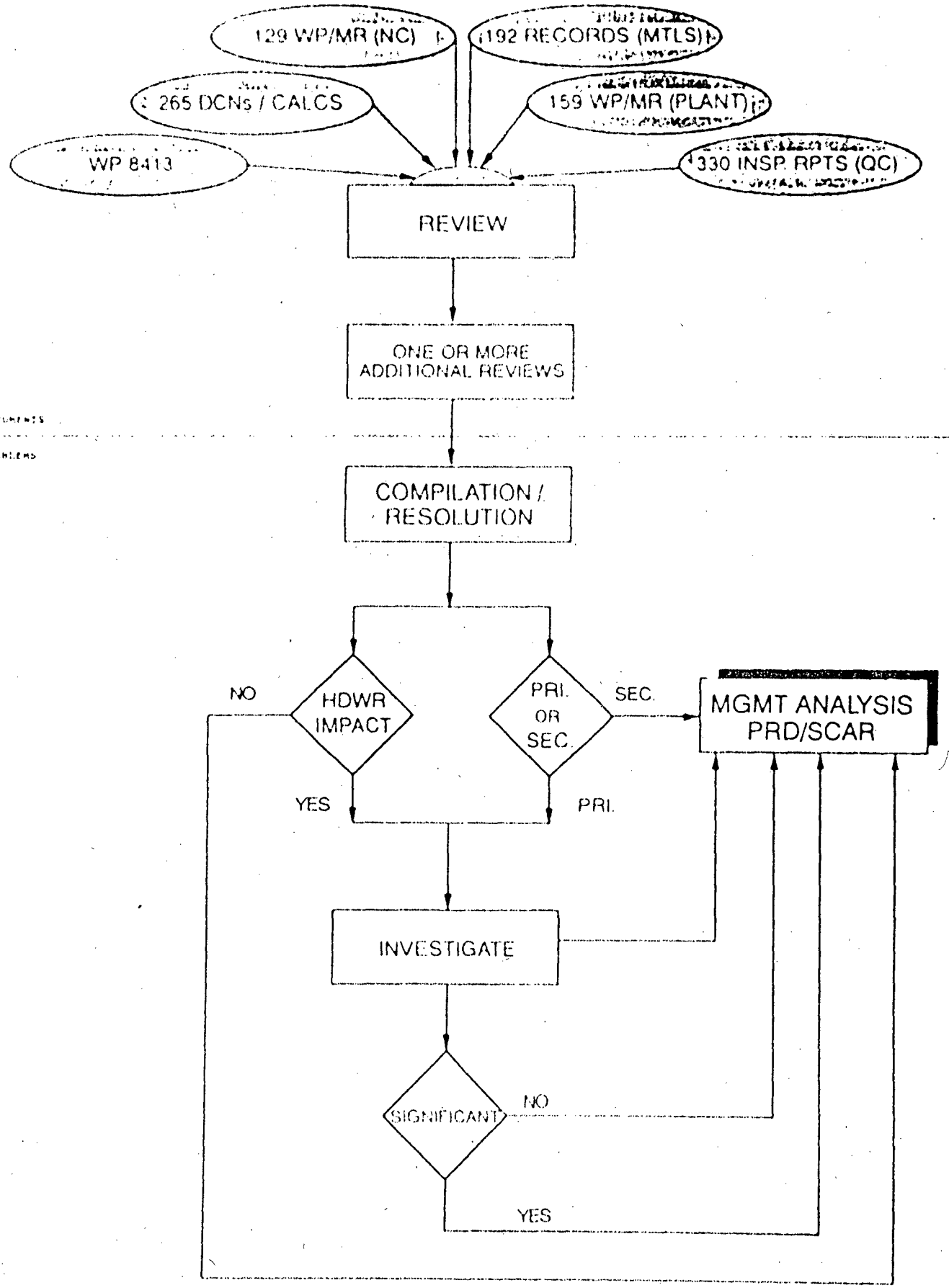
ASSURANCE THAT HISTORICAL PROBLEMS ARE UNDERSTOOD & WILL NOT REPEAT

PLANS FOR CAREFULLY MONITORED, SLOW RESTART

OVERVIEW OF RECENT ACTIONS

- Stop Work 12/21/91
- Self Assessment
  - Work control
  - Other work areas
  - Past issues
- Root Cause Analysis of Work Control & Corrective Action Programs
  - Corrective Action for Work Control Process
    - Workplan Format & Scope
    - Procedures
    - Training
    - Quality Monitoring
    - Performance Monitoring & Assessments
  - Corrective Actions for Corrective Action Process
    - New Procedures and Training
    - Management Review Committee
    - Senior Management Committee
    - Backlog Team for CAQR Closure
- Self Assessment Follow-up
- Interim Schedule
  - Logic for Restart
  - Merge with Master Project Schedule
- Management Involvement
  - CAQR Backlog, New Procedure Implementation,
  - Daily Review of Incoming Problems
  - Root Cause Analysis/KT
  - Daily Schedule Status Meetings
  - Performance Indicator Specification & Monitoring

ASSESSMENT PLAN



TREND ANALYSIS

DOCUMENTS WERE REVIEWED TO IDENTIFY WORK CONTROL RELATED FINDINGS.

	NUMBER REVIEWED	WORK CONTROL RELATED	PERCENTAGE WC RELATED
1990 CAQR'S	607	203	30%
ALL CATD'S	566	69	12%
NRC VIOLATIONS	74	43	58%
NRC IFI'S	163	30	18%
NRC URI'S	147	35	24%
QA AUDITS	15	8	53%
QA SURVEILLANCES	21	7	33%
EMPLOYEE CONCERNS	486	88	18%
TOTAL	2079	483	23%

WORK CONTROL

ROOT CAUSE STATEMENT

GENERAL PERFORMANCE COMPONENT

INATTENTION TO DETAIL, SUPERVISORY INEFFECTIVENESS, PROCEDURAL COMPLEXITY/LACK OF CLARITY, AND PROCEDURAL NON-COMPLIANCE HAVE RESULTED IN NUMEROUS DOCUMENTATION PROBLEMS (MOSTLY MINOR) AND SOME HARDWARE DEFICIENCIES.

MANAGEMENT PERFORMANCE COMPONENT

FAILURE TO IMPLEMENT RESPONSIBILITIES, INEFFECTIVE FOLLOW THROUGH OF CORRECTIVE ACTIONS, AND INATTENTION TO DETAIL HAVE RESULTED IN CONTINUATION OF PREVIOUSLY IDENTIFIED UNACCEPTABLE WORK CONTROL PERFORMANCE.

ENVIRONMENTAL COMPONENT

ORGANIZATIONAL STRUCTURE AND CHANGING ENVIRONMENTS OF LEADERSHIP, FOCUS, AND PRIORITIES HAVE LED TO INEFFECTIVENESS IN RESOLVING THESE WORK CONTROL ISSUES.

INDIVIDUAL PERFORMANCE COMPONENT

PREVIOUSLY HELD, MISTAKEN AND ANTIQUATED BELIEFS OF QUALITY RESPONSIBILITIES AND "INSPECTING IN QUALITY" HAVE CONTRIBUTED TO EXTENT OF THE PROBLEMS.

WORK CONTROL
PROBLEM MATRIX
GENERAL PERFORMANCE COMPONENT

PROBLEM CATEGORY	CAUSATIVE FACTOR	CORRECTIVE ACTIONS
-MANY MINOR RECORD ERRORS -DATA MISSING -HARDWARE DAMAGE -HARDWARE DEFICIENCIES	-PROCEDURE COMPLEXITY -PROCEDURE CLARITY	-ENGINEERING CHANGE NOTICE CLEANUP -NEW WORKPLANS/SAFETY NET -PROCEDURE/PROCESS IMPROVEMENTS -WORK CONTROL CENTER
-MANY MINOR RECORD ERRORS -MISSING SIGNATURES -EARLY HOLD ORDER RELEASE -MISSING INSPECTIONS -DATA MISSING -POOR QUALITY REVIEWS -HARDWARE DAMAGE -HARDWARE DEFICIENCIES	-PROCEDURE NON-COMPLIANCE -INATTENTION TO DETAIL	-PERSONNEL ASSESSMENTS -ACCOUNTABILITY/DISCIPLINE -QUALITY TRAINING EMPHASIS -NEW TRAINING MODULES -PIPELINE REVIEWS/REPORTS -CERTIFICATION PROGRAM

WORK CONTROL
PROBLEM MATRIX
MANAGEMENT PERFORMANCE COMPONENT

PROBLEM CATEGORY	CAUSATIVE FACTOR	CORRECTIVE ACTIONS
-MANY OLD CAQR'S/NOV'S,ETC -PREVIOUS FAILED RESOLUTIONS -BACKLOG TOLERANCE	-FAILURE TO IMPLEMENT RESP -INADEQUATE FOLLOW THROUGH	-ORGANIZATION/MGMT CHANGES -BETTER TRENDING REPORTS -MANAGEMENT REVIEW OF SCAR'S -IMPROVED CORRECTIVE ACTION PROGRAM -DEDICATION TO BACKLOG
-WRONG QA LEVEL MATERIALS -ENGINEERING INTERFACE -WESTINGHOUSE DESIGN INTERFACE	-INATTENTION TO DETAIL	-MATERIAL FILES REVIEW (100%) -WEST./TVA INTERFACE CHECK -INTERNAL ENGINEERING INTERFACE REVIEW -QUALITY REPORT CARD PROGRAM -DAILY SCHEDULE MEETING

WORK CONTROL
PROBLEM MATRIX
ENVIRONMENTAL COMPONENT

PROBLEM CATEGORY	CAUSATIVE FACTOR	CORRECTIVE ACTIONS
-INADEQUATE RESOURCES -SCHEDULE FOCUS OFF PROB. -DISTRACTIONS FROM ISSUES	-ORGANIZATION STRUCTURE -CHANGING ENVIRONMENT	-RESPONSIBILITY MATRIX -POSITION DESCRIPTIONS -NEW CONSTRUCTION ORGANIZATION -PERSONNEL CHANGES -NEW SCHEDULE CONTROLS

WORK CONTROL
PROBLEM MATRIX
INDIVIDUAL PERFORMANCE COMPONENT

PROBLEM CATEGORY	CAUSATIVE FACTOR	CORRECTIVE ACTIONS
-RELUCTANCE TO CHANGE -NARROW FOCUS ON PROBLEMS	-OLD QUALITY BELIEFS	-PERSONNEL ASSESSMENTS -ORGANIZATION/PERSONNEL CHANGES -ACCOUNTABILITY/DISCIPLINE

HARDWARE DEFICIENCIES

HARDWARE	PROBLEM	RESOLUTION
HANGER	MISSING CLAMP	REPLACE
INSTRUMENT TUBING	INCORRECT SPAN	REWORK
HANGER	SHORT WEDGE BOLT	USE AS IS
PIPE SUPPORT	GROUT MISSING	REWORK
CABLE SPLICE	INCORRECT SHIM SIZE	REWORK
CABLE CONDUCTOR	DAMAGE (3) MILD ENV.	REPAIR
PIPE (6 INCHES)	INCORRECT QA LEVEL	REPLACE
FLEXIBLE CONDUIT	LOOSE FITTINGS	REWORK
AFW FLOW CONTROLLER	WRONG SETPOINT	REWORK
AFW VALVE MOTORS	NOT INCLUDED IN EQ PROGRAM	REPLACE
HEX NUTS (6)	WRONG QA LEVEL	REPLACE

CURRENT AND PLANNED WALKDOWNS INVOLVING NO CRAFT SUPPORT

- VENDOR MANUALS
- PLANT CONDITION ASSESSMENT
- TAGGING
- PLATFORMS
- MASONRY
- CONCRETE
- EQUIPMENT ANCHORAGE

CURRENT AND PLANNED WALKDOWNS INVOLVING CRAFT SUPPORT

PROGRAM	INSULATION REMOVAL	SCAFFOLDING	OPEN/CLOSE EQUIPMENT
CIVIL/STRUCTURAL			
EMBEDDED PLATES			
ESQ			
CONDUIT & SUPPORTS			NEEDS REMOVAL OF SECURITY BARRIERS BY PLANT PERSONNEL
CABLE TRAY SUPPORTS			
CABLE TRAY SEGMENTS			
HVAC & SUPPORTS			
TORNADO DAMPERS			
LARGE BORE PIPING			
SMALL BORE PIPING			
BOX ANCHORS			
INTEGRATED INTERACTION			
CABLE BEND RADIUS INSPECTION			
SPLICE & TERMINATION INSP			
DBVP WALKDOWN			
VERIFICATION OF EQ ATTRIBUTES			
CONDUIT TO TRAY ENTRY			
TRAY COVER WALKDOWNS			
INSTRUMENT LINE WALKDOWN			
SEPARATION WALKDOWN			
ASME SECTION III VALIDATION			

