NUREG–0940
Vol. 9, No. 3

Enforcement Actions: Significant Actions Resolved

Quarterly Progress Report
July–September 1990

U.S. Nuclear Regulatory Commission

Office of Enforcement

NUREG-0940
Vol. 9, No. 3

Enforcement Actions: Significant Actions Resolved

Quarterly Progress Report
July–September 1990

U.S. Nuclear Regulatory Commission

Office of Enforcement

Available from

Superintendent of Documents
U.S. Government Printing Office
Post Office Box 37082
Washington, D.C. 20013-7082

A year's subscription consists of 4 issues for this publication.

Single copies of this publication are available from National Technical Information Service, Springfield, VA 22161

NUREG–0940
Vol. 9, No. 3

Enforcement Actions: Significant Actions Resolved

Quarterly Progress Report
July–September 1990

Manuscript Completed: November 1990
Date Published: November 1990

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

ABSTRACT

This compilation summarizes significant enforcement actions that have been resolved during one quarterly period (July - September 1990) and includes copies of letters, Notices, and Orders sent by the Nuclear Regulatory Commission to 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.

CONTENTS

REACTOR LICENSEES (Continued) Page

CONTENTS (Continued)

ENFORCEMENT ACTIONS: SIGNIFICANT ACTIONS RESOLVED

July - September 1990

INTRODUCTION

This issue of NUREG-0940 is being published to inform NRC licensees about significant enforcement actions and their resolution for the third quarter of 1990. Enforcement actions are issued by the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support (DEDS), the Deputy Executive Director for Nuclear Reactor Regulation, Regional Operation and Research, and the Regional Administrator (DEDR). The Director, Office of Enforcement, may act for the DEDS in the absence of the DEDS or DEDR or as directed. The actions involved in this NUREG involve NRC's civil penalties as well as significant Notices of Violation.

An objective of the NRC Enforcement Program is to encourage licensees to improve their performance and, by example, the performance of the licensed industry. Therefore, it is anticipated that the information in this publication will be widely disseminated to managers and employees engaged in activities licensed by NRC, so all can learn from the errors of others, thus improving performance in the nuclear industry and promoting the public health and safety as well as the common defense and security.

A brief summary of each significant enforcement action that has been resolved in the third quarter of 1990 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 according to guidance furnished in the U.S. Nuclear Regulatory Commission's "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988). Violations are categorized in terms of five levels of severity to show their relative importance within each of the following activity areas:

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

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

SUMMARIES

I. REACTOR LICENSEES

A. Civil Penalties and Orders

Commonwealth Edison Company - Operator, Downers Grove, Illinois
(Quad Cities Nuclear Power Station) Supplement I, EA 90-031

An Order Suspending License and Order to Show Cause why License Should not be Revoked was issued February 23, 1990. The action involved the refueling crew performing an unauthorized fuel manipulation to correct a fuel load error. The licensee responded and requested a hearing on April 13, 1990. A Settlement Agreement was approved on August 1, 1990.

Commonwealth Edison Company, Chicago, Illinois
(Quad Cities Nuclear Power Station) Supplement I, EA 90-032

An Order Modifying License was issued February 23, 1990 based on the refueling crew being directed by their supervisor to perform an unauthorized fuel manipulation to correct a fuel load error. A letter terminating the action was issued August 20, 1990.

Duke Power Company, Charlotte, North Carolina
(Catawba, McQuire, and Oconee) Supplement III, EA 89-151

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $50,000 was issued December 21, 1989 to emphasize the need for increased attention to the implementation of the security program at the Duke Power nuclear plants. The action was based on numerous violations at all three plants which were identified by the licensee. They related to access control, compensatory measures, failure to protect Safeguards Information, personnel and package search, and training. The licensee responded on January 31, 1990 and after considering the response, an Order Imposing a Civil Monetary Penalty was issued July 2, 1990. The licensee paid the civil penalty on August 1, 1990.

Duke Power Company, Charlotte, North Carolina
(Oconee Nuclear Station) Supplement I, EA 90-119

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $25,000 was issued August 16, 1990 to emphasize the importance of taking prompt corrective action. The action was based on the licensee's failure to take prompt corrective action regarding a design error in the penetration room ventilation system. The base civil penalty was mitigated by 50% for the licensee's prompt and extensive corrective action once it fully recognized the problem. The licensee responded and paid the civil penalty on September 13, 1990.

Georgia Power Company, Birmingham, Alabama
(Vogtle Electric Generating Plant) Supplement III, EA 90-090

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $50,000 was issued June 27, 1990 based on the failure of the licensee to ensure the the proper protection and control of safeguards material. A storage cabinet supposedly secured was found open 16 hours later. The violation took on added significance due to the volume and content of the material that was stored in the cabinet. The licensee responded and paid the civil penalty on July 27, 1990.

GPU Nuclear Corporation, Parsippany, New Jersey
(Three Mile Island, Unit 2) Supplement I, EA 90-018

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $50,000 was issued on July 30, 1990 to emphasize the importance that NRC places on prompt actions by site managers. The action was based on the licensee's failure to take appropriate action to resolve inattentiveness allegations concerning a shift supervisor. The licensee responded and paid the civil penalty on August 24, 1990.

Illinois Power Company, Clinton, Illinois
(Clinton Power Station) Supplement I, EA 90-100

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $25,000 was issued on July 25, 1990 to emphasize the importance of adherence to procedures, effective communication between operating crew members, turnover of information between operating crews, and management oversight and direction of operating crews. The action was based on technical specification violations whereby licensed operators performed multiple control rod withdrawals during startup without the main turbine bypass valves closed, as required. The base civil penalty was mitigated by 50% for the extensive corrective actions undertaken after senior management became aware of the event. The licensee responded and paid the civil penalty on August 23, 1990.

Northeast Nuclear Energy Company, Hartford, Connecticut
(Millstone Nuclear Power Station) Supplement I, EA 90-084

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $25,000 was issued July 16, 1990 to emphasize the importance of effective and long lasting corrective action to resolve safety significant deficiencies. The action was based on the licensee's failure to meet a technical specification limiting condition for operations involving the main steam line high flow set point as well as the failure to perform an adequate monthly surveillance test of the gas turbine generator. The base penalty was mitigated by 50% due to the licensee's good past performance. The licensee responded and paid the civil penalty on August 15, 1990.

Northeast Nuclear Energy Company, Hartford, Connecticut
(Millstone Nuclear Power Station) Supplement I, EA 90-111

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $50,000 was issued July 23, 1990 to emphasize the need for increased and improved management oversight of activities involving the handling and transportation of radioactive materials to prevent recurrence of such violations in the future. The action was based on the shipment of a package containing irradiated waste from Millstone to Barnwell, South Carolina with free standing liquid in the package in excess of the regulatory limit. The licensee responded and paid the civil penalty on August 22, 1990.

Philadelphia Electric Company, Wayne, Pennsylvania
(Peach Bottom Atomic Power Station) Supplement I, EA 90-105

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $75,000 was issued July 16, 1990 to emphasize the need to improve performance in the areas of proper coordination and communications. The action was based on violations identified with the design and operation of the emergency service water system. The base penalty was escalated 50% based on NRC identification of the violations and prior notice of one of the violations. The licensee responded and paid the civil penalty on August 15, 1990.

Tennessee Valley Authority, Chattanooga, Tennessee
(Sequoyah, Units 1 and 2) Supplement I, EA 90-011

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $75,000 was issued April 12, 1990 to emphasize the need to ensure that potential conditions adverse to quality are adequately evaluated and prompt, effective corrective action taken. The action was based on the failure to adequately evaluate and correct a design deficiency at Sequoyah relating to the susceptibility of RHR pump deadheading during miniflow conditions. The base penalty was escalated 50% because the NRC identified the violations. The licensee responded on May 9, 1990. After considering the licensee's response, an Order Imposing a Civil Penalty was issued July 20, 1990. The licensee paid the civil penalty on August 29, 1990

B. Severity Level III Violation, No Civil Penalty

Commonwealth Edison Company, Chicago, Illinois
(LaSalle Nuclear Power Station) Supplement I, EA 87-089

A Notice of Violation was issued August 23, 1990 based on the falsification of a signature on the valve lineup checklist. A civil penalty was not proposed because the licensee promptly identified the violation and subsequently took prompt and extensive corrective action, including suspending the individual for two weeks without pay. The NRC also considered the apparent good behavior of the individual since the time the violation occurred.

Commonwealth Edison Company, Chicago, Illinois
(Braidwood Nuclear Generating Station) Supplement VII, EA 88-294

A Notice of Violation was issued September 14, 1990 based on the removal of a concrete technologist from the Braidwood site for raising safety concerns. A civil penalty was not proposed in view of the time that has passed since this violation occurred. Also, no other enforcement action for discriminatory practices have been taken against the licensee since this violation occurred.

Commonwealth Edison Company, Chicago, Illinois
(Zion Nuclear Generating Station) Supplement I, EA 90-092

A Notice of Violation was issued September 21, 1990 based on a violation involving a radwaste foreman signing a checklist indicating that he had performed two verifications required by technical specifications governing the radwaste release, when in fact, he had not performed either of the required verifications. A civil penalty was not proposed because the licensee promptly identified the violation and reported it to the NRC. The licensee also suspended the foreman for three days without pay and instituted a requirement for dual verification of valve positions.

Duke Power Company, Charlotte, North Carolina
(McGuire Nuclear Station) Supplement I, EA 90-125

A Notice of Violation was issued August 16, 1990 based on the inoperability of both Unit 1 emergency diesel generators for approximately 26 hours on June 25-26, 1990, due to painting of the diesel generator fuel racks which was discovered and reported by the licensee. A civil penalty was not proposed because the licensee reported the self-disclosing event, initiated extensive corrective action, and the licensee's past performance of maintenance had been good.

GPU Nuclear Corporation - Operator, Parsippany, New Jersey
(Three Mile Island, Unit 2) Supplement I, EA 90-064

A Notice of Violation was issued July 30, 1990 based on an investigation that indicated that the senior reactor operator had been asleep or otherwise inattentive to duties. A civil penalty was not proposed because GPU Nuclear determined that the operator no longer needed to maintain a license and after the licensee's investigation of the event, terminated the operator's employment.

Portland General Electric Company, Portland, Oregon
(Trojan Nuclear Power Plant) Supplement III, EA 90-143

A Notice of Violation was issued September 21, 1990 based on a violation involving the failure of the licensee's security measures to detect and prevent an individual carrying a loaded firearm in a briefcase through the security building and into the plant's protected area. A civil penalty was not proposed because the licensee identified and reported the violation and initiated a comprehensive program of corrective actions to preclude recurrence of the violation.

Rochester Gas and Electric Company, Rochester, New Yor
(Robert E. Ginna Nuclear Power Plant) Supplement IV, EA 90-146

A Notice of Violation was issued September 24, 1990 based on a violation involving shipment of a cask to a burial facility in South Carolina which contained loose resins located outside the disposal container within the cask. A civil penalty was not proposed because the licensee had already been the subject of an enforcement action by the State of South Carolina.

Toledo Edison Company, Toledo, Ohio
(Davis-Besse Nuclear Power Station) Supplements I and IV, EA 90-109

A Notice of Violation was issued September 26, 1990 based on a violation involving the failure of the licensee to adequately provide oversight and control of operational activities during the time that the unit was shut down for a refueling outage. A civil penalty was not proposed because of the licensee's self-identification, prompt reporting, and prompt and extensive corrective action.

C. Non-licensed Vendor (Part 21)

Planned Maintenance Systems, Mount Vernon, Illinois
Supplement VII, EA 90-062

A Notice of Violation was issued September 13, 1990 for the licensee's multiple failures to comply with contractually required IEEE-323 requirements for safety-related equipment that it supplied to nuclear plant facilities. Further, PMS did not inform its customers of these deviations as a responsible officer of PMS willfully modified documents and fraudulently misrepresented equipment as safety-related to nuclear power plants.

Sulzer Bingham Pumps, Inc., Portland, Oregon
Supplement VII, EA 90-122

A Notice of Violation was issued July 11, 1990 involving the failure to perform the required evaluations of potentially reportable deviations or to inform purchasers so they could cause an evaluation to be performed pursuant to the provisions of 10 CFR Part 21. A civil penalty was not proposed because pursuant to 10 CFR 21.61 the failure to notify did not appear to be the result of a knowing and conscious failure.

II. MATERIALS LICENSEES

American Radiolabeled Chemicals, St. Louis, Missouri
EAs 89-257 and 90-110

An Order Suspending Licenses was issued January 11, 1990. The action was based on inspection findings that included but were not limited to the licensee deliberately shipping to Switzerland, on at least six occasions during 1989, packages containing carbon-14 tagged potassium cyanide, bromoacetic acid or methyl bromide which was improperly labeled

on shipping papers in violation of 10 CFR 71.5. The Order suspended the license until final resolution of the licensee's application for renewal. The licensee made six separate submittals requesting modification of the Order. After each review of the licensee's modified operating procedures, and changes in the radiation safety program and corporate organizational structure, the NRC modified the Order to allow a return to limited operation. The Order Suspending Licenses and all other Order modifications were rescinded on September 13, 1990, when a two year probationary license was issued.

Barnett Industrial X-Ray, Stillwater, Oklahoma
EA 90-069

An Order Modifying License was issued April 12, 1990 based on an incident which occurred during the conduct of industrial radiography and which resulted in significant radiation exposure to an assistant radiographer employed by the licensee.

M. Berkowitz and Company, Inc., dba HTP, Sharon, Pennsylvania
Supplements IV and VI, EA 90-115

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $500 was issued July 19, 1990 to emphasize NRC concerns regarding lack of adequate control of licensed material, failure to designate a radiation safety officer, and lack of proper inventories of radioactive sources. The action was based on a number of violations that collectively demonstrate a lack of adequate control of licensed material. The licensee responded and paid the civil penalty on August 24, 1990.

