NUREG-0940
Vol. 18, No. 2, Part 2
Reactor Licensees

Enforcement Actions: Significant Actions Resolved Reactor Licensees

Semiannual Progress Report
July - December 1999

U.S. Nuclear Regulatory Commission
Office of Enforcement
Washington, DC 20555-0001

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Office of Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

NOTICE

NUREG-0940, Enforcement Actions: Significant Actions Resolved, has been published since 1982 to provide NRC-regulated industries and the public with information about the more significant enforcement actions taken by the agency. Recently, the development and widespread use of electronic information dissemination has changed the nature of communicating between federal agencies, their licensees, and the public.

The printed version of NUREG-0940 has been published approximately every six months. Thus, given the time needed to prepare, print, and distribute the document, copies of some actions do not reach licensees and others until 8-9 months after issuance. However, all enforcement actions that are published in NUREG-0940 are now posted on the NRC website, under the Office of Enforcement home page, promptly after issuance. See: www.nrc.gov/OE

Accordingly, the NRC has evaluated the effectiveness of using the resources needed to publish the printed version of NUREG-0940. The NRC has concluded that continuing to publish material in hard copy, when that information is currently and more promptly available electronically, is neither an effective use of resources nor consistent with the Congressional mandate to maximize use of Information Technology and is no longer appropriate. Therefore, this issue is the last that will be issued unless the agency receives significant public comment in favor of continued publication. If you wish to comment, send your views, no later than August 31, 2000, to:

R. W. Borchardt, Director
Office of Enforcement (O-14E1)
U. S. Nuclear Regulatory Commission
Washington, DC 20555-

Comments may also be sent electronically to: bts@nrc.gov

G:\NUREGnotice.gc.wpd

ABSTRACT

This compilation summarizes significant enforcement actions that have been resolved during the period (July - December 1999) and includes copies of letters, Notices, and Orders sent by the Nuclear Regulatory Commission to reactor licensees with respect to these enforcement actions. It is anticipated that the information in this publication will be widely disseminated to managers and employees engaged in activities licensed by the NRC, so that actions can be taken to improve safety by avoiding future violations similar to those described in this publication.

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ENFORCEMENT ACTIONS: SIGNIFICANT ACTIONS RESOLVED
REACTOR LICENSEES

JULY - DECEMBER 1999

INTRODUCTION

This issue and Part of NUREG-0940 is being published to inform Nuclear Regulatory Commission (NRC) reactor licensees about significant enforcement actions and their resolution for the second half of 1999. Enforcement actions are issued in accordance with the NRC's Enforcement Policy, published as NUREG-1600, "General Statement of Policy and Procedure for NRC Enforcement Actions." Enforcement actions are issued by the Deputy Executive Director for Reactor Programs (DEDR), Deputy Executive Director for Materials, Research and State Programs and the Regional Administrators (DEDMRS). The Director, Office of Enforcement, may act for the DEDR in the absence of the DEDR or as directed. The NRC defines significant enforcement actions or escalated enforcement actions as civil penalties, orders, and Notices of Violation for violations categorized at Severity Level I, II, and III (where violations are categorized on a scale of I to IV, with I being the most significant).

The purpose of the NRC Enforcement Program is to support the agency's safety mission in protecting the public and the environment. Consistent with that purpose, the NRC makes this NUREG available to all reactor licensees in the interest of avoiding similar significant noncompliance issues. Therefore, it is anticipated that the information in this publication will be widely disseminated to managers and employees engaged in activities licensed by NRC.

A brief summary of each significant enforcement action that has been resolved in the first half of 1999 can be found in the section of this report entitled "Summaries." Each summary provides the enforcement action (EA) number to identify the case for reference purposes. The supplement number refers to the activity area in which the violations are classified in accordance with the Enforcement Policy.

Supplement I	- Reactor Operations
Supplement II	- Facility Construction
Supplement III	- Safeguards
Supplement IV	- Health Physics
Supplement V	- Transportation
Supplement VI	- Fuel Cycle and Materials Operations
Supplement VII	- Miscellaneous Matters
Supplement VIII	- Emergency Preparedness

Section A of this report consists of copies of completed civil penalty or Order actions involving reactor licensees, arranged alphabetically. Section B includes copies of Notices of Violation that were issued to reactor licensees for a Severity Level I, II, or III violation, but for which no civil penalties were assessed.

The NRC publishes significant enforcement actions taken against individuals and involving materials licensees as Parts I and III of NUREG-0940, respectively.

SUMMARIES

A. CIVIL PENALTIES AND ORDERS

North Atlantic Energy Service Corporation, Seabrook, New Hampshire
(Seabrook Station), Supplement VII, EA 98-165

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $55,000 was issued August 3, 1999, to emphasize the importance of continuously assuring a work environment that is free of any harassment, intimidation, or discrimination against those who raise safety concerns, and to encourage prompt identification of violations. The action was based on a Severity Level III violation involving a licensee contractor that discriminated against a contractor electrician due to the electrician's involvement in protected activity. The contractor electrician was selected for layoff due, at least in part, to the fact that he had raised a concern to the licensee's Quality Control Inspector regarding a wiring discrepancy in the control panel of the control building air conditioning system, a safety-related system. No credit was given the licensee for identification, but credit was warranted for corrective actions. The licensee responded and paid the civil penalty on September 2, 1999.

B. SEVERITY LEVEL I, II, AND III VIOLATIONS, NO CIVIL PENALTY

Commonwealth Edison Company, Downers Grove, Illinois
(Zion Station), Supplement III, EA 99-100

A Notice of Violation was issued July 20, 1999, based on a violation involving a contract security officer who inadvertently brought a personal handgun into the personnel search area a the Zion station. The security officer submitted a hand-carried bag for x-ray inspection and his personal handgun was identified among his belongings. He immediately retrieved his belongings, including the handgun, and asked the x-ray equipment operator to not report him because he feared his employment would be terminated. He and the x-ray equipment operator then erased the image of the handgun from the monitor. A short time later, the security officer returned to the personnel search area and offered cash to the equipment operator. The equipment operator did not take the cash, but he did not report the incident until approximately 11/2 hours later. Credit was warranted for identification, since the licensee identified the violation and notified the NRC. Credit for corrective action was also warranted because of immediate and long term measures, which among other things included the termination of both employees.

Duke Energy Corporation, York, South Carolina
(Catawba Nuclear Station), Supplement I, EA 99-094

A Notice of Violation was issued July 22, 1999, based on a violation involving the failure to comply with Technical Specification 3.7.13, when the misalignment of two electrical breakers rendered the Standby Shutdown System inoperable. In preparation for scheduled maintenance the two breakers were tagged and placed in the open position. Upon completion of scheduled maintenance plant personnel failed to return the two breakers to the normal position of on. Credit for identification was warranted because the violation was identified by the licensee while conducting a plant procedure validation. Credit was also warranted for corrective action because of the licensee's immediate

corrective action to restore the standby shutdown system to operable status and long-term corrective actions to preclude recurrence.

Duquesne Light Company, Shippingport, Pennsylvania
(Beaver Valley), Supplement I, EA 99-212

A Notice of Violation was issued October 21, 1999, based on violations which included (1) the failure to implement corrective actions to prevent biofouling of the service water system, despite prior opportunities to do so; and (2) the failure to provide adequate acceptance criteria in the procedure for chemical treatment of the service water system. These violations resulted in fouling of the EDG heat exchangers. Credit was warranted for identification because the biofouling problem was identified during the licensee's surveillance test of the emergency diesel generator. Credit was also warranted for corrective actions which were considered prompt and comprehensive.

Entergy Operations, Inc., St. Francisville, Louisiana
(River Bend Station), Supplement I, EA 99-158

A Notice of Violation was issued October 5, 1999, based on violations involving improper installation of a fuel booster pump coupling pin which resulted in the diesel failing after 55 minutes of operation during a surveillance test in March 1999. The failure was traced to improper staking of the coupling pin, including the failure to use an adhesive that was recommended by the emergency diesel generator vendor. Credit was warranted for both identification and corrective actions which resulted in no civil penalty being assessed.

FirstEnergy Nuclear Operating Company, Oak Harbor, Ohio
(Davis-Besse), Supplement I, EA 99-138

A Notice of Violation was issued August 6, 1999, based on a violation involving the licensee staff's failure to discover all missing body-to-bonnet nuts on a pressurizer spray valve. Initially the licensee identified one nut was missing but subsequently, it was discovered that three nuts were either missing or corroded away. The licensee had performed a field change to the pressurizer spray valve that was not approved. This change replaced three of eight boric acid corrosion resistant body-to-bonnet stainless steel nuts with susceptible carbon steel nuts. A civil penalty was not assessed because the licensee had not been the subject of escalated enforcement action in the past two years. Credit was warranted for corrective actions once the root cause of the problem was identified.

Illinois Power Company, Clinton, Illinois
(Clinton Power Station), Supplement VII, EA 98-464

A Notice of Violation was issued September 30, 1999, based on an investigation which determined that a supervisor discriminated against a QV inspector in retaliation for the inspector's previous contacts with the NRC about safety-related issues involving the QV department. The QV inspector was not recommended for a promotion due, in part, to the inspector's earlier discussions with the NRC. Credit was warranted for both identification and corrective action because the licensee identified the violation and promptly took corrective actions, which among other actions, included the retroactive promotion of the QV inspector.

Southern California Edison Co., San Clemente, California
(San Onofre Nuclear Generating Station), Supplement 1, EA 99-242

A Notice of Violation was issued December 15, 1999, based on a violation involving the emergency diesel generator and battery charger in Unit 3. The violation involved aligning EDG 3G003 to a malfunctioning automatic voltage regulator, rendering the EDG inoperable, and subsequently removing from service a battery charger in the opposite safety train. Because the inoperability of the EDG was a condition that was not immediately recognized by operations personnel, actions required by the plant's TS when the battery charger was removed from service were not taken. A civil penalty was not proposed because credit was warranted for both identification and corrective action of the violation.

The Detroit Edison Company, Newport, Michigan
(Fermi-2), Supplement III, EA 99-263

A Notice of Violation was issued December 15, 1999, based on a violation involving the failure of security personnel to search an accessible portion of the cargo area of a truck entering the protected area at the facility. As a result of the failure to search all accessible areas of the truck, a loaded handgun was brought into the protected area of the facility on September 22, 1999. Because the Fermi-2 facility has not been the subject of escalated enforcement action within the past two years, a civil penalty was not proposed. Credit was also warranted for corrective actions because the licensee identified the violation and promptly corrected the violation.

Wisconsin Public Service Corporation, Green Bay, Wisconsin
(Kewaunee Plant), Supplements III and VII, EA 99-183

A Notice of Violation was issued October 19, 1999, based on an investigation which concluded that the training manager for the Wackenhut Corporation, the security force contractor at the site, falsified records. The investigation revealed that the annual test was not performed for 11 shotguns during 1997 and nine shotguns in 1998. Two of the shotguns that had not been tested failed to properly cycle during a subsequent test. The OI investigation concluded that the Wackenhut training manager deliberately falsified the record of those tests and provided false information to the security director at Kewaunee when questioned. Credit was warranted for identification because the licensee identified the violation. Credit was also warranted for corrective actions which were immediate and long term.

C. NON-LICENSED VENDOR (PART 21)

CIVIL PENALTY AND ORDERS

Morrison Knudsen Corporation, Cleveland, Ohio
EA 98-081

A Confirmatory Order (Effective Immediately) was issued September 24, 1999, to confirm certain commitments and to ensure that the company's process for addressing employee protection and safety concerns will be enhanced. An investigation concluded that a former Group Welding Engineer had been discriminated against for raising safety concerns. The employee's identification of deficiencies in welding procedures by the

company at Point Beach Nuclear Plant was at least a contributing factor in the company's decision to remove the employee from his position. Among the commitments made by Morrison Knudsen were: (1) to hire an independent consultant to conduct audits to review their employees concerns program, (2) will conduct mandatory continuing training programs on an annual basis for all supervisors and managers, (3) to integrate into their overall program for enhancing the work environment and safety culture a cultural assessment survey, developed by the independent consultant, and (4) to post the Confirmatory Order and NRC Form 3 at all temporary job sites and at corporate headquarters.

Thermal Science, Inc., St. Louis, Missouri
Supplement VII, EA 95-009

A Notice of Violation and Proposed Imposition of Civil Penalties in the amount of $900,000 was issued October 1, 1996. The action was based on the company providing inaccurate or incomplete information to the NRC on at least nine different occasions. The company responded in a letter dated July 7, 1998 providing two legal objections to the Notice, specifically, that NRC lacked the authority to impose a civil penalty on a non-licensee and that NRC's administrative proceeding is criminal rather than civil. In addition, the company denied all nine violations. After consideration of the response, an Order Imposing Civil Monetary Penalties was issued May 3, 1999. Because of the prolonged litigation in the courts, a Settlement Agreement for $300,000 was signed December 8, 1999. The company paid the first $100,000 on December 14, 1999, with the remaining $200,000 due in December 2000 and December 2001.

NOTICE OF VIOLATION

Williams Power Corporation, Stone Mountain, Georgia
Supplement VII, EA 98-338

A Notice of Violation was issued August 3, 1999, based on an investigation which identified violations involving: (1) discrimination by Williams Power Corporation (WPC), a contractor for North Atlantic Energy Service Corporation's Seabrook Station, against an electrician for raising safety issues regarding electrical wiring in the control panel for the control building air conditioning system, (2) creation of an inaccurate record by WPC regarding work completed on the air conditioning system, and (3) the failure to promptly correct the incorrectly terminated cables of the air conditioning system. The NRC acknowledges the actions taken by WPC to address the environment for raising safety concerns at the Seabrook Station. These actions included: (1) reinstating the electrician, (2) informing the supervisory and craft employees about the event, (3) improving the documentation supporting personnel actions, and reinforcing the company's commitment to a safety conscious work environment.

A- CIVIL PENALTY

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

August 3, 1999

EA 98-165

Mr. T. C. Feigenbaum
Executive Vice President and Chief Nuclear Officer
Seabrook Station
North Atlantic Energy Service Corporation
c/o Mr. James Peschel
Post Office Box 300
Seabrook, New Hampshire 03874

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $55,000
(Office of Investigations Report 1-98-005)

Dear Mr. Feigenbaum:

This refers to the subject investigation conducted by the NRC Office of Investigations (OI) at North Atlantic Energy Service Corporation's (NAESCo) Seabrook Station. Based on the findings of the investigation, apparent violations were identified involving: (1) discrimination by Williams Power Corporation (WPC), a contractor of NAESCO, against an electrician for raising safety issues regarding electrical wiring in the control panel for the control building air conditioning (CBA) system; (2) creation of an inaccurate record by WPC regarding work completed on the CBA system; and (3) the failure to promptly correct the incorrectly terminated cables of the CBA system. The synopsis of the subject OI report was forwarded to you with our letter, dated March 16, 1999. Our subsequent letter, dated April 8, 1999, provided a summary of the facts that led the NRC to conclude that violations may have occurred. On June 2, 1999, a predecisional enforcement conference (conference) was held with you, members of your staff, and representatives of WPC to discuss the apparent violations, their causes, and your corrective actions.

After review of the information developed during the investigation, the information provided during the conference, and other information provided subsequent to the conference, including the additional information provided in your letter dated June 15, 1999, the NRC has determined that a violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice). The violation involved discrimination against the WPC electrician who raised a concern regarding a wiring discrepancy in the control panel of the CBA system. Specifically, the WPC electrician identified that two electrical conductors in the CBA control panel were terminated in a configuration opposite that shown in the applicable design documents. The electrician first raised this concern to his foreman, and later brought the discrepancy to the attention of a NAESCo quality control (QC) inspector on January 7, 1998. Subsequently, on January 16, 1998, the WPC foreman selected this specific electrician for a layoff.

At the conference, you contended that the electrician's raising of the safety concern was not a factor in his selection for layoff, noting that there were legitimate reasons for this action. While legitimate reasons supporting the layoff may exist, the NRC has concluded, based on the evidence developed during the OI investigation and the information provided at the enforcement conference, that the layoff was motivated, at least in part, by the individual's engagement in protected activity. Specifically, the NRC has concluded that the foreman selected the electrician for the layoff at least in part in retaliation for the manner in which he raised the wiring discrepancy; i.e. by bringing it to the attention of the QC inspector. As such, the NRC has concluded that the electrician was discriminated against for raising a safety concern which constitutes a violation of 10 CFR Part 50.7.

The NRC recognizes that these actions were taken by one of your contractors. Nonetheless, the NRC holds the facility licensee responsible for the acts of all personnel employed at its facilities, including contractors. The NRC also recognizes that you took prompt action to review the circumstances of the electrician's layoff, and that you promptly had the electrician reinstated after recognizing the potential chilling effect that could result. Nonetheless, the actions of the WPC foreman resulted in a significant violation of the employee protection standards set forth in 10 CFR 50.7. Given that the violation was caused by an individual who was acting as a first line supervisor, the violation is categorized at Severity Level III in accordance with the NRC Enforcement Policy, "General Statement of Policy and Procedures for NRC Enforcement Actions," NUREG-1600 (Enforcement Policy).

In accordance with the Enforcement Policy, a base civil penalty in the amount of $55,000 is considered for a Severity Level III violation or problem. Since this violation was willful, the NRC considered whether credit was warranted for *Identification* and *Corrective Action* in accordance with the civil penalty assessment process in Section VI.B.2 of the Enforcement Policy. In this case, the NRC recognizes that you investigated the layoff of the electrician; however, you did not recognize that discrimination occurred. Accordingly, credit is not warranted for identification of the violation. With respect to corrective actions, although you did not conclude that the layoff was motivated by retaliatory reasons, you recognized the potential chilling effect that the layoff could have on other contractor or NAESCo employees. As a result, you recommended that WPC: (1) reinstate the electrician; (2) inform its supervisory and craft employees about the event; (3) improve the quality of documentation supporting personnel actions; and (4) reinforce its commitment to a safety conscious work environment to its entire workforce at the Seabrook station. Additionally, you designated a NAESCo manager to provide additional management oversight of all initiatives devoted to maintaining a safety conscious work environment (SCWE). Further, you conducted an assessment which concluded that a healthy SCWE exists at the Seabrook Station. Therefore, credit for corrective action is warranted.

Therefore, to emphasize the importance of continuously assuring a work environment that is free of any harassment, intimidation, or discrimination against those who raise safety concerns, and to encourage prompt identification of violations, I have been authorized, after consultation with the Director, Office of Enforcement, to propose a base civil penalty in the amount of $55,000 for the violation set forth in the Notice.

Based on the information provided at the conference and on further evaluation of the results of the OI investigation, the NRC has concluded that no violations of 10 CFR 50.9, "Completeness and Accuracy of Information," or 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," occurred. Specifically, the NRC concluded that, because the wiring discrepancy was noted in the work document, the documentation of the CBA control panel work activities was accurate. Additionally, because the wiring discrepancy was corrected before the CBA system was returned to service, the NRC concluded that your corrective actions for the discrepant condition were not untimely. However, the failure to terminate the conductors in accordance with the applicable design document, and the failure to generate an Adverse Condition Report (ACR) for the wiring discrepancy by the end of the day on which it was discovered, constituted violations of requirements contained in Seabrook site procedures. These violations were of minor significance and are not subject to formal enforcement action.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, and your response will be placed in the NRC Public Document Room (PDR).

Sincerely,

Hubert J. Miller
Regional Administrator

Docket No. 50-443
License No. NPF-56

Enclosure: Notice of Violation and Proposed Imposition of Civil Penalty

cc w/encl:
B. Kenyon, President - Nuclear Group
J. Streeter, Recovery Officer - Nuclear Oversight
W. DiProfio, Station Director - Seabrook Station
R. Hickok, Nuclear Training Manager - Seabrook Station
D. Carriere, Director, Production Services
L. Cuoco, Esquire, Senior Nuclear Counsel
W. Fogg, Director, New Hampshire Office of Emergency Management
R. Backus, Esquire, Backus, Meyer and Solomon, New Hampshire
D. Brown-Couture, Director, Nuclear Safety, Massachusetts Emergency Management Agency
F. Getman, Jr., Vice President and General Counsel - Great Bay Power Corporation
R. Hallisey, Director, Dept. of Public Health, Commonwealth of Massachusetts
Seacoast Anti-Pollution League
D. Tefft, Administrator, Bureau of Radiological Health, State of New Hampshire
S. Comley, Executive Director, We the People of the United States
W. Meinert, Nuclear Engineer

ENCLOSURE

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

North Atlantic Energy Service Corporation
Seabrook Station

Docket No. 50-443
License No. NPF-56
EA 98-165

During an NRC investigation conducted by the NRC Office of Investigations (OI) between January 29, 1998, and May 27, 1998, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the NRC proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violation and associated civil penalty are set forth below:

> 10 CFR 50.7 prohibits, in part, discrimination by a Commission licensee or a contractor of a Commission licensee against an employee for engaging in certain protected activities. Discrimination includes discharge or other actions relating to the compensation, terms, conditions, and privileges of employment. The activities which are protected include, but are not limited to, reporting of safety concerns by an employee to his employer.
>
> Contrary to the above, on January 16, 1998, a licensee contractor discriminated against a contractor electrician due to the employee's involvement in protected activity. Specifically, the contractor electrician was selected for a layoff on January 16, 1998, due, at least in part, to the fact that he had raised a concern to a licensee Quality Control inspector on January 7, 1998, regarding a wiring discrepancy in the control panel of the control building air-conditioning (CBA) system, a safety-related system. (01013)
>
> This violation is classified at Severity Level III (Supplement VII).
> Civil Penalty - $55,000

Pursuant to the provisions of 10 CFR 2.201, North Atlantic Energy Service Corporation (NAESCo or Licensee) 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 or a Demand for Information may be issued as 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.

Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalty proposed above, in accordance with NUREG/BR-0254 and by submitting to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555, a statement indicating when and by what method payment was made, 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 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 VI.B.2 of the Enforcement Policy 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 penalties, 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, statement as to payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: James Lieberman, Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region I and a copy to the NRC Resident Inspector at the facility that is the subject of this Notice.

Because your response will be placed in the NRC Public Document Room (PDR), to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you <u>must</u> specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.790(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 3rd day of August 1999

B- SEVERITY LEVEL I, II, III VIOLATIONS, NO CIVIL PENALTY

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

July 20, 1999

EA 99-100

Mr. Oliver D. Kingsley
President, Nuclear Generation Group
Commonwealth Edison Company
ATTN: Regulatory Services
Executive Towers West III
1400 Opus Place, Suite 500
Downers Grove, IL 60515

SUBJECT: NOTICE OF VIOLATION
(NRC OFFICE OF INVESTIGATIONS REPORT NO. 3-98-017)

Dear Mr. Kingsley:

This refers to the investigation by the U.S. Nuclear Regulatory Commission (NRC) Office of Investigations (OI) into information reported to the NRC by the Commonwealth Edison Company (ComEd) on February 24, 1998, that a contract security officer inadvertently brought a personal handgun into the personnel search area at the ComEd Zion Station. The information from ComEd indicated that at the request of the officer owning the handgun, another officer, who had operated the x-ray search equipment, failed to make the required notifications that a firearm had been identified through the x-ray search process. A copy of the synopsis of the OI report was provided to ComEd by letter dated April 27, 1999.

Based on the information developed during the OI investigation, ComEd's investigation, and the information provided in a letter from ComEd dated May 27, 1999, in response to an April 27, 1999, letter from the NRC, the NRC has determined that a violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in the investigation reports, the April 27, 1999, letter from the NRC, and the ComEd letter dated May 27, 1999.