PLANNED ACTIVITIES REQUIRING PHYSICAL WORK

PROGRAM	WHY	CONTROLS	WHEN	ORG.	PHYSICAL WORK
Spare and Abandoned Cable Testing	NRC commitment to resolve concern regarding cable pullby damage (PWL-EA, CABLE CAP)	Plant MR DCN TI 43	4-6 Week Duration	Plant Elect. Maint. Nuclear Engineering QC	Scaffolding erection [illegible] opening [illegible] signal [illegible] cable runs, high potential testing of cables & possible cutting conduit removing cable & PVC
Master Fuse List	Commitment to NRC to resolve open item on Master Fuse List project SER	Site Walkdown Procedure	3-4 Week Duration	Operations and Instrument Maintenance	Possible removal from fuse holder
Paint and Insulate Piping Chilled Water & Glycol	NRC Violation 390/90-15-03 (Near Min-Wall)	Plant MR	60 Man Months	Plant maintenance	Switch operations [illegible] clean/remaining pipe and paint [illegible] insulation erect scaffolding as required
Cable Specimen for EQ Test (60 - 90 degrees C)	To support EQ test	MR with NE witness	Approximately one day to remove and ship to Central Labs	Nuclear Engineering Plant Maintenance	Remove & ship cable
Plant Walkdown of Unjacketed Cable	WBP910092 E.O.C. of UnjacketedCable installation (WBP 9100925SCA)	Plant MR	ASAP - Approximately 2 weeks to complete the walkdown	Nuclear Engineering Electrical Maintenance	Panels, cabinets and [illegible] may have to be opened, wire ties removed and replaced

Official Copy

MAR 16 1992

Docket Nos. 50-390, 50-391
License Nos. CPPR-91, CPPR-92
EA 92-047

Tennessee Valley Authority
ATTN: Dr. M. O. Medford
Vice President,
Nuclear Assurance
Licensing and Fuels
3B Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

Gentlemen:

SUBJECT: NRC INSPECTION REPORT NO. 50-390/92-03 AND 50-391/92-03

This refers to the inspection conducted by Ron Gibbs of this office on February 10-14 and 17-20, 1992. The inspection included a review of activities authorized for your Watts Bar facility. At the conclusion of the inspection, the findings were discussed with those members of your staff identified in the enclosed inspection report.

Areas examined during the inspection are identified in the report. Within these areas, the inspection consisted of selective examination of procedures and representative records, interviews with personnel, and observation of activities in progress.

As a result of this inspection, eight apparent violations were identified and are being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), 10 CFR Part 2, Appendix C (1991). The NRC is concerned with the number and nature of deficiencies identified in the enclosed inspection report concerning your Material Improvement Program. The purpose of that program is to prevent material of unknown quality from being installed in the plant, without an engineering review and reinspection to verify acceptability. As evidenced by the findings of this inspection your program has failed to accomplish that purpose. Accordingly, no Notice of Violation is presently being issued for these inspection findings. Please be advised that the number and characterization of apparent violations described in the enclosed inspection report may change as a result of further NRC review.

Additionally, we are concerned that the program controls for the material receipt inspection area were reduced after construction restart without notification of the NRC, contrary to one of the conditions which were agreed to prior to construction restart approval. Your program to control this notification of the NRC warrants management attention.

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Q PDR

An NRC investigation of the apparent violations discussed in the inspection report is continuing. An enforcement conference to discuss these apparent violations will be scheduled by separate correspondence. The purposes of this conference are to discuss the apparent violations, causes and safety significance; to provide you the opportunity to point out any errors in our inspection report; to provide an opportunity for you to present your proposed corrective actions; and to discuss any other information that will help us determine the appropriate enforcement action in accordance with the Enforcement Policy. You will be advised by separate correspondence of the results of our deliberations on this matter.

Even though no response to the apparent violations is required at this time, the schedule to complete this enforcement action may not support your current schedule for unconditional release of construction activities. Therefore, we request you provide a detailed description of corrective actions taken to address the issues identified in this report. Please respond within 30 days from the date of this letter.

In accordance with Section 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

Should you have any questions concerning this letter, please contact us.

Sincerely,

(Original signed by L. Reyes)

Luis A. Reyes, Director
Division of Reactor Projects

Enclosure:
NRC Inspection Report

cc w/encl: (See page 3)

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

Report Nos.: 50-390/92-03 and 50-391/92-03

Licensee: Tennessee Valley Authority
6N 38A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

Docket Nos.: 50-390 and 50-391 License Nos.: CPPR-91, CPPR-92

Facility Name: Watts Bar 1 and 2

Inspection Conducted: February 10-14 and 17-20, 1992

Team Leader: Ron Gibbs 3/10/92
Ron Gibbs, Project Engineer Date Signed

Inspectors: G. Walton, Senior Resident Inspector
K. Ivey, Resident Inspector

Approved by: K. P. Barr March 10, 1992
K. P. Barr, Section Chief Date Signed
Reactor Projects Branch 4
Division of Reactor Projects

SUMMARY

Scope:

This routine, announced inspection was conducted to review the licensee's implementation of the Material Improvement Program (MIP).

Results:

This inspection identified eight apparent violations of NRC requirements concerning a lack of controls in the materials area. These violations represent a programmatic problem which allowed material of unknown quality to be installed in the plant. In addition, one procedure was issued in the material area since construction restart, which reduced program controls contrary to the agreement between TVA and the NRC, as documented in the NRC's letter approving construction restart, dated November 26, 1991. A summary of the problems identified by the inspection are as follows:

One apparent violation was identified for failure to establish adequate measures to prevent material of unknown quality from being installed in safety related applications in the plant (See paragraphs 4.A.1 and 4.A.2).

One apparent violation was identified concerning inadequate records for documenting material that was installed in the plant (See paragraphs 4.A.1.a-c).

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One apparent violation was identified concerning failure to verify the critical characteristics of a commercial grade item as required by the associated engineering commercial grade dedication package (See paragraph 4.A.3).

One apparent violation was identified concerning the failure of MIP sanitization receipt inspection records to identify the applicable inspection procedure and its appropriate revision for ASME Code materials. This deficiency was found to be generic to all sanitization receipt inspections of ASME Code materials performed by MIP to date (See paragraph 4.A.4).

One apparent violation was identified concerning inadequate procedures to control the tagging of materials (See paragraph 4.B.3).

One apparent violation was identified concerning inadequacies in the MIP sanitization receipt inspection procedure (See paragraphs 4.B.1 and 4.B.4).

One apparent violation was identified concerning failure to follow a procedure regarding the segregation of materials undergoing the MIP sanitization process (See paragraph 4.C).

One apparent violation was identified involving failure of the site's corrective action program (See paragraph 4.C).

In addition, one unresolved item was issued pending the review of actions concerning loss of approximately one hundred old receipt inspection reports.

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Official copy

Docket Nos. 50-390 and 50-391
License Nos. CPPR-91 and CPPR-92
EA 92-218

Tennessee Valley Authority
ATTN: Dr. Mark O. Medford, Vice President
Nuclear Assurance, Licensing & Fuels
3B Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

Gentlemen:

SUBJECT: NRC INSPECTION REPORT NOS. 50-390/92-29 AND 50-391/92-29

This refers to the NRC team inspection conducted by E. H. Girard on September 28 through October 21, 1992. The inspection included a review of activities authorized for your Watts Bar facility. At the conclusion of the inspection, the findings were discussed with those members of your staff identified in the enclosed inspection report.

Areas examined during the inspection are identified in the report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observation of activities in progress.

One apparent violation, with multiple examples, was identified and is being considered for escalated enforcement in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), 10 CFR Part 2, Appendix C, 57 FR 5791, February 18, 1992. The apparent violation involves failure to establish and implement an adequate corrective action program for conditions adverse to quality. We are concerned about this apparent violation because an effective program to identify and correct conditions adverse to quality is vital to plant safety. Accordingly no Notice of Violation is presently being issued for these inspection findings. Please be advised that the number and characterization of apparent violations described in the enclosed inspection report may change as a result of further NRC review.

An enforcement conference to discuss this apparent violation has been scheduled for December 9, 1992. The purposes of this conference are to discuss the apparent violation, its causes and safety significance; to provide you the opportunity to point out any errors in our inspection report; to provide an opportunity for you to present your proposed corrective actions; and to discuss any other information that will help us determine the appropriate enforcement action in accordance with the Enforcement Policy. You will be advised by separate correspondence of the results of our deliberations on this matter. No response regarding this apparent violation is required at this time.

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Q PDR

NOV 27 1992

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and any reply will be placed in the NRC Public Document Room.

Should you have any questions concerning this letter, please contact us.

Sincerely,

(Original signed by J. Johnson)

Ellis W. Merschoff, Director
Division of Reactor Projects

Enclosure:
NRC Inspection Report

cc w/encl: (See page 3)

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

Report Nos.: 50-390/92-29 and 50-391/92-29

Licensee: Tennessee Valley Authority
6N 38B Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

Docket Nos.: 50-390 and 50-391 License Nos.: CPPR-91 and CPPR-92

Facility Name: Watts Bar 1 and 2

Inspection Conducted: September 28 through October 21, 1992

Team Leader: E. H. Girard, Team Leader — Date Signed 11/24/92

Team Members: G. A. Walton, Senior Resident Inspector, Watts Bar
K. D. Ivey, Resident Inspector, Watts Bar
A. J. Ignatonis, Technical Assistant, RII
W. S. Little, Senior Project Inspector, RII
W. C. Bearden, Resident Inspector, Browns Ferry

Approved by: K. P. Barr, Section Chief, Division of Reactor Projects — Date Signed 11/24/92

EXECUTIVE SUMMARY

This special, announced team inspection was directed primarily to examination and assessment of actions taken by the licensee in resolving adverse conditions that had been previously identified in relation to QA records. Particular attention was directed to conditions addressed by Unit 1 Significant Corrective Action Report (SCAR) WBP870036SCA and to the process whereby it became a collector of adverse conditions from various sources. Current records retrievability and control of design documents were also briefly examined.

In regard to the resolution of adverse conditions, the team concluded that the licensee's resolution process had not been adequate. The corrective action program had not been conducted in accordance with regulatory requirements. This was supported by a number of examples of inadequate corrective action identified by the team, which are reported below as an apparent violation.

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No significant concerns were identified in the limited inspection of records retrievability and design document control. It was noted that the current status of some hardware installations was not reflected in the current database which is still being implemented. These are areas that will be addressed in greater detail in subsequent NRC inspections.

The significant findings of this inspection are as follows:

Apparent Violation:

Examples of inadequate corrective action identified by the team are designated as Apparent Violation 390, 391/92-29-01, Inadequate Corrective Action. The examples fall into three categories, with the first appearing the more significant:

(1) Conditions adverse to quality (CAQs) applicable to Unit 1 and Common items were assigned to Unit 2 reports for resolution. As a consequence, they are in a "hold status" and not required to be resolved for operation of Unit 1.
[Report Sections 4.1 and 4.2]

(2) Previously identified CAQs or portions of CAQs were omitted in a "rollover" process of transferring CAQs from one CAQ reporting document to another.
[Report Sections 3.1, 3.1.4, 3.1.5, 3.1.6, and 3.1.8]

(3) Incorrect transfers of CAQs found by QA monitoring were not promptly identified on CAQ reporting documents.
[Report Section 3.2]

Conditions similar to those identified in (1) above have been previously cited in NRC Violation 91-03-05. Additionally, the licensee had previously identified conditions similar to those in (2) in Significant Corrective Action Report (SCAR) WBP890481SCA. Both the previous violation and the licensee's SCAR have been closed on the basis that their corrective actions and actions to preclude recurrence were complete. The actions do not appear to have been fully effective.