Cleveland Clinic Foundation, Cleveland, Ohio
Supplement VI, EA 90-074

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $6,875 was issued June 21, 1990 to emphasize the importance of the failure to promptly report the teletherapy misadministration which occurred on February 8, 1990, the need to ensure accountability, effective communications, and management control over the licensee's radiation safety program. The action was based on a violation involving the failure to report a therapy misadministration within the required time period. The civil penalty was escalated 175% because of the licensee's poor past performance, the corrective actions were neither prompt nor comprehensive, and the NRC identified the violation. The licensee responded and paid the civil penalty on July 19, 1990.

Consolidated NDE, Inc., Woodbridge, New Jersey
Supplements IV and VI, EAs 90-060 and 90-80

An Order Suspending Operations and Modifying License and a Notice of Violation and Proposed Imposition of Civil Penalty were issued May 2, 1990. The order requires the licensee to prohibit any individual from using radiography sources until the individual has been retrained and

submits a signed statement to the licensee that he or she understands and commits to implement NRC and licensee requirements, requires the use of rope barriers to establish restricted areas, and requires an independent consultant to assess the licensee's radiation protection program. The Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $10,000 was issued to emphasize the unacceptability of violations that individually or collectively cause a substantial potential for exposure in excess of 10 CFR Part 20 limits and the importance of management providing sufficient oversight of radiographic activities to ensure that they are performed safely and in accordance with NRC requirements. The action was based on the failure to: (1) maintain direct surveillance of a high radiation area, (2) adequately post radiation area and high radiation area signs, (3) adequately perform required surveys of radiographic exposure devices after completing radiographic exposures, (4) lock the source in the shielded position upon completion of radiographic surveys, (5) properly establish a restricted area boundary, and (6) utilize required dosimetry/badges. The base penalty was escalated 100% based on prior notice. The licensee responded July 9, 1990, and after consideration of the licensee's response, an Order Imposing Civil Penalty was issued September 5, 1990. The licensee paid the civil penalty on September 12, 1990.

Davis Memorial Hospital, Elkins, West Virginia
Supplements IV and VI, EA 90-101

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $10,000 was issued July 24, 1990 to emphasize the importance of maintaining management oversight and control of licensed activities. The action was based on violations involving: failure to conduct Radiation Safety Committee meetings five separate calendar quarters, perform annual reviews of the entire radiation safety program, train individuals frequenting restricted areas, assay iodine-131 doses prior to administering to patients, properly determine molybdenum-99 breakthrough contamination, decontaminate, and limit radiation levels in unrestricted areas. The base civil penalty was escalated 150%. The licensee responded and paid the civil penalty on August 10, 1990.

Georgetown University, Washington, D.C.
Supplements V and VI, EA 90-103

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $625 was issued July 18, 1990 to emphasize the importance of coordination and control of licensed material. The action was based on the transfer of a 2.1 curie source without proper authorization by the Radiation Control Officer and without proper controls being established. The base civil penalty was mitigated by 25% for identification and 50% for comprehensive corrective action. The licensee responded and paid the civil penalty on July 27, 1990.

Industrial NDT Company, Inc., North Charleston, South Carolina
Supplement VI, EA 90-058

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $6,250 was issued June 8, 1990 to emphasize the need for diligent management oversight of radiographic operations. The action was based on violations involving the failure to secure a radiography source in its shielded positions within the exposure device and the failure to survey the entire circumference of the exposure device including the source guide tube. The base civil penalty was escalated by 25% because of prior notice for similar events. The licensee responded and paid the civil penalty on July 2, 1990.

Thomas Jefferson University, Philadelphia, Pennsylvania
Supplements IV and VI, EA 90-013

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $3,125 was issued March 13, 1990 to emphasize the importance of appropriate control and oversight to prevent the improper disposal of radioactive material, and aggressive management oversight of the radiation safety program to ensure that all aspects of the program are carried out in conformance with regulatory requirements and license conditions. The action was based on an incident in which a 53 millicurie cesium-137 brachytherapy source could not be accounted for and was presumed to have been disposed of in the normal trash and taken to a landfill. The base civil penalty was escalated by 25% for poor prior performance. The licensee responded in letters received on April 13, 1990. After consideration of the licensee's responses, an Order Imposing a Civil Monetary Penalty was issued July 9, 1990. The licensee paid the civil penalty on August 1, 1990.

Petro Data, Inc., Hominy, Oklahoma
EA 90-131

An Order Modifying License (Effective Immediately) was issued August 03, 1990. The action was based on the findings of a recent NRC investigation into the activities of two employees. It was determined that both individuals performed activities involving licensed material without a valid license, and that both individuals provided false information to the NRC investigator. In addition, one of the individuals provided false information to the NRC concerning the placement of licensed material in safe storage.

Potomac Valley Hospital, Keyser, West Virginia
Supplements VI and VII, EAs 90-67 and 90-127

A Demand for Information was issued July 2, 1990 and a Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $6,250 was issued August 20, 1990 to emphasize the importance of aggressive management involvement in the licensee's licensed program to ensure that NRC requirements are met and that required records are accurate and complete. The action was based on violations

involving failure to hold Radiation Safety Committee meetings and fabrication of NRC-required records to make it appear that the meetings had been held. The base civil penalty was escalated by 25% because NRC identified the violation and because there were multiple examples. The licensee responded and paid the civil penalty on September 13, 1990.

St. Louis Testing, St. Louis, Missouri
Supplements IV and VI, EA 90-009

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $5,000 was issued March 6, 1990 to emphasize the significance of the cited violations and the need for continued and effective management control over activities authorized by the license. The action was based on exposure to a radiographer in excess of 3 rems for a calendar quarter and five other related violations. The licensee responded in letters dated April 4 and 25, 1990. After consideration of the licensee's response, an Order Imposing Civil Monetary Penalty in the amount of $5,000 was issued June 20, 1990. The licensee paid the civil penalty on July 13, 1990.

Somat Engineering, Inc., Taylor, Michigan
Supplement IV, EA 90-123

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $125 was issued August 16, 1990 to emphasize the importance of maintaining proper control of licensed material at all times and the unacceptability of willful violations of any nature. The action was based on the willful failure to maintain constant control over a moisture density gauge. The licensee responded and paid the civil penalty on August 27, 1990.

Testmaster Inspection Company, Inc., Perrysburgh, Ohio
Supplement VI, EA 90-001

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $3,750 was issued February 13, 1990, to emphasize the need for compliance with radiological safety procedures and for more effective management attention to activities authorized by the license. The action was based on the licensee's failures: to make a survey after each radiographic exposure, to retract a source into the exposure device at the end of an exposure, and to immediately contact the RSO after it was determined the dosimeters worn by the radiographer and the assistant were off-scale and the source in the exposed position. The base civil penalty was mitigated by 25% because the licensee identified and reported the violation. The licensee responded on March 7, 1990 requesting mitigation of the civil penalty. After consideration of the licensee's response, an Order Imposing Civil Monetary Penalty in the amount of $3,750 was issued June 20, 1990. The licensee paid the civil penalty on July 20, 1990.

U.S. Department of Agriculture, Washington, D.C.
Supplements IV and VI, EA 90-120

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $5,000 was issued August 16, 1990 to emphasize the need for licensee management to aggressively monitor and evaluate licensed activities, assure that activities are conducted safely and in accordance with the terms of the license, and assure that corrective actions are long lasting. The action was based on numerous violations that, viewed collectively, demonstrate lack of management oversight. Significant among the violations was the failure to ensure that facilities under the broad license were inspected internally by the radiation safety staff at required frequencies. This was a repeat violation. The licensee responded and paid the civil penalty on September 10, 1990.

B. Severity Level III Violation, No Civil Penalty

Advanced Medical Systems, Inc., Cleveland, Ohio
Supplement VI, EA 90-051

A Notice of Violation was issued July 26, 1990 following an inspection that identified a number of violations: (1) the emergency electrical generator for the licensee's air handling and radiological monitoring equipment was inoperable, (2) bioassays of workers were not performed as required, (3) high radiation area access controls were not adequate, (4) an alarming dosimeter used during a hot cell entry had not been calibrated within 6 months prior to its use, (5) physical inventories of sealed sources and devices had not been conducted, (6) the evaluation of exposure to an individual in excess of 40 MPC hours had not been documented, (7) an external semiannual audit of facilities and procedures was not conducted as required, (8) the master alarm panel did not properly indicate opening of the basement door, nor was there any warning light over the basement door as required, and (9) the roof area was not conspicuously posted as a radiation area. A civil penalty was not proposed because of the positive steps the licensee has taken to improve its facility over the past few years, especially with regard to decontamination of the facility and ongoing improvements to the hot cell ventilation system, and the positive safety attitude expressed by the licensee's RSO.

Tri-State Associates, Inc., Woodbridge, Virginia
Supplement IV, EA 90-113

A Notice of Violation was issued July 23, 1990 involving the licensee's failure to perform a survey to evaluate radiation hazards incident to radiographic operations. The failure to perform the survey resulted from a serious lapse of attentiveness to operational activity by a licensee radiographer and led to a situation where there was substantial potential for exposure in excess of limits established in 10 CFR Part 20. A civil penalty was not proposed because of the licensee reporting the event to the NRC, its corrective actions, and prior performance.

University of Cincinnati, Cincinnati, Ohio
Supplement VI, EA 90-040

A Notice of Violation was issued July 2, 1990 for numerous violations involving a serious breakdown in the management of the licensee's radiation safety program. The majority of the violations related to the failure to either perform or document the results of various required surveys and inventories. A civil penalty was not proposed in order to encourage and support the initiative and effectiveness of senior managers of the University of Cincinnati in fully identifying and correcting the problems in the radiation safety program.

I.A. REACTOR LICENSEES, CIVIL PENALTIES AND ORDERS

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

FEB 23 1990

Docket No. 55-5043
License No. SOP-2365-8
EA 90-031

HOME ADDRESS DELETED
UNDER 10 CFR 2.790

Subject: ORDER SUSPENDING LICENSE (EFFECTIVE IMMEDIATELY) AND ORDER TO SHOW CAUSE WHY LICENSE SHOULD NOT BE REVOKED

Dear

The enclosed Order is being issued as a consequence of events occurring during refueling operations at the Quad Cities Nuclear Power Station, Unit 1, on October 17, 1989. The Order immediately suspends your Senior Operator License Limited to Fuel Handling (License) and requires you to show cause why your License should not be revoked. This action is being taken because of your willful violation of Commission requirements. We recognize the limited safety significance of the actual fuel move. However, improper movement of fuel could result in an inadvertent criticality and is unacceptable.

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

Hugh L. Thompson, Jr.
Deputy Executive Director for
Nuclear Materials Safety, Safeguards,
and Operations Support

Enclosure: As Stated

cc w/encls:
Commonwealth Edison Company
Public Document Room

UNITED STATES
NUCLEAR REGULATORY COMMISSION

In the Matter of

)	License No. SOP-2365-8
)	Docket No. 55-5043
)	EA 90-031

ORDER SUSPENDING LICENSE (EFFECTIVE IMMEDIATELY) AND
ORDER TO SHOW CAUSE WHY LICENSE SHOULD NOT BE REVOKED

I

Mr. R. L. Dickherber (Licensee) is the holder of Senior Operator License Limited to Fuel Handling No. 2365-8 (License) issued by the Nuclear Regulatory Commission (NRC/ Commission) on March 12, 1975. He is employed by the Commonwealth Edison Company and is authorized to manipulate the controls limited to fuel handling of the reactors at Quad Cities Nuclear Power Station, Units 1 and 2 (Quad Cities or facility). The License was last renewed on March 12, 1989 and is due to expire on March 12, 1995.

II

The NRC licenses individuals pursuant to 10 CFR Part 55, Operator's License, to direct fuel handling activities. The operator license requires the individual to observe the operating procedures and other conditions specified in the facility license. Technical Specification 6.2.A.2, a condition of the Quad Cities Nuclear Power Station Licenses, requires that refueling activities be accomplished in accordance with approved procedures. Facility procedures that implement this requirement include QFP 100-1, Master Refueling Procedure, and QTP 1103-1, Preparation of Nuclear Component Transfer List. QFP 100-1 details the administrative controls to be taken to assure that all core alterations will be performed in a safe and orderly manner. Steps C.2 and F.3 of QFP 100-1

require continuous communication between the control room and the refueling floor. Step D.5 requires that the control room be informed of any action that will affect the core reactivity. Section F specifies how QTP 1103-1 is to be used to implement core alterations. Step F.2 requires that steps on the Nuclear Component Transfer List (NCTL) must be performed in the exact order listed or the steps must be changed in accordance with QTP 1103-1. In turn, QTP 1103-1, Step E.1 and Step F.6 of QTP 1103-1, require that any deviation from or change to the NCTL must be authorized by the Nuclear Engineer on duty.

On October 17, 1989, refueling activities were being conducted at Quad Cities Nuclear Power Station, Unit 1, by Mr. Robert L. Dickherber, a Fuel Handling Foreman with a Senior Operator License Limited to Fuel Handling, issued pursuant to 10 CFR Part 55, and two non-licensed Fuel Handlers. An approved copy of the NCTL was being used at the job site and continuous communication with the control room was initially established. During the reactor refueling, a fuel assembly was erroneously placed in the wrong core location.

Through an ongoing NRC investigation (Investigation No. 3-89-015) of undocumented fuel moves that occurred on October 17,1989, the NRC has concluded that Mr. Robert L. Dickherber, directed the two Fuel Handlers of the refueling crew to perform an unauthorized fuel manipulation to correct a fuel load error. This was in violation of station refueling procedures QFP 100-1, Steps D.5 and F.2, and QTP 1103-1, Steps E.1 and F.6, in that the fuel manipulation was not specified in a NCTL, an approved deviation to the NCTL was not obtained prior to fuel movement, and the control room was not informed of the action that affected core reactivity.