In summary, a security officer entered the personnel search area of the Zion Station on February 24, 1998. He submitted a hand-carried bag for x-ray inspection and his personal handgun was identified among his belongings. He apparently forgot that the handgun was in his bag. The security officer immediately retrieved his belongings, including the handgun, from the belt of the x-ray equipment and asked the x-ray equipment operator to not report him because he feared his employment would be terminated for bringing a firearm to the Zion Station. He and the x-ray equipment operator then erased the image of the handgun from the x-ray equipment monitor. The procedures implementing the NRC-approved Zion security plan required the x-ray equipment operator to immediately notify the alarm station and a supervisor upon discovery of a firearm. The x-ray equipment operator did not make those immediate notifications. A short time later, the security officer returned to the personnel search area and offered cash to the x-ray equipment operator for not making a report about the handgun. The x-ray equipment operator did not accept the money. A few minutes later, a security force

supervisor entered the personnel search area and the x-ray equipment operator did not tell the supervisor about the firearm. However, the x-ray equipment operator did tell a supervisor about the event approximately 1½ hours later. The actions of the security officers represent a deliberate violation of the procedures implementing the NRC-approved security plan for the Zion Station. Therefore, the violation has been categorized in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600, at Severity Level III.

In accordance with the Enforcement Policy, a base civil penalty of $55,000 is considered for a Severity Level III violation. Because the Zion Station was the subject of an escalated enforcement action within the two years preceding this Severity Level III violation,[1] the NRC considered whether credit was warranted for *Identification* and *Corrective Action* in accordance with the civil penalty assessment process in Section VI.B.2 of the Enforcement Policy. Credit was given for *Identification* because ComEd identified the violation and notified the NRC. Credit was also given for *Corrective Action* because of the immediate and long term measures taken by ComEd. The corrective actions are described in your May 27, 1999 letter and include, but are not limited to: (1) terminating the employment of the individuals; (2) placing the appropriate information pertaining to the revocation of the individuals unescorted in the industry's Personnel Access Database System; (3) documenting the event in a Security Department Lesson Learned Report; and (4) disseminating that report to the guard force at each ComEd nuclear station, including Zion.

Therefore, to encourage prompt identification and comprehensive correction of violations, I have been authorized, after consultation with the Director, NRC Office of Enforcement, not to propose a civil penalty for this Severity Level III violation. However, significant violations in the future could result in a civil penalty.

The NRC has concluded that information regarding the reason for the enclosed violation, the corrective actions taken and planned to correct the violation and prevent recurrence and the dates when full compliance was achieved is adequately addressed on the docket in a May 27, 1999, letter from ComEd. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

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[1] A Notice of Violation and Proposed Imposition of Civil Penalty - $110,000 was issued on January 15, 1998, for a Severity Level III problem associated with a programmatic breakdown in the implementation of the fitness for duty program at the Zion Station during 1997 (EA 97-249).

A Notice of Violation was issued on April 9, 1999, for a Severity Level III violation for the failure to properly protect Safeguards Information during the period July 1997 to January 22, 1998 (EA 98-558).

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if you choose to provide one) will be placed in the NRC Public Document Room (PDR). To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction.

Sincerely,

J. E. Dyer
Regional Administrator

Docket Nos. 50-295; 50-304
License Nos. DPR-39; DPR-48

Enclosure: Notice of Violation

cc w/encl: D. Helwig, Senior Vice President
H. Stanley, PWR Vice President
C. Crane, BWR Vice President
R. Krich, Vice President, Regulatory Services
DCD - Licensing
R. Starkey, Decommissioning Plant Manager
R. Godley, Regulatory Assurance Supervisor
M. Aguilar, Assistant Attorney General
K. Nollenberger, County Administrator
Mayor, City of Zion
State Liaison Officer, Illinois
State Liaison Officer, Wisconsin
Chairman, Illinois Commerce Commission

NOTICE OF VIOLATION

Commonwealth Edison Company
Zion Station
Units 1 and 2

Docket Nos. 50-295; 50-304
License Nos. DPR-39; DPR-48
EA 99-100

During an NRC investigation concluded on March 18, 1999, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violation is listed below:

Section 2.C.6 of Amendments 42 and 65 for Zion Operating Licenses No. DPR-39 and DPR-48 respectively, provide in part, that the licensee shall maintain in effect and fully implement all provisions of the Commission approved physical security plan, the Zion Station Security Plan (ZSSP), including amendments and changes made pursuant to the authority of 10 CFR 50.54(p).

Section 9.1 of the NRC-approved Zion Station Security Plan (ZSSP) requires, in part, that personnel and packages entering the protected area of the Zion Station be searched for firearms, explosives and incendiary devices to prevent unauthorized entry of these objects in the Zion Station Protected Area. ZSSP Section 9.1 further requires that search equipment operators must alert alarm station operators when there is a strong indication or confirmation of the presence of a firearm. Section 9.2.1 of the ZSSP provides, in part, that persons coming into the protected area of the Zion Station allow their handheld items to be searched. Section 9.3 of the ZSSP states, in part, that x-ray equipment and/or a physical search are used to search hand-carried items.

Section 3.1 of the ZSSP provides for procedures which implement the Plan. Section 3.5 of the ZSSP provides, in part, that post orders are issued for the use of security force personnel in the accomplishment of their assigned duties and responsibilities.

Zion Station Post Order (ZSPO) No. 01, "Personnel Screen/Search," Revision No. 21, dated November 24, 1997, defines the term "contraband" as unauthorized items such as firearms, and defines "prohibited items" as including ammunition and component parts of weapons (*e.g.,* barrels, frames, and triggers).

Section E.2 of ZSPO No. 1, provides, in part, that once an individual starts the search process (*i.e.,* enters the first piece of detection equipment) the person must complete the entire search process. Section E.7. of ZSPO No. 01 requires that an individual, who has entered the search equipment envelope and decides to leave, must be instructed not to leave and the search completed.

ZSPO No. 02, "Hand Carried Items/Package Search," Revision No. 15, dated April 30, 1997, Section D.1.6, requires that any package determined to contain prohibited items or items which are suspicious or unidentifiable and could conceal a prohibited item, shall be immediately secured to prevent access by the carrier. Furthermore, any package which, during visual examination by x-ray machine, is determined to contain prohibited items shall remain within the x-ray machine or shall be taken under physical control. Additionally, supervision must be notified by radio or telephone. Section D.1.11 of ZSPO No. 02 further requires that a supervisor be notified when prohibited items are discovered.

Contrary to the above, on February 24, 1998, an individual attempted to enter the protected area of the Zion Station with a handheld item. The x-ray search of that item indicated the presence of a firearm. The search equipment operator failed to secure the item and prevent access to the item by the individual carrying it. The individual removed the item from the belt of the x-ray equipment before the search process could be completed. The search equipment operator also failed to instruct the individual not to leave the area. The individual entering the plant then asked the search equipment officer to erase the image of the firearm from the x-ray monitor and requested that a report of the incident not be made. As a result, the x-ray equipment operator erased the x-ray image of the handgun from the monitor of the x-ray equipment and failed to notify the alarm station that a firearm had been found. Furthermore, the x-ray equipment operator failed to notify a supervisor by radio or telephone of the presence of a firearm. (01013)

This is a Severity Level III violation (Supplement III).

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence and the dates when full compliance was achieved is adequately addressed on the docket in a May 27, 1999, letter from ComEd. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201, if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation, EA 99-100," and send it to the NRC Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator and the Enforcement Officer, U.S. Nuclear Regulatory Commission, 801 Warrenville Road, Lisle, IL 60532-4351 within 30 days of the date of the letter transmitting this Notice of Violation (Notice).

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

If you choose to respond, your response will be placed in the NRC Public Document Room (PDR). Therefore, to the extent possible, the response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 20th day of July 1999.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303-8931

July 22, 1999

EA 99-094

Duke Energy Corporation
ATTN: Mr. G. R. Peterson
Site Vice President
Catawba Nuclear Station
4800 Concord Road
York, SC 29745

SUBJECT: NOTICE OF VIOLATION
(NRC INSPECTION REPORT NO. 50-413/99-10 AND 50-414/99-10)

Dear Mr. Peterson:

This refers to a special inspection conducted on March 14 through April 24, 1999, at the Catawba Nuclear Station. The purpose of this inspection was to followup on an earlier configuration control problem that rendered the Standby Shutdown System (SSS) inoperable. The results of the inspection, including one apparent violation, were discussed with members of your staff at an exit meeting on May 3, 1999, and formally transmitted to you by letter dated May 10, 1999. An open, predecisional enforcement conference was conducted at the NRC Region II office in Atlanta, Georgia, on July 12, 1999, to discuss the apparent violation, the root cause, and your corrective actions. A list of conference attendees, copies of the Nuclear Regulatory Commission's (NRC) slides, and Duke Energy Corporation's (DEC) presentation materials are enclosed.

Based on the information developed during the inspection and the information you provided during the conference, we have determined that a violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation (Notice), and the circumstances surrounding it are described in detail in the subject inspection report. The violation involved the failure to comply with Technical Specification (TS) 3.7.13, when the misalignment of two electrical breakers rendered the SSS inoperable from December 16 through 29, 1998. On December 16, 1998, in preparation for scheduled SSS maintenance, the two breakers were tagged and placed in the "off" (open) position. Upon completion of scheduled maintenance on December 18, plant personnel failed to return the two breakers to the normally "on" (closed) position. The misaligned breakers were discovered by DEC personnel on December 29, 1998, while conducting a plant procedure validation. Upon discovery of the open breakers, DEC personnel promptly positioned the breakers to their correct position to restore the SSS to operable status. TS 3.7.13 required that with the SSS inoperable, restore the inoperable equipment to operable status within seven days or be in at least hot standby within the next six hours and in at least hot shutdown within the following six hours; however, the SSS was inoperable for a total of 13 days and required actions were not taken to place the units in at least hot standby within the six hours and in at least hot shutdown within the following six hours. The root cause of the breaker misalignment was an oversight by DEC personnel in not referring to plant procedure OP/1/A/6350/001, Normal Power Checklist, to determine proper breaker

position after the completion of maintenance, and in not specifying the correct position on system restoration procedures.

Although the SSS is not considered a safety-related system, its design basis is to provide an alternate means for achieving and maintaining a hot standby condition for 72 hours during certain events, including station blackout (SBO) events. During a postulated SBO, the SSS provides electrical power via a dedicated diesel generator to the standby makeup pump and its suction and discharge valves (one pump and two valves for each unit), such that the pump can provide seal cooling flow to the reactor coolant pumps (RCP). The facility design requires restoration of RCP seal cooling flow in the event of an SBO within ten minutes to prevent seal damage and loss of seal integrity. However, with the two breakers in the incorrect position, the ability of the SSS to provide electrical power to open the standby makeup pump suction and discharge valves in a timely manner to provide RCP seal cooling flow within ten minutes could not be ensured. Although this condition did not result in any actual safety consequences, the potential existed for this condition to cause a loss of RCP seal integrity, had an actual SBO occurred.

A violation that causes a system designed to prevent or mitigate serious safety events to be unable to perform its intended safety function is generally characterized as a Severity Level II violation in accordance with the "General Statement of Policy and Procedures for Enforcement Actions" (Enforcement Policy), NUREG-1600. During the enforcement conference, you presented the results of your bounding risk analysis, assuming RCP pump seal damage after ten minutes. Your analysis concluded that the increase in core damage frequency was small and below the accident precursor threshold of 1E-6 per year. Based on your analysis, we determined that this violation would not be properly characterized at Severity Level II. However, we have determined that this violation represents a significant failure to comply with the Action Statement of a TS Limiting Condition for Operation where the appropriate action was not taken within the required time. Therefore, this violation has been characterized in accordance with the Enforcement Policy as a Severity Level III violation.

In accordance with the Enforcement Policy, a base civil penalty in the amount of $55,000 is considered for a Severity Level III violation. Because your facility has been the subject of an escalated enforcement action within the last two years[1], we considered whether credit was warranted for Identification and Corrective Action in accordance with the civil penalty assessment process in Section VI.B.2 of the Enforcement Policy. Credit for Identification is warranted because the violation was identified by DEC personnel while conducting a plant procedure validation. Credit also is warranted for Corrective Action because of your immediate corrective action to restore the SSS to operable status and because of long-term corrective actions to preclude recurrence. These corrective actions included: discussions with plant operators to reinforce plant requirements to refer to procedures to determine breaker restoration positions and to maintain independence between plant personnel in the removal and restoration process; placement of permanent warning labels on the two breakers; and other corrective actions that were discussed at the conference.

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[1] A Severity Level III problem was issued on June 11, 1998, for violations associated with the Unit 2 auxiliary building filtered exhaust system.

Therefore, to encourage prompt identification and comprehensive correction of violations, I have been authorized by the Director, Office of Enforcement, not to propose a civil penalty in this case. However, significant violations in the future could result in a civil penalty.

The NRC has concluded that information regarding the reason for the violation and the corrective actions taken and planned to correct the violation and prevent recurrence is already adequately addressed on the docket in NRC Inspection Report No. 50-413,414/99-10, Licensee Event Report 50-413/98-019 dated January 28, 1999, and in the materials you presented at the conference. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response (should you choose to provide one) will be placed in the Public Document Room (PDR). To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction.

If you have any questions regarding this letter, please contact Loren Plisco, Director, Division of Reactor Projects, at (404) 562-4501.

Sincerely,

Luis A. Reyes
Regional Administrator

Enclosures:
1. Notice of Violation
2. Conference Attendees
3. Material Presented by NRC
4. Material Presented by DEC

Docket Nos. 50-413 and 50-414
License Nos. NPF-35 and NPF-52

cc w/encls: (see page 4)

cc w/encls:
G. D. Gilbert
Regulatory Compliance Manager
Duke Energy Corporation
4800 Concord Road
York, SC 29745-9635

Lisa Vaughn
Legal Department (PB05E)
Duke Energy Corporation
422 South Church Street
Charlotte, NC 28242

Anne Cottingham
Winston and Strawn
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Washington, D. C. 20005

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and Environmental Control
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Richard P. Wilson, Esq.
Assistant Attorney General
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Peggy Force
Assistant Attorney General
N. C. Department of Justice
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Raleigh, NC 27602

Saluda River Electric
Cooperative, Inc.
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Laurens, SC 129360

County Manager of York County
York County Courthouse
York, SC 29745

Piedmont Municipal Power Agency
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Greer, SC 29651

L. A. Keller, Manager
Nuclear Regulatory Licensing
Duke Energy Corporation
526 S. Church Street
Charlotte, NC 28201-0006

Steven P. Shaver
Senior Sales Engineer
Westinghouse Electric Company
5929 Carnegie Boulevard, Suite 500
Charlotte, NC 28209

NOTICE OF VIOLATION

Duke Energy Corporation
Catawba Nuclear Station

Docket Nos. 50-413, 414
License Nos. NPF-35, 52
EA 99-094

During an NRC special inspection conducted on March 14 through April 24, 1999, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedures for NRC Enforcement Actions," NUREG-1600, the violation is listed below:

> Technical Specification (TS) 3.7.13 (in effect at the time of the inspection) required that, with the Standby Shutdown System (SSS) inoperable, restore the inoperable equipment to operable status within seven days or be in at least hot standby within the next six hours and in at least hot shutdown within the following six hours.
>
> Contrary to the above, the SSS was inoperable for 13 days from December 16, 1998, until December 29, 1998, because electrical breakers associated with an SSS motor control center were mispositioned and both units remained at power during this period. (01013)

This is a Severity Level III violation. (Supplement I)

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence, and the date when full compliance was achieved is already adequately addressed on the docket in NRC Inspection Report No. 50-413,414/99-10 and Licensee Event Report 50-413/98-019 dated January 28, 1999. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you chose to respond, clearly mark your response as a "Reply to a Notice of Violation," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, Region II, within 30 days of the date of the letter transmitting this Notice of Violation (Notice).

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Under the authority of Section 182 of the Act, 42 U.S.C. 2232, any response shall be submitted under oath or affirmation.

If you choose to respond, your response will be placed in the NRC Public Document Room (PDR). Therefore, to the extent possible, the response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 22nd day of July 1999

Enclosure 1

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

October 21, 1999

EA 99-212

Mr. J. E. Cross
Generation Group
Duquesne Light Company
Post Office Box 4
Shippingport, Pennsylvania 15077

SUBJECT: NOTICE OF VIOLATION
(NRC Inspection Report No. 50-412/99-07)

Dear Mr. Cross:

This refers to the NRC special team inspection conducted from July 20 through July 29, 1999, at the Beaver Valley Unit 2 Power Station, the results of which were discussed with you at an exit meeting on July 29, 1999. The inspection was conducted, in part, to review the macro biological fouling (biofouling) problems which affected the service water system supply to the heat exchangers for both emergency diesel generators (EDGs). The inspection report was forwarded to you on September 7, 1999. During the inspection, three apparent violations of NRC requirements associated with the biofouling problems were identified. In our September 7, 1999 letter, we offered you the opportunity to either respond in writing to the apparent violations addressed in this inspection report or request a predecisional enforcement conference. In a letter dated October 7, 1999, you provided a response to the apparent violations.

Based on the information developed during the inspection and the information provided in your October 7, 1999 response, the NRC has determined that two violations of NRC requirements occurred. The violations are cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding them are described in detail in the subject inspection report. The violations involve: (1) the failure to implement corrective actions to prevent biofouling of the service water system, despite prior opportunities to do so; and (2) the failure to provide adequate acceptance criteria in the procedure for chemical treatment of the service water system. These violations resulted in fouling of the EDG heat exchangers.

The 2-2 EDG was declared inoperable during a surveillance test on July 14, 1999, when service water flow to the EDG's heat exchanger decreased to 1070 gpm, which was below the design basis of 1170 gpm set forth in your Updated Final Safety Analysis Report. Subsequent inspection revealed that service water flow to the heat exchanger was reduced because about 3 gallons of biological fouling, primarily in the form of Zebra mussels, was blocking about 90 percent of the heat exchanger's tube sheet. The biological fouling was the result of a bulk chemical treatment of the service water system on July 7, 1999.

Although you were aware of the potential for biofouling of plant systems as early as 1990, and developed a plan for preventive and corrective actions in 1995, the planned actions were not effectively implemented. The routine and bulk biocide treatments were not applied at an appropriate frequency to prevent infestation of Zebra mussels in the service water system. As a result, when a bulk biocide treatment was applied to the service water system in July 1999, the mussels in portions of the system accumulated in the 2-2 EDG heat exchanger during surveillance testing of the EDG. The heat exchanger for the other EDG did not clog at the same time because the intended biocide concentration was not applied to the other service water train due to an error in implementation of the chemical treatment procedure. Subsequently, the procedure was reperformed for the other train and biofouling occurred in the heat exchanger for the other EDG. The plant was shutdown at the time of this occurrence. You had an additional opportunity to address the biofouling problem in 1998 when the zebra mussel population increased at the service water intake structure. However, no changes were made to the action plan and an opportunity was missed to identify the inadequate controls for preventing biofouling. The failure to promptly identify and correct the biofouling of the service water heat exchangers constitutes a violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Actions."

Further, your chemical treatment procedure did not contain quantitative or qualitative acceptance criteria to determine the adequacy of service water flow to the EDG heat exchangers following the biocide treatments. As a result, the degraded condition was not identified until 7 days after the biocide treatment when a surveillance test of the EDG was conducted. The inadequacies in the procedure delayed the identification of the degraded condition and constitute a violation of 10 CFR 50, Appendix B, Criterion V, "Procedures."

These violations are potentially risk significant because the heat exchangers for both diesel generators would have become biofouled if the planned chemical treatment procedure had been followed. In your October 7, 1999 response, you provided the results of an analysis which indicated that EDG 2-2 was degraded but operable. Specifically, you concluded that the minimum expected flow through the EDG heat exchangers would have been sufficient for the EDGs to perform their safety function if called upon during the period in question. Based on review of this information, the NRC agrees with your determination that the EDG was operable during the period in question. Therefore, there was no violation of Technical Specifications. However, given the significance of the flow degradation, and the credible potential for simultaneous failure of both EDGs, it was not assured that the EDGs would have been able to perform their intended safety function under different circumstances (i.e., higher river water temperature). Therefore, these violations represent a Severity Level III problem in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600.

In accordance with the Enforcement Policy, a base civil penalty in the amount of $55,000 is considered for a Severity Level III violation or problem. Because your facility has been the

subject of escalated enforcement action within the last 2 years[1], the NRC considered whether credit was warranted for *Identification and Corrective Action* in accordance with the civil penalty assessment process in Section VI.B.2 of the Enforcement Policy. Credit is warranted for identification because the biofouling problem was identified during your surveillance test of the emergency diesel generator and, subsequently, you performed a root cause analysis which identified that your Zebra mussel control program was ineffective and the implementing procedures were inadequate. Credit is also warranted for corrective action because your actions, as described in your October 1999 letter, were considered prompt and comprehensive. These actions included, but were not limited to: (1) restoration of the EDG heat exchangers and inspection of other heat exchangers for biofouling; (2) revisions to chemical treatment and surveillance procedures; (3) determination of the optimum frequency for biocide treatments and incorporation of the treatments into the work control schedule; and (4) plans to review the effectiveness of the Zebra mussel control program.

Therefore, to encourage prompt identification and comprehensive correction of violations, I have been authorized, after consultation with the Director, Office of Enforcement, to not propose a civil penalty in this case. However, significant violations in the future could result in a civil penalty.

The NRC has concluded that information regarding the reason for the violations, the corrective actions taken and planned to correct the violations and prevent recurrence is already adequately addressed on the docket in your letter dated October 7, 1999. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

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

Sincerely,

Hubert J. Miller
Regional Administrator

Docket No. 50-412
License No. NPF-73

Enclosure: Notice of Violation

---

[1]A Severity Level III violation and a $55,000 civil penalty was issued on January 6, 1998 (EA 97-517).

cc w/encl:
F. von Ahn, Acting Senior Vice President, Nuclear Services Group
L. W. Myers, Executive Vice President, Generation Group
K. Ostrowski, Vice President, Nuclear Operations Group and Plant Manager
W. Pearce, General Manager, Nuclear Operations Unit
W. Kline, Manager, Nuclear Engineering Department
M. Pearson, Manager, Quality Services Unit
M. Ackerman, Manager, Safety & Licensing Department
B. Davis, Acting Manager, System and Performance Engineering
J. A. Hultz, Manager, Projects and Support Services, First Energy
M. Clancy, Mayor, Shippingport, PA
Commonwealth of Pennsylvania
State of Ohio
State of West Virginia

ENCLOSURE

NOTICE OF VIOLATION

Duquesne Light Company
Beaver Valley Unit 2 Power Station

Docket No. 50-412
License No. NPF-73
EA 99-212

During an NRC inspection completed on July 29, 1999, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violations are listed below:

A. 10 CFR Part 50, Appendix B, Criterion XVI, requires, in part, that measures be established to assure that conditions adverse to quality, such as deficiencies, deviations, and nonconformances are promptly identified and corrected.

Contrary to the above, as of July 1999, the licensee did not take adequate measures to assure that a condition adverse to quality involving macro biological fouling (biofouling) of the service water system was promptly identified and corrected, despite prior opportunities to do so. Specifically:

1. Between 1990 and 1995, the licensee identified the potential for zebra mussel infestation in plant systems and developed a plan for preventive and corrective actions. However, these actions were not fully integrated into procedures and, as a result, the actions were not fully implemented.

2. In February 1998, zebra mussels were identified in the plant intake pump bays; however, no revisions were made to the plan to control zebra mussel infestation and no action was taken to ensure that the planned actions were effectively implemented.

The failure to consistently perform routine biocide treatments in 1998 and 1999, coupled with the performance of ineffective bulk biocide treatments during this period, allowed zebra mussels to accumulate in the service water system. As a result, following a bulk biocide treatment in July 1999, the heat exchanger for Emergency Diesel Generator (EDG) 2-2 became fouled with zebra mussels which significantly degraded the cooling water flow through the heat exchanger. **(01013)**

B. 10 CFR Part 50, Appendix B, Criterion V, *Instructions, Procedures, and Drawings*, requires, in part, that procedures shall include acceptance criteria for determining that important activities have been satisfactorily accomplished.