Significant Weakness:

The team found that the licensee had a continuing large backlog of Significant Corrective Action Reports (SCARs) that identified "significant" adverse conditions. They were not being corrected in a timely manner. A particular example reviewed in the current inspection was SCAR WBP870036SCA, originally opened over 5 years ago. A recent licensee report indicated that between October 1991 and August 1992 there had been little or no progress in reducing the backlog of SCARs open more than one year. Approximately 230 were shown to be currently open and the average age was 4 years.
[Report Section 7.2]

Unresolved Items:

Three unresolved items (URIs) were identified involving deficiencies related to the development of proposed resolutions for CAQs identified in SCAR WBP870036SCA. The adequacy of the licensee's actions in completing correction of the SCAR will be examined in subsequent NRC inspections to determine if the concerns identified in these three unresolved items are properly addressed.

[URI 390, 391/92-29-02, S&L and TVA Followup Reviews of Open Records Problems May Be Inadequate, Report Sections 2.3.1, 2.3.3, 2.3.5, and 2.3.6]

[URI 390, 391/92-29-03, TVA Construction Engineering Evaluations Of Missing Records, Report Section 2.3.4]

[URI 390, 391/92-29-04, Adequacy of Sampling, Report Section 3.1.9]

A fourth unresolved item was identified to evaluate the licensee's determination that a deficiency identified for the Unit 2 HVAC was not programmatic and, therefore, potentially also existing in Unit 1. Licensee personnel stated that additional information in support of the determination would be provided for NRC review in a future inspection.

[URI 390, 391/92-29-05, Applicability of Unit 2 HVAC Missing Vanes to Unit 1, Report Section 4.3]

Inspector Followup Item:

Because of design weaknesses, the licensee dispositioned three Unit 2 bellows type containment penetrations to be reinspected in the event of a safe shutdown earthquake or a LOCA. The team questioned how this reinspection would be assured and were informed that this action item would be implemented through Open Item Status Log Item U1001. This was identified for NRC verification in a subsequent inspection.

[Inspector Followup Item 391/92-29-06, Penetration Reevaluation Following SSE or LOCA, Report Section 4.4]

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nunzio J. Palladino, Chairman
Victor Gilinsky
John F. Ahearne
Thomas M. Roberts
James K. Asselstine

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SERVED NOV 12 1982

In the Matter of CINCINNATI GAS & ELECTRIC COMPANY (William H. Zimmer Nuclear Power Station)	)	Docket No. 50-358 Construction Permit No. CPPR-88 EA 82-129

ORDER TO SHOW CAUSE AND
ORDER IMMEDIATELY SUSPENDING CONSTRUCTION
(CLI-82-33)

I.

The Cincinnati Gas and Electric Company (CG&E) holds Construction Permit No. CPPR-88 which was issued by the Commission in 1972. The permit authorizes the construction of the William H. Zimmer Nuclear Power Station Unit 1, a boiling water reactor to be used for the commercial generation of electric power. The Zimmer plant is located on the licensee's site in Moscow, Ohio.

II.

A. Initial Identification of QA Problems

In early 1981 the NRC conducted an investigation into allegations made by present and former Zimmer site employees and by the Government Accountability Project. The NRC investigation revealed a widespread breakdown in CG&E's management of the Zimmer project as evidenced by numerous examples of non-compliance with twelve of the eighteen quality assurance Criteria of

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Appendix B to 10 CFR Part 50. Consequently, CG&E paid a civil penalty of $200,000 for the failure to implement an acceptable quality assurance program, false quality assurance documents, and intimidation and harassment of quality control inspectors. (See Notice of Violation and Proposed Imposition of Civil Penalties, dated November 24, 1981 and Investigation Report No. 50-358/81-13.) In addition CG&E agreed to take actions to correct identified QA failures and prevent their recurrence and to determine quality of completed construction work.

1. Actions to Correct Identified QA Failures and Prevent Recurrence

A meeting was conducted by Region III on March 31, 1981, and the utility agreed to implement ten actions to correct quality assurance failures identified during the January - March 1981 investigation and to preclude their recurrence. These actions included: (1) increasing the size and technical expertise of the CG&E QA organization; (2) taking action to assure independence and separation of the QA/QC function performed by Kaiser from the construction function; (3) conducting 100% reinspections of the quality control (QC) inspections performed after that date by Kaiser and other contractors; (4) reviewing for adequacy, and revising as appropriate, all QC inspection procedures; (5) training QA/QC personnel on new and revised procedures; (6) reviewing for adequacy, and revising as appropriate, the procedures governing the identification, reporting, and resolution of deviations from codes and Final Safety Analysis Report (FSAR) statements; (7) reviewing for adequacy the procedures governing nonconformance reporting and justifying the disposition of each voided nonconformance

report; (8) establishing an adequate program for control of QA and QC records; (9) performing a 100% review of all future surveillance and nonconformance reports written by contractor personnel; and (10) reviewing and revising the CG&E audit program so that it included technical audits of construction work and more comprehensive and effective programmatic audits. These commitments were confirmed in an Immediate Action Letter to the licensee on April 8, 1981.

2. Actions to Determine Quality of Completed Construction Work

Following the identification in 1981 of significant quality assurance problems and related management breakdowns, CG&E agreed to establish a comprehensive program to determine the quality of the completed construction work. The Quality Confirmation Program (QCP) was submitted to the NRC by the licensee on August 21, 1981. The QCP addressed problems identified by the investigation in the following areas: (1) structural steel; (2) weld quality; (3) traceability of heat numbers on piping; (4) socket weld fitup; (5) radiographs; (6) electrical cable separation; (7) nonconformance reports; (8) design control and verification; (9) design document changes; (10) subcontractor QA programs; and (11) audits.

3. Results of Actions Taken by the Licensee to Determine the Quality of Completed Construction Work

Many construction deficiencies have been identified by the licensee during the conduct of the QCP and other quality reviews and reported to

the NRC pursuant to 10 CFR 50.55(e) which could have been prevented or identified in a timely manner by the licensee and its contractors had there been a properly managed QA program. Major construction deficiencies identified to date by the quality reviews are listed in order of identification and include the following:

- Welds performed using an unqualified welding procedure for welds greater than 0.864 inches.

- Unauthorized stamping of fittings and use of "high-stress" stamps.

- ASME structural weld and welder qualification deficiencies.

- Welds performed and welders not qualified for weld thickness range per ASME requirements.

- Approximately 2400 feet of small bore piping identified with questionable heat treatment.

- Welder qualifications with a substantial number of documentation discrepancies.

- Carbon steel weld rod may have been used for a portion of several stainless steel recirculation line welds.

- Electrical cable tray installation and inspection deficiencies.

- Hangers installed for the control rod drive system are of indeterminate quality.

- Both weld and radiograph quality deficiencies for sacrificial shield welds and radiograph deficiencies identified for the containment monorail and the ventilation stack.

- Deficiencies in the H. J. Kaiser procurement program for structural steel and other materials.

- Inadequate design control by Sargent & Lundy (architect engineer) for electrical separation.

- Inadequate weld preparation prior to radiography (ripples not removed) which caused masking of discontinuities in some welds.

- Reactor control, reactor protection, and neutron monitoring panels, including field installed wiring do not, in some cases, conform to design drawings with regard to cable separation.

- Inadequate engagement of "gamma plugs" in large-bore piping and lack of heat number traceability of the "gamma plugs." (During radiography of a pipe weld, a gamma source is sometimes inserted through a small

hole in the side of the pipe. After radiography the hole is plugged to provide a pressure boundary.)

- Inadequate inspection program and installation procedures for "Nelson stud" installation for cable tray hangers.

- Concrete and steel coating program not in accordance with the QA Program and the Sargent & Lundy specification requirements.

- Design changes made to the Fire Protection System piping in the cable spreading room in 1979 were inadequately controlled.

- The Sargent & Lundy (architect engineer) dynamic stress analysis of small bore piping is questionable.

- Cable separation problem with regard to division separation between non-essential cables being bundled with essential cables of different divisions.

- Pipe support installation procedures did not contain seismic clearance criteria between pipe supports and cable trays or conduit and associated supports as required by the specification.

These deficiencies represent those which the staff considers most significant. There were additional 10 CFR 50.55(e) reports made by the licensee and the licensee has identified a large number of

nonconformances (which could reflect construction or other types of deficiencies). As of September 30, 1982 the licensee's continuing quality confirmation program reviews had identified approximately 4,200 nonconformances of which about 800 have been "dispositioned", i.e., the licensee had made a determination as to resolution. (Inspection Report No. 50-358/82-12, report pending.) The large number of noncomformance reports and the significance of the matters being identified corroborate the staff's 1981 finding of significant breakdown in the licensee's quality assurance program.

B. Findings Subsequent to Licensee Actions Taken to Correct QA Failures and Prevent Recurrence

Since the Immediate Action Letter was issued on April 8, 1981 and quality assurance and management deficiencies were brought to the attention of the licensee, hardware and programmatic QA/QC problems have been identified by the NRC and the National Board of Boiler and Pressure Vessel Inspectors. These problems are discussed in the following paragraphs and indicate the licensee and the constructor are still having difficulty implementing satisfactory QA/QC programs:

During an inspection conducted the latter part of 1981 and the early part of 1982 (Inspection Report No. 50-358/82-01, issued on June 24, 1982) three items of noncompliance were identified. The findings concerned (1) the failure to clearly establish and document the authorities and duties of all QA Department personnel, (2) the failure to provide

adequate certification of qualifications of all QA Department personnel, and (3) the failure to provide adequate procedures. The licensee failed to adequately address the provisions of Regulatory Guide 1.58 (ANSI N45.2.6-1978) concerning personnel in the QA Department. Additionally, inadequately qualified personnel were reviewing and approving quality procedures controlling electrical activities, which contained deficiencies.

Furthermore, as a result of the licensee reviews it was revealed that some weld inspectors involved in the QCP Task I, Structural Steel, were not adequately certified and the task was stopped. The task was restarted following upgrade of the inspectors through training provided by additional certified weld inspectors.

During an inspection conducted in March and April 1982 (Inspection Report No. 50-358/82-05, issued on July 1, 1982) two items of noncompliance were identified. The findings concerned the lack of implementation and timeliness of corrective actions and the failure to adequately review and document potentially reportable matters.

During an inspection conducted in April, May, and June of 1982 (Inspection Report No. 50-358/82-06, issued on November 2, 1982) two items of noncompliance were identified. The findings concerned (1) the performance of quality activities required of the welding engineers by inadequately qualified clerks and (2) the failure to perform required calibrations

during a critical quality activity, Induction Heating Stress Improvement (IHSI) program.

A recent inspection conducted during June and July of 1982 (Inspection Report No. 50-358/82-10, report pending) identified a number of significant concerns. These concerns were discussed with the licensee on July 9, July 15, August 15, and October 19, 1982. Four significant items of concern (potential items of noncompliance) were identified: (1) the inadequate control and documentation of welder qualifications; (2) the failure to take corrective actions following the identification of inadequate records to support welder qualifications; (3) the unauthorized correction, supplementation, and alteration of quality records; and (4) the failure to follow procedures controlling weld filler metal control, logging and control of requests for information/evaluation, and imposition of reporting requirements on contractors. The NRC findings concerning welder qualifications resulted in the requalification of approximately 100 active onsite welders and the need for the licensee to develop a program to evaluate the previous work of the welders whose qualifications were not adequately documented.

An inspection was conducted following notification of the Region III Office that a CG&E Stop Work Order (SWO) had been initiated on August 5, 1982, pertaining to Catalytic, Inc. (CI) activities in the area of the control rod drive system hangers and supports. CI is a contractor of the licensee performing construction work

including rework activities identified by the QCP program. During this inspection conducted during August and September of 1982 (Inspection Report No. 50-358/82-13, report pending), significant concerns were identified regarding the implementation of CG&E's quality assurance program and its management program established to control and monitor the activities of Catalytic, Inc. (CI). The concerns involved the areas of (1) the description of organization and functional interfaces, (2) training of CI personnel, (3) design control measures, (4) procedure content and implementation, (5) document control, (6) inspection and surveillance activities, (7) nonconforming conditions, (8) corrective actions, (9) records, and (10) audits. The findings were discussed with the licensee on August 12, September 10 and 17, and October 19, 1982.