The unauthorized fuel manipulation by Mr. Dickherber occurred immediately after he was reminded by a Fuel Handler of the need to comply with the requirements of facility procedures QFP 100-1 and QTP 1103-1. While the fuel manipulation that was unauthorized by procedures took place, Mr. Dickherber failed to assure that constant communication was maintained with the control room as required by QFP 100-1, Steps C.2 and F.3. As a result, the control room personnel were not notified, as required, of the fuel manipulation to assure that core monitoring required by QFP 100-1 took place. QFD 100-1 and QTP 1103-1 are procedures required by Technical Specification 6.2.A.2. They thus are NRC requirements Mr. Dickherber was required to adhere to by the terms of his Senior Operator License. Based on the above, it appears that on October 17, 1989, Mr. Robert L. Dickherber willfully violated NRC requirements during refueling activities.

III

The responsibilities associated with a Senior Operator License Limited to Fuel Handling issued pursuant to 10 CFR Part 55 are significant with respect to the protection of the public health and safety. Improper movement of fuel could have the potential for an inadvertent criticality. The execution of these responsibilities requires persons of high personal integrity, who shall observe all applicable rules and regulations of the Commission during the performance of licensed activities. A Senior Licensed Operator who willfully fails to comply with facility procedures and Technical Specifications during fuel handling operations demonstrates a lack of integrity that raises a substantial question as to whether such a licensee will in the future comply with Commission requirements.

IV

In this case, the Licensee's recognition that an error had occurred and his subsequent directions to disregard required procedures and his failure to assure that subordinates maintained required continuous communications with the control room resulted in significant violations of Technical Specifications and station safety procedures and demonstrated a disregard of the important obligations of a Senior Licensed Operator and of the public trust in him. In addition, because the Licensee declined to be interviewed, the NRC was deprived of the opportunity to consider the Licensee's views in this matter. Based on the overall information available, which in this case includes a written statement from the Licensee made after the event acknowledging that he was put on notice of the need to obtain revised NCILs before acting, the NRC does not have the necessary reasonable assurance that the Licensee will carry out his duties in the future in accordance with Commission regulations. Consequently, I have determined that the public health and safety requires that Mr. Dickherber's License should be suspended. Pursuant to 10 CFR 2.204, I find that the public health and safety requires, in view of the willfulness of the violation, that this Order must be effective immediately.

V

Accordingly, pursuant to Sections 107, 161b, 161i, 161o, 182, and 186 of the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR 2.202, 2.204, and 10 CFR Part 55, IT IS HEREBY ORDERED, EFFECTIVE IMMEDIATELY, THAT:

A. License No. SOP-2365-8 is hereby suspended and Mr. Robert L. Dickherber shall not undertake any activities authorized thereby.

B. The Licensee show cause why License No. SOP-2365-8 should not be revoked.

VI

Pursuant to 10 CFR 2.204, the Licensee, or any other person adversely affected by the provisions of this Order suspending the License, may request a hearing within 20 days of the date of issuance of this Order. Any request for hearing shall be submitted to the Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Chief, Docketing and Service Section. Copies also shall be sent to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, the Assistant General Counsel for Hearings and Enforcement, Office of the General Counsel, at the same address, and to the Regional Administrator, NRC Region III, 799 Roosevelt Road, Glen Ellyn, Illinois 60137. If a person other than the Licensee requests a hearing, that person shall set forth with particularity the manner in which the person's interest is adversely affected by this Order and should address the criteria set forth in 10 CFR 2.714(d). A REQUEST FOR HEARING SHALL NOT STAY THE IMMEDIATE EFFECTIVENESS OF THIS ORDER.

VII

Pursuant to 10 CFR 2.202(b), the Licensee may show cause why his License should not be revoked by filing a written answer under oath or affirmation within 20

days of the date of the issuance of this Order, setting forth the matters of fact and law on which the Licensee relies. Such answer should be submitted to the Director, Office of Enforcement, ATTN: Document Control Desk, Washington, DC, 20555, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region III, 799 Roosevelt Road, Glen Ellyn, Illinois 60137 and a copy to the Senior Resident Inspector at the Quad Cities Nuclear Power Station. The Licensee may answer this Order by consenting to his license revocation. Upon consent of the Licensee or upon the Licensee's failure to request a hearing, the License shall be revoked.

VIII

If a hearing is requested, the Commission will issue an Order designating the time and place of hearing. If a hearing is held, the issue to be considered at such a hearing shall be whether this Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION

Hugh L. Thompson, Jr.
Deputy Executive Director for
Nuclear Materials Safety, Safeguards,
and Operations Support

Dated at Rockville, Maryland
this 23rd day of February 1990

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	Docket No. 55-5043-SC
ROBERT L. DICKHERBER	)	License No. SOP-2365-8
(Order Suspending License; Order To Show Cause Why License Should Not Be Revoked EA 90-031)	)	ASLBP No. 90-610-01-SC
In the Matter of	)	Docket Nos. 50-254-OM 50-265-OM
COMMONWEALTH EDISON COMPANY (Quad Cities Nuclear Power Station) (Order Modifying License EA 90-032)	)	License Nos. DPR-29 DPR-30
	)	ASLBP No. 90-609-02-OM

SETTLEMENT AGREEMENT

1. Mr. Robert L. Dickherber is the holder of Senior Operator License Limited To Fuel Handling No. SOP-2365-8 issued by the Nuclear Regulatory Commission (NRC) pursuant to 10 C.F.R. Part 55 on March 12, 1975 which was renewed last on March 12, 1989, and is due to expire on March 12, 1995. Commonwealth Edison Co. is the holder of Operating License Nos. DPR-29 and DPR-30, for the Quad Cities Nuclear Power Station, Units 1 and 2, located in Rock Island County, Illinois, issued by the NRC pursuant to 10 C.F.R. Part 50 on October 1, 1971 and April 6, 1972, respectively.

2. On February 23, 1990, the NRC staff (Staff) issued an Order Suspending License and an Order to Show Cause Why License Should Not Be Revoked (Show Cause Order) to Mr. Dickherber, and an Order Modifying License to Commonwealth

Edison Co., which added the condition that Mr. Dickherber shall not participate in any 10 C.F.R. Part 50 licensed activity under License Nos. DPR-29 and DPR-30 without prior written approval of the Regional Administrator, Region III, (55 Fed. Reg. 7797-98, March 5, 1990). The enforcement orders resulted from an incident involving Mr. Dickherber that occurred during refueling operations at the Quad Cities Nuclear Power Station on October 17, 1989. The bases for issuance of the orders are set forth therein.

3. The Staff's Order Suspending License, Show Cause Order, and Order Modifying License provided an opportunity for Mr. Dickherber, Commonwealth Edison, or any other person adversely affected by the orders, to submit an answer within 20 days of the date of the orders. On March 15, 1990, Mr. Dickherber requested an extension of time from the Staff to file an answer to the orders until April 13, 1990. The Staff agreed to Mr. Dickherber's request and he subsequently timely filed an answer in response to the orders on April 13, 1990, and a supplemental answer on June 1, 1990. On March 15, 1990, Commonwealth Edison responded that it would comply with the Order Modifying License and requested an opportunity to respond to any answers or other documents that might be filed by others regarding the order.

4. On April 30, 1990, this Atomic Safety and Licensing Board (Board) was established to preside over the hearing requested by Mr. Dickherber in his answer to the Order Suspending License, Show Cause, and the Order Modifying License to Commonwealth Edison Co. By Memorandum and Order dated May 4, 1990, and Memorandum and Order dated July 2, 1990, the Board granted joint motions by the Staff and Mr. Dickherber to defer further action before the Board to allow the parties to explore resolution of this matter without resort to litigation. Commonwealth Edison had no objection to the deferrals.

5. The Staff and Mr. Dickherber agree to the following settlement provisions:

A. Mr. Dickherber admits the allegations of fact set forth in the Staff's Order Suspending License, Show Cause Order, and Order Modifying License and Mr. Dickherber withdraws his request for a hearing as to these orders.

B. The Staff has reviewed the information in Mr. Dickherber's April 13, 1990 Answer and his June 1, 1990 Supplemental Answer and in letters from Commonwealth Edison dated June 4, 1990, and July 11, 1990, regarding Mr. Dickherber's past performance and Commonwealth Edison's INDIVIDUAL PERFORMANCE MONITORING AND IMPROVEMENT PLAN (Remediation Program) for Mr. Dickherber. The Staff met with Mr. Dickherber at an enforcement conference on July 13, 1990. Based on these reviews and the conference, the Staff has concluded that the October 17, 1989 incident appears to have been an isolated event, that Mr. Dickherber has properly carried out the responsibilities of his license in the past, that he understands the gravity of his actions on October 17, 1989, that he is committed to avoid a repetition of such actions, and that he is willing to participate in Commonwealth Edison's Remediation Program. Accordingly, for these reasons, the Staff grants Mr. Dickherber's request that Senior Operator License Limited To Fuel Handling No. SOP-2365-8 not be revoked.

C. The Staff has reviewed Commonwealth Edison's evaluations of Mr. Dickherber in its June 4, 1990 and July 11, 1990 letters to the NRC Staff and Commonwealth Edison's Remediation Program for Mr. Dickherber

forwarded by Commonwealth's July 11, 1990 letter. The Staff concludes that successful completion of the Remediation Program by Mr. Dickherber should provide the requisite reasonable assurance for his resuming normal participation in 10 C.F.R. Part 50 licensed activities. The Remediation Program developed by Commonwealth Edison would require Mr. Dickherber's monitored participation in activities licensed under 10 C.F.R. Part 50. Mr. Dickherber agrees to participate in the Remediation Program. Accordingly, for this reason, the Regional Administrator, Region III will relax as necessary the condition in Operating License Nos. DPR-29 and DPR-30 prohibiting Mr. Robert L. Dickherber from participating in any licensed activities under those licenses provided Mr. Dickherber participates in the Remediation Program described in Commonwealth Edison Company's July 11, 1990 letter to the Regional Administrator, Region III. Commonwealth Edison agrees to notify the Regional Administrator, Region III promptly if Mr. Dickherber should cease his participation in the Remediation Program.

D. Upon successful completion of the aforesaid Remediation Program, as certified by Commonwealth Edison, but no sooner than March 17, 1991, and upon a determination by the NRC Staff that Mr. Dickherber has successfully completed the Remediation Program and therefore has demonstrated the ability to conform his actions to all applicable rules, regulations, and orders of the Commission, the Staff will withdraw its February 23, 1990 Order Suspending Senior Operator License Limited To Fuel Handling No. SOP-2365-8 and the Regional Administrator, Region III

will terminate the condition in Operating License Nos. DPR-29 and DPR-30 prohibiting Mr. Robert L. Dickherber from participating in any licensed activities under those licenses.

4. Commonwealth Edison agrees to aforesaid conditions C. and D. insofar as those conditions affect Commonwealth Edison Co. and its activities under Operating License Nos. DPR-29 and DPR-30.

5. The Staff and Mr. Dickherber agree to file a joint motion with the Atomic Safety and Licensing Board for an Order approving this Settlement Agreement and terminating this proceeding. Commonwealth Edison agrees not to oppose such a motion.

6. This Settlement Agreement shall become effective upon approval by the Board. In the event the Board does not approve this Settlement Agreement, it shall be null and void.

FOR THE NRC STAFF

Eugene Holler 7/30/90

Eugene Holler

FOR ROBERT L. DICKHERBER

Stuart R. Lefstein 8/7/90

Stuart R. Lefstein

FOR THE COMMONWEALTH EDISON CO.

Sheldon L. Trubatch 8/8/90

Sheldon L. Trubatch

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

FEB 23 1990

Docket Nos. 50-254 and 50-265
License Nos. DPR-29 and DPR-30
EA 90-32

Commonwealth Edison Company
ATTN: Mr. Cordell Reed
Senior Vice President
Post Office Box 767
Chicago, Illinois 60690

Subject: ORDER MODIFYING LICENSE (EFFECTIVE IMMEDIATELY)

Gentlemen:

The enclosed Order is being issued as a consequence of events occurring during refueling operations at the Quad Cities Nuclear Power Station, Unit 1, on October 17, 1989. The Order requires you to immediately remove Mr. Robert L. Dickherber from the performance of any activities licensed pursuant to 10 CFR Part 50. The Order also allows you to submit an answer explaining why your license should not have been modified as provided in the Order. An Order is also being issued to Mr. Dickherber suspending his Senior Operator License (Limited) issued pursuant to 10 CFR Part 55. This action is being taken because of the willful violation of Commission requirements. We recognize the limited safety significance of the actual fuel move. However, improper movement of fuel could result in an inadvertent criticality and is unacceptable.

We note that there were also two fuel handlers and a nuclear engineer involved in this event. While the nuclear engineer did not take immediate action when he first suspected that an unauthorized fuel movement occurred, he did alert his supervisor of his concern at shift change. The two fuel handlers participated in the violation only after one of them alerted Mr. Dickherber, their immediate supervisor, of the procedure requirements, but were nonetheless directed to proceed. Therefore, the NRC does not intend to take any action against these individuals.

The actions of all the individuals involved in this event raise a concern about the adequacy of your controls for refueling. Consequently, pursuant to 10 CFR 50.54(f), you are required to provide to the Regional Administrator, Region III, within 30 days of the date of this letter, a written submittal outlining those actions taken or planned to assure that the engineers, supervisors and operators involved with refueling activities at the Quad Cities Nuclear Power Station clearly understand their responsibilities and authorities in meeting NRC requirements. You should specifically address management expectations regarding the control room command function, communication between the refueling floor and the control room, procedural adherence, and how these expectations are disseminated to the work force. This information is being sought by the NRC to verify compliance with the provisions of your operating license and must be submitted as specified in Section 50.4, Written Statements, and signed under oath or affirmation.