Contrary to the above, as of July 7, 1999, Operating Procedure 2OM-30.4.M, "BV-2 Asiatic Clam Chemical Treatment Program," Revision 7, did not include adequate acceptance criteria for determining that important activities had been satisfactorily accomplished. Specifically, the procedure did not contain quantitative or qualitative acceptance criteria for verifying service water flow through all of the heat exchangers, nor did the procedure require post-treatment monitoring of the heat exchangers for indication of flow degradation. Consequently, use of the procedure on July 7, 1999, to clean the service water piping of zebra mussels resulted in biofouling of the 2-2 EDG service water heat exchanger and restricted the water flow to 1070 gpm, which was below the design basis minimum requirement of 1170 gpm. This flow degradation remained undetected until an EDG surveillance test was conducted on July 14, 1999. **(01023)**

These violations constitute a Severity Level III problem (Supplement I).

The NRC has concluded that information regarding the reason for the violations, the corrective actions taken and planned to correct the violation and prevent recurrence and the date when full compliance will be achieved is already adequately addressed on the docket in a letter from the Duquesne Light Company (Licensee), dated October 7, 1999. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, Region I, and a copy to the NRC Resident Inspector at the facility that is the subject of this Notice, within 30 days of the date of the letter transmitting this Notice of Violation (Notice).

If you contest this enforcement action, you should also provide a copy of your response to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001. If you choose to provide a response, under the authority of Section 182 of the Act, 42 U.S.C. 2232, the response shall be submitted under oath or affirmation.

If you choose to respond, your response will be placed in the NRC Public Document Room (PDR). Therefore, to the extent possible, the response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated at King of Prussia, Pennsylvania
this 21st day of October 1999

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

October 5, 1999

EA 99-158

Randal K. Edington, Vice President - Operations
River Bend Station
Entergy Operations, Inc.
P.O. Box 220
St. Francisville, Louisiana 70775

SUBJECT: NOTICE OF VIOLATION (NRC INSPECTION REPORT 50-458/99-07)

Dear Mr. Edington:

This refers to Entergy Operations Inc.'s letter dated September 7, 1999, regarding apparent violations described in the subject inspection report, issued August 4, 1999. The inspection report described two apparent violations related to the River Bend Station Division I Emergency Diesel Generator (EDG) and stated that the NRC was considering escalated enforcement action. In a letter to Entergy dated August 23, 1999, the NRC asked Entergy to indicate whether it would respond in writing to the apparent violations or opt for a predecisional enforcement conference. Entergy chose to provide a written response.

The apparent violations involved improper installation of a fuel booster pump coupling pin which resulted in the diesel failing after 55 minutes of operation during a surveillance test on March 24, 1999. This failure was traced to improper staking of the coupling pin, including the failure to use an adhesive, Loctite, that was recommended in a Service Information Memo issued by the EDG vendor. This recommendation was not incorporated into diesel maintenance procedures at River Bend Station. The failure after 55 minutes of operation meant that the Division I EDG was not capable of fulfilling its intended safety function in the event of an accident that required electrical power from the diesels. The safety function of the EDG is to provide an alternate safety-related electrical power source in response to an event involving the loss of off-site power, for the duration of the event.

In its September 7, 1999 response, Entergy admitted the apparent violations, described its corrective actions, and provided its perspective on the safety significance and enforcement policy implications of the violations. In a supplemental response dated September 24, 1999, Entergy provided a summary of its EDG reliability self-assessment, provided additional completion dates for long-term corrective actions, and described the status of the EDGs within the scope of 10 CFR 50.65, the maintenance rule.

Entergy's assessment of the safety significance of this incident concluded that it resulted in a reduction of defense-in-depth in terms of the systems available to mitigate accidents, noting that for a period of about 26 hours, only the Division III EDG was available to respond to an accident because of planned maintenance on the Division II diesel while the Division I diesel was inoperable.

Corrective actions which have already been completed include: immediately restoring the operability of the EDG; evaluating the potential for the coupling pin problem to affect the

Division II and III EDGs; modifying maintenance procedures to include the use of Loctite, an adhesive, on the fuel pump coupling pin; briefing maintenance planners and mechanics on the root cause analysis of this event; including training on taper pin staking techniques into the continuing maintenance training module; and updating the diesel vendor technical information. Corrective actions which have not yet been completed include: evaluating past EDG work to assess compliance with vendor service information memos, due October 22, 1999; evaluating the Division III diesel to confirm the adequacy of vendor documentation, due December 31, 1999; sampling vendor documents on other systems and equipment, due December 31, 1999; and performing an effectiveness review of the corrective actions taken to address the condition of the Division I and II EDGs, due March 31, 2000.

Based on NRC review of the information developed during the inspection and the information that you provided in your response to the inspection report, the NRC has determined that violations of NRC requirements occurred. These violations are cited in the enclosed Notice of Violation (Notice). Based on their close relationship, they have been combined to form a single Severity Level III problem. The severity level of the violations in this case is based on their resulting in the emergency EDG being inoperable for a period of 29 days, well in excess of the allowed outage time of 72 hours for one EDG. This severity level determination is in accordance with Supplement I of the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600.

In accordance with the Enforcement Policy, a civil penalty with a base value of $55,000 is considered for a Severity Level III problem. Because your facility has been the subject of escalated enforcement actions within the last 2 years,[1] the NRC considered whether credit was due for *Identification* and *Corrective Action* (relative to the current violations) in accordance with the civil penalty assessment process in Section VI.B.2 of the Enforcement Policy. As Entergy noted in its September 7, 1999 letter, Entergy personnel discovered the fuel booster pump coupling pin problem while conducting a surveillance test of the EDG. In light of the circumstances which resulted in the discovery of this problem, and Entergy's corrective actions, which are described above, Entergy is given credit for both identification and corrective action, which results in no civil penalty being assessed for the current violations. Therefore, in recognition of Entergy's identification and correction of this issue, I have been authorized, after consultation with the Director, Office of Enforcement, not to propose a civil penalty in this case. However, significant violations in the future could result in a civil penalty.

The NRC has concluded that information regarding the reason for the violations, the corrective actions taken and planned to correct the violations and prevent recurrence, and the date when full compliance was achieved is already adequately addressed on the docket in Inspection Report 50-458/99-07, and in Entergy's September 7 and September 24, 1999, letters. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

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[1]A Notice of Violation and Proposed Imposition of Civil Penalty ($55,000) was issued on February 1, 1999, consisting of two Severity Level III violations related to the Division I and II emergency diesel generators (EA 98-478).

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

Sincerely,

Ellis W. Merschoff
Regional Administrator

cc w/Enclosure:

Executive Vice President and
Chief Operating Officer
Entergy Operations, Inc.
P.O. Box 31995
Jackson, Mississippi 39286-1995

Vice President
Operations Support
Entergy Operations, Inc.
P.O. Box 31995
Jackson, Mississippi 39286-1995

General Manager
Plant Operations
River Bend Station
Entergy Operations, Inc.
P.O. Box 220
St. Francisville, Louisiana 70775

Director - Nuclear Safety
River Bend Station
Entergy Operations, Inc.
P.O. Box 220
St. Francisville, Louisiana 70775

Wise, Carter, Child & Caraway
P.O. Box 651
Jackson, Mississippi 39205

Mark J. Wetterhahn, Esq.
Winston & Strawn
1401 L Street, N.W.
Washington, DC 20005-3502

Manager - Licensing
River Bend Station
Entergy Operations, Inc.
P.O. Box 220
St. Francisville, Louisiana 70775

The Honorable Richard P. Ieyoub
Attorney General
Department of Justice
State of Louisiana
P.O. Box 94005
Baton Rouge, Louisiana 70804-9005

H. Anne Plettinger
3456 Villa Rose Drive
Baton Rouge, Louisiana 70806

President
West Feliciana Parish Police Jury
P.O. Box 1921
St. Francisville, Louisiana 70775

Ronald Wascom, Administrator
and State Liaison Officer
Department of Environmental Quality
P.O. Box 82135
Baton Rouge, Louisiana

NOTICE OF VIOLATION

Entergy Operations, Inc.
River Bend Station

Docket No. 50-458
License No. NPF-47
EA 99-158

During an NRC inspection completed July 10, 1999, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violations are listed below:

River Bend Station Technical Specification 3.8.1.b requires that three diesel generators be operable in Modes 1, 2 and 3. Technical Specification 1.1 defines OPERABLE as follows: "A system . . . shall be OPERABLE or have OPERABILITY when it is capable of performing its specified safety function(s) . . ." The emergency diesel generator's safety function is to provide an alternate safety-related electrical power source in response to an event involving the loss of off-site power, for the duration of the event.

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 circumstances.

The River Bend Station "Maintenance Planning Guideline," Revision 6, Section 6.5.9.5 states, in part, "Reference all procedures, vendor procedures, and design documents required to perform the work instruction and to return the . . . system . . . to operational or desired status."

Contrary to the above:

1. From February 24 to March 25, 1999, River Bend Station operated in Mode I without three operable emergency diesel generators. Specifically, the Division I emergency diesel generator was inoperable during this period due to an improperly staked fuel booster pump coupling pin. The coupling pin came loose 55 minutes into a 1-hour surveillance run of the diesel on March 24, 1999. It was subsequently determined that the diesel had been incapable of performing its intended safety function since the fuel booster pump coupling pin was reassembled during maintenance on February 24, 1999.

2. Maintenance Action Item 319116, which provided work instructions for the February 23-24, 1999, Division I emergency diesel generator fuel booster pump disassembly and repair, was not appropriate to the circumstances, in that it failed to reference all procedures, vendor procedures, and design documents required to perform the work instruction and to return the system to operational status. Specifically, the work planner did not specify the use of Loctite 680, an adhesive, when assembling the fuel booster pump coupling and did not reference the associated vendor instructions. The "Vendor Manual" contained Cooper-Enterprise Service Information Memo (SIM 363), Revision 1, dated 12/2/93 which states, in part . . . "Reports have been received from the field that the. . . fuel booster pump drive couplings have worked loose under certain operation conditions. Failure of this coupling will result in a loss of fuel oil pressure . . .

The coupling should be installed on the over speed governor drive assembly using Loctite 680."

These violations represent a Severity Level III problem (Supplement I).

The NRC has concluded that information regarding the reason for the violations, the corrective actions taken and planned to correct the violations and prevent recurrence, and the date when full compliance was achieved is already adequately addressed on the docket in Inspection Report 50-458/99-07, and in Entergy Operations, Inc.'s September 7 and September 24,1999, letters. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555 with a copy to the Regional Administrator, Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011, and a copy to the NRC Resident Inspector at River Bend Station facility within 30 days of the date of the letter transmitting this Notice of Violation (Notice).

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

If you choose to respond, your response will be placed in the NRC Public Document Room (PDR). Therefore, to the extent possible, the response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.790(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

Dated this 5th day of October 1999

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

August 6, 1999

EA 99-138

Mr. Guy G. Campbell
Vice President - Nuclear, Davis-Besse
FirstEnergy Nuclear Operating Company
Davis-Besse Nuclear Power Station
5501 North State Route 2
Oak Harbor, OH 43449-9760

SUBJECT: NOTICE OF VIOLATION (NRC INSPECTION REPORT 50-346/98021)

Dear Mr. Campbell:

This refers to the NRC inspection conducted at FirstEnergy's Davis-Besse Nuclear Power Plant from September 1, 1998 to May 13, 1999. The purpose of the inspection was to review the circumstances surrounding your staff's discovery of missing body-to-bonnet nuts on a pressurizer spray valve. The report documenting our inspection was sent to you by letter dated June 4, 1999. NRC inspectors discussed the significance of the issue with members of your staff at the inspection exit meeting on May 13, 1999. Our June 4, 1999, letter offered you the option to either respond to the apparent violation, request a predecisional enforcement conference, or inform the NRC that the information in our inspection report and your Licensee Event Report (LER) 346/98-009 adequately addresses the issue. Your July 1, 1999, letter stated that the inspection report and LER adequately addressed the issue and that you did not request a predecisional enforcement conference.

The NRC determined that two violations of NRC requirements occurred. This determination was based on the: (1) information developed during the inspection; (2) information your staff provided during the inspection; and (3) information your staff documented in LER 346/98-009. The violations involving failure to maintain the design of the valve and inadequate corrective action for the degraded condition are cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding the violations are described in the inspection report.

While monitoring a packing leak on a pressurizer spray valve, a worker identified that one of the eight body-to-bonnet nuts was missing. While your maintenance staff formalized plans to replace the nut, your engineering staff determined that the valve remained functional at design loads with the nut missing. Your maintenance and engineering staff did not do a rigorous evaluation of the cause for the missing nut. Instead they incorrectly determined that a contractor removed the nut to facilitate the installation of equipment for a temporary sealant repair of the packing leak. While replacing the missing nut, a worker identified that a second nut was missing; this nut was also replaced.

During a subsequent outage, a worker noted a gap between one of the replacement nuts and the bonnet. This gap was due to a replacement nut being installed over remnants of a corroded nut. Additionally, a worker found that a third nut was degraded (corroded away) by

approximately 30%. A subsequent evaluation determined that three of the nuts were carbon steel and were susceptible to boric acid induced corrosion. The remaining five nuts were stainless steel and were not susceptible to boric acid induced corrosion. An engineering analysis performed by your staff determined that with two nuts missing, safe shutdown earthquake loads concurrent with maximum design pressure would have resulted in failure of the valve's body-to-bonnet joint. The failure would have resulted in a nonisolable reactor coolant system leak (a small break loss of coolant accident) at the failed joint. A subsequent vendor analysis concluded that the valve would have remained functional under all accident conditions.

In your July 1, 1999, letter, you stated that: (1) your staff complied with industry guidance for degraded and nonconforming conditions; (2) a detailed evaluation demonstrated the reactor coolant system was operable; and (3) that there was no regulatory significance due to the lack of safety, or environmental consequence. The NRC acknowledged that the as-found condition may not have had actual safety, or environmental consequence. Additionally, we acknowledge that each time a missing nut was found your staff attempted to restore the valve to a safe configuration. However, your staff failed to do a rigorous evaluation of the missing nuts in a timely manner, which resulted in delays in: (1) identifying that carbon steel nuts were installed, contrary to the design specifications of the valve; (2) determining that the missing carbon steel nuts had corroded due to a highly corrosive boric acid environment; (3) initiating actions to identify the extent of the degraded condition; and (4) implementing more extensive corrective actions to address the degraded and nonconforming condition. Additionally, your maintenance staff missed another opportunity to identify the corrosion problem when they placed a nut on a remnant of a nut that was believed missing. A detailed evaluation of the degraded condition by the vendor was required to demonstrate that the valve would have remained functional under all conditions. The NRC has concluded that your staff's failure to control the design of a reactor coolant system pressure boundary component and to thoroughly evaluate and correct degraded conditions in a timely manner did have a credible potential to impact plant safety. Therefore, the violations are categorized in the aggregate in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions (Enforcement Policy)," NUREG-1600, as a Severity Level III problem.

In accordance with the Enforcement Policy, a base civil penalty in the amount of $55,000 was considered for this Severity Level III problem. Because your facility has not been the subject of escalated enforcement actions within the last two years, the NRC considered whether credit was warranted for *Corrective Action* in accordance with the civil penalty assessment process in Section VI.B.2 of the Enforcement Policy. You were given credit for initiating effective corrective actions once you identified the root cause of the degradation. Your corrective actions included: (1) training sessions with maintenance personnel to enhance knowledge of the effects of boric acid on materials; (2) a review of boric acid corrosion procedures which resulted in program enhancements; (3) the inspection of pressure retaining bolted connections with a potential for the installation of fasteners of nonconforming material; and (4) resolution of the pressurizer spray valve packing problems.

Therefore, to acknowledge your comprehensive correction of the violations, I have been authorized, after consultation with the Director, Office of Enforcement, not to propose a civil penalty in this case. However, significant violations in the future could result in a civil penalty.

The NRC has concluded that information regarding the reason for this violation, the date when you will achieve full compliance; and the corrective actions taken to correct the violation and prevent recurrence are already adequately addressed on the docket in Inspection Report 50-346/98021 and LER 346/98-009. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, please follow the instructions specified in the enclosed Notice.

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

Sincerely,

Original signed by
J. Caldwell for

J. E. Dyer
Regional Administrator

Docket No. 50-346
License No. NPF-3

Enclosure: Notice of Violation

cc w/encl: J. Stetz, Senior Vice President - Nuclear
J. Lash, Plant Manager
J. Freels, Manager, Regulatory Affairs
M. O'Reilly, FirstEnergy
State Liaison Officer, State of Ohio
R. Owen, Ohio Department of Health
C. Glazer, Chairman, Ohio Public Utilities Commission

NOTICE OF VIOLATION

FirstEnergy Nuclear Operating Company
Davis-Besse

Docket No. 50-346
License No. NPF-3
EA 99-138

During an NRC inspection conducted from September 1, 1998 to May 13, 1999, two violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violations are listed below:

1. 10 CFR Part 50, Appendix B, Criterion III, "Design Control," states, in part, that design changes, including field changes, shall be subject to design control measures commensurate with those applied to the original design and be approved by the organization that performed the original design unless the applicant designates another responsible organization.

   Pressurizer Spray Valve RC-2 is a safety-related plant component that is subject to the requirements of 10 CFR Part 50. Drawing number M-525-3-7, specified a portion of the design requirements of Pressurizer Spray Valve RC-2 in that the body-to-bonnet nuts are to be stainless steel.

   Contrary to the above, prior to September 1, 1998, the licensee inadvertently performed a field change to Pressurizer Spray Valve RC-2, that was not approved by the organization that performed the original design or by any other organization. This inadvertent field change replaced three of eight boric acid corrosion resistant body-to-bonnet stainless steel nuts with boric acid corrosion susceptible carbon steel nuts. These nuts, in the presence of an aggressive corrosive environment, degraded to the point where 30% of one nut and essentially all of two other nuts had corroded away. (01013)

2. 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions," states, in part, that 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.

   Contrary to the above, on September 1, 1998, the licensee failed to promptly identify and correct a condition adverse to quality. Specifically, workers discovered that a body-to-bonnet nut was missing on RC-2, "Pressurizer Spray Valve," but failed to identify that a second nut was also missing. Additionally, the licensee did not do a rigorous evaluation to eliminate boric acid induced corrosion of carbon steel fasteners as a root cause. They incorrectly concluded that a contractor removed the nut to facilitate a temporary sealant repair of the packing leak. The failure to do an extensive evaluation of the condition resulted in the incomplete installation of a replacement nut on the remnants of a corroded nut, and the missed opportunity for early detection of the second missing nut and a third nut that was degraded by 30%. (01023)

This is a Severity Level III problem (Supplement 1).

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence and the date when

full compliance will be achieved is already adequately addressed on the docket in Inspection Report 50-346/98021 and LER 346/98-009. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555 with a copy to the Regional Administrator, Region III, and a copy to the NRC Resident Inspector at the facility that is the subject of this Notice, within 30 days of the date of the letter transmitting this Notice of Violation (Notice).

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

If you choose to respond, your response will be placed in the NRC Public Document Room (PDR). Therefore, to the extent possible, the response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 6 day of August 1999

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

September 30, 1999

EA 98-464

Mr. John P. McElwain
Chief Nuclear Officer
Clinton Power Station
Illinois Power Company
Mail Code V-275
P. O. Box 678
Clinton, IL 61727

SUBJECT: NOTICE OF VIOLATION
(NRC OFFICE OF INVESTIGATIONS REPORT NO. 3-1997-040)

Dear Mr. McElwain:

This letter refers to the investigation conducted from October 28, 1997, to September 21, 1998, by the U.S. Nuclear Regulatory Commission (NRC) Office of Investigations (OI) at the Illinois Power Company's (IPC) Clinton Power Station. The investigation was conducted after IPC notified the NRC on May 6, 1997, that a violation of 10 CFR 50.7, "Employee Protection," may have occurred. IPC conducted a separate investigation into this matter. The synopsis of the OI report was sent to IPC by letter dated November 13, 1998. Representatives of IPC subsequently declined the opportunity for a predecisional enforcement conference for this matter and provided a written response to the NRC on December 10, 1998.

After a review of the information developed during the OI investigation, as well as the information obtained during the IPC investigation, and in IPC's December 10, 1998 response, the NRC has determined that a violation of NRC requirements occurred. The investigations determined that during January 1997, a supervisor in the Clinton Power Station's Quality Verification (QV) Department discriminated against a QV inspector in retaliation for the inspector's previous contacts with the NRC about safety-related issues involving the QV department. Specifically, the QV supervisor did not recommend the inspector for a promotion due, in part, to the inspector's earlier discussions with the NRC.

This violation is a significant concern to the NRC because it represents retaliation by a first line QV supervisor against an employee for discussing nuclear safety issues with the NRC. Therefore, the violation has been categorized in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600, at Severity Level III. As allowed by Section V of the Enforcement Policy, the QV inspector, who was subject to discrimination, was permitted to comment on IPC's December 10, 1998, letter. The inspector's comments were considered during the NRC's assessment of this matter.

In accordance with the Enforcement Policy, a base civil penalty in the amount of $55,000 is considered for a Severity Level III violation. Because the Clinton Power Station has been the subject of escalated enforcement actions within the two years preceding the violation,[1] the NRC considered whether credit was warranted for *Identification and Corrective Action* in accordance with the civil penalty assessment process in Section VI.B.2 of the Enforcement Policy. Credit was given for both *Identification and Corrective Action* because IPC identified the violation and the violation was promptly corrected by IPC. Corrective action included: promoting the QV inspector retroactively, taking disciplinary action against involved individuals, retraining site supervisors about their responsibilities under 10 CFR 50.7, discussing the violation with all quality assurance personnel, and sending a memorandum to all site personnel about the incident.

Therefore, to encourage prompt identification and comprehensive correction of violations, I have been authorized, after consultation with the Director, Office of Enforcement, not to propose a civil penalty in this case. However, significant violations in the future could result in a civil penalty.

The NRC has concluded that in your December 10, 1998 letter, you adequately addressed the reasons for the violation and described the corrective actions taken or planned to correct the violation and prevent recurrence. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

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[1] On June 9, 1997, a cumulative civil penalty of $450,000 was issued for a Severity Level II problem and three Severity Level III problems for inspection findings during the period July 30, 1996 through January 23, 1997, concerning procedure adherence, design control, inadequate safety evaluations, and inadequate corrective actions (EA 96-412, EA 97-001, EA 97-002, and EA 97-060).

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response (if you choose to provide one) will be placed in the NRC Public Document Room (PDR). To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction.

Sincerely,

J. E. Dyer
Regional Administrator

Docket No. 50-461
License No. NPF-62

Enclosure: Notice of Violation

cc w/encl: M. Coyle, Assistant Vice President
P. Hinnenkamp, Plant Manager
R. Phares, Manager, Nuclear Safety and Performance Improvement
M. Aguilar, Assistant Attorney General
G. Stramback, Regulatory Licensing Services Project Manager General Electric Company
Chairman, DeWitt County Board
State Liaison Officer
Chairman, Illinois Commerce Commission

NOTICE OF VIOLATION

Illinois Power Company
Clinton Power Station

Docket No. 50-461
License No. NPF-62
EA 98-464

During an investigation conducted by the NRC Office of Investigations from October 28, 1997, to September 21, 1998, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violation is listed below:

10 CFR 50.7 prohibits, in part, discrimination by a Commission licensee against an employee for engaging in certain protected activities. Discrimination includes discharge and other actions that relate to compensation, terms, conditions or privileges of employment. The protected activities are established in Section 211 of the Energy Reorganization Act of 1974, as amended, and in general are related to the administration or enforcement of a requirement imposed under the Atomic Energy Act or the Energy Reorganization Act. Protected activities include providing the Commission with information about potential violations pertaining to nuclear safety.