As a result of the inspection findings and subsequent discussions with the licensee, Stop Work Orders were issued by the licensee, stopping all essential work by CI on October 11, 1982, pending resolution of the programmatic problems identified by the NRC and licensee reviews.

The licensee has initiated Stop Work Orders in addition to those affecting CI due to inadequate quality assurance in the areas of application of coatings (October 12, 1982), electrical cable installation (October 12, 1982), and special process procedures (November 1, 1982). The Stop Work Orders involve ongoing activities. The November 1, 1982 Stop Work Order involved procedures not meeting requirements notwithstanding that the procedures had been specifically

reviewed by CG&E for adequacy subsequent to the issuance of the April 8, 1981 Immediate Action Letter.

Additionally, during the week of October 10, 1982, the Authorized Nuclear Inspector (ANI) for the N-stamp holder (H. J. Kaiser) recalled ASME work packages then being used in the field because of the performance of ASME code work (hanger attachment removal and piping cutouts) was outside the approved QA Program procedures. The ASME code work was being controlled and performed utilizing an H. J. Kaiser administrative memo which bypassed the ANI's required involvement in the code activities. The NRC was apprised of the required corrective actions during a meeting involving CG&E and H. J. Kaiser on October 15, 1982. The corrective actions taken and planned were considered acceptable by the Authorized Nuclear Inspector.

The National Board of Boiler and Pressure Vessel Inspectors, at the request of the State of Ohio, have been onsite since March 1, 1982. The National Board has issued three interim reports documenting findings regarding ASME code activities. The National Board findings include deficiencies in the following areas regarding on-going ASME code activities: design control, procurement, procedures, special processes, nonconforming conditions, and corrective actions. The findings are generally consistent with past and present NRC findings.

C. Rework Activities

As a result of the information obtained from the licensee's reviews of plant quality, the licensee is proceeding, prior to completion of the relevant QCP tasks, to initiate rework activities. A major example of rework activities is the area of structural steel welding. The reinspection and rework of structural steel welds located in a number of areas of the plant have been in process for a number of months. Approximately 70 percent of the structural welds are being reworked to make the welds acceptable. In the case of these welds, rework is being undertaken prior to the completion of the quality reviews to determine the acceptability of all structural steel welds and beam/hanger materials. The rework of these welds prematurely may result in the addition of new weld material over unacceptable weld material or beam/hanger materials. Following completion of the quality reviews unacceptable areas may require additional rework activities. This approach to rework activities indicates a lack of a comprehensive management program to address rework activities and the safety impact of those activities on the facility.

III.

The foregoing information indicates that: 1) the Zimmer facility has been constructed without an adequate quality assurance (QA) program to govern construction and to monitor its quality, resulting in the construction of a facility which currently is of indeterminate quality; 2) substantial efforts are underway to determine the quality of past construction activities and numerous construction deficiencies have been

identified and are continuing to be identified such that both reanalysis and rework will be required to bring the facility into conformance with the application and regulatory standards on the basis of which the construction permit was originally issued; and 3) rework of deficiencies identified by the Quality Confirmation Program (QCP) has been undertaken prior to completion of other relevant QCP tasks and other reviews, resulting in the potential for additional reworking of the same item if further deficiencies are found, as has been the case, by the quality reviews. Consequently, the NRC presently lacks reasonable assurance that the Zimmer plant is being constructed in conformance with the terms of its construction permit and 10 CFR Part 50, Appendix B, and that there is adequate management control over the Zimmer project to ensure that NRC requirements are being met.

The verification of the facility's quality and appropriate actions to correct deficiencies in construction are of utmost importance to the public health and safety should the licensee receive a license to operate the facility. Moreover, the licensee must be in a position to assure that its construction activities have been properly carried out in accordance with Commission requirements, as the Commission inspectors are not able to personally verify every individual aspect of construction that may impact on safety. In view of the importance to safety of construction verification and corrective actions and the past pattern of quality assurance deficiencies, the Commission has concluded that safety-related construction, including rework activities, should be suspended until there is reasonable assurance that future construction activities will be appropriately managed to assure that rework activities and all other construction activities will be conducted in

accordance with 10 CFR Part 50, Appendix B, and other Commission requirements. The Commission has further determined that in light of the foregoing considerations the public health, safety and interest require suspension of construction, effective immediately pending further authorization.

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.

V.

Within 25 days of the date of this order, the licensee may show cause why the actions described in section IV should not be ordered by filing a written answer under oath or affirmation that sets forth the matters of fact and law on which the licensee relies. As provided in 10 CFR 2.202(d), the licensee may answer by consenting to the order proposed in section IV of this order to show cause. Upon the licensee's consent, the terms of

section IV.B of this order will become effective. Alternatively, the licensee may request a hearing on this order within 25 days after the issuance of this order. Any request for a hearing or answer to this order shall be submitted to the Secretary, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555. A copy of the request or answer shall also be sent to the Director, Office of Inspection and Enforcement, and to the Executive Legal Director at the same address, and to the Regional Administrator, NRC Region III, 799 Roosevelt Road, Glen Ellyn, Illinois 60137. A request for a hearing shall not stay the immediate effectiveness of section IV.A of this Order.

If the licensee requests a hearing on this order, the Commission will issue an order designating the time and place of hearing. If a hearing is held, the issues to be considered at such a hearing shall be whether the facts set forth in sections II and III of this order are true and whether this order should be sustained.

Commissioners Ahearne and Roberts dissent from this decision. Their dissenting views are attached.

It is so ORDERED.

For the Commission

John C. Hoyle
Acting Secretary of the Commission

Dated at Washington, D.C.
this 12th day of November, 1982.

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

NOV 24 1981

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

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

Gentlemen:

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

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

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

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

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

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

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

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

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

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

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

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

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

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

Sincerely,

Richard C. DeYoung, Director
Office of Inspection and Enforcement

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

Appendix A

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTIES

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

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

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

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

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

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

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

1DG28AB1	1DGC5AA3/4	1DG28AE1
1DG27AB1	1DGF6AA1/2	1DG25AC2
1DG01AB1	1DGC5BA3/4	1DG11AA3
1DGF2AA1/2	1DGF6BA1/2	

2. The Kaiser Nonconformance Reporting Log did not reflect all reports initiated as evidenced by the following:

   a. The original entry for a report (CN-4309) initiated by a QC Inspector on January 7, 1981, relating to deficient weld fit-up was obliterated by the use of white correction fluid and there was no other record of this report in the Noncompliance Report (NR) system.

   b. The original entry for a report (CN-5412) initiated by a QC Inspector on February 3, 1981, and relating to violation of a hold tag was obliterated by the use of white correction fluid and there was no other record of this report in the NR system.

   c. A report (NRC-0001) initiated by a QC Inspector on February 11, 1981, relating to excessive weld weave was not assigned a number and there was no other record of this report in the NR system.

3. Written statements as to planned actions which were made to justify voiding reports E-1661 (voided 11/11/80), E-1662 (voided 11/11/80), and E-2466 (voided 6/30/80) were not taken.

4. Written statements relating to the availability of records which were made to justify voiding reports E-1777 (voided 4/30/79) and E-5108 (voided 6/20/80) were false.

5. Reports CN-5476, CN-5477, and CN-5479 were knowingly improperly voided (2/27/81) and copies deleted from the NR system at the direction of the Kaiser QA Manager.

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

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

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

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

1. Five QC Inspectors interviewed executed signed sworn statements wherein they claimed they were doused with water (while engaged in the performance of inspection duties) by construction personnel. Two other QC Inspectors made similar statements.

2. A QC Inspection supervisor claimed that over his objections qualified QC Inspectors who were doing thorough jobs were reassigned by QC management because of complaints by construction personnel.

3. Two QC Inspectors executed signed sworn statements wherein they claimed they had been harassed by being searched for alcohol by security personnel at the request of construction supervisory personnel. One other QC Inspector made a similar statement.

4. A QC Inspector executed a signed sworn statement wherein he claimed the QA Manager had threatened to fire him after construction personnel complained he had used a magnifying glass to visually inspect a weld when in fact he was using a mirror and either device was an acceptable tool.

5. A QC Inspector executed a signed sworn statement wherein he claimed he was struck by a stream of water from a fire extinguisher while performing an inspection.

6. A QC Inspector executed a signed sworn statement wherein he claimed he was threatened with bodily harm by a construction person if he did not pass a weld.

7. A Lead QC Inspector executed a signed sworn statement wherein he claimed:

   a. He was accused by the QA Manager for holding up a concrete pour when in fact the delay was caused by the concrete trucks being late.

   b. Construction management frequently approached QC Inspectors and challenged their inspection findings and questioned their judgement.

c. The QA Manager said things like, "our job here is to accept, not reject, and we are here to get this plant built."

8. A Lead QC Inspector executed a signed sworn statement wherein he claimed he was relieved of his inspection duties because he continued to submit legitimate nonconformance reports over construction management objections for deficient welds on pipe support hangers. He also stated that QA management had previously told QC Inspectors to not write anything to make Kaiser look bad.

9. A QC Inspector executed a signed sworn statement wherein he claimed he was told by QA management to accept inspected items that were unacceptable.

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

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

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

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

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

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

b. One NR related to nondestructive examination of a T-quencher weld had been erroneously closed (not voided) by administrative error. (NR-E-2996 closed 3/17/81)

c. Two NRs related to nondestructive examinations of service water system welds had been incorrectly dispositioned (not voided). (NR-E-2836 closed 11/13/80, NR-E-2596 closed 4/16/80)

d. Five reports had been voided by personnel other than the QA Manager. (CN-5122 voided 1/2/81, CN-5476 voided 2/27/81, CN-5477 voided 2/27/81, CN-5479 voided 2/27/81, CN-4389 voided 12/02/80)

e. In one case during revisions of the report some nonconforming items were removed from a NR without adequate justification. (NR-E-2466 voided 6/30/80)

f. The following nine reports had not been issued NR numbers and/or copies of the reports had not been retained in the Site Document Center:

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

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

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

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

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

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

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

(1) Several welds on nine beams did not conform with AWS D1.1-1972 requirements in that they contained unacceptable slag, weld profiles, blowholes, porosity, and/or undercut.

(2) Five beams did not conform with AISC requirements in that the re-entrant corners were notched, creating potential stress risers, instead of being rounded with required radii.

(3) Four beams, two of which had unacceptable welds as described in Item C.2.a.(1) above, did not conform with design documents in that they were not specified on any design document.

b. Based on an inspection of about 100 cable tray hangers in the Cable Spreading Room, four did not conform with AWS D1.1 1972 requirements in that the welds contained unacceptable slag, weld profiles, blowholes, porosity, and/or undercut.

3. 10 CFR 50, Appendix B, Criterion XVI states, in part, "Measures shall be established to assure that conditions adverse to quality, such as...deviations...and nonconformances are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition."

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

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

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

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

a. Licensee records indicate that the socket engagement (fitup) for more than 439 socket welds was not verified in accordance with ASME Code, Section III-1971 Edition, Article NB-3661.5(b) and the condition was not corrected in that the corrective action was not commensurate with the ASME Code. The welds date back to 1979.

b. Licensee records indicate that the in-process inspections for more than 22 welds in the diesel generator cooling water, starting air, and fuel oil piping systems were not performed by Kaiser in accordance with ASME Code, Section III-1971 Edition, Article NB-3661.5(b), et al., and the condition was not corrected in that the corrective action was not commensurate with the ASME Code. The welds date back to 1978.

c. Five licensee QA audits (audit performed 8/8-9/74 - no number, and Audit Nos. 78/07, 78/09, 78/10, 80/04) of Sargent & Lundy identified repetitive problems concerning S&L not performing certain design calculations, reviews, and verifications and action was not taken to preclude repetition.

4. 10 CFR 50, Appendix B, Criterion VIII states, in part, "Measures shall be established for the identification and control of materials... These measures shall assure that identification of the item is maintained..."