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

Sincerely,

Hugh L. Thompson, Jr.
Deputy Executive Director for
Nuclear Materials Safety, Safeguards,
and Operations Support

Enclosure: As stated

cc w/encl:
R. L. Dickherber

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

FEB 23 1990

Docket Nos. 50-254 and 50-265
License Nos. DPR-29 and DPR-30
EA 90-32

Commonwealth Edison Company
ATTN: Mr. Cordell Reed
Senior Vice President
Post Office Box 767
Chicago, Illinois 60690

Subject: ORDER MODIFYING LICENSE (EFFECTIVE IMMEDIATELY)

Gentlemen:

The enclosed Order is being issued as a consequence of events occurring during refueling operations at the Quad Cities Nuclear Power Station, Unit 1, on October 17, 1989. The Order requires you to immediately remove Mr. Robert L. Dickherber from the performance of any activities licensed pursuant to 10 CFR Part 50. The Order also allows you to submit an answer explaining why your license should not have been modified as provided in the Order. An Order is also being issued to Mr. Dickherber suspending his Senior Operator License (Limited) issued pursuant to 10 CFR Part 55. This action is being taken because of the willful violation of Commission requirements. We recognize the limited safety significance of the actual fuel move. However, improper movement of fuel could result in an inadvertent criticality and is unacceptable.

We note that there were also two fuel handlers and a nuclear engineer involved in this event. While the nuclear engineer did not take immediate action when he first suspected that an unauthorized fuel movement occurred, he did alert his supervisor of his concern at shift change. The two fuel handlers participated in the violation only after one of them alerted Mr. Dickherber, their immediate supervisor, of the procedure requirements, but were nonetheless directed to proceed. Therefore, the NRC does not intend to take any action against these individuals.

The actions of all the individuals involved in this event raise a concern about the adequacy of your controls for refueling. Consequently, pursuant to 10 CFR 50.54(f), you are required to provide to the Regional Administrator, Region III, within 30 days of the date of this letter, a written submittal outlining those actions taken or planned to assure that the engineers, supervisors and operators involved with refueling activities at the Quad Cities Nuclear Power Station clearly understand their responsibilities and authorities in meeting NRC requirements. You should specifically address management expectations regarding the control room command function, communication between the refueling floor and the control room, procedural adherence, and how these expectations are disseminated to the work force. This information is being sought by the NRC to verify compliance with the provisions of your operating license and must be submitted as specified in Section 50.4, Written Statements, and signed under oath or affirmation.

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

Sincerely,

Hugh L. Thompson, Jr.
Deputy Executive Director for
Nuclear Materials Safety, Safeguards,
and Operations Support

Enclosure: As stated

cc w/encl:
R. L. Dickherber

will affect the core reactivity. Section F specifies how QTP 1103-1 is to be used to implement core alterations. Step F.2 requires that steps on the Nuclear Component Transfer List (NCTL) must be performed in the exact order listed or the steps must be changed in accordance with QTP 1103-1. In turn, QTP 1103-1, Step E.1 and Step F.6, require that any deviation from the NCTL must be authorized by the Nuclear Engineer on duty.

On October 17, 1989, refueling activities were being conducted at Quad Cities Nuclear Power Station, Unit 1, by Mr. Robert L. Dickherber, a Fuel Handling Foreman with a Senior Operator License Limited to Fuel Handling issued pursuant to 10 CFR Part 55, and two non-licensed Fuel Handlers. An approved copy of the NCTL was being used at the job site and continuous communication with the control room was initially established. During the reactor refueling, a fuel assembly was erroneously placed in the wrong core location.

Through an ongoing NRC investigation (Investigation No. 3-89-015) of undocumented fuel moves that occurred on October 17,1989, the NRC has concluded that Mr. Robert L. Dickherber directed the two Fuel Handlers of the refueling crew to perform an unauthorized fuel manipulation to correct a fuel load error. This was in violation of station refueling procedures QFP 100-1, Steps D.5 and F.2, and QTP 1103-1, Steps E.1 and F.6, in that the fuel manipulation was not specified in a NCTL, an approved deviation to the NCTL was not obtained prior to fuel movement, and the control room was not informed of the action that affected core reactivity.

UNITED STATES
NUCLEAR REGULATORY COMMISSION

In the Matter of

Commonwealth Edison Company Quad Cities Nuclear Power Station	)	Docket Nos. 50-254 and 50-256 License Nos. DPR-29 and DPR-30 EA 90-032

ORDER MODIFYING LICENSE (EFFECTIVE IMMEDIATELY)

I

The Commonwealth Edison Company (Licensee) is the holder of Operating License Nos. DPR-29 and 30 (the Licenses) issued by the Nuclear Regulatory Commission (NRC/Commission) pursuant to 10 CFR Part 50. The Licenses authorize the Licensee to operate the Quad Cities Nuclear Power Station, Units 1 and 2 (Quad Cities or facility) located in Rock Island County, Illinois. The Licenses were issued by the Nuclear Regulatory Commission on October 1, 1971 and April 6, 1972, respectively.

II

The NRC licenses individuals pursuant to 10 CFR Part 55, Operator's License, to direct fuel handling activities. The operator license requires the individual to observe the operating procedures and other conditions specified in the facility license. Technical Specification 6.2.A.2, a condition of the Quad Cities Nuclear Power Station Licenses, requires that refueling activities be accomplished in accordance with approved procedures. Facility procedures that implement this requirement include QFP 100-1, Master Refueling Procedure, and QTP 1103-1, Preparation of Nuclear Component Transfer List. QFP 100-1 details the administrative controls to be taken to assure that all core alterations will be performed in a safe and orderly manner. Steps C.2 and F.3, QFP 100-1 require continuous communication between the control room and the refueling floor. Step D.5 requires that the control room be informed of any action that

The unauthorized fuel manipulation by Mr. Dickherber occurred immediately after he was reminded by a Fuel Handler of the need to comply with the requirements of facility procedures QFP 100-1 and QTP 1103-1. While the fuel manipulation that was unauthorized by station procedures took place, Mr. Dickherber failed to assure that constant communication was maintained with the control room as required by QFP 100-1, Steps C.2 and F.3. As a result, the control room personnel were not notified, as required, of the fuel manipulation to assure that core monitoring required by QFP 100-1 took place. QFD 100-1 and QTP 1103-1 are procedures required by Technical Specification 6.2.A.2. They thus are NRC requirements Mr. Dickherber was required to adhere to by the terms of his Senior Operator License. Based on the above, it appears that on October 17, 1989, Mr. Robert L. Dickherber willfully violated NRC requirements during refueling activities.

III

NRC regulations require that activities that can affect the reactivity of the reactor core be conducted by well-trained and qualified personnel under the supervision of a senior licensed operator, and in accordance with approved procedures. After a fuel load error was discovered, Mr. Dickherber directed that an unauthorized fuel movement take place in violation of Quad Cities QFP 100-1, Master Refueling Procedure, and QTP 1103-1, Preparation of Nuclear Component Transfer List. Both Fuel Handlers recognized that Mr. Dickherber's instructions violated procedural requirements, but complied with those instructions and failed to notify the Nuclear Engineer in the control room of the fuel move. No emergency condition or other extenuating circumstance existed which

might have warranted a departure from license conditions or Technical Specifications pursuant to 10 CF 50.54(x).

Mr. Dickherber's willful violation of Commission requirements, including the conditions of his 10 CFR Part 55 Senior Operator's License, is unacceptable and I have issued a separate Order suspending Mr. Dickherber's 10 CFR Part 55 license. Furthermore, I lack the requisite reasonable assurance that, with Mr. Dickherber involved in any activities licensed under 10 CFR Part 50, the Licensee's current operations can be conducted such that the health and safety of the public, including the Licensee's employees, will be protected. Therefore, the public health and safety require that License Nos. DPR-29 and 30 be modified to prohibit Mr. Robert L. Dickherber from involvement in licensed activities under these licenses. Furthermore, pursuant to 10 CFR 2.204, I find that the public health and safety require, in view of the willfulness of the violation, that this Order must be effective immediately.

IV

Accordingly, pursuant to Sections 103, 161b, 161c, 161i, and 161o, 182, and 186 of the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR 2.204 and 10 CFR Part 50, IT IS HEREBY ORDERED, EFFECTIVE IMMEDIATELY, THAT:

License Nos. DPR-29 and 30 are modified by adding the following condition:

> Mr. Robert L. Dickherber shall not participate in any licensed activity under License Nos. DPR-29 and DPR-30 without prior written approval of

the Regional Administrator, Region III. If such approval is sought, the Licensee shall provide a statement as to its basis for concluding that, in light of Mr. Dickherber's conduct on October 17, 1989, he will properly carry out activities.

The Regional Administrator, Region III, may relax or terminate this condition for good cause shown.

V

The Licensee, Mr. Dickherber, or any other person adversely affected by the License Modification ordered in Section IV above may submit an answer to this Order within 20 days of the date of this Order. The answer may set forth the matters of law on which the Licensee or Mr. Dickherber or any other person adversely affected relies and the reasons as to why the Order should not have been issued. An answer filed within 20 days of the date of this Order may also request a hearing. Any answer and/or request for hearing shall be submitted to the Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention Chief, Docketing and Services Section. Copies also shall be sent to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, the Assistant General Counsel for Hearings and Enforcement at the same address, and to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region III, 799 Roosevelt Road, Glen Ellyn, Illinois 60137. If a person other than the Licensee requests a hearing, that person shall set forth with particularity the manner in which the

person's interest is adversely affected by the Order and should address the criteria set forth in 10 CFR 2.714(d). A REQUEST FOR A HEARING SHALL NOT STAY THE IMMEDIATE EFFECTIVENESS OF THIS ORDER. If a hearing is requested, 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 Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION

Hugh L. Thompson, Jr.
Deputy Executive Director for
Nuclear Materials Safety, Safeguards,
and Operations Support

Dated at Rockville, Maryland
this 23rd day of February 1990

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

August 20, 1990

Docket Nos. 50-254; 50-265
License Nos. DPR-29; DPR-30
EA 90-032

Commonwealth Edison Company
ATTN: Mr. Cordell Reed
Senior Vice President
Opus West III, Suite 300
1400 Opus Place
Downers Grove, IL 60615

Gentlemen:

SUBJECT: IN THE MATTER OF COMMONWEALTH EDISON COMPANY, QUAD CITIES NUCLEAR POWER STATION, ORDER MODIFYING LICENSE

This refers to the Order Modifying License (Order) issued to Commonwealth Edison Company (License), dated February 23, 1990, in the above captioned proceeding and the Settlement Agreement (Agreement) which was approved by the Atomic Safety and Licensing Board on August 1, 1990. Pursuant to Paragraph F.C. of the Agreement, Section IV of the Order is relaxed to read as follows:

> License Nos. DPR-29 and DPR-30 are modified by adding the following condition:
>
> Mr. Robert L. Dickherber may participate in licensed activities under License Nos. DPR-29 and DPR-30 provided such activities are conducted under and in accordance with the Licensee's Individual Performance Monitoring and Improvement Plan (Remediation Program) for Mr. Dickherber submitted to the NRC by letter, dated July 11, 1990. The Licensee shall promptly notify the Regional Administrator, Region III, if Mr. Dickherber terminates his participation in or fails to meet the requirements of the Remediation Program.

As a separate but related matter, we note that the unauthorized fuel manipulation undertaken by Mr. Dickherber, on October 17, 1989, was not specified on the Nuclear Component Transfer List, as required in Steps D.5 and F.2 of the Quad Cities Station master refueling procedure, QFP 100-1, and Steps E.1 and F.6 of procedure QTP 1103-1, Preparation of Nuclear Component Transfer List. These procedures are required by Technical Specification 6.2.A.2, and the violation of these procedures constitutes a violation of NRC requirements. In view of the corrective actions for these violations detailed in your letter of March 26, 1990, further enforcement action is not being taken. Should these violations recur, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

If you have any questions regarding this matter, please contact Mr. Bruce A. Berson of my staff at telephone number (708) 790-5732.

Sincerely,

A. Bert Davis
Regional Administrator

cc: Stuart Lefstein, Esq.
Sheldon Trubatch, Esq.
D. Galle, Vice President - BWR Operations
T. Kovach, Nuclear Licensing Manager
R. L. Bax, Station Manager
DCD/DCB (RIDS)
Licensing Fee Management Branch
Resident Inspectors LaSalle Dresden, Quad Cities
Richard Hubbard
J. W. McCaffrey, Chief, Public Utilities Division
L. Olshan, NRR LPM
Robert Newmann, Office of Public Counsel, State of Illinois Center

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

DEC 2 1 1989

Docket Nos. 50-413, 50-414, 50-369, 50-370, 50-269, 50-270, and 50-287
License Nos. NPF-35, NPF-52, NPF-9, NPF-17, DPR-38, DPR-47, and DPR-55
EA 89-151

Duke Power Company
ATTN: Mr. H. B. Tucker, Vice President
Nuclear Production Department
422 South Church Street
Charlotte, North Carolina 28242

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY-$50,000 (NRC INSPECTION REPORT NOS. 50-413/89-23, 50-414/89-23, 50-369/89-23, 50-370/89-23, 50-269/89-26, 50-270/89-26, 50-287/89-26, 50-413/89-28, AND 50-414/89-28).

This refers to the Nuclear Regulatory Commission (NRC) inspections conducted by Ms. Orysia M. Masnyk at the Catawba, McGuire and Oconee facilities on July 24-28, 1989, August 7-11, 1989, and by Mr. Aubrey Tillman at the Catawba facility on September 11-15, 1989. These inspections included a review of the circumstances surrounding multiple and recurring violations in the implementation of the security program, primarily in the areas of access control and implementation of compensatory measures at the three facilities. The reports documenting these inspections were sent to you by letters dated September 12, 1989 and October 16, 1989. As a result of these inspections, significant failures to comply with NRC regulatory requirements were identified, and accordingly, NRC concerns relative to the inspection findings were discussed in an Enforcement Conference held on August 29, 1989. The report documenting this conference was sent to you on October 26, 1989.

The violations described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) involved the failure to implement provisions of the physical security program which resulted in repetitive failures to assign the correct badges to individuals entering the site, entry of employees to vital areas by tailgating behind other employees authorized access to that area, failure to maintain proper escort of visitors, and failure to implement compensatory measures for degraded barriers and alarm systems. The violations were not only found to be repetitive at each station, but in some cases, were common to all three facilities. There was apparently no effort made to trend and evaluate security violations identified by you in the facility security event logs resulting in a lack of corrective actions to preclude recurrence. The lack of management oversight across the three facilities is of significant regulatory concern because at each facility the licensee was repeatedly identifying issues involving noncompliance without taking corrective actions.