Contrary to the above, during January 1997, the Illinois Power Company, a Commission licensee, through the actions of a supervisor in the Quality Verification Department, discriminated against a QV inspector, an employee of the licensee, for having engaged in protected activities. Specifically, the QV inspector engaged in protected activities on October 30, 1994, when she provided information regarding potential violations relating to nuclear safety to the NRC. As a result of the protected activity, the QV supervisor did not recommend the QV inspector for promotion to the position of lead QV inspector. (01013)

This is a Severity Level III violation (Supplement VII).

The NRC has concluded that information regarding the reasons for the violation, and the corrective actions taken and planned to correct the violation and prevent recurrence is already adequately addressed in a letter from the Illinois Power Company dated December 10, 1998. However, you are required to respond to the provisions of 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation - EA 98-464," and send it to the U. S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator, NRC Region III, 801 Warrenville Road, Lisle, IL 60532-4351, and the NRC Resident Inspector at the Clinton Power Station within 30 days of the date of the letter transmitting this Notice of Violation.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

If you choose to respond your response will be placed in the NRC Public Document Room (PDR). Therefore, to the extent possible, it should not include any personal, privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction. Under the authority of Section 182 of Act 42 U.S.C. 2232, any response shall be submitted under oath or affirmation.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 30th day of September 1999

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

December 15, 1999

EA 99-242

Harold B. Ray, Executive Vice President
Southern California Edison Co.
San Onofre Nuclear Generating Station
P.O. Box 128
San Clemente, California 92674-0128

SUBJECT: NOTICE OF VIOLATION (NRC INSPECTION REPORT 50-361; 50-362/99-12)

Dear Mr. Ray:

This refers to Southern California Edison Co.'s (SCE) letter dated November 12, 1999, regarding an apparent violation described in NRC Inspection Report 99-12, issued October 15, 1999. The inspection report described an apparent violation related to the San Onofre Nuclear Generating Station (SONGS), Unit 3, emergency diesel generators (EDG) and battery chargers. Our October 15 letter stated that the NRC was considering escalated enforcement action and asked you to respond in writing to the apparent violation or request a predecisional enforcement conference. SCE chose to provide a written response.

The apparent violation involved aligning EDG 3G003 to a malfunctioning automatic voltage regulator, rendering the EDG inoperable, and subsequently removing from service a battery charger in the opposite safety train. Because the inoperability of the EDG was a condition that was not immediately recognized by operations personnel, actions required by the plant's Technical Specifications when the battery charger was removed from service were not taken. Specifically, on June 23, 1999, with EDG 3G003 inoperable and the battery charger in the opposite safety train out of service, Technical Specification 3.0.3 required the initiation of a plant shutdown.

SCE discovered the misalignment of the EDG on June 25, 1999, and promptly realigned it to an operable automatic voltage regulator. In investigating this incident, SCE identified the fact that during the time the EDG was inoperable, a battery charger in the opposite safety train had been removed from service, unknowingly placing the unit in a condition requiring entry into Technical Specification 3.0.3. SCE reported this information to the NRC in Licensee Event Report (LER) 99-006 on July 26, 1999.

In its November 12, 1999, response to the inspection report, SCE admitted the apparent violation, attributing it to an inadequate equipment status control program and inadequate knowledge of equipment status on the part of control room operators. Specifically, although SONGS operations personnel knew that automatic voltage regulator B was inoperable and had entered this information in the Equipment Deficiency Mode Restraint system, there was no indication of this at the EDG 3G003 local control panel, where the automatic voltage regulator selector switch is located. In addition, a control room operator had authorized the alignment of EDG 3G003 to the malfunctioning voltage regulator, and control room operators did not

recognize this condition during routine control board monitoring despite a warning tag on the control room board indication for the selected automatic voltage regulator.

Based on NRC's review of the information developed during the inspection and the information that you provided in your response to the inspection report, the NRC concludes that a violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation, and the detailed circumstances surrounding it are described in the inspection report and in SCE's Licensee Event Report.

In evaluating the severity level of this violation, the NRC considered actual and potential safety consequences, including risk information. There were no actual consequences since the plant did not experience a loss of off-site power during the time EDG 3G003 and battery charger 3B001 were inoperable. SCE performed a quantitative risk analysis and determined that the incremental increase in risk from the time the plant should have entered Technical Specification 3.0.3 to the time EDG 3G003 was made operable was low, on the order of a 7.4E-7 increase in core damage probability. SCE stated in its November 12, 1999, letter that the event was of "very small risk significance" and concluded that it would be appropriate to classify the violation at Severity Level IV and to treat it as a Non-Cited Violation.

In the event of a loss of off-site power, the EDGs provide electrical power to safety-related equipment to assure the plant is capable of achieving a safe shutdown; the battery chargers maintain station batteries fully charged so that there is a constant source of power to vital instrumentation and controls. Had there been a loss of off-site power with the plant in the configuration it was in on June 23, 1999, operators would have been challenged to maintain electrical power to safety-related equipment and to the battery chargers.

While the NRC agrees that the estimated, quantitative increase in risk was relatively low, it appears to be within the range of uncertainty for events that would be considered risk significant. In addition, the NRC uses risk information as an input, along with deterministic information, in reaching enforcement decisions. The fact remains that the plant was in a configuration which: 1) was not authorized by the Technical Specifications; 2) reduced defense in depth because important safety equipment in more than one safety train was inoperable; and 3) would have complicated recovery actions had a loss of off-site power occurred. Thus, the NRC has concluded that the violation is appropriately classified at Severity Level III in accordance with Supplement I, example C.1, of the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600.

In accordance with the Enforcement Policy, a civil penalty with a base value of $55,000 is considered for a Severity Level III violation. Because your facility has been the subject of escalated enforcement action within the last 2 years,[1] the NRC considered whether credit was due for *Identification* and *Corrective Action* in accordance with the civil penalty assessment process in Section VI.B.2 of the Enforcement Policy. As SCE noted in its November 12, 1999, letter, SCE operations personnel discovered the misalignment of the EDG to a malfunctioning automatic voltage regulator and promptly corrected it. Additional corrective actions taken by SCE included revising procedures to place Equipment Deficiency Mode Restraint tags both in

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[1]On March 16, 1999, a Severity Level III violation was issued to SCE based on the emergency chilled water system being inoperable in excess of the allowed outage time on two different occasions (EA 98-563).

the control room and at local control panels; training operators on this event; and revising procedures to require a review of equipment tags more than 30 days old.

In light of SCE's discovery of this problem, and SCE's corrective actions which are described above, I have been authorized, after consultation with the Director, Office of Enforcement, not to propose a civil penalty in this case. However, significant violations in the future could result in a civil penalty.

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence, and the date when full compliance was achieved is already adequately addressed on the docket in Inspection Report 50-361; 50-362/99-12, in SCE's November 12 letter, and in LER 99-006 dated July 26, 1999. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

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

Sincerely,

org signed by

Ellis W. Merschoff
Regional Administrator

Docket Nos.: 50-361; 50-362
License Nos.: NPF-10; NPF-15

cc w/Enclosure:

Chairman, Board of Supervisors
County of San Diego
1600 Pacific Highway, Room 335
San Diego, California 92101

Alan R. Watts, Esq.
Woodruff, Spradlin & Smart
701 S. Parker St. Suite 7000
Orange, California 92868-4720

Sherwin Harris, Resource Project Manager
Public Utilities Department
City of Riverside
3900 Main Street

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San Onofre Nuclear Generating Station
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Nuclear Emergency Response Program
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Mayor
City of San Clemente
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San Clemente, California 92672

Truman Burns/Robert Kinosian
California Public Utilities Commission
505 Van Ness, Rm. 4102
San Francisco, California 94102

NOTICE OF VIOLATION

Southern California Edison Co.
San Onofre Nuclear Generating Station

Docket Nos. 50-361; 50-362
License Nos. NPF-10; NPF-15
EA 99-242

During an NRC inspection completed September 21,1999, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violation is listed below:

> T.S. LCO 3.8.1.b. requires, in part, that two diesel generators each capable of supplying one train of the onsite Class 1E AC Electrical Power Distribution System be operable in Modes 1, 2, 3 and 4. With one diesel generator inoperable, Condition B of T.S. 3.8.1 requires the licensee to declare required features supported by the inoperable diesel generator (e.g., its associated battery charger) inoperable when its redundant required feature is inoperable (i.e., if the other battery charger becomes inoperable).
>
> T.S. LCO 3.8.4 requires, in part, that the Train A, B, C and D DC electrical power subsystems (including battery chargers) be operable in Modes 1, 2, 3 and 4. T.S. 3.8.4 does not provide for more than one battery charger being inoperable.
>
> T.S. LCO 3.0.3 states, in part, that when an LCO is not met and the associated actions are not met or an associated action is not provided (i.e., when more than one battery charger is inoperable), action shall be initiated within 1 hour to place the unit in Mode 3 within 7 hours, Mode 4 within 13 hours and Mode 5 within 37 hours.
>
> Contrary to the above, on June 23, 1999, with SONGS Unit 3 operating in Mode 1, the licensee did not recognize a condition which rendered one diesel generator and more than one battery charger inoperable, and thus did not initiate the actions required by T.S. 3.0.3 to place the unit in Mode 3 within 7 hours and Mode 4 within 13 hours. Specifically, at 1:45 a.m. on June 23, 1999, following a maintenance activity, operators incorrectly aligned EDG 3G003 to Automatic Voltage Regulator (AVR) B, which was inoperable, rendering EDG 3G003 inoperable. At 5:45 a.m. on June 23, 1999, operators removed Train A Battery Charger 3B001 from service for planned maintenance. Because EDG 3G003 was inoperable (although not recognized as such), TS 3.8.1 Action B.2 required that Train B Battery Charger 3B002 be declared inoperable within 4 hours. Therefore, at 9:45 a.m. on June 23, 1999, Battery Chargers 3B001 and 3B002 were both inoperable, an unrecognized condition that required entry into T.S. 3.0.3. This condition existed until 12:00 a.m on June 25, 1999, a period of 14 hours and 15 minutes, when Battery Charger 3B001 was returned to service. (01013)
>
> This is a Severity Level III violation (Supplement I).

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence, and the date when full compliance was achieved is already adequately addressed on the docket in Inspection Report 50-361: 50-362/99-12, in SCE's November 12, 1999 letter, and in LER 99-006 dated July 27, 1999. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply

to a Notice of Violation," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555 with a copy to the Regional Administrator, Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011, and a copy to the NRC Resident Inspector at the SONGS facility within 30 days of the date of the letter transmitting this Notice of Violation (Notice).

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

If you choose to respond, your response will be placed in the NRC Public Document Room (PDR). Therefore, to the extent possible, the response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.790(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

Dated this 15th day of December 1999

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

December 15, 1999

EA 99-263

Mr. D. R. Gipson
Senior Vice President
Nuclear Generation
The Detroit Edison Company
6400 North Dixie Highway
Newport, MI 48166

SUBJECT: NOTICE OF VIOLATION
(INSPECTION REPORT NO. 50-341/99017(DRS))

Dear Mr. Gipson:

This letter refers to the special inspection conducted from September 27 to October 5, 1999, at the Detroit Edison Company's (DECo) Fermi 2 facility. The inspection was performed in response to information reported to the U.S. Nuclear Regulatory Commission (NRC) on September 22, 1999, by a representative of DECo, that a loaded handgun was found in the protected area of the Fermi 2 facility. A copy of the inspection report was sent to DECo by letter dated October 21, 1999. Representatives of DECo subsequently declined the opportunity for a predecisional enforcement conference for this matter and provided a written response to the NRC in a letter dated November 22, 1999.

Based on the information developed during the inspection and contained in DECo's November 22, 1999, letter the NRC has determined that a violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation (Notice) and is described in detail in the inspection report. In summary, on September 21 and 22, 1999, security personnel did not search an accessible portion of the cargo area of a truck entering the protected area at the Fermi 2 facility. As a result of the failure to search all accessible areas of the truck, a loaded handgun was brought into the protected area of the facility on September 22, 1999.

While admitting the violation, the DECo letter provided reasons to consider the violation as a non-escalated enforcement action and to issue a non-cited violation (NCV). The principal consideration of DECo was that this specific incident did not significantly endanger the health and safety of the public. The NRC disagrees with the DECo assessment because the undetected introduction of a loaded weapon into the protected area of a nuclear power plant is a significant safeguards event. Furthermore, the security officers failed to search the same area of the same vehicle on two consecutive days, which represents a fundamental deficiency in the performance of vehicle searches at the Fermi 2 facility. Contrary to the contentions of DECo, a loaded weapon in the protected area could reasonably be expected to significantly assist in an act of radiological sabotage or the theft of strategic nuclear materials. Therefore, this violation is categorized in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600, Revision 1 (in effect at the time of the violation) at Severity Level III.

In accordance with the Enforcement Policy, a base civil penalty in the amount of $55,000 is considered for a Severity Level III violation. Because the Fermi 2 facility has not been the subject of escalated enforcement actions within the last two years, the NRC considered whether credit was warranted for *Corrective Action* in accordance with the civil penalty assessment process in Section VI.B.2 of the Enforcement Policy. Credit was given for *Corrective Action* because DECo identified the violation and promptly corrected the violation. Corrective actions included, but were not limited to: (1) placing the Fermi 2 facility in a heightened state of security awareness, involving Federal and local law enforcement agencies in investigating this matter; (2) reviewing the incident with and training all security personnel on proper vehicle search procedures; and (3) initiating pre-job briefings to assign a specific area of a vehicle for search to each security officer.

Therefore, to encourage prompt comprehensive correction of violations, I have been authorized, after consultation with the Director, Office of Enforcement, not to propose a civil penalty in this case. However, significant violations in the future could result in a civil penalty.

The NRC has concluded that in your November 22, 1999, letter you adequately addressed the reasons for the violation and described the corrective actions taken or planned to correct the violation and prevent recurrence. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response (if you choose to provide one) will be placed in the NRC Public Document Room (PDR). To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction.

Sincerely,

for James P. Caldwell

J. E. Dyer
Regional Administrator

Docket No. 50-341
License No. NPF-43

Enclosure: Notice of Violation

cc w/encl: N. Peterson, Director, Nuclear Licensing
P. Marquardt, Corporate Legal Department
Compliance Supervisor
R. Whale, Michigan Public Service Commission
Michigan Department of Environmental Quality
Monroe County, Emergency Management Division
Emergency Management Division
MI Department of State Police

NOTICE OF VIOLATION

Detroit Edison Company
Fermi 2

Docket No. 50-341
License No. NPF-43
EA 99-263

During an NRC inspection conducted from September 27 to October 5, 1999, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violation is listed below:

Section 2E of Fermi Facility Operating License No. NPF-43, issued March 20, 1985, amended on August 5, 1988, requires, in part, that the licensee implement and maintain in effect all provisions of the Commission-approved physical security plan.

Section 3.3.2 of the Fermi 2 Commission-approved physical security plan requires, in part, that the cab, engine compartment, undercarriage, and cargo areas of a vehicle be searched prior to allowing it to enter the protected area. The security plan also requires that searches be directed towards detecting weapons, explosives, incendiary devices, and personnel other than the vehicle operator.

Contrary to the above, on September 21 and 22, 1999, the cargo area of a truck entering the protected area of the Fermi 2 facility was not searched to detect weapons, explosives, incendiary devices, or personnel other than the vehicle operator. Specifically, the failure to search the cargo area of that truck permitted a loaded weapon to be introduced into the protected area of the plant without detection on September 22, 1999. (01013)

This is a Severity Level III violation (Supplement III).

The NRC has concluded that information regarding the reasons for the violation, and the corrective actions taken and planned to correct the violation and prevent recurrence is already adequately addressed in a letter from the Detroit Edison Company dated November 22, 1999. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201, if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation (EA 99-263)," and send it to the U. S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator, NRC Region III, 801 Warrenville Road, Lisle, IL 60532-4351, and the NRC Resident Inspector at the Clinton Power Station within 30 days of the date of the letter transmitting this Notice of Violation.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

If you choose to respond your response will be placed in the NRC Public Document Room (PDR). Therefore, to the extent possible, it should not include any personal, privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction. Under the authority of Section 182 of Act 42 U.S.C. 2232, any response shall be submitted under oath or affirmation.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 15th day of December 1999

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

October 19, 1999

EA 99-183

Mr. Mark L. Marchi
Site Vice President
Kewaunee Plant
Wisconsin Public Service
Corporation
Post Office Box 19002
Green Bay, WI 54307-9002

SUBJECT: NOTICE OF VIOLATION
(NRC OFFICE OF INVESTIGATIONS REPORT NO. 3-98-043)

Dear Mr. Marchi:

This letter is in reference to information reported to the U.S. Nuclear Regulatory Commission (NRC) on October 14, 1998, by the Wisconsin Public Service Corporation (WPSC) that the annual testing of many of the security force shotguns used at the Kewaunee Nuclear Power Plant was not completed in 1997 and 1998. Representatives of WPSC also reported that the records of the test firings had been falsified to show that the shotguns were tested when due. The NRC-approved security manual for the Kewaunee Plant requires the annual test firing of all on-site firearms, including shotguns. The NRC-approved security manual also requires that the results of the annual tests be documented and the record of the tests be maintained.

The NRC Office of Investigations (OI) conducted an investigation into the matter and concluded that the training manager for the Wackenhut Corporation, the security force contractor at the Kewaunee Plant, was responsible for ensuring that the annual test of all site assigned firearms, including shotguns, was conducted. The investigation developed information indicating that the annual test was not performed for 11 shotguns during 1997 and nine shotguns in 1998. Two of the shotguns that had not been tested failed to properly cycle during a subsequent test. The OI investigation also concluded that the Wackenhut training manager deliberately falsified the record of those tests and he also deliberately provided false information to the security director of the Kewaunee Plant when questioned on the subject. A copy of the OI report synopsis was provided to WPSC as an enclosure to a letter from the NRC dated July 22, 1999.

Based on the information developed during the OI investigation, an investigation by WPSC, and the information provided in your letter dated August 23, 1999, the NRC has determined that a violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in the investigation reports and your August 23, 1999 letter. The records of the annual shotgun tests are material to the NRC because they demonstrate compliance with the NRC-approved Kewaunee Nuclear Power Plant Security Manual and Condition No. 2.C(4) of NRC Operating License No. DPR-43 for the Kewaunee Nuclear Power Plant. Therefore, the actions of the Wackenhut training manager placed WPSC in violation of the NRC-approved Kewaunee Plant Security Manual and

10 CFR 50.9, "Completeness and Accuracy of Information." This deliberate violation by a supervisor has been categorized in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600, at Severity Level III. Also, the Wackenhut training manager's personal actions represent a deliberate violation of the procedures implementing the NRC-approved security manual for the Kewaunee Plant.

In accordance with the Enforcement Policy, a base civil penalty of $55,000 is considered for a Severity Level III violation. Because the Kewaunee Nuclear Power Plant has been the subject of escalated enforcement actions within the two years preceding this violation,[1] the NRC considered whether credit was warranted for *Identification* and *Corrective Action* in accordance with the civil penalty assessment process in Section VI.B.2 of the Enforcement Policy. Credit was given for *Identification* because WPSC identified the violation and notified the NRC. Credit was also given for *Corrective Action* because of the immediate and long term measures taken by WPSC. The corrective actions are described in your August 23, 1999 letter and include reviewing other work performed by the individual, taking disciplinary action against the individual, and revising procedures to require additional oversight and verification of the annual testing of all firearms. The corrective actions also include evaluating other facets of the security programs to ensure those aspects have the proper level of management oversight and informing the security force of the incident.

Therefore, to encourage prompt identification and comprehensive correction of violations, the NRC is not proposing a civil penalty for this Severity Level III violation. However, significant violations in the future could result in a civil penalty. Additionally, the NRC has issued an Order Prohibiting Involvement in NRC-Licensed Activities to the former Wackenhut training manager.

The NRC has concluded that information regarding the reason for the enclosed violation, the corrective actions taken and planned to correct the violation and prevent recurrence, and the date when full compliance was achieved is adequately addressed on the docket in an August 23, 1999 letter from WPSC. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

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[1] A Notice of Violation was issued on August 6, 1997, for a Severity Level III problem associated with a design error that rendered the reactor vessel level indication system incapable of accurately measuring reactor vessel water level since initial installation of the system during 1986 to March 10, 1997 (EA 97-235).

A Notice of Violation and a $50,000 civil penalty were issued on July 11, 1997, for a Severity Level III problem associated with controlling tests of the auxiliary feedwater system that was identified during a January 1997 inspection (EA 97-087).

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if you choose to provide one) will be placed in the NRC Public Document Room (PDR). To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction.

Sincerely,

R.W. Borchardt

R. W. Borchardt, Director
Office of Enforcement

Docket No. 50-305
License No. DPR-43

Enclosure: Notice of Violation

cc w/encl: K. Weinhauer, Manager, Kewaunee Plant
B. Burks, P.E., Director, Bureau of Field Operations
Chairman, Wisconsin Public Service Commission
State Liaison Officer

NOTICE OF VIOLATION

Wisconsin Public Service Corporation
Kewaunee Nuclear Power Plant

Docket No. 50-305
License No. DPR-43
EA 99-183

During an NRC investigation concluded on June 21, 1999, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violation is listed below:

10 CFR 50.9(a) provides, in part, that information required by a condition of a Commission license to be maintained by a licensee must be complete and accurate in all material respects.

License Condition No. 2.C.(4), Amendment 28, dated April 10, 1979, of the Kewaunee Facility Operating License No. DPR-43, requires, in part, that Wisconsin Public Service Corporation maintain in effect and fully implement all provisions of the Commission approved Kewaunee Nuclear Power Plant Security Manual.

Section 16.1 of the Kewaunee Plant Security Manual provides, in part, that security-related devices and equipment are tested and/or inspected and maintained in an operable condition in accordance with approved plant administrative procedures. Section 18.2.5 of the Kewaunee Plant Security Manual further provides that the results of functional and performance tests of security devices and equipment be recorded and maintained.

Section 5.16.2 of Kewaunee Plant Security Implementing Procedure 30.02, "Testing, Inspection and Maintenance of Security Equipment," Revision 2, dated July 8, 1996, requires, in part, that all on-site security firearms are functionally tested and operability verified at least once annually. Section 5.16.3 of Procedure No. 30.02 further requires, in part, that the security contractor develop internal procedures on test firing of all firearms.

Section 5.2 of Wackenhut Corporation, the security contractor at the Kewaunee Nuclear Power Plant, Procedure No. SDP-23, "Test Fire Criteria," Revision 0, dated October 7, 1994, provides, in part, that the training manager is responsible for ensuring that weapons meet the test fire criteria.

Contrary to the above, from October 7, 1994 to October 30, 1998, the then training manager for the Wackenhut Corporation was responsible for ensuring that the annual functional test and operability verification of all on-site security firearms, including shotguns, met the test fire criteria. On at least 11 occasions in 1997 and nine occasions in 1998, the Wackenhut training manager failed to ensure that the annual shotgun tests and verifications were performed. Two shotguns failed to properly cycle during subsequent testing. Furthermore, during October 1998, the Wackenhut training manager falsified the records of the annual tests and verifications to show that the shotguns had been tested. The records of these tests and verifications are material to the NRC as each record demonstrates compliance with the Commission approved Kewaunee Nuclear Power Plant Security Manual and Condition No. 2.C.(4) of the NRC operating license for the Kewaunee Nuclear Power Plant. (01013)

This is a Severity Level III violation (Supplements III and VII).

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence and the date when full compliance was achieved is adequately addressed on the docket in an August 23, 1999, letter from the Wisconsin Public Service Corporation. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201, if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation, EA 99-183," and send it to the NRC Document Control Desk, Washington, DC 20555, with copies to the Regional Administrator and the Enforcement Officer, U.S. Nuclear Regulatory Commission, 801 Warrenville Road, Lisle, IL 60532-4351, and a copy to the NRC Resident Inspector at the Kewaunee Nuclear Power Plant within 30 days of the date of the letter transmitting this Notice of Violation (Notice).