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

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

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

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

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

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

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

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

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

a. Associated Cable (Yellow/White) No. RE053 for Division 1 was routed in the same raceway (two-inch conduit and Class IE Sleeve No. 79) as Associated Cable (Blue/White) No. RE058 for Division 2. Also, Associated Cable No. RE053 was routed so that in places there was only a vertical separation of four inches between it and cables in Blue Tray No. 2072C for Division 2.

b. Instrument Cable (Green) No. WS714 and others for Division 3 were routed in the same raceway (Tray No. 4638B) as Associated Control Cables (Yellow/White and Blue/White) for Divisions 1 and 2. This deficiency was due, in part, to a design which specified the installation of a Green Instrument Tray (No. 3029K) inside a White Control Tray (No. 4638B).

c. Many Associated Cables from all three Divisions were routed in the same raceway (White Tray No. 4080K) including Cable (Blue/White) No. TI192, Cable (Yellow/White) No. RR781, and Cable (Green/White) No. TI816.

d. Associated Cables (Yellow/White) No. TI942 and No. TI943 for Division 1 were routed in the same raceway (White Tray Riser No. RK4627) as Associated Cables (Blue/White) No. TI808 and No. TI760 for Division 2.

e. Many Associated Cables (Yellow/White) for Division 1 were routed in the same raceway (White Tray Riser No. 4139) as Associated Cables (Blue/White) for Division 2.

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

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

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

   Contrary to the above:

   a. The weld acceptance criteria used by H. J. Kaiser Company from July 1980 to January 1981 were not applied to weld inspections during that period in that the weld acceptance criteria for such items as the drywell support steel were deleted.

   b. The acceptance criteria for Weld 55H (isometric drawing PSK-1WS-32) performed on Service Water System Line No. 1WS17A18 by H. J. Kaiser Company in November 1979 were not applied in that they were designated as not applicable.

7. 10 CFR 50, Appendix B, Criterion XI states, in part, "Test results shall be evaluated to assure that test requirements have been satisfied."

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

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

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

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

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

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

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

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

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

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

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

Contrary to the above:

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

b. As of March 1981, design control measures had not been established by Sargent & Lundy to provide for verifying or checking the adequacy of the design for the thermal loading of power cable sleeves and the physical weight loading of cable trays.

c. As of March 1981, the cable ampacity design by Sargent & Lundy was not based on IPCEA P-46-426 and the FSAR limit on cross-sectional area.

d. As of March 1981, the design allowable undercut on cable tray hanger welds was not based on AWS D1.1-1972 Code (appropriate quality standard). The design undercut was instead based on Sargent & Lundy Specification H-2713, Supplement 7, Sargent & Lundy Standard EB-117, and H. J. Kaiser Procedure SPPM No. 4.6, "Visual Examination," Revision 8, Paragraph 5.2.9, allowed up to 1/16 inch undercut.

9. 10 CFR 50, Appendix B, Criterion X states, in part, "A program for inspection of activities affecting quality shall be established and executed by or for the organization performing the activity to verify conformance with the documented instructions, procedures, and drawings for accomplishing the activity."

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

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

Contrary to the above:

a. As of March 1981, a QC inspection program had not been established to require verification of separation of electrical cables routed from the Cable Spreading Room to the Control Room. An example of a nonconforming condition that should have been identified by such a program was Blue Cables RI103 and CM111 that had been routed into Tray Riser (Green) No. 3025A, which extended from Tray (Blue) No. 2077A in the Cable Spreading Room to the Control Room.

b. The programs established for in-process and final inspections of welds on 180 cable tray hangers located in the Cable Spreading Room were not executed as required in the AWS D1.1-1972 Code. Specifically, the final weld inspections were made after the welds were painted (Galvanox).

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

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

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

    Contrary to the above:

    a. Kaiser Procedure QACMI G-14, "Surveillance Reports," (SR) was not appropriate to the circumstances in that it allowed in-process nonconformances which constitute field changes to be dispositioned within 30 days without being subjected to design control measures commensurate with those applied to the original design. Examples of nonconformances so dispositioned were identified in SRs F-2899, F-2903, and F-2914.

    b. Kaiser Procedure QACMI G-14 was not followed in that SRs F-2909, F-3070, F-3071, F-3072, F-3073, F-3074, F-3075, F-3076, F-3083, and F-7019 were not dispositioned within 30 days and were not transferred to Nonconformance Reports as required by Paragraph 5 of QACMI G-14.

11. 10 CFR 50, Appendix B, Criterion VII states, in part, "The effectiveness of the control of quality by contractors and subcontractors shall be assessed by the applicant or designee...."

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

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

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

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

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

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

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

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

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

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

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

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

FOR THE NUCLEAR REGULATORY COMMISSION

Richard C. DeYoung, Director
Office of Inspection and Enforcement

Dated at Bethesda, Maryland
this 24 day of November 1981

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

AUG 29 1983

Docket No. 50-358

Cincinnati Gas and Electric
Company
ATTN: Mr. J. Williams, Jr.
Senior Vice President
139 East 4th Street
Cincinnati, OH 45201

Gentlemen:

This refers to the routine safety inspection conducted by Messrs. W. F. Christianson, T. P. Gwynn, E. H. Nightingale, D. E. Keating, and J. F. Schapker of this office on October 1 through December 4, 1982, of activities at Wm. H. Zimmer Nuclear Power Station authorized by NRC Construction Permit No. CPPR-88 and to the discussion of our findings with Mr. H. R. Sager and others during the inspection and on February 4, 1983.

The enclosed copy of our inspection report identifies areas examined during the inspection. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations, and interviews with personnel.

During this inspection, certain of your activities appeared to be in noncompliance with NRC requirements, as described in the enclosed Appendix. With respect to item 1, the inspection showed that action had been taken to correct the identified noncompliance and to prevent recurrence. Consequently, we have no further questions regarding this matter at this time.

These findings are considered to be significant. The findings concerning the failure to write a nonconformance report (NR) - item 2, inadequate control of special processes - item 3, inadequate corrective actions - item 4, and the failure to adequately report significant deficiencies - item 5, occurred prior to the issuance of the Commissions Order of November 12, 1982, and are considered to be further examples of the types of findings which resulted, at least in part, in the Commission issuing the November 12, 1982 Order. For that reason, a civil penalty is not being imposed for the Severity Level III violation (item 5).

Because on November 12, 1982, the NRC ordered all safety-related construction activities stopped and because the NRC also ordered other signficiant actions a written response is not required. Prior to the NRC lifting the Order of November 12, 1982, the specific items of noncompliance must be corrected and

the generic aspects of these matters must be addressed. Records of the completed corrective actions must be available for NRC review.

In accordance with 10 CFR 2.790(a), a copy of this letter and the enclosure(s) will be placed in the NRC Public Document Room unless you notify this office, by telephone, within ten days of the date of this letter and submit written application to withhold information contained therein within thirty days of the date of this letter. Such application must be consistent with the requirements of 2.790(b)(1). If we do not hear from you in this regard within the specified periods noted above, a copy of this letter and the enclosure(s) will be placed in the Public Document Room.

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

Sincerely,
Original signed by
James G. Keppler

James G. Keppler
Regional Administrator

Enclosures:
1. Appendix, Notice of Violation
2. Inspection Report No. 50-358/82-12(OSC)

cc w/encls:
J. R. Schott, Plant Superintendent
J. D. Flynn, Manager Licensing Environmental Affairs Department
DMB/Document Control Desk (RIDS)
Resident Inspector, RIII
Harold W. Kohn, Ohio EPA
Citizens Against a Radioactive Environment
James W. Harris, State of Ohio
Robert H. Quillin, Ohio Department of Health
Thomas Applegate
Thomas Devine, Associate Director, Institute for Policy Studies
Dave Martin, Office of Attorney General
Mark Wetterhahn, Esq.
Jerome A. Vennemann, Esq.
Gretchen Hummel, Ohio Consumers' Counsel
James R. Williams, State Liaison Officer, Ohio Disaster Services Agency
Paul Ryder, Ohio Governer's Office
R. E. Buerger, The Dayton Power and Light Company

Appendix

NOTICE OF VIOLATION

Cincinnati Gas and Electric Company Docket No. 50-358

As a result of the inspection conducted from October 1 through December 4, 1982, and in accordance with the NRC Enforcement Policy, 47 FR 9987 (March 9, 1982), the following violations were identified:

1. 10 CFR 50.7(e) states, "(e) Each licensee, permittee and each applicant shall post Form NRC-3, "Notice to Employees," on its premises. Posting must be at locations sufficient to permit employees protected by this section to observe a copy on the way to or from their place of work. Premises must be posted not later than 30 days after an application is docketed and remain posted while the application is pending before the Commission, during the term of the license, and for 30 days following license termination."

   Contrary to the above requirement, the posting of Form NRC-3 was inadequate in that the form was only accessible to individuals who normally work in or frequent the Service Building and the Control Room.

   This is a Severity Level V violation (Supplement II).

2. 10 CFR 50, Appendix B, Criterion V, states in part, "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings."

   CG&E QA Manual, paragraph 5.1 states, in part, "Construction, fabrication, and manufacturing activities which affect the quality of the facility are accomplished in accordance with written instructions, procedures, and drawings which prescribe acceptable methods of carrying out those activities."

   H. J. Kaiser Procedure ZAPO-5, Revision 2, states, in part, "A Nonconformance Report shall be initiated in the following instances:

   3.4.1 Whenever material equipment, or construction work deviates from the specified limits of a drawing, specification, code, standard, procedure, or an approved Inspection Plan.

   3.4.3 Whenever a process or activity places the existing plant systems or equipment in an indeterminate condition.

   3.4.4 When a piece of equipment or installed material that has been accepted is damaged."

Contrary to the above requirements, on November 10, 1982, the inspector observed rework activities being performed in the reactor building on a Reactor Water Clean-up System, line #1RTBAA3/4". Review of the work package, #2M31975, revealed that the unacceptable slope condition had not been identified on a nonconformance report and the action document for rework was on a punch list form.

This is a Severity Level IV violation (Supplement II).

3. 10 CFR 50 Appendix B, Criterion IX states: "Measures shall be established to assure that special processes, including welding, are controlled and accomplished by qualified procedures in accordance with applicable codes, standards, specifications, criteria, and other special requirements".

The Wm. H. Zimmer Quality Assurance Manual, Section 9, Control of Special Processes (Criterion IX), requires procedures, audits, and qualified personnel for control of special processes.

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

ASME Section IX - 1971 with Addenda through the winter of 1973 addresses controls of special processes.

ANSI N45.2.9-1974 addresses supplementation and alteration of records.

Contrary to the above requirements, the following deficiencies were identified:

a. Seven (7) welding procedures contained an essential variable deficiency such that it would be impossible to produce a quality weld using the procedures as written and the procedures were provided to the field historically (GTAW utilizing argon shield gas with voltages of 18-26).

(i) SPPM 3.1.19, Revision 2, WPS, Carbon Steel Piping

(ii) SPPM 3.1.21, Revision 2, WPS, Carbon Steel Pipe

(iii) SPPM 3.1.26, Revision 1, WPS, Carbon Steel Pipe - open butt

(iv) SPPM 3.1.37, Revision 1, WPS, Carbon Stainless Steel

(v) SPPM 3.1.41, Revision 2, WPS, Carbon Steel Pipe

(vi) SPPM 3.1.53, Revision 1, WPS, Carbon Steel Pipe

(vii) SPPM 3.1.56, Revision 1, WPS, Austenitic Stainless Steel Pipe

b. Additional procedural deficiencies were identified involving procedure changes, alterations, and inadequate procedural controls and lack of proper process qualification as follows:

(i) SPPM 3.1.21, Revision 0, WPS, Carbon Steel Plate A-588 and/or A-36 - changes in the weld procedure qualification test, classification of A-588 material, welding position added with no qualification, heat not controlled, and preheat temperature reduced.

(ii) SPPM 3.1.21, Revision 0, WPS, Carbon Steel Pipe - no travel speed listed, whiteout on essential variables, and supplement change issued with no requalification.

(iii) SPPM 3.1.21, Revision 1, WPS, Carbon Steel Pipe - Voltage, amperage, and travel speed not listed; whiteout on procedures, procedure supplements not in vault; and qualification thickness in excess of code allowable.