To emphasize the need for increased attention to the implementation of the security program at the Duke Power Company nuclear plants, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $50,000 for the violations described in the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1989) (Enforcement Policy), the violations described in the enclosed Notice have been categorized as a Severity Level III problem. The base value of a civil penalty for a Severity Level III violation or problem is $50,000. The escalation and mitigation factors in the Enforcement Policy were considered. Mitigation of the base amount of the civil penalty was warranted by 50 percent due to your identification of the violations. However, escalation of the base amount was warranted by 50 percent due to the unusually large number of violations identified. Adjustment of the civil penalty was considered due to the fact that you have not had any escalated enforcement actions in the last two years; however, this was not warranted because, had the information in all the logs been known to the NRC, the enforcement history at Duke Power sites might have been different. On balance, no adjustment to the civil penalty was warranted.

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

In accordance with 10 CFR 2.790(d) and 10 CFR 73.21, safeguards activities and security measures are exempt from public disclosure. Therefore, the enclosure to this letter will not be placed in the NRC Public Document Room.

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

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

Sincerely,

James L. Milhoan for
Stewart D. Ebneter
Regional Administrator

Enclosure:
Notice of Violation and Proposed
Imposition of Civil Penalty
(Safeguards Information)

cc w/encl: (See page 3)

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

JUL 02 1990

Docket Nos: 50-269, 50-270, 50-287,
50-369, 50-370, 50-413,
and 50-414
License Nos: DPR-38, DPR-47, DPR-55,
NPF-9 NPF-17, NPF-35
and NPF-52
EA 89-151

Duke Power Company
ATTN: Mr. H. B. Tucker, Vice President
Nuclear Production Department
422 South Church Street
Charlotte, North Carolina 28242

Gentlemen:

SUBJECT: ORDER IMPOSING A CIVIL MONETARY PENALTY

This refers to your letter dated January 31, 1990, in response to the Notice of Violation and Proposed Imposition of Civil Penalty (Notice) sent to you by our letter dated December 21, 1989. Our letter and Notice described multiple and recurring violations in the implementation of the security program, primarily in the areas of access control and implementation of compensatory measures at the three Duke Power Company facilities.

To emphasize the need for increased attention to the implementation of the security program at the Duke Power Company nuclear plants, a civil penalty of $50,000 was proposed.

In your response, you acknowledged the occurrence of all but two of the events. With respect to the violation involving failure to conduct adequate searches (Violation E), you denied one of the eleven examples, and with respect to the violation involving escorting of visitors (Violation B), you denied that a person not authorized unescorted access was assigned to escort a visitor requiring escort.

In addition, you requested that the severity level and civil penalty be mitigated since the events were licensee-identified and reported to the NRC, and because corrective measures were implemented. Additionally, you stated the opinion that some events should not have been included in the Notice due to the fact that they occurred almost two years ago and that none of the events have safety significance that warrants escalated enforcement.

After consideration of your response, we have concluded, for the reasons given in the Appendix attached to the enclosed Order Imposing Civil Monetary Penalty, that, with the two exceptions discussed in the Appendix, the violations occurred as stated in the Notice, that, except as discussed in the Appendix, you did not

provide any information that was not already considered in determining the significance of the violations, and that your arguments for mitigation of the civil penalty were not persuasive. Accordingly, we hereby serve the enclosed Order on Duke Power Company imposing a civil monetary penalty in the amount of $50,000. We will review the effectiveness of your corrective actions during subsequent inspections.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and Enclosure 1 will be placed in the NRC Public Document Room. However, the material in Enclosure 2 contains Safeguards Information as defined by 10 CFR 73.21 and its disclosure to unauthorized individuals is prohibited by Section 147 of the Atomic Energy Act of 1954, as amended. Therefore, the material in Enclosure 2 will not be placed in the Public Document Room.

Sincerely,

Hugh L. Thompson, Jr.
Deputy Executive Director for
Nuclear Materials Safety, Safeguards,
and Operations Support

Enclosures:
1. Order Imposing Civil Monetary Penalty
2. Appendix - Evaluations and Conclusions (contains Safeguards Information)

cc w/encls:
T. B. Owen, Station Manager
Catawba Nuclear Station
P. O. Box 256
Clover, SC 29710

T. L. McConnell
Station Manager
McGuire Nuclear Station
P. O. Box 488
Cornelius, NC 28031

J. S. Warren
Nuclear Production Department
Duke Power Company
P. O. Box 33189
Charlotte, NC 28242

cc w/o encls:

A. V. Carr, Esq.
Duke Power Company
422 South Church Street
Charlotte, NC 28242

J. Michael McGarry, III, Esq.
Bishop, Cook,
Purcell and Reynolds
1400 L Street, NW
Washington, D. C. 20005

North Carolina MPA-1
3100 Smoketree Ct., Suite 600
P. O. Box 29513
Raleigh, NC 27626-0513

Heyward G. Shealy, Chief
Bureau of Radiological Health
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, SC 29201

Richard P. Wilson, Esq.
Assistant Attorney General
S. C. Attorney General's Office
P. O. Box 11549
Columbia, SC 29211

Michael Hirsch
Federal Emergency Management Agency
500 C Street, SW, Room 840
Washington, D. C. 20472

North Carolina Electric
Membership Corporation
3400 Sumner Boulevard
P. O. Box 27306
Raleigh, NC 27611

Karen E. Long
Assistant Attorney General
N. C. Department of Justice
P. O. Box 629
Raleigh, NC 27602

cc w/o encls: (cont'd)

Saluda River Electric
Cooperative, Inc.
P. O. Box 929
Laurens, SC 29360

S. S. Kilborn, Area Manager
Mid-South Area ESSD Projects
Westinghouse Electric Corporation
MNC West Tower - Bay 239
P. O. Box 335
Pittsburg, PA 15230

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

Piedmont Municipal Power Agency
121 Village Drive
Greer, SC 29651

Dayne H. Brown, Director
Division of Radiation Protection
N. C. Department of Environment,
Health & Natural Resources
P. O. Box 27687
Raleigh, NC 27611-7687

County Manager of Mecklenburg County
720 East Fourth Street
Charlotte, NC 28202

Dr. John M. Barry
Department of Environmental Health
Mecklenburg County
1200 Blythe Boulevard
Charlotte, NC 28203

County Supervisor of Oconee County
Walhalla, SC 29621

Robert B. Borsum
Babcock and Wilcox Company
Nuclear Power Generation Division
Suite 525, 1700 Rockville Pike
Rockville, MD 20852

Office of Intergovernmental Relations
116 West Jones Street
Raleigh, NC 27603

cc w/o encls: (cont'd)

Manager, LIS
NUS Corporation
2536 Countryside Boulevard
Clearwater, FL 33515

Paul Guill
Duke Power Company
P. O. Box 33189
422 South Church Street
Charlotte, NC 28242

State of South Carolina

State of North Carolina

UNITED STATES

NUCLEAR REGULATORY COMMISSION

In the Matter of Duke Power Company Catawba, Oconee, and McGuire	)	Docket Nos. 50-413, 50-414, 50-269, 50-270, 50-287, 50-369, and 50-370 License Nos. NPF-35, NPF-52, DPR-38, DPR-47, DPR-55, NPF-9, and NPF-17 EA 89-151

ORDER IMPOSING CIVIL MONETARY PENALTY

I

Duke Power Company (Licensee) is the holder of Operating License Nos. NPF-35, NPF-52, DPR-38, DPR-47, DPR-55, NPF-9, and NPF-17, (Licenses) issued by the Nuclear Regulatory Commission (Commission or NRC) on January 17, 1985, May 15, 1986, February 6, 1973, October 6, 1973, July 19, 1974, June 12, 1981, and May 27, 1983, respectively. The Licenses authorize the Licensee to operate the Catawba, Oconee, and McGuire facilities in accordance with the conditions specified therein.

II

NRC inspections of the Licensee's activities under the Licenses were conducted on September 11-15, 1989, at the Catawba facility, and on July 24-28, 1989, and August 7-11, 1989, at the Catawba, McGuire, and Oconee facilities. The results of these inspections indicated that the Licensee had not conducted its activities in full compliance with NRC requirements. A written Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was served upon the Licensee by letter dated December 21, 1989. The Notice stated the nature of the violations, the provisions of the NRC's requirements that the Licensee had violated, and the amount of the civil penalty proposed for the violations. Prior to responding to the Notice, the Licensee requested a meeting with the NRC to

discuss the licensed activities associated with the violations and the proposed civil penalty. That meeting, which was transcribed, was held at the Licensee's Catawba site on January 31, 1990. The Licensee responded to the Notice by letter dated January 31, 1990. In its response, the Licensee admitted all but two of the examples of the violations (one in Violation B and one in Violation E) but argued that enforcement discretion should be exercised to withdraw the Notice and withdraw the civil penalty or that the civil penalty should be fully mitigated based on corrective actions taken by Duke Power Company.

III

After consideration of the Licensee's response and the statements of fact, explanations, and argument for mitigation contained therein, the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support (DEDS) has determined, as set forth in the Appendix to this Order, that all the examples of the violations occurred as stated, with two exceptions, and that the penalty proposed for the violations designated in the Notice of Violation and Proposed Imposition of Civil Penalty should be imposed. The two contested examples in Violations B and E described in the Appendix are hereby withdrawn.

IV

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

The Licensee pay a civil penalty in the amount of Fifty Thousand Dollars ($50,000) within 30 days of the date of this Order, by check, draft, or money order, payable to the Treasurer of the United States and mailed to the Director, Office of Enforcement, U. S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555.

V

The Licensee may request a hearing within 30 days of the date of this Order. A request for a hearing shall be clearly marked as a "Request for an Enforcement Hearing" and shall be addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with copies to the Assistant General Counsel for Hearings and Enforcement, at the same address, the Regional Administrator, Region II, 101 Marietta Street, N.W., Atlanta, Georgia 30323.

If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. If the Licensee fails to request a hearing within 30 days of the date of this Order, 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 Attorney General for collection.

In the event the Licensee requests a hearing as provided above, the issues to be considered at such hearing shall be whether on the basis of the violations admitted by the Licensee, this Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION

Hugh L. Thompson, Jr.
Deputy Executive Director for
Nuclear Materials Safety, Safeguards,
and Operations Support

Dated at Rockville, Maryland
this 2nd day of July 1990

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

AUG 16 1990

Docket Nos. 50-269, 50-270, and 50-287
License Nos. DPR-38, DPR-47, and DPR-55
EA 90-119

Duke Power Company
ATTN: Mr. H. B. Tucker, Vice President
Nuclear Production Department
Post Office Box 1007
Charlotte, North Carolina 28201-1007

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $25,000
(INSPECTION REPORT NOS. 50-269/90-17, 50-270/90-17 AND 50-287/90-17)

This refers to the Nuclear Regulatory Commission (NRC) inspection conducted by the Resident Inspectors at the Oconee Nuclear Station during the period May 20 - June 16, 1990. The inspection included a review of the circumstances surrounding the apparent design error in the Reactor Building Penetration Room Ventilation System (PRVS) that could render the system inoperable under specific conditions that were identified by the NRC during a detailed walkdown of the PRVS. The report documenting this inspection was sent to you by letter dated June 27, 1990. As a result of this inspection, a significant failure to comply with NRC regulatory requirements was identified, and accordingly, NRC concerns relative to the inspection findings were discussed in an Enforcement Conference held on July 12, 1990. The letter summarizing this Conference was sent to you on July 18, 1990.

The two violations in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) involve the issues surrounding your failure to ensure that an Engineered Safeguards (ES) system (the PRVS) would be able to perform its intended safety function and your failure to respond completely and accurately to an NRC Generic Letter (GL).

Violation I in the Notice deals with an NRC Resident Inspector's discovery on June 12, 1990, (with Unit 1 at 97 percent and Units 2 and 3 at 100 percent full power) that two pneumatic throttle valves on each unit would fail closed on a loss of instrument air versus failing open as indicated in the FSAR. It appears that this condition has existed since before the plant was licensed in 1973. The NRC believes the root cause of this problem was an original design deficiency, including deficient documentation, and that it was compounded by your failure to recognize the significance of the problem and to take appropriate corrective action. Specifically, in 1982 in a document titled, "Loss of Instrument Air," you identified that for instrument air pressure dropping from 100 to 70 psig, "PR-13 (PR Fan "A" Inlet Control) closes and PR-17 (PR Fan "B" Inlet Control) closes which prevents operation of the Penetration Room Ventilation System." However, despite this observation, you failed to recognize the significance of the problem and correct it. Furthermore, in another instrument air study in

1984, you referenced the 1982 document and reiterated that a loss of instrument air would prevent operation of the PRVS. In this case, the report was routed to high level management at Duke and the significance of the issue was still not recognized and corrective action was still not taken. In addition, you had at least two other opportunities in which you should have recognized and corrected this problem. Specifically, in 1987 during a design study initiated to identify active valves, you should have recognized that valves PR-13 and PR-17 were active valves in that they would need to be repositioned after a loss of instrument air to enable the PRVS to perform its intended function. The NRC believes that if you had properly classified these valves during this review, you should then have been able to subsequently identify the deficiency of the system configuration and the discrepancy with the FSAR. In August 1988, during your review in response to NRC Generic Letter 88-14 (GL 88-14), "Instrument Air Supply System Problems Affecting Safety-Related Equipment," a review directed at identifying this type of discrepancy, you should have recognized that these two valves are considered safety-related and that, per the instructions in GL 88-14, should have been verified as being able to function as intended on a loss of instrument air.

Although from a technical standpoint, the resulting dose from the unavailability of the PRVS may not have been above the 10 CFR Part 100 limit, the ventilation system was clearly degraded. From a regulatory standpoint, the NRC considers this problem to be a serious regulatory concern because of your failure to take appropriate corrective action despite the numerous opportunities you had to recognize the significance of this problem. Therefore, in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy) 10 CFR Part 2 Appendix C (1990), Violation I has been categorized at Severity Level III.