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

If you choose to respond, your response will be placed in the NRC Public Document Room (PDR). Therefore, to the extent possible, the response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 19th day of October 1999

C. NON-LICENSED VENDOR (PART 21)

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

September 24, 1999

EA 98-081

Mr. Thomas H. Zarges
President and CEO
Morrison Knudsen Corporation
MK Ferguson Plaza
1500 West Third Street
Cleveland, OH 44113-1406

SUBJECT: CONFIRMATORY ORDER (EFFECTIVE IMMEDIATELY)

Dear Mr. Zarges:

The enclosed Confirmatory Order is being issued to Morrison Knudsen (MK) and its affiliate, SGT, LLC, (SGT) in order to confirm certain commitments, as set forth in Section V of the Order, and to ensure that MK's process for addressing employee protection and safety concerns will be enhanced. In view of the Confirmatory Order, and your consent to these commitments described in Mr. Patrick Hickey's letter dated July 23, 1999, the NRC staff is exercising its enforcement discretion pursuant to Section VII.B.6 of the NRC Enforcement Policy and will not issue a Notice of Violation or a civil penalty in this case. In addition, by correspondence dated August 9, 1999, MK and SGT, LLC, have consented to the issuance of the Confirmatory Order and waived their right to request a hearing on all or any part of the Confirmatory Order.

Pursuant to Section 223 of the Atomic Energy Act of 1954, as amended, any person who willfully violates, attempts to violate, or conspires to violate, any provision of this Order shall be subject to criminal prosecution as set forth in that section. Violation of this Order may also subject the person to civil monetary penalties.

Questions concerning this Order should be addressed to Mr. Michael Stein, Office of Enforcement, who can be reached at (301) 415-1688. In accordance with 10 CFR 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.

Sincerely,

Frank J. Miraglia

Frank Miraglia
Deputy Executive Director
For Reactor Programs

Enclosure: Confirmatory Order (Effective Immediately)

cc w/enclosure: Patrick Hickey, Esq.
M. Reddemann, Site Vice President
Point Beach Nuclear Plant

UNITED STATES
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	EA 98-081
	)	
Morrison Knudsen	)	
SGT, LLC	)	

CONFIRMATORY ORDER
(EFFECTIVE IMMEDIATELY)

I

Morrison Knudsen (MK) is a construction engineering firm with operation at multiple reactor and nuclear materials facilities regulated by the U.S. Nuclear Regulatory Commission (NRC or Commission). MK headquarters is located in Cleveland, Ohio. SGT, LLC (SGT) is an affiliate of MK involved in the steam generator replacement projects for MK.

II

On March 13, 1997, the NRC Office of Investigations (OI) initiated an investigation to determine if a former Corporate Group Welding Engineer (GWE) for MK had been discriminated against for raising safety concerns. In its report issued on February 6, 1998 (OI Case No. 3-97-013), OI concluded that there was sufficient evidence to substantiate that discrimination occurred. Specifically, OI concluded that the GWE's identification of deficiencies in welding procedures by MK and SGT employees at the Point Beach Nuclear Plant was at least a contributing factor in MK's decision to remove him from his position as MK Corporate GWE on January 15, 1997. In addition, in a decision issued on October 28, 1997, a Department of Labor (DOL) Administrative Law Judge (ALJ), in DOL Case No. 97-ERA-34, determined that the removal of the GWE was

in retaliation for his engaging in protected activity. Subsequently, on May 21, 1998, the ALJ approved a settlement agreement between the GWE and MK.

On January 27, 1999, a predecisional enforcement conference was held between MK and the NRC staff to discuss the apparent violation of the NRC's employee protection requirements (10 CFR 50.7). MK retained the services of a law firm to perform an independent investigation. MK submitted the report of this investigation and additional materials to the NRC for review in support of its position that the removal of the GWE was based upon legitimate performance considerations and not upon the GWE having engaged in protected activity. While MK and SGT[1] do not agree that a violation of the Energy Reorganization Act, as amended, or the Commission's regulations occurred, in response to the DOL and OI findings, MK and SGT have agreed to take the actions as described in Section V of this Order.

III

MK, and its affiliate SGT, have agreed to take certain actions to assess the work environment at their corporate headquarters and temporary nuclear reactor and materials job sites. Specifically, MK and SGT have committed to conduct a comprehensive cultural assessment to be performed by an independent consultant and to utilize the results of such an assessment to improve their employee concerns program and to implement a mandatory continuing training program for all supervisors and managers. The training program will have the objectives of reinforcing the importance of maintaining a safety conscious work environment and of assisting managers and supervisors in responding to employees who raise safety concerns in the workplace. MK and SGT agreed to include in such training the requirements of 10 CFR 50.7,

[1]Both MK and SGT employees were involved in the alleged discrimination against the MK Corporate Group Welding Engineer.

including, but not limited to, the definition of protected activity and discrimination, and appropriate responses to the raising of safety concerns by employees. MK and SGT also agreed that such training will be conducted by an independent trainer with expertise in employee concerns programs and employee protection requirements in the nuclear industry.

In addition, MK and SGT also have committed to taking the following corrective action to ensure that employees feel free to raise safety concerns without fear of retaliation: (1) posting this Confirmatory Order and the employee protection requirements of Section 211 of the Energy Reorganization Act, as amended, and NRC Form 3, at all MK and SGT temporary nuclear reactor and materials job sites and at the MK corporate headquarters in Cleveland, Ohio; (2) implementing the recommendations of the independent third party assessment to improve the MK and SGT employee concerns program; (3) conducting periodic updates of an employee cultural survey developed by an independent contractor to ensure that MK and SGT employees feel free to raise safety concerns without fear of retaliation; and (4) expanding the current MK and SGT exit surveys to include safety conscious work environment issues and to conduct exit surveys of their permanent and contract employees to ensure that such employees feel free to raise safety concerns while employed by MK or SGT.

IV

Since MK and SGT have committed to taking comprehensive corrective actions as set forth below, and since MK and SGT have committed to monitor the work environment and to promote an atmosphere conducive to the raising of safety concerns by employees without fear of retaliation by implementing this Confirmatory Order, the NRC staff has determined that its concerns regarding employee protection at MK corporate headquarters and at MK and SGT

temporary nuclear reactor and materials job sites can be resolved through NRC's confirmation of MK and SGT commitments as outlined in this Order. Accordingly, the staff is exercising its enforcement discretion pursuant to Section VII.B.6 of the NRC Enforcement Policy and will not issue a Notice of Violation or a civil penalty in this case.

By letter dated July 9, 1999, MK and SGT consented to issuance of this Order with the commitments described in Section V below. By letter dated August 9, 1999, MK and SGT waived any right to a hearing on this Order. MK and SGT further consented to the immediate effectiveness of this Order.

I find that MK and SGT's commitments, as set forth in Section V below, are acceptable and necessary and conclude that with these commitments, the public health and safety are reasonably assured. In view of the foregoing, I have determined that public health and safety require that these commitments be confirmed by this Order. Based on the above, and MK and SGT's consent, this Order is immediately effective upon issuance.

V

Accordingly, pursuant to sections 103, 161b, 161i, 161o, 182 and 186 of the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 C.F.R. 2.202 and 10 CFR Part 50, IT IS HEREBY ORDERED, EFFECTIVE IMMEDIATELY, THAT:

1. MK and SGT shall hire an independent consultant to conduct audits, to review the MK and SGT Employees Concerns Program (ECP), and to conduct training for MK and SGT supervisors and managers as discussed below in Condition #2 of this Order. MK and SGT will

hire this independent consultant, with experience in ECPs, to also conduct an independent evaluation of MK's and SGT's ECP to be completed by March, 2000. MK and SGT shall inform the NRC by November 1, 1999, as to the identity of its independent consultant. MK and SGT shall either implement the recommendations outlined by the consultant to ensure a safety conscious work environment exists at MK and SGT corporate and temporary nuclear reactor and materials job sites or explain to the NRC why it cannot implement such recommendations outlined by the consultant. MK and SGT shall provide the report of recommendations of their independent consultant by March, 2000 to the NRC Branch Chief, Quality Assurance, Vendor Inspection, Maintenance and Allegations Branch, Office of Nuclear Reactor Regulation at U.S. NRC, Mailstop O-9A1, Washington DC 20555.

2. MK and SGT will conduct mandatory continuing training programs on an annual basis beginning in the calendar year 2000 for all MK and SGT supervisors and managers at their corporate and temporary nuclear reactor and materials job sites. All temporary craft and permanent MK and SGT employees shall receive initial employee protection training as part of their access program or orientation when they begin work at an MK or SGT job site. The independent consultant, as outlined in Condition #1 of this Order, will approve this training. The training program for supervisors and managers should be conducted by an independent trainer as approved by the independent consultant, if the consultant does not conduct such training, and include:

(A) Annual training on the requirements of 10 CFR 50.7, or similar regulations, through at least calendar year 2002, including, but not limited to, what constitutes protected activity and what constitutes discrimination, and appropriate responses to the raising of safety concerns by

employees. Such training shall stress the freedom of employees in the nuclear industry to raise safety concerns without fear of retaliation by their supervisors or managers.

(B) Scheduled training on building positive relationships and conflict resolution. The training program will have the objective of reinforcing the importance of maintaining a safety conscious work environment and assisting managers and supervisors in dealing with conflicts in the work place in the context of a safety conscious work environment at MK and SGT and at their temporary nuclear reactor and materials job sites.

3. MK and SGT will integrate, into their overall program for enhancing the work environment and safety culture at their corporate headquarters and their temporary nuclear reactor and materials job sites, a cultural assessment survey (i.e. questionnaire) developed by the independent consultant. The time frame for integration of cultural assessments into the ECP shall be submitted, to the NRC Branch Chief mentioned in Condition #1 of this Order, by the MK and SGT independent consultant. MK and SGT agree to conduct at least three additional annual assessments. These audits should be geared toward ensuring that employees are aware of the provisions of 10 CFR 50.7, or similar regulations, are willing to come forward and report safety concerns when appropriate, and know how to implement the ECP (*e.g.* that the existence of the safety concerns hotline is well known to all employees). MK and SGT also agree to conduct audits at their temporary nuclear reactor and materials job sites soon after the initial staffing of the sites and periodically afterwards as warranted. Lastly, MK and SGT also agree to expand their exit survey to include safety conscious work environment issues and to conduct exit surveys of their permanent corporate employees and contract employees so as to ensure that all employees feel free to raise safety concerns without fear of retaliation. The questionnaires, audits, surveys, and the resulting analysis reports of these ECP documents will

be submitted to the NRC for review for a period of three years from the date of this Order by sending the materials to the NRC contact stated in Condition #1 of this Order. MK and SGT will provide information to the NRC pertaining to any follow-up actions to address issues raised by the survey and audit results.

4. Following the issuance of this Confirmatory Order, MK and SGT will issue and post this Confirmatory Order, Section 211 of the Energy Reorganization Act, as amended, and NRC Form 3, to inform all of its employees of this Confirmatory Order, as well as their right to raise safety concerns to management and to the NRC without fear of retaliation. These publications shall also be posted at all temporary nuclear reactor and materials job sites and at the companies' corporate headquarters.

The Director, Office of Enforcement may relax or rescind, in writing, any of the above conditions upon a showing by MK and SGT of good cause.

VI

Any person adversely affected by this Confirmatory Order, other than MK or SGT, may request a hearing within 20 days of its issuance. Where good cause is shown, consideration will be given to extending the time to request a hearing. A request for extension of time must be made in writing to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and include a statement of good cause for the extension. Any request for a hearing shall be submitted to the Secretary, U.S. Nuclear Regulatory Commission, ATTN: Chief, Rulemaking and Adjudications Staff, Washington, D.C. 20555. Copies of the hearing

request shall also be sent to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington D.C. 20555, to the Assistant General Counsel for Materials Litigation and Enforcement at the same address, to the Regional Administrator, NRC Region III, 801 Warrenville Road, Lisle, IL 60532-4351, and to MK and SGT. If such a person requests a hearing, that person shall set forth with particularity the manner in which his interest is adversely affected by this Order and shall address the criteria set forth in 10 CFR 2.714(d).

If the hearing is requested by a person whose interest is adversely affected, the Commission will issue an Order designating the time and place of any hearing. If a hearing is held, the issue to be considered at such hearing shall be whether this Confirmatory Order shall be sustained.

In the absence of any request for hearing, or written approval of an extension of time in which to request a hearing, the provisions specified in Section V above shall be final 20 days from the date of this Order without further order or proceeding. If an extension of time requesting a nearing has been approved, the provisions specified in Section V shall be final when the extension expires if a hearing request has not been received. AN ANSWER OR A REQUEST FOR A HEARING SHALL NOT STAY THE IMMEDIATE EFFECTIVENESS OF THIS ORDER

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Frank Miraglia

Frank Miraglia
Deputy Executive Director
For Reactor Programs

Dated at Rockville, Maryland
this 24th Day of September, 1999

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

October 1, 1996

EA 95-009
Thermal Science, Inc.
ATTN: Mr. Rubin Feldman
President
2200 Cassens Drive
St. Louis, Missouri 63026

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTIES - $900,000

Dear Mr. Feldman:

The enclosed Notice of Violation and Proposed Imposition of Civil Penalties (Notice) is being issued to Thermal Science, Inc. (TSI), for violations of NRC requirements committed in representations made by TSI to the NRC concerning Thermo-Lag 330 or 330-1 fire barrier products. These representations were made in response to concerns about Thermo-Lag raised by the NRC in both oral and written communications with TSI. The NRC has determined that in making these representations, TSI engaged in deliberate misconduct as defined in 10 CFR §50.5, "Deliberate Wrongdoing." The specific actions which constitute these violations are set forth in the enclosed Notice.

The misconduct consisted of TSI deliberately providing inaccurate or incomplete information to the NRC concerning TSI's fire endurance and ampacity testing programs. The NRC's regulations, specifically 10 CFR §50.5, prohibit a contractor of a NRC licensee from deliberately submitting information to the NRC that the contractor knows to be incomplete or inaccurate in some respect material to the NRC. Contrary to this requirement, TSI deliberately provided inaccurate information to the NRC by two general methods: (1) TSI directly misrepresented the level of involvement of a test laboratory, Industrial Testing Laboratories, Inc. (ITL), in fire barrier and ampacity derating tests on Thermo-Lag products in both oral and written statements to the NRC and; (2) TSI indirectly misrepresented the respective levels of involvement of TSI and test laboratories, including ITL, in the testing of Thermo-Lag products when it provided test reports and other documents to the NRC that it knew contained inaccurate and/or incomplete information.

The first submission of inaccurate and/or incomplete information, which is the subject of this enforcement action, was in a TSI letter dated October 5, 1991, which responded to an NRC letter dated September 10, 1991. Both the October 5th letter and its attachments responding to specific NRC questions contain deliberate misrepresentations which are designated as Violation I.A in the enclosed Notice. These misrepresentations include statements by TSI that 1) Thermo-Lag products had been subjected to independent testing; 2) TSI had no knowledge of deviations from its installation procedures; and 3) Underwriter's Laboratories (UL) had total control of ampacity testing performed at UL facilities and that these test results were the "most conservative data" available to TSI. Contrary to TSI's representations, the NRC's review has

determined that: (1) Thermo-Lag product testing was actually performed by TSI with only minimal involvement of ITL; (2) TSI had knowledge of installation deviations occurring at licensee facilities; and (3) the ampacity derating tests performed at UL were not under the total control of UL and the data presented by TSI concerning these tests was not "the most conservative data" available to TSI.

The second submission of inaccurate information that is covered by this proposed enforcement action occurred in a meeting at NRC Headquarters on October 17, 1991, and consisted of deliberately inaccurate and/or incomplete oral statements made by Mr. Rubin Feldman to NRC staff members concerning Thermo-Lag fire barrier tests. These inaccurate statements are designated as Violation I.B in the enclosed Notice. Again, the inaccurate information consisted of TSI misrepresenting the respective levels of involvement of TSI and ITL in the fire barrier and ampacity derating tests on Thermo-Lag products.

The remaining instances of TSI deliberately providing inaccurate and/or incomplete information to the NRC are designated as Violations I.C through I.I in the enclosed Notice. These instances reflect a pattern of written and/or oral representations concerning test results and testing methods or the submittal of test reports that contained a broad spectrum of inaccurate and/or incomplete information.

For example, in response to several NRC requests for information, TSI deliberately submitted test reports which were represented as having been prepared by ITL when, in fact, they had actually been prepared by TSI with an ITL representative merely witnessing the test and verifying the furnace temperature readouts. In addition, these reports contained falsified documents which were submitted to the NRC to support TSI's claim that ITL had independently tested Thermo-Lag products. These falsified documents included daily log sheets and other quality assurance documents onto which a copy of an ITL representative's signature had been photo-copied, deliberately misrepresenting the role of ITL in various test-related activities. Moreover, on two occasions TSI submitted reports to the NRC that alleged that the ITL representative at the test was a Professional Engineer when TSI knew that this statement was false. See Violations I.C, I.D, and I.I.

Furthermore, in written statements to the NRC, TSI deliberately misrepresented the roles of two other test laboratories that performed tests on Thermo-Lag. For example, on three occasions TSI represented to the NRC that tests at the Omega Point Laboratories (OPL) had been under OPL's "total control." On another occasion, TSI represented to the NRC that ampacity testing performed at Underwriters Laboratories (UL) was performed under UL's "total control." However, TSI knew that neither OPL nor UL had total control of their respective test programs. See Violations I.E, I.F, I.G, and I.H.

Following a review of the inaccurate information deliberately submitted by TSI in: (1) the October 5, 1991 letter; (2) the October 17, 1991 meeting; and (3) other letters and test reports subsequently submitted by TSI as described in the Notice, the NRC has concluded that this information was material to an

issue within the NRC's jurisdiction. As more fully explained in the Notice, this information was material to the NRC because it was provided to the NRC in order to alleviate concerns about the quality and adequacy of Thermo-Lag material, which NRC power reactor licensees relied upon to satisfy the requirements of 10 CFR §50.48 and 10 CFR Part 50, Appendix R, and conditions in their own operating licenses; and thereby influencing the need for, and nature of, any regulatory action taken by the NRC directed toward its licensees.

Moreover, compliance with these regulations is not just an end in itself. Instead, compliance is a significant step in the NRC's responsibility to maintain adequate protection of public health and safety. Accordingly, the NRC considers it unacceptable that TSI deliberately misrepresented the independence of the fire barrier and ampacity testing as a response to NRC concerns about the quality and performance of Thermo-Lag when TSI was fully aware that (1) no such independence existed and (2) the NRC would place substantial weight on information that it believed was obtained from truly independent testing.

Based on its review, the NRC has concluded that these deliberate misrepresentations constitute violations of 10 CFR §50.5. Violations involving multiple instances in which a vendor deliberately provides inaccurate and/or incomplete information related to the performance and quality of its important-to-safety products, constitute a very significant regulatory concern, are wholly unacceptable, and will not be tolerated. These violations are further aggravated because they were committed in the context of an ongoing NRC investigation into concerns about the quality and performance of Thermo-Lag products with significant implications regarding the compliance of a substantial number of nuclear power plant licensees with the Commission's regulations. These representations were provided after specific concerns were raised by the NRC staff about the nature of the testing that was performed to qualify Thermo-Lag products for use in nuclear power plants. Furthermore, these representations were made to the NRC in an apparent attempt to convince the NRC that impartial, independent test laboratories with no financial interest in Thermo-Lag had evaluated this product and had confirmed TSI's published claims of Thermo-Lag's fire barrier capabilities. Therefore, Violations I.A through I.I in the enclosed Notice have each been classified as Severity Level I violations in accordance with the "General Statement of Policy and Procedures for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600.

Under the NRC's Enforcement Policy, a base civil penalty in the amount of $10,000 is normally considered for a Severity Level I violation involving a licensee contractor. In arriving at the decision to propose an appropriate remedial sanction for the significant number of violations in this case, the NRC considered the egregious, deliberate, and repeated nature of these violations. For example, TSI continued to provide inaccurate information in the form of additional test reports and letters concerning testing activities during the 1992 calendar year, long after having been informed of the NRC's concerns about the adequacy of Thermo-Lag products in letters, meetings, and a formal inspection report.

Moreover, as noted in the attached Notice, many of the test reports that NRC determined contained inaccurate information dated from the early 1980's. During that period of time, NRC licensees, using alleged "ITL" test reports as a basis for judging product quality and serviceability, installed fire barriers constructed of Thermo-Lag in order to satisfy the requirements of 10 CFR §50.48 and 10 CFR Part 50, Appendix R, as well as specific conditions in many of the individual plant operating licenses. In turn, the NRC accepted these fire barriers as meeting its Fire Protection requirements and Guidelines. For some plants, these barriers formed a part of the plant's licensing basis and their adequacy was relied on when the NRC made its decision to issue an operating license for those plants. However, the NRC has determined that the use of Thermo-Lag products resulted in a degradation in the required fire safety margins and an increase in the potential consequence a fire could have on plant safety. Thus, supplying insufficiently tested Thermo-Lag to NRC reactor licensees not only placed those licensees in jeopardy of being in violation of NRC regulations, but also resulted in a compromise of the level of plant fire safety. Because the misrepresentations cited as Violations in the enclosed Notice were submitted in support of these earlier misrepresentations, they have a very high regulatory significance.

Those facts, in conjunction with the monetary benefit that TSI received by the marketing of inadequately tested Thermo-Lag 330-1 products to NRC licensees, constitute a very significant regulatory concern which requires that the NRC take a significant enforcement action in this case. Therefore, in order for TSI to understand the magnitude of NRC concern that TSI's actions are unacceptable for a licensee contractor and to provide TSI an appropriate incentive to ensure that it provides the NRC complete and accurate information in the future, the NRC has decided to utilize its full civil penalty authority under the Atomic Energy Act by invoking enforcement discretion in accordance with Section VII.A of the NRC's Enforcement Policy and escalate the civil penalty to the maximum statutory limit of $100,000 for each of the 9 Severity Level I violations. Thus, the total civil penalty for this action will be $900,000, if fully imposed.

You are required to respond to this letter and the enclosed Notice and should follow the instructions specified in the Notice when preparing your response. As explained more fully in the Notice, you should document in your response the specific corrective actions already taken, any additional actions you plan to take in order to prevent recurrence of these violations, and any other reasons you believe that the NRC should not impose this proposed civil penalty. After reviewing your response to this Notice, including any proposed corrective actions, the NRC will determine whether to impose the full civil penalty as proposed, impose a reduced civil penalty, or retract the proposed civil penalty altogether. If the NRC issues an order imposing a civil penalty, you will be provided an opportunity to request a hearing under the provisions of 10 CFR §2.205 and 10 CFR Part 2, Subpart G.

In accordance with 10 CFR §2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response will be placed in the NRC Public Document Room (PDR). To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction.

Sincerely,

James Lieberman

James Lieberman, Director
Office of Enforcement

Enclosure: As Stated

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTIES

Thermal Science, Inc. EA 95-009

Based upon a review of documents submitted to the NRC by Thermal Science, Inc. (TSI), on and after October 5, 1991, a review of the transcript of a meeting between Rubin Feldman of TSI and NRC Staff members on October 17, 1991, and a review of the transcript of the criminal proceeding against TSI in the United States District Court for the District of Maryland, the NRC has identified violations of NRC regulations. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the Nuclear Regulatory Commission proposes to impose civil penalties pursuant to Section 234 of the Atomic Energy Act of 1954, as amended, 42 U.S.C. §2282, and 10 C.F.R. §2.205.