(iv) SPPM 3.1.51, Revisions 0, 1, and 2, Structural Welding per AWS D1.1-1972 Edition - classification of A-588 material, travel speed not listed, 2G position not qualified, welding progression for vertical welding, and unlimited thickness without qualification (Revision 2).

This is a Severity Level IV violation (Supplement II).

4. 10 CFR 50 Appendix B, Criterion XVI states, "Measures shall be established to assure that conditions adverse to quality such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected."

The ASME Code, Section III, Paragraph NA-4800 states, in part: "During manufacture and/or installation, measures shall be established to assure that conditions adverse to quality such as "deviations . . . and nonconformances are promptly identified and reported to the appropriate levels of management."

The Wm. H. Zimmer QA Manual, Paragraph 16.1 states, in part: "The QA Division of CG&E is responsible for evaluating QA program deficiencies identified by project participants . . . The corrective action required to eliminate the deficiencies, assurance that the corrective action is taken and appropriately documented . . . is the responsibility of QA."

Contrary to the above, deficiencies with the Kaiser weld procedure specifications and weld procedure qualification records were identified by the licensee as early as September of 1981. Corrective action, to date, did not assure that conditions adverse to quality, i.e., deficiencies in essential variables were corrected to prevent deficiencies in welds produced by these procedures or to address the quality of the welds produced subsequently by these deficient weld procedures.

This is a Severity Level IV violation (Supplement II).

5. 10 CFR 50.55(e)(1) requires, "If the permit is for construction of a nuclear power plant, the holder of the permit shall notify the Commission of each deficiency found in design and construction, which were it to have remained uncorrected, could have affected adversely the safety of operations of the nuclear power plant at any time throughout the expected lifetime of the plant, and which represents: . . . (iii) a significant deficiency in construction of or significant damage to a structure, system, or component which will require extensive evaluation, extensive redesign, or extensive repair to meet the criteria and bases stated in the safety analysis report or construction permit or to otherwise establish the adequacy of the structure, system, or component to perform its intended safety function. (2) The holder of a construction permit shall within 24 hours notify the appropriate Nuclear Regulatory Commission Inspection and Enforcement Regional Office of each reportable deficiency."

Contrary to the above requirements, the construction permit holder did not notify the Commission in the prescribed manner and time period for deficiencies identified in Weld Procedure Specifications (WPS) and Weld Procedure Qualification Reports (PQR).

Deficiencies were identified in the following applicant/contractor documents:

(1) CG&E Corrective Action Request (CAR) 81-11, "Essential Variables for ASME Welding Procedures changed in an incorrect manner," dated August 17, 1981.

(2) "Review of H. J. Kaiser Active welding procedures for the Wm. H. Zimmer Nuclear Power Station," dated September 18, 1981.

(3) H. J. Kaiser Corporate Management Audit Report No. 67, "Internal Management QA audit," dated October 28, 1981.

(4) CG&E Management Corrective Action (MCAR) Request 82-02, dated September 22, 1982.

This is a Severity Level III violation (Supplement II).

The NRC acknowledges issuance by the applicant of 10 CFR 50.55(e) report M-29, "Unqualified Weld Procedure for Welds Greater than 0.864"; however, the report did not address the deficiencies identified in items (1) - (4) above.

August 26, 1983
Dated

James G. Keppler
James G. Keppler
Regional Administrator

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TEXAS 76011

March 23, 1983

Docket No. 50-482
EA 83-18

Kansas Gas and Electric Company
ATTN: Glenn L. Koester
Vice President - Nuclear
P. O. Box 208
Wichita, Kansas 67201

Gentlemen:

This refers to the inspection conducted under the Resident Inspection Program by Mr. W. S. Schum of this office during the period of January 1-31, 1983, of activities authorized by NRC Construction Permit No. CPPR 147, and to the discussion of our findings with members of your staff at the conclusion of the inspection. These findings were also discussed during the enforcement conference held in our Region IV office on February 18, 1983, between Mr. J. T. Collins and other members of the NRC staff and Mr. G. L. Koester and other members of your staff.

This inspection identified a significant violation of NRC requirements as illustrated by the numerous discrepancies noted by your Quality Assurance organization and by our inspectors in both the as-built condition of a safety related system turned over to your startup organization and deficiencies in the supporting quality documentation. These discrepancies were discovered after the system had passed through all the normal quality assurance checks required by your Quality Assurance program. The principal cause of this apparent breakdown was inadequate attention by Kansas Gas and Electric Company (KG&E) management to ensure that this safety related system turned over from your construction contractor to your startup organization was in fact ready for turnover.

The apparent breakdown in quality assurance programs has been evidenced by the results of three recent audits conducted by your Quality Assurance Surveillance Group. An audit of a portion of the safety related refueling water storage system revealed hardware problems such as four pipe sections that lacked heat numbers and verification of installation, and six of 33 hangers with discrepancies, one of which was that a temporary hanger was found installed where the quality Engineering group had signed off for a permanent hanger. This audit also revealed numerous documentation deficiencies that were carried on a list separate from the system exception list. This separate list was referenced on the exception list as a single line entry to "resolve discrepancies with BN (refueling water storage system designator) travelers." The exception list stated that the traveler discrepancies were cosmetic and

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

did not affect hardware. Your audit, however, discovered that some hardware discrepancies (lack of some heat numbers) were included in this discrepancy list. The scope of the problems discovered in this audit were discussed during the enforcement conference on February 18, 1983.

Subsequent to this conference, new data from two additional audits by your QA surveillance group, which uncovered additional anamolies in safety systems turned over from construction, was brought to our attention. An audit (S-605A) completed on February 15, 1983, conducted on instrument tubing connectors revealed that nearly half were not tightened to specification, many tube ends were not deburred, and some ferrules were installed improperly. A second audit (S-618) dated February 15, 1983, conducted on auxiliary feedwater hangers revealed three hangers with some hardware discrepancies in a sample of nineteen hangers inspected. These hangers had received final QC acceptance. This system had been turned over to your startup group in late November, 1982.

The Nuclear Regulatory Commission places great emphasis on the need for licensees to maintain proper control over all aspects of safety-related activities. This includes the implementation of a quality assurance program that identifies and corrects construction deficiencies in a timely manner. An effective quality assurance program must operate at each tier, from subcontractor through contractor, to the owner. The aspect of your quality assurance program, which should have assured that system and documentation deficiencies were identified, tracked, and resolved, has broken down. In addition, section 14.2.4.2 of the Wolf Creek Generating Station Final Safety Analysis Report (FSAR) states in part:

> Upon completion of construction, a documented review is conducted by the startup personnel to verify that the physical installation is in accordance with design and installation specifications and that the appropriate documentation is available. This activity is designated as Turnover, and may be performed on a system or subsystem basis. Upon completion of the Turnover review, custody of this system or subsystem will be transferred to the KG&E startup organization.

Your failure to implement the requirements of Criterion II of 10 CFR 50, Appendix B and the commitments of your FSAR is a significant violation of NRC regulations for which the imposition of a civil penalty is appropriate. This violation has been categorized at a Severity Level III in accordance with the NRC Enforcement Policy of 10 CFR 2, Appendix C. The base value for a Severity Level III violation is $40,000. The Enforcement Policy permits the consideration of factors in mitigation or aggravation of the proposed penalty. Based on our review of the circumstances surrounding this violation, we determined that your untimely notification of the condition under the reporting criteria of 10 CFR 50.55(e) was also a violation. We considered this violation as a factor that would cause us to raise the amount of the proposed penalty. We decided, however, because the violation was discovered as a result of a thorough and objective audit conducted by a component of your quality assurance group and the corrective actions you have proposed, including the temporary stop work order on system turnover you instituted, that a further increase in the amount of the civil penalty was not warranted.

After consultation with the Director of the Office of Inspection and Enforcement, I have been authorized to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $40,000 as set forth in the Notice appended to this letter. This action is being taken in order to emphasize the importance that the NRC places on your quality assurance program and your responsibility to ensure that it is properly implemented at all levels.

You are required to respond to this letter and should follow the instructions in the Notice when preparing your response. Additionally, your response should address actions planned or taken which would ensure that work completed prior to the identification of this breakdown was properly accomplished. This should include a complete review of safety-related systems which have been turned over from construction to startup. These actions should include verification of as-built plant configuration and review of related quality documentation. Your response should also address measures taken or planned to ensure that your quality assurance procedures are adequate and that as-built verification requirements are clearly stated. Your reply to this letter and the results of future inspections will be considered in determining whether further enforcement action is appropriate.

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

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

Sincerely,

/S/

John T. Collins
Regional Administrator

Enclosure:
Notice of Violation and Proposed
Imposition of Civil Penalty

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Kansas Gas and Electric Company
Wolf Creek Generating Station

Docket No. 50-482
Construction Permit: CPPR-147
EA 83-18

During December 1982 and January 1983, the Kansas Gas and Electric Company (KG&E) Quality Assurance staff conducted a surveillance of the Borated Refueling Water Storage System. This system had been turned over by the construction contractor and accepted by the KG&E startup organization on October 28, 1982.

The surveillance report concluded that inadequate implementation of procedures led to excessive numbers of hardware and documentation discrepancies existing after system turnover. Problems identified during the surveillance included a lack of traceability of certain pipe spools and pipe support discrepancies such as not being properly aligned, not being installed, or missing a weld. These discrepancies did not appear on the turnover exception list. In addition, discrepancies in the inspection program for safety related hangers and in the installation of instrumentation tubing were identified in subsequent surveillance audits. The existence of these types of problems in systems which have been turned over indicate weaknesses in at least the following areas:

1. Construction quality control
2. Procedural adherence
3. Documentation review and system walkdown inspection prior to turnover
4. Quality assurance activities affecting construction and turnover.

In order to emphasize the importance of your participation in quality assurance activities and your responsibility to ensure that contractors are properly implementing quality assurance programs, the NRC proposes to impose a civil penalty for these matters. In accordance with the NRC Enforcement Policy (10 CFR Part 2, Appendix C), 47 FR 9987 (March 9, 1982), and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended ("Act"), 42 U.S.C. 2282, PL 96-295, and 10 CFR 2.205, the particular violations and the associated civil penalty are set forth below:

VIOLATION ASSESSED CIVIL PENALTY

10 CFR 50 Appendix B, Criterion II, requires that, "The quality assurance program shall provide control over activities affecting the quality of the identified structures, systems, and components to an extent consistent with their importance to safety. Activities affecting quality shall be accomplished under suitably controlled conditions."

Contrary to the above, the Kansas Gas and Electric Company failed to adequately control activities affecting the quality of safety-related work. Specifically, the Borated Refueling Water Storage System and the Auxiliary Feedwater System were turned over from the construction contractor to the KG&E startup organization on October 28, 1982, and November 23, 1982, respectively, following final quality assurance checks with quality documentation and hardware discrepancies which were not listed on the turnover exception list.

This is a Severity Level III Violation (Supplement II)
Civil Penalty - $40,000

VIOLATION NOT ASSESSED A CIVIL PENALTY

10 CFR 50.55(e) requires that the holder of a construction permit shall notify the Commission of each deficiency found in design and construction, which if uncorrected could adversely affect the safety of plant operations. The regulation further requires that the holder of the construction permit shall notify the appropriate NRC regional office within 24 hours after the deficiency was found.

Contrary to this requirement, Kansas Gas and Electric failed to provide notification within 24 hours of the deficiencies noted in the system turnover practices that were discovered during a Quality Assurance Audit completed on January 13, 1983. Preliminary notification to the regional office was not provided until January 21, 1983.

This is a Severity Level IV violation (Supplement II).