The staff recognizes that you took prompt action and declared both trains of the PRVS inoperable on all three units upon the NRC Resident Inspector's identification of the problem and placed all three units in a Technical Specification action statement requiring the units to be shutdown within 12 hours. We were informed promptly of your temporary modifications to the valves and of your ongoing review of the issue. The staff also recognizes the promptness of your corrective actions with respect to your incomplete response to GL 88-14, including your review of the responses to GL 88-14 for both the McGuire and Catawba facilities. In addition, the staff commends you for your thorough and frank Licensee Event Report (LER) 269/90-10, to the extent that it clarified and traced the history of this issue.

However, to emphasize the importance of taking prompt corrective action, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Reactor Regulation, Regional Operations and Research, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) in the amount of $25,000 for Violation I. The base value of a civil penalty for a Severity Level III violation is $50,000. The escalation and mitigation factors in the Enforcement Policy were considered.

Escalation of the base penalty was considered for Violation I because the NRC identified the problem and because of the numerous opportunities you had to identify and recognize the significance of the problem. However, the NRC

considered your thorough investigation into the issue after it was identified, and determined that on balance, the base penalty was neither escalated nor mitigated for identification and reporting. The base penalty was mitigated by 50 percent for your prompt and extensive corrective action once you fully recognized the problem, including your subsequent review of all air operated safety-related valves. Several issues were considered with respect to your past performance. On December 13, 1988, you received a civil penalty for a Severity Level III violation associated with the high pressure injection "piggyback" mode of operation. This violation was compounded by a breakdown in your communications that hindered the resolution of the problem once it was already identified. However, your past performance in this area has been satisfactory, as evidenced by your SALP Category 2 ratings in the areas of engineering/technical support and safety assessment/quality verification. Therefore, on balance, the base civil penalty was neither escalated nor mitigated for your past performance. The multiple occurrences factor was considered, but was not deemed applicable to the circumstances of this case. Escalation for both the prior notice and duration factors was considered, but was not applied because the duration of the violation and the prior notice (including GL 88-14 and the numerous opportunities you had to recognize and correct the problem) were considered in categorizing the violation at Severity Level III.

Violation II in the Notice involves your response to GL 88-14. The generic letter requested, in part, that verifications be performed to ensure that all safety-related equipment will function as intended on loss of instrument air and components be identified that cannot accomplish their intended safety function as a result of this review. Your responses to this generic letter, dated May 8, 1989 and July 20, 1989, did not completely address this request in that your review only considered "active" valves rather than all safety-related valves. Furthermore, your responses did not identify valves PR-13 and PR-17 as being active valves, even though they would need to be repositioned (throttled open) to enable the PRVS to perform its intended function on loss of instrument air. The NRC considers this oversight to be more than a minor regulatory concern and therefore, in accordance with the Enforcement Policy, this violation is categorized at Severity Level IV.

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

In accordance with 10 CFR 2.790(a), a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

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

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

Sincerely,

James L. Milhoan for
Stewart D. Ebneter
Regional Administrator

Enclosure:
Notice of Violation and Proposed
Imposition of Civil Penalty

cc w/encl:
H. B. Barron
Station Manager
Oconee Nuclear Station
P. O. Box 1439
Seneca, SC 29679

A. V. Carr, Esq
Duke Power Company
P. O. Box 1007
Charlotte, NC 28201-1007

County Supervisor of Oconee County
Walhalla, SC 29621

Robert B. Borsum
Babcock and Wilcox Company
Nuclear Power Generation Division
Suite 525, 1700 Rockville Pike
Rockville, MD 20852

J. Michael McGarry, III, Esq.
Bishop, Cook, Purcell and Reynolds
1400 L Street, NW
Washington, D. C. 20005

Office of Intergovernmental Relations
116 West Jones Street
Raleigh, NC 27603

Heyward G. Shealy, Chief
Bureau of Radiological Health
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, SC 29201

Manager, LIS
NUS Corporation
2536 Countryside Boulevard
Clearwater, FL 33515

Paul Guill
Duke Power Company
P.O. Box 1007
Charlotte, NC 28201-1007

Karen E. Long
Assistant Attorney General
N. C. Department of Justice
P.O. Box 629
Raleigh, NC 27602

State of South Carolina

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Duke Power Company
Oconee Units 1, 2, and 3

Docket Nos. 50-269, 50-270, and 50-287
License Nos. DPR-38, DPR-47, and DPR-55
EA 90-119

During the Nuclear Regulatory Commission (NRC) inspection conducted May 20 - June 16, 1990, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990), the Nuclear Regulatory Commission 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 violations and associated civil penalty are set forth below:

I. Violation Assessed a Civil Penalty

10 CFR Part 50, Appendix B, Criterion XVI requires, in part, that measures shall be established to assure that conditions adverse to quality be promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition.

Contrary to the above, in 1982, Duke Power failed to take corrective action for a condition adverse to quality even though personnel recognized that a loss of instrument air would prevent operation of the Penetration Room Ventilation System (PRVS), an Engineered Safeguards system, that was required to mitigate the consequences of an accident. Specifically, this condition was documented in a report titled "Loss of Instrument Air," such that for instrument air dropping from 100 to 70 psig, "PR-13 (PR Fan "A" Inlet Control) closes and PR-17 (PR Fan "B" Inlet Control) closes which prevents operation of the Penetration Room Ventilation System." Further, in a 1984 report routed to high level Duke Power management, the licensee referenced the 1982 document and reiterated that a loss of instrument air would prevent operation of the PRVS. Again, in this instance, the licensee failed to take corrective action for the adverse condition. Even though the licensee had at least two other instances in which this adverse condition should have been recognized and corrected (in March 1987 during a design study initiated to identify active valves and in August 1988 during the licensee's review in response to NRC Generic Letter 88-14), the licensee continued to fail to take corrective action for this adverse condition until June 13, 1990, after an NRC Resident Inspector identified the adverse condition.

This is a Severity Level III violation. (Supplement I)
Civil Penalty - $25,000.

II. Violation Not Assessed a Civil Penalty

10 CFR 50.9 requires, in part, that information provided to the Commission by a licensee shall be complete and accurate in all material respects.

Contrary to the above, information provided to the Commission in the licensee's responses to Generic Letter (GL) 88-14 dated May 8, 1989 and July 20, 1989 was not complete and accurate in all material respects. The information was not accurate in that it indicated that verifications had been performed for all "active" air operated components. However, verifications had not been performed for two active flow control valves for the PRVS, PR-13 and PR-17, because they had not been properly categorized as "active." The information was material because it concerned the operability of safety-related components.

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

Pursuant to the provisions of 10 CFR 2.201, Duke Power Company (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 may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalty by letter addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, money order, or electronic transfer payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or the cumulative amount of the civil penalties if more than one civil penalty is proposed, 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 violations listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty in whole or in part, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C (1990), should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

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

The response noted above (Reply to Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region II, and a copy to the NRC Resident Inspector at the facility which is the subject of this Notice.

FOR THE NUCLEAR REGULATORY COMMISSION

James L. Milhoan for
Stewart D. Ebneter
Regional Administrator

Dated at Atlanta, Georgia
this 16th day of August 1990

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

JUN 2 7 1990

Docket Nos. 50-424 and 50-425
License Nos. NPF-68 and NPF-81
EA 90-090

Georgia Power Company
ATTN: Mr. W. G. Hairston, III
Senior Vice President -
Nuclear Operations
Post Office Box 1295
Birmingham, Alabama 35201

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $50,000
(NRC INSPECTION REPORT NOS. 50-424/90-11 AND 50-425/90-11)

This refers to the Nuclear Regulatory Commission (NRC) inspection conducted by A. Tillman at the Vogtle Electric Generating Plant (VEGP) on April 30 - May 1, 1990. The inspection included a review of the circumstances surrounding a storage cabinet containing safeguards information material which was found unsecured by a member of your staff on April 25, 1990, and subsequently reported to the NRC. The report documenting this inspection was sent to you by letter dated May 10, 1990. As a result of this inspection, a significant failure to comply with NRC regulatory requirements was identified. An Enforcement Conference was held with members of your staff on May 22, 1990, to discuss this event and your staff's ability to protect and control safeguards information. The letter summarizing this Conference was sent to you on May 30, 1990.

The violation described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) involved your failure to ensure the proper protection and control of safeguards material. On April 24, 1990, a member of your staff who was authorized access to the safeguards material storage cabinet supposedly secured it at approximately 2:00 p.m.; however, on April 25, 1990, at approximately 6:30 a.m., another member of your staff not authorized access to the cabinet found it unsecured. This represented the potential of the safeguards material being unsecured and uncontrolled for over 16 hours.

This violation takes on added significance due to the volume and content of the safeguards information material that was stored in the cabinet. Unauthorized disclosure of that material had the potential to compromise the plant physical protection systems. Therefore, in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy) 10 CFR Part 2, Appendix C (1990), this violation has been categorized at Severity Level III.

To emphasize the need to ensure the protection and control of safeguards information in view of your past performance discussed below, I have been authorized, after consultation with the Director, Office of Enforcement, and

the Deputy Director for Nuclear Materials Safety, Safeguards, and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $50,000 for the Severity Level III violation. The base value of a civil penalty for a Severity Level III violation is $50,000. The escalation and mitigation factors in the Enforcement Policy were considered.

Mitigation of this civil penalty by 50 percent is warranted due to your identification and reporting of the incident and by 50 percent due to your prompt corrective actions following the discovery of the unsecured safeguards cabinet. The corrective actions included substantial actions that you discussed during the enforcement conference to improve your control over all safeguards material at the plant. However, escalation of the base amount of the civil penalty by 100 percent is warranted due to your poor past performance in protecting safeguards information, including numerous, repetitive violations identified in that area over the previous two years. In August 1989, these violations were discussed at a management meeting held between the NRC and VEGP and, when additional similar violations were discovered, they were discussed in correspondence in September 1989. On February 2, 1990, a Notice of Violation and Proposed Imposition of Civil Penalty was issued to Georgia Power Company for newly identified violations concerning the failure to adequately protect safeguards information (EA 89-227). That civil penalty was issued even though the violation was categorized at Severity Level IV because of the licensee's repeated failures in this area. Therefore, on balance, no adjustment to the base civil penalty has been deemed appropriate.

Finally, the NRC believes that the individual who discovered the safeguards cabinet open on the morning of April 25, 1990, and promptly brought the matter to the attention of site security personnel deserves a great deal of credit for his alertness and sensitivity to the proper control and security of safeguards information.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements. Specifically, we will closely follow the effectiveness of your corrective actions during future inspections since, as you acknowledged during the enforcement conference, the actions taken in the past have not been adequate to stop the recurrence of violations in this area.

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.

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

Sincerely,

James L. Milhoan for
Stewart D. Ebneter
Regional Administrator

Enclosure:
Notice of Violation and Proposed
Imposition of Civil Penalty

cc w/encl:
R. P. McDonald
Executive Vice President-Nuclear
Operations
Georgia Power Company
P. O. Box 1295
Birmingham, AL 35201

C. K. McCoy
Vice President-Nuclear
Georgia Power Company
P. O. 1295
Birmingham, AL 35201

G. Bockhold, Jr.
General Manager, Nuclear Operations
Georgia Power Company
P. O. 1600
Waynesboro, GA 30830

J. A. Bailey
Manager-Licensing
Georgia Power Company
P. O. Box 1295
Birmingham, AL 35201

Ernest L. Blake, Esquire
Shaw, Pittman, Potts and
Trowbridge
2300 N Street, NW
Washington, D. C. 20037

cc w/encl cont'd: (see page 4)

cc w/encl cont'd:
J. E. Joiner, Esquire
Troutman, Sanders, Lockerman, and
Ashmore
1400 Candler Building
127 Peachtree Street, NE
Atlanta, GA 30303

D. Kirkland, III, Counsel
Office of the Consumer's
Utility Council
Suite 225, 32 Peachtree Street, NE
Atlanta, GA 30302

Office of Planning and Budget
Room 615B
270 Washington Street, SW
Atlanta, GA 30334

Office of the County Commissioner
Burke County Commission
Waynesboro, GA 30830

J. Leonard Ledbetter, Director
Environmental Protection Division
Department of Natural Resources
205 Butler Street, SE, Suite 1252
Atlanta, GA 30334

Attorney General
Law Department
132 Judicial Building
Atlanta, GA 30334

State of Georgia

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Georgia Power Company
Vogtle Electric Generating Plant
Units 1 and 2

Docket Nos. 50-424 and 50-425
License Nos. NPF-68 and NPF-81
EA 90-090

During the Nuclear Regulatory Commission (NRC) inspection conducted on April 30 - May 1, 1990, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990), the Nuclear Regulatory Commission 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 73.21(a) requires, in part, that Safeguards Information be protected against unauthorized disclosure.

10 CFR 73.21(d)(2) requires, in part, that while unattended, safeguards information shall be stored in a locked security storage container.

The licensee's Administrative Procedure No. 00650-C, Safeguards Information Control, Figure 4, Letter of Instruction, specifies that when not in use, safeguards information shall be stored in a steel cabinet with a locking bar and a U. S. General Services Administration (GSA) approved padlock or in a GSA approved security container.

Contrary to the above, on April 25, 1990, an employee of the licensee discovered a safeguards storage cabinet containing approximately 140 safeguards documents, including the site Physical Security and Contingency Plan, unsecured and unattended.

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

(Civil Penalty - $50,000)

Pursuant to the provisions of 10 CFR 2.201, Georgia Power Company (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 may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalty by letter addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order or electronic transfer payable to the Treasurer of the United States in the amount of the civil penalties if more than one civil penalty is proposed, 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 V.B of 10 CFR Part 2, Appendix C (1990), 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 the penalty due, which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the the Act, 42 U.S.C 2282c.

The responses noted above (Reply to a Notice of Violation, letter with payment of civil penalty and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator, U. S. Nuclear Regulatory Commission, Region II, and a copy to the NRC Resident Inspector at the Vogtle facility.