The violations identified below concern matters that are important and material to the NRC's statutory mission of maintaining an adequate level of protection of public health and safety. As detailed below, information submitted by TSI in the form of statements and reports was submitted to the NRC during NRC investigations concerning Thermo-Lag 330-1 subliming material and Thermo-Lag 330-660 Flexi-Blanket material (hereinafter "Thermo-Lag" or "Thermo-Lag products"). These investigations raised significant issues regarding whether a substantial number of power reactor licensees were in compliance with 10 C.F.R. § 50.48 and 10 C.F.R. Part 50, Appendix R, as these licensees had relied, in part, on Thermo-Lag and the underlying test reports to meet NRC's fire protection requirements, or conditions in their operating licenses. Accordingly, the information at issue was material to the NRC because the statements and reports were submitted by TSI: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the nature of the testing performed to qualify Thermo-Lag for use in nuclear power plants; and (2) to influence the NRC's investigation into whether Thermo-Lag met NRC's fire protection requirements, and to persuade the NRC that no further NRC regulatory action regarding Thermo-Lag products was needed. Thus, the violations are of high regulatory significance.

The particular violations and proposed civil penalties are set forth below:

I. 10 C.F.R. § 50.5 requires, in part, that any contractor (including a supplier or consultant), ... of any licensee, who knowingly provides to any licensee, contractor, or subcontractor, components, equipment, materials, or other goods or services, that relate to a licensee's activities regulated by the NRC, may not deliberately submit to the NRC information that the person submitting the information knows to be incomplete or inaccurate in some respect material to the NRC.

   A. Contrary to 10 C.F.R. § 50.5, TSI deliberately made statements in an October 5, 1991 letter to the NRC which it knew contained inaccurate and incomplete information material to the NRC, as evidenced by the following examples:

1. In its October 5, 1991 letter, TSI stated that Thermo-Lag had been "... extensively tested by independent testing laboratories on many occasions ...." See TSI Letter of October 5, 1991, at 1. TSI's statement was incomplete and inaccurate in that the NRC later determined during an inspection at TSI's offices that test reports bearing the logo of Industrial Testing Laboratories, Inc. (ITL) were actually drafted by TSI, typed by TSI, and issued by TSI. ITL's role was limited to having one of its representatives witness data acquisition on the date of the test, and verify furnace temperature readouts, without having had any involvement in the construction or approval of the test article. Thus, with respect to ITL, the statement that Thermo-Lag had been "... extensively tested by independent testing laboratories on many occasions ...." misrepresented the respective roles of TSI and ITL in Thermo-Lag testing.

2. In its October 5, 1991 letter, TSI stated that Thermo-Lag provides "a fire barrier of consistent performance[]" when installed "in accordance with the instruction manuals in concert with training programs of Thermal Science," and that this performance had "been proven by independent testing on multiple occasions." See TSI Letter of October 5, 1991, at 2. This statement was inaccurate in that most of the configurations tested by TSI, in those tests that were submitted to the NRC, were not installed in accordance with the TSI instruction manual.

3. In TSI's "Response To The United States Nuclear Regulatory Commission's Letter Dated 10 September 1991," attached to its October 5, 1991 letter, TSI provided results from 1986 tests conducted by Underwriter's Laboratory (UL) regarding ampacity derating tests of one-hour and three-hour Thermo-Lag fire barrier systems, and stated that the values obtained by the UL tests reflected "the most current and conservative results of tests ..." and were "the most conservative information available to us."[1] See TSI Response at 6 and 12. These statements were inaccurate in that TSI was aware of an alternate baseline UL ampacity derating test that was more current and provided more conservative values than the test results submitted to the NRC on October 5, 1991.

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[1] This answer responded to NRC Question I.A.5., "What are ampacity deratings for 1-hour fire rated THERMO-LAG fire barrier systems[,]" and NRC Question I.B.5., "What are ampacity deratings for 3-hour fire rated THERMO-LAG fire barrier systems[,]." See NRC letter to TSI dated September 10, 1991, Enclosure at 1.

These statements were material to the NRC because they were made by TSI: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the nature of the testing performed to qualify Thermo-Lag for use in nuclear power plants; and (2) to influence the NRC's investigation into whether Thermo-Lag met NRC's fire barrier requirements and guidelines. (01011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

B. Contrary to 10 CFR § 50.5, during an October 17, 1991 meeting with the NRC Staff, Mr. Rubin Feldman, the President of TSI, deliberately made oral statements to the NRC that he knew contained inaccurate information material to the NRC. With respect to the participation of ITL in the fire barrier testing of Thermo-Lag, the following exchange took place:

> Mr. West (NRC): You mentioned in your [October 5, 1991] letter--in fact, you provided us with an enclosure that identifies quite a few tests that had been sponsored, presumably, by TSI. It looks like the bulk of the tests were actually done at your facility, although there seemed to be some involvement of a testing outfit called ITL, Industrial Testing Laboratory. We are not familiar with it; it's not UL or Southwest. Could you fill us in on who ITL is and tell us what involvement they have in each test, in terms of planning, conduct and report writing and documentation base?
>
> Mr. Feldman: Industrial Test Laboratories is a St. Louis-based laboratories. ... We needed a third part (sic) <u>observing the various phases</u> of the testing. We have asked them if they would be willing to do that. They indicated that they would, so they <u>officiated during the phases of the testing</u>. That's how the reports were published.

Tr. at 167-8 (emphasis added). The discussion about ITL continued as follows:

> Mr. West: ...What I'm trying to find out is, I think we need to decide if their [ITL's] involvement in the test really would constitute the independence for the test.
>
> Mr. Feldman: <u>They were very independent. They reviewed all the data. They analyzed all the data. It was as independent as you can make it.</u>

Tr. at 170 (emphasis added.)

Mr. Feldman's statements were inaccurate and misrepresented the respective roles of ITL and TSI in Thermo-Lag testing. Mr. Feldman knew that ITL did not function as an independent tester of Thermo-Lag, and that ITL's role was limited to having one of its representatives witness data acquisition on the date of the test, and verify furnace temperature readouts, without having any involvement in the construction or approval of the fire barrier/raceway test article.

Mr. Feldman's statements were material to the NRC because Mr. Feldman made them, on behalf of TSI: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the nature of the relationship between TSI and ITL regarding the testing performed to qualify Thermo-Lag as 1-hour and 3-hour fire barrier material for use in nuclear power plants; (2) to influence the NRC's investigation into whether Thermo-Lag met NRC's fire protection requirements and guidelines; and (3) to persuade the NRC that, for those Thermo-Lag tests in which ITL had involvement, ITL had acted as an independent, third-party reviewer and analyzer of all the test data. (02011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

C. Contrary to 10 CFR § 50.5, TSI deliberately submitted inaccurate information material to the NRC on November 12, 1991, in response to NRC questions sent to TSI by letter dated October 31, 1991, as evidenced by the following examples:

1. The NRC asked TSI to "provide copies of all TSI correspondence and documents related to UL Project Report 86-NK-23826, File R-6-802, dated January 27, 1987" dealing with ampacity derating testing used to qualify Thermo-Lag as 1-hour and 3-hour rated fire barrier material. See NRC letter of October 31, 1991, Enclosure at 1, Question 7. In partial response, TSI submitted ITL Report 82-355-F-1 and ITL Report 84-10-5. See TSI's "Partial Response To The United States Nuclear Regulatory Commission's Letter Dated 31 October 1991" (attached to TSI's letter dated November 12, 1991), Answer 7-2 (2), at 9, and Attachment 4. This response was inaccurate in that TSI knew ITL Report 82-355-F-1 misrepresented the respective roles of TSI and ITL in the testing of Thermo-Lag. This report's cover sheet carries the ITL logo, indicating that the report was written by ITL. This report is TSI Technical Note 111782, with an ITL cover sheet attached to it. TSI Technical Note 111782 had been written and issued by TSI in November 1981. ITL had no involvement in creating or issuing ITL Report 82-355-F-1, did not witness the subject ampacity test, and had no role in documenting or analyzing the test results.

2. Regarding ITL Report 84-10-5, TSI's November 12, 1991 response was further inaccurate in that TSI knew that this ITL Report also misrepresented the respective roles of TSI and ITL in the testing of Thermo-Lag. The report's headings and titles indicate that the report was written by ITL. In fact, TSI wrote ITL Report 84-10-5, using ITL stationery that TSI had obtained from ITL. Section 2 of the report represents that ITL compared the test data to baseline data obtained in an October 1981 test (a reference to the test reported in ITL Report 82-355-F-1). In fact, no such data comparison was performed by ITL.

The inaccurate information TSI submitted to the NRC on November 12, 1991, in the form of the "ITL" reports, was material to the NRC because TSI's submittal was made: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the ampacity derating testing used to qualify Thermo-Lag as 1-hour and 3-hour rated fire barrier material for use in nuclear power plants; and (2) to influence the NRC's investigation into whether Thermo-Lag met NRC's fire protection requirements. (03011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

D. Contrary to 10 CFR § 50.5, TSI deliberately submitted inaccurate information material to the NRC on December 3, 1991, in further response to NRC questions sent to TSI by letter dated October 31, 1991, as evidenced by the following examples:

1. The NRC asked TSI to "provide full copies of ITL fire test reports 82-11-80 and 82-11-81, including daily work sheets, quality assurance documentation, and thermocouple temperature records." NRC letter of October 31, 1991, Enclosure at 3, Question 19. This request was generated by Mr. Feldman's offer to provide the quality control records attached to ITL reports 82-11-80 and 82-11-81, which were needed to answer a question concerning test article construction. See October 17, 1991 transcript, at 89-90; 190-91. In response, TSI submitted complete copies of ITL Report 82-11-80 and ITL Report 82-11-81, which were the generic 1-hour and 3-hour test reports used to qualify Thermo-Lag as 1-hour and 3-hour fire barrier material for use in nuclear power plants. See TSI's "Supplemental Response To The Remaining Questions Contained In The United States Nuclear Regulatory Commission's Letter Dated 31 October 1991" (attached to TSI's letter dated December 3, 1991), Answer 19, at 9, and Enclosures 8 and 9. This response was inaccurate in that TSI knew ITL Report 82-11-80 misrepresented the respective roles of TSI and ITL in the testing of Thermo-Lag. The Proprietary Rights statement of TSI, included as part of the report, stated that the report

was prepared by ITL. In fact, the report was not prepared by ITL. TSI wrote ITL Report 82-11-80, using ITL stationery that TSI had obtained from ITL. Section 3 of ITL Report 82-11-80 states that the subject testing was performed "under the supervision and total control of Industrial Testing Laboratories, of St. Louis, Missouri, an independent testing laboratory." In fact, the test was conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts.

2. Regarding ITL Report 82-11-81, TSI's December 3, 1991 response was further inaccurate in that TSI knew that this ITL Report also misrepresented the respective roles of TSI and ITL in the testing of Thermo-Lag. The Proprietary Rights statement of TSI, included as part of the report, stated that the report was prepared by ITL. In fact, the report was not prepared by ITL. TSI wrote ITL Report 82-11-81, using ITL stationery that TSI had obtained from ITL. Section 3 of ITL Report 82-11-81 stated that the subject testing was performed "under the supervision and total control of Industrial Testing Laboratories, of St. Louis, Missouri, an independent testing laboratory." In fact, the test was conducted under the supervision and control of TSI, with ITL representative Donald Storment merely witnessing the tests and verifying furnace temperature readouts, which took place between September 10 and October 12, 1982. Moreover, several daily work sheet pages from Section 7 of the report are represented as having been signed by Mr. Storment. In fact, those pages contain replicated signatures of Mr. Storment, which TSI added to the report without the knowledge or consent of either ITL or Mr. Storment. For the daily work sheets that Mr. Storment did sign, TSI instructed Mr. Storment to backdate those sheets to make it appear that he had witnessed TSI work performed in August and early September of 1982, when, in fact, Mr. Storment had not witnessed that work.

The inaccurate information TSI submitted to the NRC on December 3, 1991 was material to the NRC because TSI's submittal was made: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific questions about the test articles discussed in ITL Reports 82-11-80 and 82-11-81, which were generic tests TSI had used to qualify Thermo-Lag as 1-hour and 3-hour rated fire barrier material for use in nuclear power plants; and (2) to influence the NRC's investigation into whether Thermo-Lag met NRC's fire protection requirements. (04011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

E. Contrary to 10 CFR § 50.5, TSI deliberately made a statement in a May 8, 1992 letter to the NRC which it knew contained inaccurate information material to the NRC. In this letter, TSI stated that its ongoing test program at Omega Point Laboratories was "under the total control of Omega Point." See TSI Letter of May 8, 1992, at 2. This statement was inaccurate in that this test program was not under the total control of Omega Point Laboratories. For example, the construction of the test articles and placement of the test thermocouples was under TSI's control.

This statement was material to the NRC because TSI submitted it: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the misleading nature of the "ITL" reports; and (2) to persuade the NRC that TSI was now subjecting Thermo-Lag to truly independent testing. (05011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

F. Contrary to 10 CFR § 50.5, TSI deliberately made statements in a June 16, 1992 letter to the NRC which it knew contained inaccurate information material to the NRC, including but not limited to the following examples:

1. TSI stated that its continuing test program at Omega Point Laboratories was "under the total control of Omega Point." See TSI Letter of June 16, 1992, at 2. This statement was inaccurate in that this test program was not under the total control of Omega Point. For example, the construction of the test articles and placement of the test thermocouples was under TSI's control.

2. TSI stated that the tests were being conducted in accordance with, among other criteria, the "applicable prerequisites of" NRC Generic Letter 86-10. See TSI Letter of June 16, 1992, at 3. This statement was inaccurate in that these tests were not being conducted in accordance with the guidance of NRC Generic Letter 86-10.

These statements were material to the NRC because TSI submitted them: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the misleading nature of the "ITL" reports; and (2) to persuade the NRC that TSI was now subjecting Thermo-Lag to truly independent testing. (06011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

G. Contrary to 10 CFR § 50.5, TSI deliberately made a statement in a June 22, 1992 letter to the NRC which it knew contained inaccurate

information material to the NRC. In this letter, TSI stated that the TSI-sponsored tests conducted at Omega Point Laboratories were "under their [Omega Point Laboratories'] total control, which also included quality control during construction." See TSI Letter of June 22, 1992, at 2. This statement was inaccurate in that (1) TSI knew that the test program was not under the total control of Omega Point and that (2) TSI knew that quality control during construction of the test articles was not under the total control of Omega Point.

This statement was material to the NRC because TSI submitted it: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the misleading nature of the "ITL" reports; and (2) to persuade the NRC that TSI was now subjecting Thermo-Lag to truly independent testing. (07011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

H. Contrary to 10 CFR § 50.5, TSI deliberately made a statement in a July 29, 1992 letter to the NRC which it knew contained inaccurate information material to the NRC. In this letter, TSI stated that the 1986 ampacity testing "was done by Underwriters Laboratories [sic] in Chicago under its [Underwriters Laboratory's] total control." TSI Letter of July 29, 1992, at 4. This statement was inaccurate in that TSI knew that the referenced ampacity testing was not under the total control of Underwriters Laboratory.

This statement was material to the NRC because TSI submitted it: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the ampacity derating testing used to qualify Thermo-Lag as 1-hour and 3-hour rated fire barrier material for use in nuclear power plants; and (2) to influence how the NRC disseminated information to the nuclear industry about the performance of Thermo-Lag products. (08011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

I. Contrary to 10 CFR § 50.5, on or about August 31, 1992, TSI deliberately submitted to the NRC ITL Reports 85-6-283, 85-2-382, 85-5-314, 85-11-227, 86-7-472, 87-5-435, 87-6-350, 85-1-106, and 85-4-377. These reports misrepresented the respective roles of TSI and ITL in the testing of Thermo-Lag. TSI knew these reports contained inaccurate information material to the NRC, as evidenced by the following examples:

1. Regarding ITL Report 85-6-283, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report,

using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts. Page (i) of the report represents that the ITL representative witnessing the test (Dave Siegel) was a professional engineer. However, subsequent NRC review has determined that Dave Siegel was not a professional engineer, did not have a college degree, and that TSI was aware of his lack of qualifications. Page (i) of the report also represents that Allan Siegel reviewed, approved, and signed the report on behalf of ITL. However, subsequent NRC review has determined that page (i) contains the replicated signature of Allan Siegel, which TSI added to the report without the knowledge or consent of Allan Siegel. Daily work sheets contained in Section 6 of the report were altered by TSI to make it appear that Dave Siegel witnessed TSI's construction of the test article on May 17, 1985, when in fact Dave Siegel only witnessed the test itself, which was performed on June 19, 1985. Similarly, in Section 7 of the report, TSI forged the initials of Dave Siegel on work sheets to make it appear that Dave Siegel was present on May 17, 1985, when TSI constructed the test article.

2. Regarding ITL Report 85-2-382, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts.

3. Regarding ITL Report 85-5-314, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts. Page (i) of the report represents that the ITL representative witnessing the test (Mike White) was a professional engineer. This is inaccurate in that Mr. White was not a professional engineer, and at that time TSI knew that Mr. White was not a

professional engineer. Among the daily work sheets contained in Section 6 of the report are ones signed by Mike White, regarding test article work performed by TSI on May 14, 1985. These work sheets are inaccurate in that Mr. White was present only during the test itself on May 21, 1985. In fact, TSI instructed Mr. White to backdate the work sheets he signed to make it appear that he had witnessed TSI May 14 work when, in fact, he had not witnessed that work.

4. Regarding ITL Report 85-11-227, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts. Among the daily work sheets contained in Section 6 of the report are ones signed by Mike White, regarding test article work performed by TSI on November 8, 1985. Section 6 is inaccurate in that Mr. White was present only during the test itself on November 19, 1985. In fact, Mr. White was instructed by TSI to sign work sheets to make it appear that he had witnessed TSI's November 8 work when, in fact, he had not witnessed that work.

5. Regarding ITL Report 86-7-472, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was conducted on August 1, 1986 "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts. Contained within this report is a "Verification of Application" document dated July 31, 1986 and signed by R. A. Lohman on behalf of TSI. This document refers to ITL Test Article No. 86-7-472. This information was inaccurate in that there were never any ITL test articles, as ITL neither built nor helped to assemble any of the articles tested by TSI.

6. Regarding ITL Report 87-5-435, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was

conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts.

7. Regarding ITL Report 87-6-350, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts.

8. Regarding ITL Report 85-1-106, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts.

9. Regarding ITL Report 85-4-377, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Page (i) of the report represents that the ITL representative witnessing the test (Clarence Bester) was a professional engineer. This is inaccurate in that Mr. Bester was not a professional engineer. Section 3 of the report stated that the subject testing was conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts.

The reports TSI submitted to the NRC on or about August 31, 1992 were material to the NRC because they were submitted by TSI: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag products; (2) in the context of an ongoing NRC investigation into concerns about the quality and performance of Thermo-Lag products; and (3) to influence the NRC's investigation into whether Thermo-Lag products met the fire

barrier requirements of 10 CFR § 50.48 and 10 CFR Part 50, Appendix R. (09011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

Pursuant to the provisions of 10 CFR §2.201, Thermal Science, Inc. (TSI) 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 this Notice of Violation and Proposed Imposition of Civil Penalties (Notice). This Reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) an admission or denial of the alleged violation; (2) the reasons for the violation, if admitted or, if denied, the reasons why the alleged violation has been denied; (3) the corrective steps that have been taken and the results achieved; (4) the corrective steps that will be taken to avoid any 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, a Demand for Information may be issued. Consideration will be given to extending the time specified for a reply for good cause shown. Under the authority of Section 161(c) of the Atomic Energy Act, as amended, 42 U.S.C. § 2201(c), this reply shall be submitted under oath or affirmation. Should TSI fail to file a Reply within the time specified, an Order imposing the civil penalties may be issued.

Within the same time as provided for the Reply required above under 10 C.F.R. §2.201, TSI may pay the civil penalties by letter addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, money order, or electronic transfer payable to the Treasurer of the United States in the amount of the civil penalties proposed above. In the alternative, TSI may protest the imposition of the proposed civil penalties, in whole or in part, by a written Answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, in accordance with the provisions of 10 CFR §2.205. Should TSI elect to file an Answer in accordance with 10 CFR §2.205 protesting the proposed civil penalties, either in whole or in part, such an Answer should be clearly marked "Answer to a Notice of Violation" and may (1) deny the violation or violations listed in this Notice, either in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the proposed civil penalties should not be imposed. In addition to protesting the imposition of the proposed civil penalties, either in whole or in part, such an Answer may request remission or mitigation of the proposed civil penalties.

Any written Answer submitted in accordance with 10 CFR §2.205 should be set forth separately from the Reply submitted in accordance with 10 CFR §2.201, but may incorporate parts of the Reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition.

The documents described above, e.g., a Reply to a Notice of Violation, a Payment of Civil Penalties, and/or an Answer to a Notice of Violation, should be addressed to: James Lieberman, Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852-2738.

If the NRC determines to impose a civil penalty after review of TSI's Reply and Answer, the NRC will issue an Order imposing the civil penalty and will provide TSI the opportunity to request an adjudicatory hearing in accordance with 10 CFR §2.205 and the NRC's Rules of Practice in 10 CFR Part 2, Subpart G. Following imposition of a civil penalty in accordance with the applicable provisions of 10 CFR §2.205, and after exhaustion of hearing rights under 10 C.F.R. Part 2, and upon failure to pay any civil penalties due that have been determined in accordance with that hearing, this matter may be referred to the Attorney General and the penalties, unless compromised, remitted, or mitigated, may be collected by a civil action pursuant to section 234c of the Atomic Energy Act, as amended, 42 U.S.C. §2282c.

Because your filings will be placed in the NRC Public Document Room (PDR), to the extent possible they should not include any personal privacy, proprietary, or safeguards information so that they can be placed in the PDR without redaction. However, if you find it necessary to include such information, you should clearly indicate the specific information you wish to have withheld from public disclosure and the provide the legal basis to support that request.

Dated at Rockville, Maryland
this 15th day of October, 1996.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

May 3, 1999

EA 95-009

Thermal Science, Inc.
ATTN: Mr. Rubin Feldman
President
2200 Cassens Drive
St. Louis, Missouri 63026

SUBJECT: ORDER IMPOSING CIVIL MONETARY PENALTIES -- $900,000

Dear Mr. Feldman:

This refers to your letter dated July 7, 1998, in response to the Notice of Violation and Proposed Imposition of Civil Penalties -- $900,000 (Notice) sent to you by our letter dated October 1, 1996. Our letter and Notice described nine violations each of which consisted of one or more statements made to the U.S. Nuclear Regulatory Commission (NRC) by Thermal Science, Inc., (TSI) which were either inaccurate or incomplete concerning the quality and testing of Thermo-lag material used by licensees to meet Commission requirements.

In your response, you provided two legal objections to the Notice. Specifically: (1) NRC lacks authority to impose a civil penalty on a non-licensee like TSI; and (2) NRC's administrative proceeding is criminal rather than civil, and thus violates the Double Jeopardy Clause of the United States Constitution. In addition, you denied all nine violations described in the Notice.

After consideration of your response, we have concluded for the reasons given in the Appendix attached to the enclosed Order Imposing Civil Monetary Penalties that the civil penalties were assessed within the NRC's statutory authority, that imposition of the civil penalties does not violate the Double Jeopardy Clause of the United States Constitution, and that the violations occurred as stated in the Notice. Accordingly, we hereby serve the enclosed Order on TSI imposing a civil monetary penalty in the amount of $900,000. This Order is being issued to emphasize the importance of providing NRC complete and accurate information.
As provided in Section IV of the enclosed Order, payment should be made within 30 days in accordance with NUREG/BR-0254. In addition, at the time payment is made, a statement indicating when and by what method payment was made, is to be mailed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738.

If you have any questions concerning this order, please contact James Lieberman, Director, Office of Enforcement. He can be reached at 301-415-2741.