Pursuant to the provisions of 10 CFR 2.201, the Kansas Gas and Electric Company is hereby required to submit to the Director, Office of Inspection and Enforcement, USNRC, Washington, D.C., 20555, within 30 days of the date of this Notice a written statement or explanation, including for each alleged violation: (1) admission or denial of the alleged violation; (2) the reasons for the violation if admitted; (3) the corrective steps which have been taken and the results achieved; (4) the corrective steps which will be taken to avoid further violations; and (5) the date when full compliance will be achieved. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the Kansas Gas and Electric Company may pay the civil penalty in the amount of $40,000 or may protest imposition of the civil penalty in whole or in part by a written answer. Should the Kansas Gas and Electric Company fail to answer within the time specified, the Director, Office of Inspection and Enforcement, will issue an order imposing the civil penalty in the amount proposed above. Should the Kansas Gas and Electric Company elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, such answer may: (1) deny the violation listed in this Notice in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty in whole or in part, such answer may request mitigation of the penalty. In requesting mitigation of the proposed penalty, the five factors contained in Section IV.B of 10 CFR Part 2, Appendix C should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The Kansas Gas and Electric Company's attention is directed to the other provisions of 10 CFR 2.205 regarding the procedure for imposing a civil penalty.

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

FOR THE NUCLEAR REGULATORY COMMISSION

John T. Collins
Regional Administrator

Dated at Arlington, Texas
this 23 day of March 1983

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TEXAS 76011

Docket: STN 50-482/84-22
EA 84-107

NOV 21 1984

Kansas Gas and Electric Company
ATTN: Glenn L. Koester
Vice President - Nuclear
P.O. Box 208
Wichita, Kansas 67201

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY

This refers to the inspection conducted by Mr. R. G. Taylor and other Region IV personnel during the period June 11 through September 28, 1984 of activities authorized by NRC Construction Permit CPPR-147 for the Wolf Creek Generating Station. The results of the inspection were discussed with Mr. F. J. Duddy and other members of your staff at the conclusion of the inspection and during an Enforcement Conference held on October 29, 1984 at the NRC Region IV office in Arlington, Texas with you and other members of the Kansas Gas and Electric staff and myself and other members of the Region IV staff.

Two violations were identified during this inspection. They are described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty. Violation I represents a significant breakdown in your program for the inspection and correction of defective safety-related structural steel welds. To emphasize the need for Kansas Gas and Electric Company management to ensure an effective quality assurance program has been implemented that both identifies and corrects construction deficiencies, I have been authorized, after consultation with the Deputy Director, Office of Inspection and Enforcement, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Seventy-five Thousand Dollars ($75,000) for this violation. The violation has been categorized as a Severity Level III violation in accordance with the NRC Enforcement Policy, 10 CFR Part 2, Appendix C, 49 FR 8583 (March 8, 1984). The base civil penalty for a Severity Level III violation is $50,000. However, since you failed to take adequate corrective actions for the problems identified by Corrective Action Requests CAR No. 1-W-0029 (initiated on March 22, 1983) and CAR No. 1-W-0031 (issued August 16, 1983), the base civil penalty is being escalated by 50%. Violation II has been categorized as a Severity Level IV violation for which no civil penalty is proposed.

You are required to respond to the enclosed Notice of Violation and Proposed Imposition of Civil Penalty. In preparing your response you should follow the instructions specified in the Notice. Your reply to this letter and the results of future inspections will be considered in determining whether further enforcement action is warranted.

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

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

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

Sincerely,

Original Signed By
Paul S. C[illegible]

Robert D. Martin, Regional Administrator
Region IV

Enclosure:
Notice of Violation and
Proposed Imposition of Civil Penalty

cc: w/enclosure
Kansas Gas and Electric Company
ATTN: Gene P. Rathbun, Manager
of Licensing
P.O. Box 208
Wichita, Kansas 67201

Forrest Rhodes, Plant Superintendent
Wolf Creek Generating Station
P.O. Box 309
Burlington, Kansas 66839

NOTICE OF VIOLATION
AND PROPOSED IMPOSITION OF CIVIL PENALTY

Kansas Gas and Electric Company
Wolf Creek Generating Station

Docket: 50-482/84-22
Permit: CPPR-147
EA 84-107

As a result of an NRC inspection conducted during the period of June 11, 1984 through September 28, 1984, two violations were identified one of which represents a significant breakdown in the licensee's program for the inspection and correction of defective safety-related structural steel welds. To emphasize the need for Kansas Gas and Electric Company management to ensure an effective quality inspection program has been implemented that both identifies and corrects construction deficiencies, the Nuclear Regulatory Commission proposes to impose a civil penalty in the amount of Seventy-five Thousand Dollars ($75,000) for this violation.

In accordance with the NRC Enforcement Policy, 10 CFR Part 2, Appendix C, as revised, 49 FR 8583 (March 8, 1984), and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended ("Act"), 42 U.S.C. 2282, PL 96-295 and 10 CFR 2.205, the particular violations and the associated civil penalty is set forth in Section I below:

I. Civil Penalty Violation

Criterion X of 10 CFR Part 50, Appendix B, requires that a program for inspection of activities affecting quality be established and executed by or for the organization performing the activity to verify conformance with the documented instructions, procedures, and drawings for accomplishing the activity.

Criterion XVI of Appendix B further requires that measures be established to assure that nonconformances are promptly identified and corrected.

Criterion XVII requires that sufficient records be maintained to furnish evidence of activities affecting quality.

Daniel International Corporation (DIC) Construction Procedure No. QCP-VII-200 describes the requirements for performance and inspection of safety-related structural steel welds with respect to committed conformance to the American Welding Society (AWS) D1.1-75. Appendix I in Revision 4 of this procedure invokes a prohibition with respect to lack of fusion, overlap, slag, arc strikes, and weld splatter. Paragraph 6.5.1 of AWS D1.1-75 requires inspector verification that the size and length of welds conform to the drawing requirements and that no specified welds are omitted.

Contrary to the above, the inspection program for safety-related structural steel welds was not adequately executed to assure conformance to the requirements of Construction Procedure QCP-VII-200 Revision 4 and the AWS D1.1-75 Code nor were adequate records kept to document the quality of the welds. Furthermore, once deficient welds were identified, no actions were taken to correct the deficiencies. This inadequate inspection program and the failure to take corrective actions is evidenced by the following:

1. A random reinspection of 241 structural steel safety-related welds, which were made in accordance with Revision 4 of QCP-VII-200, was performed by DIC and documented in Corrective Action Report (CAR) No. 1-W-0029 dated March 22, 1983. Sixty-two percent of the inspected welds were found by the DIC inspectors to not conform to the requirements of Revision 4 of QCP-VII-200. The reported defects that resulted in rejection by the DIC inspectors included arc strikes, slag, lack of fusion, overlap, and weld splatter.

2. Another reinspection of a sample of structural members with the lowest design safety margins was initiated on September 14, 1984. The results of the licensee reinspection activities (verified by NRC inspectors) as of September 28, 1984, were as follows:

   a. A missing weld was found at the same location in each of six pressurizer support connections. In addition, five of 14 fillet welds in one pressurizer support connection were undersized by 1/8-inch to 1/4-inch with respect to the drawing-required size of 5/8-inch, and two of these welds were also under the required length; i.e., 3-inch and 5-inch lengths, respectively, versus a drawing-required length of 8 inches. The weld dimensions of the remaining five pressurizer support connections were not included in the NRC verification activity.

   b. Reinspection of nine structural steel connections in the auxiliary building identified two missing welds in one connection. In addition, weld size and length discrepancies were identified in each of the nine connections. Of the total of 106 welds in the connections, eight were found to be undersized by 1/16-inch to 3/16-inch with respect to drawing-required width. Two of the undersized welds were also under the required length; i.e., 2 1/4-inch and 2 1/2-inch lengths, respectively, versus a drawing required length of 3 inches. An additional nine welds were also under the drawing-required length of 3 inches by 1/2-inch to 1-inch. Examination of 54 weld returns in the nine connections found 26 to be undersized by 1/16-inch to 3/16-inch with respect to drawing-required widths. One of the undersized weld returns was also under the required length; i.e., 2 inches versus a drawing-required size of 3 inches. In addition, 36 weld returns exceeded the drawing-required maximum length of 5/8-inch by 1 5/8 inches to 3 5/8 inches. An additional eight weld returns exceeded the drawing-required maximum length of 3/4-inch by 1/2-inch to 2 1/8 inches.

3. The absence of required Miscellaneous Structural Steel Weld Records (MSSWRs) for documenting welding and inspection of safety-related structural steel welded connections was identified by KG&E in CAR No. 1-C-0031. As a result of this identification, it has been established that approximately 16 percent of MSSWRs could not be located, which precludes positive verification of control of welding and performance

of required inspections. Approximately 80 percent of the MSSWRs applicable to the activities described in paragraph 2 above could not be located. Records were not available to indicate that an initial inspection was performed of either the pressurizer support connections or the auxiliary building structural connection which was identified to be missing two welds.

MSSWRs were located for certain welds in four structural connections which indicated acceptable welds. However, reinspection of these four connections showed one undersized weld in one connection and undersized and overlength weld returns in the four connections.

This is a Severity Level III Violation. (Supplement II.C)
Civil Penalty $75,000

II. Violation Not Assessed a Civil Penalty

Criterion V of 10 CFR 50, Appendix B, requires that activities affecting quality shall be accomplished in accordance with appropriate instructions, procedures, and drawings, and that these instructions, procedures, and drawings contain appropriate quantitative acceptance criteria.

Bechtel Drawing E-1R8900, Revision 1, "Raceway Notes, Symbols and Details" states in paragraph 3.36.4 that:

"Mininum separation between different Class 1E conduit systems and minimum separation between Class 1E conduit systems and non 1E conduit systems shall be 1". Separation shall be measured between the outside edges of the conduit".

Bechtel Drawing E-01013(q), Revision 11, requires the following:

1. Paragraph 5.8.1.6 - "Within the control boards and other panels associated with protection systems, circuits and instruments of different separation groups shall be independent and physically separated horizontally and vertically by a distance of 6 inches".

2. Paragraph 5.8.3 - "Non-safety related circuits shall be separated from Class 1E circuits by the same distances applicable to Class 1E circuits of different groups".

Contrary to the above, the following activities affecting quality were not accomplished in accordance with appropriate drawings:

1. There were seven cases noted where conduit-to-conduit separation was less than one inch.

2. There were five areas in the control panels and cabinets where electrical cable separation was less than six inches.

This is a Severity Level IV Violation (Supplement II).

Pursuant to the provisions of 10 CFR 2.201, Kansas Gas and Electric Company is hereby required to submit to the Deputy Director, Office of Inspection and Enforcement, USNRC, Washington, D.C. 20555, with a copy to this office, within 30 days of the date of this Notice, a written statement or explanation in reply, including for each alleged violation: (1) admission or denial of the alleged violation; (2) the reasons for the violation, if admitted; (3) the corrective steps that will be taken and the results achieved; (4) the corrective steps that will be taken to avoid further violations; and (5) the date when full compliance will be achieved. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, Kansas Gas and Electric Company may pay the civil penalty in the amount of $75,000 or may protest imposition of the civil penalty in whole or in part by a written answer. Should Kansas Gas and Electric Company fail to answer within the time specified, the Deputy Director, Office of Inspection and Enforcement, will issue an order imposing the civil penalty in the amount proposed above. Should Kansas Gas and Electric Company elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, such answer may: (1) deny the violations listed in the Notice in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty in whole or in part, such answer may request remission or mitigation of the penalty. In requesting mitigation of the proposed penalty, the five factors contained in section V.B of 10 CFR Part 2, should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of Kansas Gas and Electric Company is directed to the other provisions of 10 CFR 2.205 regarding the procedure for imposing a civil penalty.

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

FOR THE NUCLEAR REGULATORY COMMISSION

for Robert D. Martin
Regional Administrator

Dated at Arlington, Texas
this 21st day of November 1984

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TEXAS 76011

MAY 0 8 1985

Dockets: STN 50-482/84-57
STN 50-482/85-11
EA 85-27

Kansas Gas and Electric Company
ATTN: Glenn L. Koester
Vice President - Nuclear
P. O. Box 208
Wichita, Kansas 67201

Gentlemen:

This refers to the routine inspections of activities authorized by NRC Construction Permit No. CPPR-147 conducted by Mr. W. G. Guldemond and other members of the Wolf Creek Task Force including Messrs. M. Farber and D. Williams of the Region III office. These two inspections were conducted under the preoperational test inspection program during the periods of October 1 - December 20, 1984 and February 1 - 28, 1985 at the Wolf Creek Generating Station. The results of these inspections were discussed with you and members of your staff at an Enforcement Conference held at the Wolf Creek site on December 4, 1984, which was attended by Mr. R. P. Denise and other members of the NRC staff, and with Mr. C. Mason and other members of your staff at an Exit Meeting on February 28, 1985.