FOR THE NUCLEAR REGULATORY COMMISSION

James L. Milhoan

Stewart D. Ebneter
Regional Administrator

Dated at Atlanta, Georgia
this 27th day of June 1990

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

July 30, 1990

Docket No. 50-320
License No. DPR-73
EA 90-018

GPU Nuclear Corporation
ATTN: Mr. P. R. Clark
President
100 Interpace Parkway
Parsippany, New Jersey 07054

Gentlemen:

Subject: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $50,000
(NRC Office of Investigations (OI) Report No. 1-87-008)

This letter refers to the investigation conducted by the NRC Office of Investigations (OI) concerning an anonymous written allegation received by both the NRC and your staff on July 9, 1987. The allegation indicated that the then shift supervisor of the F-shift at Three Mile Island, Unit 2 (TMI-2) had been sleeping while on duty, and that certain members of your site management, although aware of the allegations, failed to correct the problem. Based on the evidence obtained during the OI investigation, as well as an independent internal investigation conducted for you by Mr. E. Stier, the allegation was substantiated. A copy of the synopsis of the OI investigation was sent to you on December 19, 1989. As a result of these findings, an enforcement conference was held with you and members of your staff on February 2, 1990 to discuss the investigation findings (certain of which constituted violations of NRC requirements), as well as the causes and your corrective actions.

The violations, which are described in the enclosed Notice, involved (1) a pattern, by the then shift supervisor of the F-shift, of sleeping, giving the appearance of sleeping, or otherwise being inattentive to his duties (particularly during the night shift) while serving in his licensed capacity as the shift supervisor/senior reactor operator prior to July 1987; and (2) the failure by several levels of TMI-2 site management, although aware (to varying degrees between the fall of 1986 and July 1987) of a number of internal allegations of this problem, to take prompt and effective actions to resolve the allegations and take appropriate action to correct the condition.

Of particular concern were the actions of the then Plant Operations Manager (the immediate supervisor of the shift supervisor) who had been made aware of allegations by members of the F-shift crew, on more than one occasion, that the shift supervisor was sleeping, giving the appearance of sleeping, or being otherwise inattentive while on duty. However, the then Plant Operations Manager did not effectively seek resolution of this problem. In addition, other site managers (including the then Manager, Plant Operations; the then Site Operations Director

in April 1987; his successor as Site Operations Director between April and July 1987; and the then Director, TMI-2) also failed to resolve the allegations and correct the condition.

These managers were aware, to varying degrees, of additional allegations in (and subsequent to) April 1987, that (1) the then shift supervisor was allegedly sleeping or inattentive while on duty, and (2) the Plant Operations Manager allegedly knew of this condition yet took inadequate action to correct the problem. Nonetheless, site management did not properly pursue the allegations. Furthermore, similar allegations received by site management on June 24 and July 1, 1987 that the then shift supervisor was sleeping on duty also were not effectively resolved.

The pattern of inattentiveness by the then shift supervisor of the F-shift at TMI-2 and the subsequent failure by various levels of the then site management to correct this condition represents a significant regulatory concern. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions", 10 CFR Part 2, Appendix C (1987) (Enforcement Policy) in effect at the time, the violations have been classified in the aggregate as a Severity Level III problem.

The NRC recognizes that corporate management, when first apprised of this condition after receipt of the July 9, 1987 allegation, immediately initiated an independent investigation of this matter. The NRC also recognizes that once the findings were established by your internal investigation, prompt and thorough action was taken to prevent recurrence. These actions included providing the "lessons learned" from this matter to your staff, as well as termination of the employment of the responsible shift supervisor and Plant Operations Manager, and significant disciplinary action against the other responsible site managers at TMI-2. Nevertheless, to emphasize the importance the NRC places on prompt actions by site managers, I have been authorized after consultation with the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support and the Commission to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $50,000 for the violations described in the enclosed Notice.

The civil penalty could have been significantly higher because of both the duration of the violations and the notice that was available of a potential problem. However, the NRC staff concludes that the comprehensive actions ultimately taken by the corporate organization demonstrate that GPUN recognizes it had a serious problem and therefore, escalation of the civil penalty is unwarranted. It should be made clear that had you not removed the shift supervisor and the Plant Operations Manager, NRC would have considered issuing an order concerning removal of these individuals from licensed activities. In retrospect, if site management had followed the instructions of your January 15, 1987 memorandum concerning investigations by security and been sensitive to inattentiveness issues following the Peach Bottom problem, this issue might have been resolved earlier and without a civil penalty.

You are required to respond to this letter and enclosed Notice and should follow the instructions specified in the Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. It would be acceptable to reference, if appropriate, information previously provided to us. This response should emphasize why you believe your corrective actions have been effective. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

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

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

Sincerely,

Thomas T. Martin
Regional Administrator

Enclosure:
Notice of Violation and Proposed Imposition of Civil Penalty

cc w/encl:
M. B. Roche, Director, TMI-2
T. F. Demmitt, Deputy Director, TMI-2
R. E. Rogan, Licensing and Nuclear Safety Director
J. J. Byrne, Manager, TMI-2 Licensing
W. J. Marschall, Manager, Plant Operations
S. Levin, Defueling Director
J. B. Lieberman, Esquire
E. L. Blake, Jr., Esquire
G. A. Kuehn, TMI-2 Site Operations Director
TMI-Alert (TMIA)
Susquehanna Valley Alliance (SVA)
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
NRC Resident Inspector
Commonwealth of Pennsylvania
H. McGovern

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

GPU Nuclear Corporation
Three Mile Island, Unit 2

Docket No. 50-320
License No. DPR-73
EA 90-018

In July 1987, an anonymous allegation was received by both the NRC and licensee concerning alleged inattentiveness by the then shift supervisor (senior reactor operator) of the F-shift at Three Mile Island, Unit 2, as well as the alleged failure by certain site managers to correct the condition, although they were aware of it. During a subsequent investigation conducted by the NRC Office of Investigations (OI), violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1987), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalty are as follows:

A. Technical Specification 6.8.1 requires that written procedures be established, implemented and maintained covering the activities recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978.

Section 1 of Appendix A of Regulatory Guide 1.33, Revision 2, 1978 requires in part the establishment of administrative procedures covering the conduct of plant operations.

TMI-2 Departmental Administrative Procedure Manual 4210-ADM-3020.01, entitled "Conduct of Plant Operations", Revision 5-02, dated February 27, 1987, written to satisfy the requirements of Appendix A of Regulatory Guide 1.33, requires, in part, in paragraphs 4.4.2, 4.4.3, and 4.4.4, that all on-duty operators and supervisors be aware of and responsible for plant status at all times; be particularly attentive to their instrumentation and controls at all times; and be alert for any unusual trends in plant parameters.

Contrary to the above, for indeterminate periods prior to July 1987, on various shifts, particularly during the 11:00 p.m. to 7:00 a.m. shift, the then shift supervisor (senior reactor operator) of the F-shift, although assigned to be the supervisor directly responsible for the operation and control of the unit, was at times not alert or not attentive to his duties. Specifically, the individual exhibited a pattern of sleeping, giving the appearance of sleeping, or otherwise being inattentive to duties.

E. 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, requires, in part, that measures be established to assure that conditions adverse to quality, such as deficiencies and nonconformances, are promptly identified and corrected; and that for significant conditions adverse to quality, the cause of the condition is determined; corrective action is taken; and those conditions, causes, and corrective actions are documented and reported to appropriate levels of management.

Contrary to the above, between the fall of 1986 and July 9, 1987, the then Plant Operations Manager was made aware (by subordinate shift personnel) of allegations that the then shift supervisor of the F-shift was observed sleeping while on duty; furthermore, on three other occasions (on or about April 9, June 24 and July 1, 1987) other site management (including the then Manager, Plant Operations; the then Site Operations Director in April 1987; his then successor as Site Operations Director between April and July 1987; and the then TMI-2 Director) became aware, to varying degrees, of allegations that the then shift supervisor of the F-shift was observed to be sleeping on duty. Although inattentiveness by the shift supervisor would constitute a significant condition adverse to quality, measures were not adequately implemented by site management to promptly establish the validity of the allegations and take appropriate action to correct this condition.

These two violations are classified in the aggregate as a Severity Level III problem. (Supplement I)

Civil Penalty - $50,000

Pursuant to the provisions of 10 CFR 2.201, GPU Nuclear Corporation is hereby required to submit a written statement or explanation, under oath or affirmation, to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington D.C. 20555 with a copy to the Regional Administrator, Region I, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown.

Within the same time as provided for the response required above under 10 CFR 2.201, the licensee may pay the civil penalty by letter addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, money order, or electronic transfer payable to the Treasurer of

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

In requesting mitigation of the proposed penalty, the factors addressed in Section V.B in 10 CFR Part 2, Appendix C (1987) should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

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

The response noted above (Reply to Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Regional Administrator, Region I, U.S. Nuclear Regulatory Commission, 475 Allendale Road, King of Prussia, Pennsylvania 19406, and a copy to the NRC Resident Staff at Three Mile Island.

FOR THE NUCLEAR REGULATORY COMMISSION

Thomas T. Martin
Regional Administrator

Dated at King of Prussia, Pennsylvania
this 30 day of July 1990

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

July 25, 1990

Docket No. 50-461
License No. NPF-62
EA 90-100

Illinois Power Company
ATTN: J. S. Perry
Vice President
Clinton Power Station
Mail Code V-275
Post Office Box 678
Clinton, IL 61727

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $25,000
(NRC INSPECTION REPORT NO. 50-461/90009(DRP))

This refers to the inspection conducted on April 12-27, 1990, at the Clinton Power Station. The inspection included a review of the event that you reported to the NRC on April 12, 1990 which occurred when control rods were withdrawn on April 11, 1990 without following all required procedures. During this inspection, the NRC identified violations of regulatory requirements. The report describing the details of our inspection findings was sent to you by letter dated May 10, 1990. On May 31, 1990, an enforcement conference was conducted with your staff in the Region III office to discuss the circumstances surrounding the violations, your corrective actions, and your actions to prevent recurrence.

The violations that were identified during the inspection occurred (1) when a reactor operator performed control rod withdrawals while the main turbine bypass valves were not fully closed, as required, and (2) when these rod withdrawals were not prevented by a second licensed operator or other technically qualified member of the unit technical staff.

The violations occurred when the operations staff decided to continue critical plant evolutions during shift turnover. The on-shift licensed operators performing control rod withdrawal during startup failed to remain continuously cognizant and in control of plant conditions and evolutions in progress. Redundant, easily observable, and accurate indications were available to the "A" reactor operator and the shift technical advisor (STA) of main turbine bypass valve (BPV) position. These indications showed that two BPVs were not fully closed during multiple control rod withdrawals, as required, and were not observed. The STA twice informed the "A" reactor operator of anomalous plant performance (indications that generator load was not increasing, even though control rods were being withdrawn and reactor power was increasing). The "A" operator inappropriately disregarded this information. Neither the

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

"A" reactor operator nor the STA informed the line assistant shift supervisor (LASS), the senior reactor operator in the control room, of this anomalous plant performance. The LASS also was not sufficiently cognizant of plant conditions to be aware of this matter. The decision by the LASS to continue critical evolutions during the shift turnover process was indicative of poor judgment and poor performance.

The NRC is concerned with the quality of performance of Operations Department personnel, both licensed and non-licensed, during this event. Of particular concern, is the fact that licensed operators failed to discharge their duties in a responsible manner and the STA failed to adequately identify and resolve instrumentation discrepancies. In addition, the LASS neither took positive steps to ensure that control room personnel were properly discharging their responsibilities and the plant was operated safely nor ensured that adequate oversight was given to a relatively inexperienced operator.

The NRC recognizes that the event had minor safety significance in that the actual effect on the reactor core was mitigated by the fact that all the control rod withdrawals were in accordance with the rod pattern and at a rate of withdrawal which was more conservative than was allowed by the rod pattern control system. Notwithstanding this consideration, the deficiencies in performance of individuals and the operating crew are of significant concern because a series of procedural violations were made that resulted in the Technical Specification violation described in the Notice. Therefore, in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy), 10 CFR Part 2, Appendix C (1990), the violations have been classified as a Severity Level III problem.

The NRC acknowledges that significant corrective actions were taken following the rod withdrawal event. These corrective actions included, among other things: (1) placing the plant in cold shutdown; (2) briefing each shift crew on the details of the event and the "lessons learned;" (3) approximately 12 hours of retraining of active licensed operators, shift supervisors, and shift technical advisors; (4) meetings among the Plant Manager, Vice President and individuals who underwent retraining to discuss the April 11, 1990 event and reinforce the lessons presented in the retraining; and (5) assigning an experienced senior-level individual, reporting directly to the Vice President, to monitor and assess Plant Staff-Operations.

To emphasize the importance of adherence to procedures, effective communication between operating crew members, turnover of information between operating crews, and management oversight and direction of operating crews, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $25,000 for the Severity Level III problem. The base value for a Severity Level III problem is $50,000.

The escalation and mitigation factors in the Enforcement Policy were considered. While the violations were eventually identified by licensee personnel, there were several earlier opportunities for discovery. Additionally, information concerning the significance of this event that was developed during the licensee critique of April 11 was not promptly communicated to senior level management. Consequently, mitigation is not proposed for your identification of the event. Once the violations for failure to carry out a proper control rod withdrawal procedure were brought to the attention of senior management, prompt and extensive corrective action was taken. Based on the above, we have concluded that mitigation of the base civil penalty by 50 percent for this factor is warranted. The other adjustment factors in the Policy were considered and no further adjustment is considered appropriate.