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

Sincerely,

William D. Travers
Executive Director for Operations

Enclosures:
1. Order Imposing Civil Monetary Penalty
2. NUREG/BR-0254 Payment Methods

UNITED STATES
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
Thermal Science, Inc.	)	EA 95-009

ORDER IMPOSING CIVIL MONETARY PENALTY

I

Thermal Science, Inc. (TSI) is the manufacturer and vendor of fire barrier products known generally as Thermo-Lag. TSI began marketing this product in the early 1980s to licensees of the United States Nuclear Regulatory Commission (NRC) for use in nuclear power plants. TSI represented that Thermo-Lag had undergone independent testing by Industrial Testing Laboratories, Inc. (ITL). Using ITL stationery, TSI issued reports in ITL's name, making it appear that the reports were written by ITL, when in fact they were written by TSI. Many NRC licensees thereafter purchased Thermo-Lag to meet the NRC's fire protection requirements, codified in 10 C.F.R. 50.48 and Appendix R to Part 50.

II

In 1989 the NRC began receiving licensee reports of problems with installed Thermo-Lag. As part of a subsequent NRC investigation, TSI was questioned in the fall of 1991 about the testing and installation of Thermo-Lag. TSI continued to represent that its product had been independently tested by ITL. However, during an NRC inspection of TSI's facility in December 1991, it was learned that TSI, not ITL, had written the test reports, and that ITL had very limited involvement in the testing process. In 1992 the United States Department of Justice began a criminal investigation of the matter, resulting in indictments and a jury trial in the United States District Court for the District of Maryland in 1995. The jury acquitted TSI and TSI's President, Ruben Feldman, on all of the criminal charges. A written Notice of Violation and Proposed Imposition of Civil Penalties (Notice) in the amount of $ 900,000 was subsequently served upon

TSI by letter dated October 1, 1996. The Notice sets forth nine violations of 10 C.F.R. § 50.5, the NRC's "Deliberate Wrongdoer" rule.

TSI delayed filing a response to the Notice while it sought a preliminary injunction of NRC's administrative process from the United States District Court for the Eastern District of Missouri. The District Court finally denied the injunction request and dismissed TSI's cause of action by opinion dated June 23, 1998, holding that TSI must exhaust its administrative remedies before seeking judicial relief. Thereafter, on July 7, 1998, TSI filed its answer to the Notice. In its answer, TSI set forth its legal objections to the Notice, and denied each of the 10 C.F.R. § 50.5 violations. TSI's appeal from the District Court's June 1998 decision is pending before the United States Court of Appeals For the Eighth Circuit. However, by order dated September 10, 1998, the appeals court denied TSI's motion to stay the NRC's administrative proceeding pending the appeal.

III

After consideration of TSI's answer, the NRC staff has determined, as set forth in the Appendix to this Order, that the violations of 10 C.F.R. § 50.5 occurred as stated in the Notice, and that the penalties proposed for the violations designated in the Notice should be imposed.

IV

In view of the foregoing and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. § 2282, and 10 C.F.R. § 2.205, IT IS HEREBY ORDERED THAT:

TSI pay civil penalties in the amount of $900,000 within 30 days of the date of this Order, in accordance with NUREG/BR-0254. In addition, at the time of making the payment, TSI shall

submit a statement indicating when and by what method payment was made, to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738.

V

TSI may request a hearing within 30 days of the date of this Order. Where good cause is shown, consideration will be given to extending the time to request a hearing. A request for extension of time must be made in writing to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and include a statement of good cause for the extension. A request for a hearing should be clearly marked as a "Request for an Enforcement Hearing" and shall be submitted to the Secretary, U.S. Nuclear Regulatory Commission, ATTN: Rulemakings and Adjudications Staff, Washington, DC 20555. Copies also shall be sent to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555, to the Assistant General Counsel for Materials Litigation and Enforcement at the same address, and to the Regional Administrator, NRC Region III, 801 Warrenville Road, Lisle, IL. 60532-4351.

If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. If TSI fails to request a hearing within 30 days of the date of this Order (or if written approval of an extension of time in which to request a hearing has not been granted), the provisions of this Order shall be effective without further proceedings. If payment has not been made by that time, the matter may be referred to the United States Attorney General for collection.

In the event TSI requests a hearing as provided above, the issues to be considered at such hearing shall be:

(a) whether TSI was in violation of the Commission's requirements as set forth in the Notice referenced in Section II above; and

(b) whether, on the basis of such violations, this Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION

William D. Travers
Executive Director for Operations

Dated this 3rd day of May, 1999

APPENDIX

EVALUATION AND CONCLUSION

On October 1, 1996, the NRC issued a Notice of Violation and Proposed Imposition of Civil Penalty (Notice) for violations of NRC requirements identified during an investigation of Thermal Science, Inc. (TSI). The Notice set forth nine violations (designated A through I) of 10 C.F.R. § 50.5. TSI's response to the Notice, filed on July 7, 1998, was devoted largely to two legal objections to the Notice: (1) NRC lacks authority to impose a civil penalty on a non-licensee like TSI; and (2) NRC's administrative proceeding is criminal rather than civil, and thus violates the Double Jeopardy Clause of the United States Constitution. These objections repeat those made in TSI's request for a preliminary injunction, filed with the United States District Court for the Eastern District of Missouri. The district court dismissed TSI's injunction request in June 1998. The NRC staff has reviewed TSI's legal objections and finds that they do not bar this administrative action for the following reasons.

The question of whether the Atomic Energy Act of 1954, as amended, 42 U.S.C. §§ 2011 *et seq.* (AEA) provides the NRC with authority to impose civil penalties on non-licensees was examined at the time 10 C.F.R. § 50.5 was promulgated. *See* 56 Fed. Reg. 40664-670 (August 15, 1991). As discussed therein, 10 C.F.R. § 50.5 was issued under the general authority of AEA Sections 161b and 161i, pursuant to which the Commission may issue any regulation deemed necessary to protect public health. Absent from these statutory provisions is any limitation to whom such regulations may be made applicable. Moreover, in evaluating the general powers conferred on the Commission by Congress, federal courts have uniformly found the AEA's provisions quite broad. In passing the AEA, Congress enacted

> a regulatory scheme which is virtually unique in the degree to which broad responsibility is reposed in the administering agency, free of close prescription in its charter as to how it shall proceed in achieving the statutory objectives.

Siegel v. AEC, 400 F.2d 778, 783 (D.C. Cir. 1968). *See also Power Reactor Development Co. v. International Union of Elec. Radio and Mach. Workers AFL-CIO*, 367 U.S. 396 (1961). In exercising its broad rulemaking authority, the Commission explicitly made 10 C.F.R. § 50.5 applicable to, among others, any "supplier" who provided to one or more NRC licensees "materials, or other goods or services," relating to licensed activities. 10 C.F.R. § 50.5(a). As detailed in the Notice, TSI qualifies as such a "supplier." Accordingly, TSI is properly subject to the regulation, even though TSI is not an NRC license.

TSI's Double Jeopardy argument is contrary to the Supreme Court's holding in *Hudson v. U.S.*, 118 S.Ct. 488 (1997). The Court there held that while a second "criminal prosecution" for the same conduct is prohibited, civil penalties based on the alleged criminal conduct may be lawfully imposed unless "the clearest proof" shows that the statute authorizing the civil penalty can only be construed as a criminal sanction. *Hudson*, 118 S.Ct. at 493. In making this determination, only the "statute on its face" is to be evaluated (*Id.*, at 494), and if the statute confers sanction authority upon an administrative agency this is "prima facie evidence that Congress intended to provide for a civil sanction." *Id.*, at 495. In this regard, the Court distinguished between the "infamous punishment of imprisonment" imposed following a judicial trial, and money penalties. *Id.*, at 495-96.

Applying *Hudson* to the facts here, the October 1, 1996 Notice informed TSI that the NRC proposed to impose civil penalties pursuant to Section 234 of the AEA, 42 U.S.C. § 2282, and

10 C.F.R. § 2.205.[1] Reading AEA Section 234, which is titled "Civil Monetary Penalties For Violations of Licensing Requirements," there can be no doubt that it provides for civil, not criminal, sanctions. Persons are subject to "civil" penalties of up to $100,000 "to be imposed by the Commission." 42 U.S.C. § 2282(a). Unpaid penalties imposed by the Commission "may be collected by civil action." 42 U.S.C. § 2282(b). Even when a penalty matter is referred to the United States Attorney General for collection, the Attorney General is only "authorized to institute a civil action." 42 U.S.C. § 2282(c). Section 234 provides only for monetary penalties, with no provisions for imprisonment, and does not contain the word "criminal."[2] Similarly, 10 C.F.R. § 2.205 provides only for the imposition of civil penalties, and specifies the procedures by which a person charged with violations may contest those violations by requesting an administrative hearing. Accordingly, any administrative action taken by the Commission against TSI pursuant to the Notice will necessarily be civil rather than criminal in nature. In these circumstances the Double Jeopardy Clause does not bar the administrative action even though it arises from some of the same conduct for which TSI was criminally tried in 1995.

With respect to the facts upon which the staff based its proposed action, TSI's response to the Notice denied the nine violations. The NRC's evaluation and conclusion regarding TSI's factual denial are as follows:

Restatement of Violation A

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[1] 10 C.F.R. § 2.205 is the NRC regulation implementing the statutory authority of 42 U.S.C. § 2282. The regulation was also issued under the authority, *inter alia*, of AEA sections 161b, i, and o, 42 U.S.C. § 2201 (b), (i), and (o). *See* preamble to 10 C.F.R. Part 2.

[2] Section 234 thus stands in sharp contrast to the criminal provisions of the AEA, set forth in §§ 221-223, 42 U.S.C. §§ 2271-2273, which either refer to "criminal violations," or specify terms of imprisonment as punishment.

A. Contrary to 10 C.F.R. § 50.5, TSI deliberately made statements in an October 5, 1991 letter to the NRC which it knew contained inaccurate and incomplete information material to the NRC, as evidenced by the following examples:

1. In its October 5, 1991 letter, TSI stated that Thermo-Lag had been "... extensively tested by independent testing laboratories on many occasions ...." See TSI Letter of October 5, 1991, at 1. TSI's statement was incomplete and inaccurate in that the NRC later determined during an inspection at TSI's offices that test reports bearing the logo of Industrial Testing Laboratories, Inc. (ITL) were actually drafted by TSI, typed by TSI, and issued by TSI. ITL's role was limited to having one of its representatives witness data acquisition on the date of the test, and verify furnace temperature readouts, without having had any involvement in the construction or approval of the test article. Thus, with respect to ITL, the statement that Thermo-Lag had been "... extensively tested by independent testing laboratories on many occasions ...." misrepresented the respective roles of TSI and ITL in Thermo-Lag testing.

2. In its October 5, 1991 letter, TSI stated that Thermo-Lag provides "a fire barrier of consistent performance[]" when installed "in accordance with the instruction manuals in concert with training programs of Thermal Science," and that this performance had "been proven by independent testing on multiple occasions." See TSI Letter of October 5, 1991, at 2. This statement was inaccurate in that most of the configurations tested by TSI, in those tests that were submitted to the NRC, were not installed in accordance with the TSI instruction manual.

3. In TSI's "Response To The United States Nuclear Regulatory Commission's Letter Dated 10 September 1991," attached to its October 5, 1991 letter, TSI provided results from 1986 tests conducted by Underwriter's Laboratory (UL) regarding ampacity derating tests of one-hour and three-hour Thermo-Lag fire barrier systems, and stated that the values obtained by the UL tests reflected "the most current and conservative results of tests ..." and were "the most conservative information available to us."[3] See TSI Response at 6 and 12. These statements were inaccurate in that TSI was aware of an alternate baseline UL ampacity derating test that was more current and provided more conservative values than the test results submitted to the NRC on October 5, 1991.

These statements were material to the NRC because they were made by TSI: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the nature of the testing

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[3] This answer responded to NRC Question I.A.5., "What are ampacity deratings for 1-hour fire rated THERMO-LAG fire barrier systems[,]" and NRC Question I.B.5., "What are ampacity deratings for 3-hour fire rated THERMO-LAG fire barrier systems[,]." See NRC letter to TSI dated September 10, 1991, Enclosure at 1.

performed to qualify Thermo-Lag for use in nuclear power plants; and (2) to influence the NRC's investigation into whether Thermo-Lag met NRC's fire barrier requirements and guidelines. (01011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

Summary of TSI's Answer to Violation A

In denying Violation A, TSI stated that at all times it acted and intended to act in accordance with all applicable requirements. TSI stated that no false statements were ever deliberately made by its representatives, and that its representatives "never deliberately omitted to disclose any material information to the NRC." In support of its denial, TSI referenced the fact that based on the evidence presented at the criminal trial in 1995, the jury acquitted TSI of all charges.

NRC Evaluation of TSI's Answer to Violation A

TSI's brief *pro forma* answer on the facts provides no rebuttal or other information regarding the detailed allegations made in Violation A. The answer makes no attempt to explain why the allegations are incorrect. In the absence of new information, the NRC staff continues to believe that violations of NRC requirements occurred as alleged in Violation A, that these violations are properly classified as Severity Level 1, and that these violations carry a high degree of regulatory significance. Accordingly, the NRC staff finds that the proposed civil penalty of $100,000 should be imposed for Violation A.

Restatement of Violation B

B. Contrary to 10 CFR § 50.5, during an October 17, 1991 meeting with the NRC Staff, Mr. Rubin Feldman, the President of TSI, deliberately made oral statements to the NRC that he knew contained inaccurate information material to the NRC. With respect to the participation of ITL in the fire barrier testing of Thermo-Lag, the following exchange took place:

> Mr. West (NRC): You mentioned in your [October 5, 1991] letter--in fact, you provided us with an enclosure that identifies quite a few tests that had been sponsored, presumably, by TSI. It looks like the bulk of the tests were actually done at your facility, although there seemed to be some involvement of a testing outfit called ITL, Industrial Testing Laboratory. We are not familiar with it; it's not UL or Southwest. Could you fill us in on who ITL is and tell us what involvement they have in each test, in terms of planning, conduct and report writing and documentation base?
>
> Mr. Feldman: Industrial Test Laboratories is a St. Louis-based laboratories. ... We needed a third part (sic) observing the various phases of the testing. We have asked them if they would be willing to do that. They indicated that they would, so they officiated during the phases of the testing. That's how the reports were published.

Tr. at 167-8 (emphasis added). The discussion about ITL continued as follows:

> Mr. West: ...What I'm trying to find out is, I think we need to decide if their [ITL's] involvement in the test really would constitute the independence for the test.
>
> Mr. Feldman: They were very independent. They reviewed all the data. They analyzed all the data. It was as independent as you can make it.

Tr. at 170 (emphasis added.)

Mr. Feldman's statements were inaccurate and misrepresented the respective roles of ITL and TSI in Thermo-Lag testing. Mr. Feldman knew that ITL did not function as an independent tester of Thermo-Lag, and that ITL's role was limited to having one of its representatives witness data acquisition on the date of the test, and verify furnace temperature readouts, without having any involvement in the construction or approval of the fire barrier/raceway test article.

Mr. Feldman's statements were material to the NRC because Mr. Feldman made them, on behalf of TSI: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the nature of the relationship between TSI and ITL regarding the testing performed to qualify Thermo-Lag as 1-hour and 3-hour fire barrier material for use in nuclear power plants; (2) to influence the NRC's investigation into whether Thermo-Lag met NRC's fire protection requirements and guidelines; and (3) to

persuade the NRC that, for those Thermo-Lag tests in which ITL had involvement, ITL had acted as an independent, third-party reviewer and analyzer of all the test data. (02011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

Summary of TSI's Answer to Violation B

In denying Violation B, TSI stated that at all times it acted and intended to act in accordance with all applicable requirements. TSI stated that no false statements were ever deliberately made by its representatives, and that its representatives "never deliberately omitted to disclose any material information to the NRC." In support of its denial, TSI referenced the fact that based on the evidence presented at the criminal trial in 1995, the jury acquitted TSI of all charges.

NRC Evaluation of TSI's Answer to Violation B

TSI's brief *pro forma* answer on the facts provides no rebuttal or other information regarding the detailed allegations made in Violation B. The answer makes no attempt to explain why the allegations are incorrect. In the absence of new information, the NRC staff continues to believe that violations of NRC requirements occurred as alleged in Violation B, that these violations are properly classified as Severity Level 1, and that these violations carry a high degree of regulatory significance. Accordingly, the NRC staff finds that the proposed civil penalty of $100,000 should be imposed for Violation B.

Restatement of Violation C

C. Contrary to 10 CFR § 50.5, TSI deliberately submitted inaccurate information material to the NRC on November 12, 1991, in response to NRC questions sent to TSI by letter dated October 31, 1991, as evidenced by the following examples:

1. The NRC asked TSI to "provide copies of all TSI correspondence and documents related to UL Project Report 86-NK-23826, File R-6-802, dated January 27, 1987" dealing with ampacity derating testing used to qualify Thermo-Lag as 1-hour and 3-hour rated fire barrier material. See NRC letter of October 31, 1991, Enclosure at 1, Question 7. In partial response, TSI submitted ITL Report 82-355-F-1 and ITL Report 84-10-5. See TSI's "Partial Response To The United States Nuclear Regulatory Commission's Letter Dated 31 October 1991" (attached to TSI's letter dated November 12, 1991), Answer 7-2 (2), at 9, and Attachment 4. This response was inaccurate in that TSI knew ITL Report 82-355-F-1 misrepresented the respective roles of TSI and ITL in the testing of Thermo-Lag. This report's cover sheet carries the ITL logo, indicating that the report was written by ITL. This report is TSI Technical Note 111782, with an ITL cover sheet attached to it. TSI Technical Note 111782 had been written and issued by TSI in November 1981. ITL had no involvement in creating or issuing ITL Report 82-355-F-1, did not witness the subject ampacity test, and had no role in documenting or analyzing the test results.

2. Regarding ITL Report 84-10-5, TSI's November 12, 1991 response was further inaccurate in that TSI knew that this ITL Report also misrepresented the respective roles of TSI and ITL in the testing of Thermo-Lag. The report's headings and titles indicate that the report was written by ITL. In fact, TSI wrote ITL Report 84-10-5, using ITL stationery that TSI had obtained from ITL. Section 2 of the report represents that ITL compared the test data to baseline data obtained in an October 1981 test (a reference to the test reported in ITL Report 82-355-F-1). In fact, no such data comparison was performed by ITL.

The inaccurate information TSI submitted to the NRC on November 12, 1991, in the form of the "ITL" reports, was material to the NRC because TSI's submittal was made: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the ampacity derating testing used to qualify Thermo-Lag as 1-hour and 3-hour rated fire barrier material for use in nuclear power plants; and (2) to influence the NRC's investigation into whether Thermo-Lag met NRC's fire protection requirements. (03011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

Summary of TSI's Answer to Violation C

In denying Violation C, TSI stated that at all times it acted and intended to act in accordance with all applicable requirements. TSI stated that no false statements were ever deliberately made by its representatives, and that its representatives "never deliberately omitted to disclose any material information to the NRC." In support of its denial, TSI referenced the fact that based on the evidence presented at the criminal trial in 1995, the jury acquitted TSI of all charges.

NRC Evaluation of TSI's Answer to Violation C

TSI's brief *pro forma* answer on the facts provides no rebuttal or other information regarding the detailed allegations made in Violation C. The answer makes no attempt to explain why the allegations are incorrect. In the absence of new information, the NRC staff continues to believe that violations of NRC requirements occurred as alleged in Violation C, that these violations are properly classified as Severity Level 1, and that these violations carry a high degree of regulatory significance. Accordingly, the NRC staff finds that the proposed civil penalty of $100,000 should be imposed for Violation C.

Restatement of Violation D

D. Contrary to 10 CFR § 50.5, TSI deliberately submitted inaccurate information material to the NRC on December 3, 1991, in further response to NRC questions sent to TSI by letter dated October 31, 1991, as evidenced by the following examples:

1. The NRC asked TSI to "provide full copies of ITL fire test reports 82-11-80 and 82-11-81, including daily work sheets, quality assurance documentation, and thermocouple temperature records." NRC letter of

October 31, 1991, Enclosure at 3, Question 19. This request was generated by Mr. Feldman's offer to provide the quality control records attached to ITL reports 82-11-80 and 82-11-81, which were needed to answer a question concerning test article construction. See October 17, 1991 transcript, at 89-90; 190-91. In response, TSI submitted complete copies of ITL Report 82-11-80 and ITL Report 82-11-81, which were the generic 1-hour and 3-hour test reports used to qualify Thermo-Lag as 1-hour and 3-hour fire barrier material for use in nuclear power plants. See TSI's "Supplemental Response To The Remaining Questions Contained In The United States Nuclear Regulatory Commission's Letter Dated 31 October 1991" (attached to TSI's letter dated December 3, 1991), Answer 19, at 9, and Enclosures 8 and 9. This response was inaccurate in that TSI knew ITL Report 82-11-80 misrepresented the respective roles of TSI and ITL in the testing of Thermo-Lag. The Proprietary Rights statement of TSI, included as part of the report, stated that the report was prepared by ITL. In fact, the report was not prepared by ITL. TSI wrote ITL Report 82-11-80, using ITL stationery that TSI had obtained from ITL. Section 3 of ITL Report 82-11-80 states that the subject testing was performed "under the supervision and total control of Industrial Testing Laboratories, of St. Louis, Missouri, an independent testing laboratory." In fact, the test was conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts.

2. Regarding ITL Report 82-11-81, TSI's December 3, 1991 response was further inaccurate in that TSI knew that this ITL Report also misrepresented the respective roles of TSI and ITL in the testing of Thermo-Lag. The Proprietary Rights statement of TSI, included as part of the report, stated that the report was prepared by ITL. In fact, the report was not prepared by ITL. TSI wrote ITL Report 82-11-81, using ITL stationery that TSI had obtained from ITL. Section 3 of ITL Report 82-11-81 stated that the subject testing was performed "under the supervision and total control of Industrial Testing Laboratories, of St. Louis, Missouri, an independent testing laboratory." In fact, the test was conducted under the supervision and control of TSI, with ITL representative Donald Storment merely witnessing the tests and verifying furnace temperature readouts, which took place between September 10 and October 12, 1982. Moreover, several daily work sheet pages from Section 7 of the report are represented as having been signed by Mr. Storment. In fact, those pages contain replicated signatures of Mr. Storment, which TSI added to the report without the knowledge or consent of either ITL or Mr. Storment. For the daily work sheets that Mr. Storment did sign, TSI instructed Mr. Storment to backdate those sheets to make it appear that he had witnessed TSI work performed in August and early September of 1982, when, in fact, Mr. Storment had not witnessed that work.

The inaccurate information TSI submitted to the NRC on December 3, 1991 was material to the NRC because TSI's submittal was made: (1) in response to

concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific questions about the test articles discussed in ITL Reports 82-11-80 and 82-11-81, which were generic tests TSI had used to qualify Thermo-Lag as 1-hour and 3-hour rated fire barrier material for use in nuclear power plants; and (2) to influence the NRC's investigation into whether Thermo-Lag met NRC's fire protection requirements. (04011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

Summary of TSI's Answer to Violation D

In denying Violation D, TSI stated that at all times it acted and intended to act in accordance with all applicable requirements. TSI stated that no false statements were ever deliberately made by its representatives, and that its representatives "never deliberately omitted to disclose any material information to the NRC." In support of its denial, TSI referenced the fact that based on the evidence presented at the criminal trial in 1995, the jury acquitted TSI of all charges.

NRC Evaluation of TSI's Answer to Violation D

TSI's brief *pro forma* answer on the facts provides no rebuttal or other information regarding the detailed allegations made in Violation D. The answer makes no attempt to explain why the allegations are incorrect. In the absence of new information, the NRC staff continues to believe that violations of NRC requirements occurred as alleged in Violation D, that these violations are properly classified as Severity Level 1, and that these violations carry a high degree of regulatory significance. Accordingly, the NRC staff finds that the proposed civil penalty of $100,000 should be imposed for Violation D.

Restatement of Violation E

E. Contrary to 10 CFR § 50.5, TSI deliberately made a statement in a May 8, 1992 letter to the NRC which it knew contained inaccurate information material to the NRC. In this letter, TSI stated that its ongoing test program at Omega Point Laboratories was "under the total control of Omega Point." See TSI Letter of May 8, 1992, at 2. This statement was inaccurate in that this test program was not under the total control of Omega Point Laboratories. For example, the construction of the test articles and placement of the test thermocouples was under TSI's control.