During these inspections, violations of NRC requirements were identified. These violations indicated weaknesses in your preoperational test program. Violation IA in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty involves three examples which your test program failed to provide verification of design safety features. Violation IB involves two examples in which your test program failed to demonstrate component performance during limiting accident conditions under which the component is expected to operate. Violation IC involves three examples in which your test program failed to ensure the use of proper testing methods and proper equipment. Violation ID involves one example in which your test program failed to verify a design document commitment.

Previous Inspection Reports identified similar weaknesses (Inspection Reports 50-482/84-15, 50-482/84-20, and 50-482-84-30). Failures to properly execute procedures and to properly document test discrepancies had been identified previously. In addition, during previous inspections we found a number of completed preoperational test packages that were voided during the final review stages due to administrative errors. These violations and other concerns involving your failure to provide adequate acceptance criteria and to adequately evaluate anomolous test results were discussed with you previously. Since similar violations were identified subsequently, it appears that your initial actions were to resolve these weaknesses on a case-by-case basis rather than in a comprehensive manner. Insufficient management attention was devoted to identifying and correcting the root causes of these problems. As a result, as documented in NRC Inspection

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Report 50-482/84-57, these violations and concerns indicated that a breakdown in the execution of your preoperational test program occurred.

To emphasize the importance the NRC places on the execution of your preoperational test program to ensure that the program demonstrates the functional capabilities of structures, systems, and components, and after consultation with the Director, Office of Inspection and Enforcement, I have been authorized to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Twenty-Five Thousand Dollars ($25,000). This violation has been categorized as a Severity Level III violation in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1985).

The base value for this type of violation is $50,000. However, the Enforcement Policy permits the consideration of factors for mitigation or escalation of the proposed penalty. The staff reviewed these factors and determined that mitigation of the base penalty by 50% was warranted. While we recognize that your initial actions were limited in scope, we also recognize that you have taken the prompt and extensive corrective actions you described during the Enforcement Conference on December 4, 1984 and in your letters of December 11, 1984 and February 5, 1985. These corrective actions have been reviewed and found to be satisfactory (as documented in paragraph 2 of enclosed Inspection Report 50-482/85-11).

Three other violations identified in Inspection Report 50-482/85-11 and discussed in the enclosed Notice are not assessed a civil penalty. Violation IIA involves three failures to follow plant administrative procedures. Violation IIB involves a failure to follow a preoperational test procedure, and Violation IIC involves a failure to operate the plant to procedural requirements. These violations are categorized as Severity Level V violations.

You are required to respond to the violations and should follow the instructions in the Notice when preparing your response. Your response to the enclosed Notice should address these items and provide an updated status on completion of those items described in your December 11, 1984 letter. Your response should also address specifically the corrective actions which you discussed with the Region IV staff and which you have implemented to preclude recurrence of this type of violation during the power ascension and operation phases at Wolf Creek. You may reference previous correspondence concerning these violations.

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

The response directed by this letter and the accompanying Notice is not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

for Robert D. Martin
Regional Administrator

Enclosures:
1. Notice of Violation and Proposed Imposition of Civil Penalty
2. Appendix A - NRC Inspection Report 50-482/84-57
3. Appendix B - NRC Inspection Report 50-482/85-11

cc:
Kansas Gas and Electric Company
ATTN: Gene P. Rathbun, Manager of Licensing
P. O. Box 208
Wichita, Kansas 67201

Forrest Rhodes, Plant Superintendent
Wolf Creek Generating Station
P. O. Box 309
Burlington, Kansas 66839

Kansas Radiation Control Program Director

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Kansas Gas and Electric Company
Wolf Creek Generating Station

Docket No.: 50-482
License No.: CPPR-147
EA 85-27

During October and November 1984 and February 1-28, 1985 members of the NRC staff conducted a routine inspection of preoperational testing activities at the Wolf Creek Generating Station (WCGS). As a result of this inspection, violations of NRC requirements were identified.

To emphasize the importance that NRC places on the execution of the licensee's preoperational test program to ensure that the program demonstrates the functional capabilities of structures, systems, and components, the NRC proposes to impose a civil penalty in the amount of Twenty-Five Thousand Dollars ($25,000). In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1985), and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended ("Act"), 42 U.S.C. 2282, PL 96-295, and 10 CFR 2.205, the particular violations are set forth below:

I. Violations Assessed a Civil Penalty

10 CFR Part 50, Appendix B, Criterion XI requires that a test program be established to assure that testing required to demonstrate that the structures, systems, and components perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents. The test program is to include, as appropriate, proof test prior to installation, preoperational tests, and operational tests during nuclear power plant or fuel reprocessing plant operation, of structures, systems, and components. Test procedures are to include provisions for assuring that all prerequisites for the given test have been met, that adequate test instrumentation is available and used, and that the test is performed under suitable environmental conditions. Test results are to be documented and evaluated to assure that test requirements have been satisfied.

Section 17.2. of the Wolf Creek Addendum to the SNUPPS FSAR, "Quality Assurance During the Operation Phase," requires that testing be performed to demonstrate that structures, systems, and components perform satisfactorily in service. The test program includes preoperational tests, initial startup tests, surveillance tests, pump and valve tests, and special tests, including those associated with plant maintenance, modification, procedure changes, failure analysis, and the acceptance of purchased material.

Test programs are to be established by the Director, Nuclear Operations to assure that testing demonstrates item or system performance. Testing is to be performed in accordance with written procedures which incorporate or reference the requirements and acceptance limits contained in applicable Technical Specifications, drawings, instructions, procurement documents, specifications, codes, standards, and regulatory requirements. Test program procedures control when a test is required and how it is to be performed.

Test administrative procedures, test procedures, and checklists employed during tests are to include, as applicable, prerequisite conditions; material and test equipment requirements; mandatory hold points; testing method instructions; limiting conditions and acceptance/rejection criteria; data collection method; and test result approval requirements. Test results are to be documented, reviewed, and approved by qualified individuals or groups.

Contrary to the above, at the time of the NRC inspection, the Kansas Gas and Electric Company had not established and executed an adequate preoperational test program which would have demonstrated that structures, systems, and components would perform satisfactorily in service. The following are examples of failures to adequately establish or implement the above program:

A. Verification of design safety features was not performed as Preoperational Test Procedures SU3-AE01, "Main Feedwater System," SU3-AB04, "Main Steam System," and SU3-NF01, "Load Shedding and Load Sequencer," did not include provisions to verify that safety system actuation signals would override test signals for certain components, as required by design and as specified in Sections 14.2.12.1.5, 14.2.12.1.3, and 14.2.12.1.63 of the Wolf Creek FSAR.

B. Test Procedures SU3-NF01, "LOCA Sequencer," and SU3-NF03, "Shutdown Sequencer," failed to demonstrate component performance under limiting accident conditions.

C. Neither the use of proper testing equipment nor the use of proper testing methods was ensured in that: (1) a pressure gauge of improper range was used to measure the performance of Residual Heat Removal System pumps in test SU3-EJ01, "Residual Heat Removal System", (2) a procedure SU3-NE01, "Diesel Generator Electrical," did not specify adequate conditions for test performance in accordance with FSAR Section 8.1.4.3, and (3) the test program did not specify adequate testing of the failure mode of air operated valves.

D. Preoperational Test Procedure SU3-NK01, "125 VDC Class 1E Electrical System," did not incorporate a commitment from FSAR Section 8.3.2.2.1 to measure safety-related battery room hydrogen concentration during battery operation.

This is a Severity Level III Violation (Supplement II).
Civil Penalty - $25,000

II. Violations Not Assessed a Civil Penalty

A. 10 CFR Part 50, Appendix B, Criterion V requires that activities affecting quality be accomplished in accordance with instructions, procedures, or drawings. Kansas Gas and Electric (KG&E) Administrative Procedure ADM 07-100, Revision 23, also requires in Section 3.1 that the plant be operated and maintained in accordance with approved procedures.

Contrary to the above, the following failures to perform activities in accordance with procedures occurred:

1. The shift supervisor failed to obtain evaluation of impairments to fire protection systems by the fire protection specialist prior to issuing Impairment Control Permits 85-47 and 85-87 as required by KG&E Administrative Procedure 13-103, Revision 1, Section 2.2.

2. On February 12, 1985, the shift supervisor approved Maintenance Work Request 02783-85 for work on Main Steam Isolation Valve ABHV-20 without the applicable Technical Specification reference (4.6.3.3) entered in block 10 as required by Administrative Procedure ADM 01-057, Rev. 4, page 17. Furthermore, he failed to initiate an equipment out-of-service log entry as required by ADM 02-105, Rev. 0.

3. On February 26, 1985, the NRC inspector observed Fire Door 13221 to the south mechanical penetration room on the 2000' level of the auxiliary building propped open. Also, the NRC inspector observed Fire Door 31041 from the auxiliary building to the health physics access area open with the latching mechanism disassembled. In both situations, no impairment control permit had been obtained and posted as required by ADM 13-103.

This is a Severity Level V violation (Supplement II).

Due to the response already received and discussed in Inspection Report 50-482/85-11, no written response to this item is required. This violation is closed.

B. 10 CFR Part 50, Appendix B, Criterion XI requires that a test program be established to assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents.

Section 17.2.11 of the Wolf Creek Addendum to the SNUPPS FSAR requires that testing be performed in accordance with written procedures.

Contrary to the above, Preoperational Test Procedure SU3-EM02, "Safety Injection Flow Verification," was inadequate in that Data Sheet 8.16, "Safety Injection Hot Leg Flow Balance," specified an incorrect formula when converting test data into flow rate.

This is a Severity Level V Violation (Supplement II).

Due to your response already received and included in Inspection Report 50-482/85-11, no written response to this item is required. This violation is closed.

C. 10 CFR Part 50, Appendix B, Criterion XI requires that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptable limits contained in applicable design documents.

KG&E Administrative Procedure ADM 02-101, Revision 11, "Temporary Modifications," in paragraph 3.1.6 requires that if the procedure authorizing the installation of a modification is suspended for a period of greater than 24 hours, the modification must be restored to normal or tagged in accordance with this procedure.

Contrary to the above, at the time of this inspection, test flanges rather than the required blind flanges to Flow Elements EM-924, EM-925, EM-926, and EM-927 were installed downstream of certain safety injection valves and the test flanges were not tagged as a temporary modification in accordance with ADM 02-101.

This is a Severity Level V Violation (Supplement II).

Pursuant to the provisions of 10 CFR 2.201, Kansas Gas and Electric Company is hereby required to submit to the Director, Office of Inspection and Enforcement, US Nuclear Commission, Washington, D.C. 20555, with a copy to the Regional Administrator, US Nuclear Regulatory Commission, Region IV, within 30 days of the date of this Notice, a written statement or explanation in reply, including for each alleged violation: (1) admission or denial of the alleged violation; (2) the reasons for the violation if admitted; (3) the corrective steps which have been taken and the results achieved; (4) the corrective steps which will be taken to avoid further violations; and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this notice, the Director, Office of Inspection and Enforcement, may issue an order to show cause why the license should not be modified, suspended or revoked or why such other action as my be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the Kansas Gas and Electric Company may pay the civil penalty in the amount of Twenty-Five Thousand Dollars ($25,000) or may protest imposition of the civil penalty in whole or in part by a written answer. Should the Kansas Gas and Electric Company fail to answer within the time specified, the Director, Office of Inspection and Enforcement, will issue an order imposing the civil penalty in the amount proposed above. Should the Kansas Gas and Electric Company elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, such answer may: (1) deny the violation listed in this Notice in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty in whole or in part, such answer may request mitigation of the penalty.

In requesting mitigation of the proposed penalty, the five factors contained in Section V.B of 10 CFR Part 2, Appendix C (1985) should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The Kansas Gas and Electric Company's attention is directed to the other provisions of 10 CFR 2.205 regarding the procedure for imposing a civil penalty.

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

FOR THE NUCLEAR REGULATORY COMMISSION

for Robert D. Martin
Regional Administrator

Dated at Arlington, Texas
this 8 day of May 1985