This statement was material to the NRC because TSI submitted it: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the misleading nature of the "ITL" reports; and (2) to persuade the NRC that TSI was now subjecting Thermo-Lag to truly independent testing. (05011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

Summary of TSI's Answer to Violation E

In denying Violation E, TSI stated that at all times it acted and intended to act in accordance with all applicable requirements. TSI stated that no false statements were ever deliberately made by its representatives, and that its representatives "never deliberately omitted to disclose any material information to the NRC." In support of its denial, TSI referenced the fact that based on the evidence presented at the criminal trial in 1995, the jury acquitted TSI of all charges.

NRC Evaluation of TSI's Answer to Violation E

TSI's brief *pro forma* answer on the facts provides no rebuttal or other information regarding the allegations made in Violation E. The answer makes no attempt to explain why the

allegations are incorrect. In the absence of new information, the NRC staff continues to believe that violations of NRC requirements occurred as alleged in Violation E, that these violations are properly classified as Severity Level 1, and that these violations carry a high degree of regulatory significance. Accordingly, the NRC staff finds that the proposed civil penalty of $100,000 should be imposed for Violation E.

Restatement of Violation F

F. Contrary to 10 CFR § 50.5, TSI deliberately made statements in a June 16, 1992 letter to the NRC which it knew contained inaccurate information material to the NRC, including but not limited to the following examples:

1. TSI stated that its continuing test program at Omega Point Laboratories was "under the total control of Omega Point." See TSI Letter of June 16, 1992, at 2. This statement was inaccurate in that this test program was not under the total control of Omega Point. For example, the construction of the test articles and placement of the test thermocouples was under TSI's control.

2. TSI stated that the tests were being conducted in accordance with, among other criteria, the "applicable prerequisites of" NRC Generic Letter 86-10. See TSI Letter of June 16, 1992, at 3. This statement was inaccurate in that these tests were not being conducted in accordance with the guidance of NRC Generic Letter 86-10.

These statements were material to the NRC because TSI submitted them: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the misleading nature of the "ITL" reports; and (2) to persuade the NRC that TSI was now subjecting Thermo-Lag to truly independent testing. (06011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

Summary of TSI's Answer to Violation F

In denying Violation F, TSI stated that at all times it acted and intended to act in accordance with all applicable requirements. TSI stated that no false statements were ever deliberately made by its representatives, and that its representatives "never deliberately omitted to disclose any material information to the NRC." In support of its denial, TSI referenced the fact that based on the evidence presented at the criminal trial in 1995, the jury acquitted TSI of all charges.

NRC Evaluation of TSI's Answer to Violation F

TSI's brief *pro forma* answer on the facts provides no rebuttal or other information regarding the detailed allegations made in Violation F. The answer makes no attempt to explain why the allegations are incorrect. In the absence of new information, the NRC staff continues to believe that violations of NRC requirements occurred as alleged in Violation F, that these violations are properly classified as Severity Level 1, and that these violations carry a high degree of regulatory significance. Accordingly, the NRC staff finds that the proposed civil penalty of $100,000 should be imposed for Violation F.

Restatement of Violation G

G. Contrary to 10 CFR § 50.5, TSI deliberately made a statement in a June 22, 1992 letter to the NRC which it knew contained inaccurate information material to the NRC. In this letter, TSI stated that the TSI-sponsored tests conducted at Omega Point Laboratories were "under their [Omega Point Laboratories'] total control, which also included quality control during construction." See TSI Letter of June 22, 1992, at 2. This statement was inaccurate in that (1) TSI knew that the test program was not under the total control of Omega Point and that (2) TSI knew that quality control during construction of the test articles was not under the total control of Omega Point.

> This statement was material to the NRC because TSI submitted it: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the misleading nature of the "ITL" reports; and (2) to persuade the NRC that TSI was now subjecting Thermo-Lag to truly independent testing. (07011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

Summary of TSI's Answer to Violation G

In denying Violation G, TSI stated that at all times it acted and intended to act in accordance with all applicable requirements. TSI stated that no false statements were ever deliberately made by its representatives, and that its representatives "never deliberately omitted to disclose any material information to the NRC." In support of its denial, TSI referenced the fact that based on the evidence presented at the criminal trial in 1995, the jury acquitted TSI of all charges.

NRC Evaluation of TSI's Answer to Violation G

TSI's brief *pro forma* answer on the facts provides no rebuttal or other information regarding the allegations made in Violation G. The answer makes no attempt to explain why the allegations are incorrect. In the absence of new information, the NRC staff continues to believe that violations of NRC requirements occurred as alleged in Violation G, that these violations are properly classified as Severity Level 1, and that these violations carry a high degree of regulatory significance. Accordingly, the NRC staff finds that the proposed civil penalty of $100,000 should be imposed for Violation G.

Restatement of Violation H

H. Contrary to 10 CFR § 50.5, TSI deliberately made a statement in a July 29, 1992 letter to the NRC which it knew contained inaccurate information material to the NRC. In this letter, TSI stated that the 1986 ampacity testing "was done by Underwriters Laboratories [sic] in Chicago under its [Underwriters Laboratory's] total control." TSI Letter of July 29, 1992, at 4. This statement was inaccurate in that TSI knew that the referenced ampacity testing was not under the total control of Underwriters Laboratory.

This statement was material to the NRC because TSI submitted it: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag, including specific concerns about the ampacity derating testing used to qualify Thermo-Lag as 1-hour and 3-hour rated fire barrier material for use in nuclear power plants; and (2) to influence how the NRC disseminated information to the nuclear industry about the performance of Thermo-Lag products. (08011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

Summary of TSI's Answer to Violation H

In denying Violation H, TSI stated that at all times it acted and intended to act in accordance with all applicable requirements. TSI stated that no false statements were ever deliberately made by its representatives, and that its representatives "never deliberately omitted to disclose any material information to the NRC." In support of its denial, TSI referenced the fact that based on the evidence presented at the criminal trial in 1995, the jury acquitted TSI of all charges.

NRC Evaluation of TSI's Answer to Violation H

TSI's brief *pro forma* answer on the facts provides no rebuttal or other information regarding the allegations made in Violation H. The answer makes no attempt to explain why the

allegations are incorrect. In the absence of new information, the NRC staff continues to believe that violations of NRC requirements occurred as alleged in Violation H, that these violations are properly classified as Severity Level 1, and that these violations carry a high degree of regulatory significance. Accordingly, the NRC staff finds that the proposed civil penalty of $100,000 should be imposed for Violation H.

Restatement of Violation I

I. Contrary to 10 CFR § 50.5, on or about August 31, 1992, TSI deliberately submitted to the NRC ITL Reports 85-6-283, 85-2-382, 85-5-314, 85-11-227, 86-7-472, 87-5-435, 87-6-350, 85-1-106, and 85-4-377. These reports misrepresented the respective roles of TSI and ITL in the testing of Thermo-Lag. TSI knew these reports contained inaccurate information material to the NRC, as evidenced by the following examples:

1. Regarding ITL Report 85-6-283, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts. Page (i) of the report represents that the ITL representative witnessing the test (Dave Siegel) was a professional engineer. However, subsequent NRC review has determined that Dave Siegel was not a professional engineer, did not have a college degree, and that TSI was aware of his lack of qualifications. Page (i) of the report also represents that Allan Siegel reviewed, approved, and signed the report on behalf of ITL. However, subsequent NRC review has determined that page (i) contains the replicated signature of Allan Siegel, which TSI added to the report without the knowledge or consent of Allan Siegel. Daily work sheets contained in Section 6 of the report were altered by TSI to make it appear that Dave Siegel witnessed TSI's construction of the test article on May 17, 1985, when in fact Dave Siegel only witnessed the test itself, which was performed on June 19, 1985. Similarly, in Section 7 of the report, TSI forged the initials of Dave Siegel on work sheets to make it appear that Dave Siegel was present on May 17, 1985, when TSI constructed the test article.

2. Regarding ITL Report 85-2-382, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts.

3. Regarding ITL Report 85-5-314, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts. Page (i) of the report represents that the ITL representative witnessing the test (Mike White) was a professional engineer. This is inaccurate in that Mr. White was not a professional engineer, and at that time TSI knew that Mr. White was not a professional engineer. Among the daily work sheets contained in Section 6 of the report are ones signed by Mike White, regarding test article work performed by TSI on May 14, 1985. These work sheets are inaccurate in that Mr. White was present only during the test itself on May 21, 1985. In fact, TSI instructed Mr. White to backdate the work sheets he signed to make it appear that he had witnessed TSI May 14 work when, in fact, he had not witnessed that work.

4. Regarding ITL Report 85-11-227, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts. Among the daily work sheets contained in Section 6 of the report are ones signed by Mike White, regarding test article work performed by TSI on November 8, 1985. Section 6 is inaccurate in that Mr. White was present only during the test itself on November 19, 1985. In fact, Mr. White was instructed by TSI to sign work sheets to make it appear that he had witnessed TSI's November 8 work when, in fact, he had not witnessed that work.

5. Regarding ITL Report 86-7-472, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was conducted

on August 1, 1986 "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts. Contained within this report is a "Verification of Application" document dated July 31, 1986 and signed by R. A. Lohman on behalf of TSI. This document refers to ITL Test Article No. 86-7-472. This information was inaccurate in that there were never any ITL test articles, as ITL neither built nor helped to assemble any of the articles tested by TSI.

6. Regarding ITL Report 87-5-435, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts.

7. Regarding ITL Report 87-6-350, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts.

8. Regarding ITL Report 85-1-106, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Section 3 of the report stated that the subject testing was conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts.

9. Regarding ITL Report 85-4-377, the report's headings and titles indicate that the report was prepared by ITL. This information was inaccurate in that TSI wrote this report, using ITL stationery that TSI had obtained from ITL. Page (i) of the report represents that the ITL representative witnessing the test (Clarence Bester) was a professional engineer. This is inaccurate in that Mr. Bester was not a professional engineer. Section 3 of the report stated that the subject testing was conducted "under the direct supervision and total control of Industrial Testing Laboratories, Inc." In fact, the test had been conducted under the supervision and control of TSI, with an ITL representative merely witnessing the test and verifying furnace temperature readouts.

The reports TSI submitted to the NRC on or about August 31, 1992 were material to the NRC because they were submitted by TSI: (1) in response to concerns the NRC had raised about the quality and adequacy of Thermo-Lag products; (2) in the context of an ongoing NRC investigation into concerns about the quality and performance of Thermo-Lag products; and (3) to influence the NRC's investigation into whether Thermo-Lag products met the fire barrier requirements of 10 CFR § 50.48 and 10 CFR Part 50, Appendix R. (09011)

This is a Severity Level I violation (Supplement VII)
Civil Penalty - $100,000

Summary of TSI's Answer to Violation I

In denying Violation I, TSI stated that at all times it acted and intended to act in accordance with all applicable requirements. TSI stated that no false statements were ever deliberately made by its representatives, and that its representatives "never deliberately omitted to disclose any material information to the NRC." In support of its denial, TSI referenced the fact that based on the evidence presented at the criminal trial in 1995, the jury acquitted TSI of all charges.

NRC Evaluation of TSI's Answer to Violation I

TSI's brief *pro forma* answer on the facts provides no rebuttal or other information regarding the detailed allegations made in Violation I. The answer makes no attempt to explain why the allegations are incorrect. In the absence of new information, the NRC staff continues to believe that violations of NRC requirements occurred as alleged in Violation I, that these violations are properly classified as Severity Level 1, and that these violations carry a high degree of regulatory significance. Accordingly, the NRC staff finds that the proposed civil penalty of $100,000 should be imposed for Violation I.

NRC Conclusion

The NRC has concluded that the violations alleged in the Notice occurred as stated. TSI did not provide any basis for reducing the severity level of the violations, and did not provide any basis for mitigation of the proposed civil penalties. Consequently, the proposed civil penalty in the amount of $900,000 should be imposed on TSI.

UNITED STATES
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	EA 95-009
Thermal Science, Inc.	)	

SETTLEMENT AGREEMENT

WHEREAS, on October 1, 1995, the U.S. Nuclear Regulatory Commission ("NRC") issued a "Notice of Violation and Proposed Imposition of Civil Penalties -- $900,000" (EA 95-009) (the "NOV") to Thermal Science, Inc. ("TSI"); and

WHEREAS, on May 3, 1999, the NRC issued an "Order Imposing Civil Monetary Penalty" (the "Order") to TSI; and

WHEREAS, TSI has denied and continues to deny the factual and legal allegations set forth in the NOV and the Order; and

WHEREAS, there has been prolonged litigation of this case in both the United States District Court for the Eastern District of Missouri and the United States Court of Appeals for the Eighth Circuit; and

WHEREAS, TSI has now requested a hearing in the present enforcement case; and

WHEREAS, it is in the public interest and the parties' interest to resolve this enforcement action without the additional cost and burden of further litigation;

NOW THEREFORE, IT IS STIPULATED AND AGREED AS FOLLOWS:

1. This Settlement Agreement constitutes final disposition of all actual or potential disputes and differences between the parties pertaining to the NOV. In consideration for the terms of this agreement, the NRC will assert no further claims, demands, penalties or causes of action against TSI or any of TSI's present and former officers, directors, shareholders, employees or affiliates which arise out of or are in any way related to any of the matters which were or could have been addressed by the NRC in the NOV; and TSI will not pursue any further administrative hearings on, or judicial review of, this matter.

2. TSI reaffirms that it did not intend to mislead the NRC in any of its communications and expresses its full agreement with the NRC that it is essential for those dealing with the NRC to provide the agency with accurate information.

3. The Order is hereby withdrawn, and any and all ongoing litigation between the parties is finally and conclusively terminated by agreement of the parties.

4. A. TSI agrees to make three payments, totaling $300,000.00. Such payments shall be made by check, draft, money order, or electronic transfer, payable to the Treasurer of the United States and shall be mailed to R. W. Borchardt, Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738. TSI will make these payments in three equal installments as follows:

1. $100,000.00 concurrent with the full execution of this Agreement;
2. $100,000 one year after the date of execution this Agreement; and
3. $100,000 two years after the date of execution this Agreement.

B. TSI further agrees that if it fails to make timely payment of any of the above-specified amounts, the total amount then remaining unpaid shall become immediately due and payable ten (10) days after TSI has received written notice that the Director, Office of Enforcement has not received any of the required payments on or before the dates specified for payment unless TSI has by that time made all payments then due. Notice to TSI shall be given to Rubin Feldman, Thermal Science, Inc., at 2200 Cassens Drive, Fenton, MO 63026, and a copy to Gordon Ankney at Thompson Coburn LLP, One Mercantile Center, St. Louis, MO 63101.

5. The parties continue to maintain their respective positions in regard to the NOV and the Order. The parties agree that there remain differences of opinion on many of the issues raised by the NOV, the resolution of which involve factual and legal issues upon which the parties continue to disagree. Accordingly, the parties understand and acknowledge that this Settlement is the result of compromise and shall not for any purpose be construed as an admission of any regulatory violation by TSI or as a concession by the NRC that no such violations occurred. Instead, this Settlement Agreement has been entered into in order to terminate all litigation between the parties without attempting to resolve the alleged violations disputed by TSI. Each party shall bear its own fees and costs.

THERMAL SCIENCE, INC.

By_____
Rubin Feldman
President

UNITED STATES NUCLEAR REGULATORY COMMISSION

By_____ 12/8/99
William Travers
Executive Director for Operations

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

August 3, 1999

EA 98-338

Mr. Kenneth W. Robuck
Williams Power Corporation
2076 West Park Place
Stone Mountain, Georgia 30087

SUBJECT: NOTICE OF VIOLATION
(Office of Investigations Report No. 1-1998-005)

Dear Mr. Robuck:

This refers to the subject investigation conducted by the NRC Office of Investigations (OI) at North Atlantic Energy Service Corporation's (NAESCo) Seabrook Station. Based on the findings of the investigation, apparent violations were identified involving: (1) discrimination by Williams Power Corporation (WPC), a contractor of NAESCO, against an electrician for raising safety issues regarding electrical wiring in the control panel for the control building air conditioning (CBA) system; (2) creation of an inaccurate record by WPC regarding work completed on the CBA system; and (3) the failure to promptly correct the incorrectly terminated cables of the CBA system. The synopsis of the subject OI report was forwarded to WPC with our letter, dated March 16, 1999. Our subsequent letter, dated April 19, 1999, provided a summary of the facts that led the NRC to conclude that violations may have occurred. On June 2, 1999, a predecisional enforcement conference (conference) was held with you, members of your staff, and representatives of NAESCo to discuss the apparent violations, their causes, and your corrective actions.

After review of the information developed during the investigation, the information provided during the conference, and other information provided subsequent to the conference, including the additional information provided in a letter submitted by your attorney on your behalf dated June 15, 1999, the NRC has concluded that a violation of 10 CFR 50.7 occurred. The violation involved discrimination, by the WPC foreman, against a WPC electrician who raised a concern regarding a wiring discrepancy in the control panel of the CBA system. Specifically, the WPC electrician identified that two electrical conductors in the CBA control panel were terminated in a configuration opposite that shown in the applicable design documents. The electrician first raised this concern to his foreman, and later brought the discrepancy to the attention of a NAESCo quality control (QC) inspector on January 7, 1998. Subsequently, on January 16, 1998, the WPC foreman selected this specific electrician for a layoff.

At the conference, you contended that the electrician's raising of the safety concern was not a factor in his selection for layoff, noting that there were legitimate reasons for this action. While legitimate reasons supporting the layoff may exist, the NRC has concluded, based on the evidence developed during the OI investigation and the information provided at the

enforcement conference, that the layoff was motivated, at least in part, by the individual's engagement in protected activity. Specifically, the NRC has concluded that the foreman selected the electrician for the layoff at least in part in retaliation for the manner in which he raised the wiring discrepancy; i.e. by bringing it to the attention of the QC Inspector. As such, the NRC has concluded that the electrician was discriminated against for raising a safety concern which constitutes a violation of 10 CFR Part 50.7.

The NRC recognizes that you reinstated the electrician at NAESCo's recommendation after a NAESCo investigation recognized the potential chilling effect that could result from the layoff. Nonetheless, the actions of the WPC foreman resulted in a significant violation of the employee protection standards set forth in 10 CFR 50.7. Given that the violation was caused by an individual who was acting as a first line supervisor, the violation, which is set forth in the enclosed Notice of Violation (Notice), is categorized at Severity Level III in accordance with the NRC Enforcement Policy, "General Statement of Policy and Procedures for NRC Enforcement Actions," NUREG-1600 (Enforcement Policy).

The NRC acknowledges the actions taken by WPC to address the environment for raising safety concerns at the Seabrook Station. These actions, which were described at the conference, included, but were not limited to: (1) reinstating the electrician; (2) informing your supervisory and craft employees about the event; (3) improving the quality of documentation supporting personnel actions; and (4) reinforcing your commitment to a safety conscious work environment (SCWE) to your entire workforce at the Seabrook station. However, to emphasize the importance of continuously assuring a work environment that is free of harassment, intimidation, or discrimination against those who raise safety concerns, I have been authorized, after consultation with the Director, Office of Enforcement, to issue the enclosed Notice of Violation to Williams Power Corporation for the Severity Level III violation described above.

Based on the information provided at the conference and on further evaluation of the results of the OI investigation, the NRC has concluded that no violations of 10 CFR 50.9, "Completeness and Accuracy of Information," or 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," occurred. Specifically, the NRC concluded that, because the wiring discrepancy was identified in the work document, the documentation of the CBA control panel work activities was accurate. Additionally, because the wiring discrepancy was corrected before the CBA system was returned to service, the NRC concluded that the corrective actions for the discrepant condition were not untimely. However, the failure to terminate the conductors in accordance with the applicable design document and the failure to generate an Adverse Condition Report (ACR) for the wiring discrepancy by the end of the day on which it was discovered, constituted violations of requirements contained in Seabrook site procedures. These violations were of minor significance and are not subject to formal enforcement action.

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. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, and your response will be placed in the NRC Public Document Room (PDR). To the extent possible, your response should not include any personal privacy or proprietary information so that it can be placed in the PDR without redaction.

Sincerely,

Hubert J. Miller
Regional Administrator

Enclosures:
1. Notice of Violation
2. Letter and Notice of Violation and Proposed Imposition of Civil Penalty to North Atlantic Energy Services Company

cc w/encl:
Mr. T. C. Feigenbaum, Executive Vice President and Chief Nuclear Officer, NAESCo

ENCLOSURE

NOTICE OF VIOLATION

Williams Power Corporation EA 98-338

During an NRC investigation conducted by the NRC Office of Investigations (OI) between January 29, 1998, and May 27, 1998, at the Seabrook Station, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violation is set forth below:

> 10 CFR 50.7 prohibits, in part, discrimination by a Commission licensee or a contractor of a Commission licensee against an employee for engaging in certain protected activities. Discrimination includes discharge or other actions relating to the compensation, terms, conditions, and privileges of employment. The activities which are protected include, but are not limited to, reporting of safety concerns by an employee to his employer.
>
> Contrary to the above, on January 16, 1998, Williams Power Corporation (WPC), a contractor for North Atlantic Energy Services Company, a Commission licensee, discriminated against a WPC electrician due to the employee's involvement in protected activity. Specifically, the electrician was selected for a layoff on January 16, 1998, due, at least in part, to the fact that he had raised a concern to a licensee Quality Control inspector on January 7, 1998, regarding a wiring discrepancy in the control panel of the control building air-conditioning (CBA) system, a safety-related system.
>
> This violation is classified at Severity Level III (Supplement VII).

Pursuant to the provisions of 10 CFR 2.201, Williams Power Corporation, a contractor to a Commission licensee, is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, Region I, 475 Allendale Road, King of Prussia, PA 19406, and a copy to the NRC Resident Inspector at the facility that is the subject of this Notice, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level, (2) the corrective steps that have been taken and the results achieved, and (3) the corrective steps that will be taken to avoid further violations. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Because your response will be placed in the NRC Public Document Room (PDR), to the extent possible, it should not include any personal privacy or proprietary information so that it can be placed in the PDR without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.790(b) to support a request for withholding confidential commercial or financial information).

Dated this 3rd day of August 1999

NRC FORM 335
(2-89)
NRCM 1102,
3201, 3202

U.S. NUCLEAR REGULATORY COMMISSION

BIBLIOGRAPHIC DATA SHEET

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Washington, DC 20555-0001

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Same as above

10. SUPPLEMENTARY NOTES

11. ABSTRACT *(200 words or less)*

This compilation summarizes significant enforcement actions that have been reso lved during the period (July - December 1999) and includes copies of letters, Notices of Violation and Orders sent by t he Nuclear Regulatory Commission to reactor licensees with respect to these enforcement actions. It is anticipated that th e information in this publication will be widely disseminated to managers and employees engaged in activities licensed by the NR C, so that actions can be taken to improve safety by avoiding future violations similar to those described in this publication.

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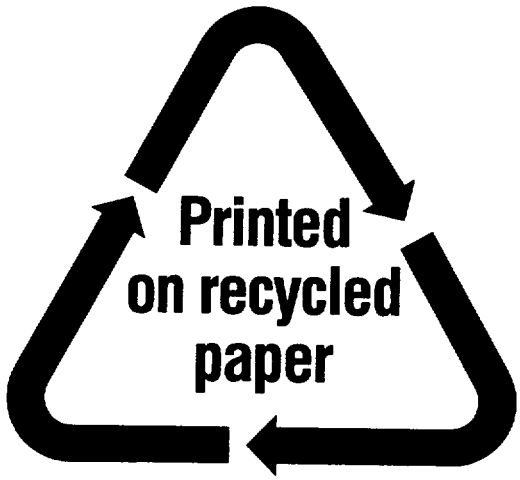

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