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

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

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

Sincerely,

A Bert Davis

A. Bert Davis
Regional Administrator

Enclosures:
1. Notice of Violation and Proposed Imposition of Civil Penalty
2. Inspection Report No. 50-461/90009(DRP)

See Attached Distribution

Distribution

cc w/enclosures:
J. Cook, Manager, Clinton Power Station
F. Spangenberg, III, Manager
Licensing and Safety
DCD/DCB (RIDS)
Licensing Fee Management Branch
Resident Inspector, RIII
J. Hickman, NRR, PM
J. McCaffrey, Chief, Public
Utilities Division
H. Taylor, Quality Assurance
Division, Sargent & Lundy
Engineers
Patricia O'Brien, Governor's
Office of Consumer Services
S. Zabel, Esquire, Schiff, Hardin,
& Waite
L. Larson, Project Manager
General Electric Company
Chairman, DeWitt County Board
Illinois Department of
Nuclear Safety
Robert Newman, Asst. Director
State of Illinois
Perry SRI

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Illinois Power Company
Clinton Power Station

Docket No. 50-461
License No. NPF-62
EA 90-100

During an NRC inspection conducted on April 12-27, 1990, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990), the Nuclear Regulatory Commission 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 violations and associated civil penalty are set forth below:

Technical Specification 3.1.4.1 requires that control rods not be withdrawn in OPERATIONAL CONDITIONS 1 and 2 when the main turbine bypass valves are not fully closed and THERMAL POWER is greater than the low power setpoint of the rod pattern control system (RPCS). The action statement requires that, with any control rod withdrawal when the main turbine bypass valves are not fully closed and THERMAL POWER is greater than the low power setpoint of the RPCS, immediately return the control rod(s) to the position prior to control rod withdrawal.

Technical Specification Surveillance 4.1.4.1 requires that control rod withdrawal be prevented, when the main turbine bypass valves are not fully closed and THERMAL POWER is greater than the low power setpoint of the RPCS, by a second licensed operator or other technically qualified member of the unit technical staff.

A. Contrary to the above, on April 11, 1990, with the reactor in OPERATIONAL CONDITION 1 at a THERMAL POWER greater than the low power setpoint of the RPCS, at least fourteen control rod withdrawals were performed by a reactor operator with main turbine bypass valves not fully closed. Upon discovery of the open main turbine bypass valves, the load selector was raised to close the main turbine bypass valves rather than immediately returning the control rods to the position prior to control rod withdrawal.

B. Contrary to the above, on April 11, 1990, with the reactor in OPERATIONAL CONDITION 1 at a THERMAL POWER greater than the low power setpoint of the RPCS, at least fourteen control rod withdrawals were not prevented by a second licensed operator or other technically qualified member of the unit technical staff when the main turbine bypass valves were not fully closed.

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

Civil Penalty - $25,000 (assessed equally between the two violations).

Pursuant to the provisions of 10 CFR 2.201, Illinois Power Company (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: (1) admission or denial of the alleged violations, (2) the reasons for the violations if admitted; and if denied, the reasons why, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalty by letter addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, money order, or electronic transfer payable to the Treasurer of the United States in the amount of the civil penalty proposed above, 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 violations listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances (3) show error in this Notice, or (4) show other reasons why the 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 penalties, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C (1990), 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 civil penalties.

Upon failure to pay any civil penalties 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, letter with payment of civil penalty and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington D.C. 20555 with a copy to the Regional Administrator, Region III, U.S. Nuclear Regulatory Commission, 799 Roosevelt Road, Glen Ellyn, IL 60137, and a copy to the NRC Resident Inspector at the Clinton Power Station.

FOR THE NUCLEAR REGULATORY COMMISSION

A. Bert Davis
Regional Administrator

Dated at Glen Ellyn, Illinois
this 25th day of July 1990

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

July 10, 1990

Docket No. 50-245
License No. DPR-21
EA 90-084

Northeast Nuclear Energy Compa
ATTN: Mr. E. Mroczka
Senior Vice President
Nuclear Engineering and Operations
Post Office Box 270
Hartford, Connecticut 06140-0270

Gentlemen:

Subject: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $25,000
(NRC Inspection Report No. 50-245/90-05)

This letter refers to the NRC safety inspection conducted between February 21 and April 2, 1990 at the Millstone Nuclear Power Station, Waterford, Connecticut. The inspection report was sent to you on May 11, 1990. The NRC inspection included review of the circumstances associated with your failure to meet a condition required by a technical specification (TS) limiting condition for operation (LCO), as well as the failure to properly perform a monthly surveillance test in accordance with TS surveillance requirements. These failures, which were identified by your staff and reported to the NRC in March 1990, both resulted from errors made in the 1970s, and constituted conditions adverse to quality. The failure to promptly identify and correct these conditions which existed for an extended period (while opportunities existed to identify them) constitutes a violation of NRC requirements. On May 25, 1990, an enforcement conference was held with Mr. W. Romberg and members of your staff to discuss these events, the causes, and your corrective actions.

The violation is described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty. The first condition adverse to quality involved the main steam line high flow bistable set point being set to trip at 123% of rated steam flow, a value in excess of the 120% limit specified in the LCO. The bistable functions to initiate a primary containment isolation in the event of a design basis accident. The condition had existed since December 1976 when the then existing set point was recalculated after replacement of certain flow restrictors. The recalculation was in error at the time because the wrong reactor pressure was utilized in the calculation.

In April 1987, a Unit 1 engineer calculated the setpoint partly in response to a GE Service Information Letter (SIL) issued in June 1986 which described an inconsistency at another operating plant between the actual switch setpoint and the technical specification requirement. Based on his calculation, the engineer determined that the setpoint in use at Millstone 1 was too high and so advised plant management. Further, he sent the calculation to one of the corporate engineering departments for verification of both the calculation as well as the validity of the assumptions utilized in the calculation. However,

this issue was not given a high priority by plant management or corporate engineering; no individual was assigned lead responsibility for resolution of this concern; and a final determination concerning the validity of the calculation and assumptions was not completed until February 1990. When plant management was apprised of that determination in March 1990, action was then taken to initiate a shutdown of the reactor.

The NRC recognizes that the safety significance of this condition was low in that the difference between the as found and required maximum setpoint was small and other instrumentation was available to initiate a primary containment isolation on a main steam line break. Nonetheless, the NRC is concerned that although the engineer initially identified this condition in 1987 and the appropriate level of plant management was cognizant of the potential non-conservatism, adequate action was not taken to prioritize, track and resolve this condition in a timely manner. In fact, final resolution in March 1990 appears to have resulted primarily from the persistence of a Unit 1 Instrument & Control (I&C) engineer who routinely contacted corporate engineering concerning resolution of this issue.

The second condition adverse to quality involved the performance, since the 1970s, of the monthly technical specification surveillance test of the gas turbine generator at a load less than full load output, as required by the TS surveillance requirement. This condition had occurred because of an inconsistency between the technical specification surveillance requirements and the surveillance test procedure which had existed since the 1970s when certain procedures were consolidated. These monthly tests were performed since that time at loads greater than 6 megawatts, as specified in the related surveillance procedure. This is a concern with your current performance because neither the personnel who performed these monthly tests, nor the individuals who conducted biennial reviews of the tests for technical adequacy or periodic audits of the technical specifications to assure all specified requirements were being met, recognized that the technical specification required full load was described in the Final Safety Analysis Report at the time of identification as 9.876 megawatts. The NRC recognizes that the significance of this condition was also low since the gas turbine was tested to full load prior to the procedure consolidation, was maintained to a high degree of reliability and functioned properly when tested at the full load in March 1990.

These failures demonstrate weaknesses in your program for prompt identification and resolution of safety significant deficiencies. To emphasize the importance of effective and long lasting corrective action to resolve this concern, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $25,000 for the violation set forth in the Notice. The violation has been classified at Severity Level III in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions", 10 CFR Part 2, Appendix C, (1990) (Enforcement Policy). The base civil penalty amount for a Severity Level III violation is $50,000. The escalation and mitigation factors set forth in the Enforcement Policy

were considered and, on balance, the base civil penalty has been mitigated by 50%. The bases for this decision are: (1) although the conditions adverse to quality were identified by your staff, they reasonably should have been identified and corrected sooner, and therefore, no adjustment of the base civil penalty on this factor is warranted; (2) your corrective actions subsequent to identification (which include correction of the specific setpoint and load test deficiencies), although acceptable, were not considered prompt and comprehensive in that the they did not adequately address improvements in your programs for assuring timely identification and resolution of potential safety concerns, and therefore, no adjustment of the base civil penalty on this factor is warranted; (3) your past performance in operations, surveillance and engineering has been good, as evidenced by no related violations being identified in the past two years, and Category 1 ratings in the operation and surveillance areas during the last four SALP periods, and a Category 2 rating in engineering during the last SALP period, and therefore, 100% mitigation of the base civil penalty on this factor is warranted; and (4) you had prior notice of a potential problem regarding one of the two problems (namely, the nonconservative main steam line high flow set points) as described above, but did not prioritize nor monitor this issue to ensure resolution in a timely manner, and therefore, 50% escalation on this factor is warranted. The NRC also considered escalating the civil penalty amount because the violation involved two examples of not promptly resolving adverse conditions and because the conditions existed for an extended duration. However, since these factors were considered in establishing the violation and classifying it at Severity Level III, further escalation on these factors was considered inappropriate.

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

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

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

Sincerely,

Thomas T. Martin
Regional Administrator

Enclosure: Notice of Violation and
Proposed Imposition of Civil Penalty

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Northeast Nuclear Energy Company
Millstone Unit 1

Docket No. 50-245
License No. DPR-21
EA 90-084

During an NRC inspection conducted between February 21 and April 2, 1990, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, (Enforcement Policy) (1990), the Nuclear Regulatory Commission 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 Part 50, Appendix B, Criterion XVI (Corrective Actions), requires, in part, that measures shall be established to assure that conditions adverse to quality, such as failures, deficiencies and deviations are promptly identified and corrected.

Contrary to the above, on two occasions prior to March 1990, conditions adverse to quality existed at Millstone Unit 1; however, one condition was not promptly identified, and the other condition, although identified, was not promptly corrected, as evidenced by the following two examples:

1. In April 1987, a Unit 1 engineer performed a calculation of the main steam line high flow trip setpoint partly in response to a General Electric Service Information Letter (SIL) and found that the existing setpoint was in excess of the setpoint limit of 120% of rated steam flow described in technical specification (TS) limiting condition for operation 3.2.A and Table 3.2.1. Although this determination (which constituted a condition adverse to quality) was sent to the corporate engineering department in April 1987 to verify the validity of the calculation and the assumptions used, final verification that the setpoint was non-conservative was not made until March 1990, even though the Unit 1 instrument and control (I&C) engineer repeatedly had sought disposition of this matter during this period; and

2. Since 1978, the monthly surveillance test of the gas turbine generator (GT) was performed at a load greater than 6 megawatts as specified by procedure SP-668.2, Gas Turbine Emergency Fast Start Test, Revision 12, dated February 21, 1990 (and prior revisions). The GT was not tested at the full load output (of 9.876 megawatts as specified in Table 8.3-7 of the Updated Final Safety Analysis Report that existed at the time of identification) as required by technical specification surveillance requirement 4.9.A.2.a. Although these TS surveillance tests were performed monthly, and periodic audits of technical specifications and

biennial reviews of these tests were performed, this condition was not identified and corrected until March 2, 1990.

This is a Severity Level III violation (Supplement I)

Civil Penalty - $25,000

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

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

In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C (1990), should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

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

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, 475 Allendale Road, King of Prussia, PA, 19406 and a copy to the NRC Senior Resident Inspector, Millstone Nuclear Power Station.

FOR THE NUCLEAR REGULATORY COMMISSION

Thomas T. Martin
Regional Administrator

Dated at King of Prussia, Pennsylvania
this 16 day of July 1990

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

July 23, 1990

Docket No. 50-245
License No. DPR-21
EA 90-111

Northeast Nuclear Energy Company
ATTN: Mr. E. J. Mroczka
Senior Vice President - Nuclear
Engineering and Operations
P.O. Box 270
Hartford, Connecticut 06141-0270

Gentlemen:

Subject: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $50,000
(NRC Inspection Report No. 50-245/90-08)

This refers to the NRC special inspection conducted at the Low Level Waste Disposal Site, Barnwell, South Carolina (Barnwell), and in the Region I office on May 10-25, 1990 to review the circumstances associated with an incident involving the shipment of a package containing irradiated waste from Millstone Unit 1 to Barnwell on May 7, 1990 with free standing liquid (water) in the package in excess of the regulatory limit. This condition constitutes a violation of NRC requirements as set forth below. The inspection report was sent to you on May 30, 1990. On June 15, 1990, an enforcement conference was conducted with Mr. W. Romberg and other members of your staff to discuss the violation, its causes and your corrective actions.

The violation, which is described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty, occurred on May 7, 1990 when a Transnuclear, TN-RAM shipping cask containing approximately 16,000 curies of waste irradiated hardware (sheared control rod blades and power range monitors) was delivered to a carrier for transport to Barnwell, South Carolina. This waste had previously been stored in the Unit 1 Spent Fuel Pool. On May 9, 1990, while the cask was being prepared for offloading at the waste facility, approximately 75 gallons of contaminated water spilled from the cask resulting in the contamination of the offloading equipment and the surrounding ground area. Subsequently, when the cask was completely dewatered at the waste facility, it was found to have contained approximately 196 gallons of slightly contaminated water (approximately 40% of the total cask volume).

The NRC is concerned that prior to the release of the shipping cask to the carrier for offsite shipment, adequate management and procedural controls were not in place to ensure that the cask was properly dewatered and dried. Specifically, although the vendor procedure utilized for conducting the "dryness verification" of the cask was reviewed and approved by the Plant Operating Review Committee (PORC), the procedure was inadequate in that (1) it did not contain a method for quantifying the amount of water drained from the cask; and (2) there was a discrepancy between the Safety Analysis Report (SAR) for the cask and the procedure, and this discrepancy resulted in vague

acceptance criteria for the "dryness verification" test being incorporated into the procedure. Specifically, the SAR called for the test to be conducted at a vacuum of ten mbar, while the procedure specified a "minimum" vacuum of ten mbar. This change from the SAR required value resulted in the test being conducted at whatever value above ten mbar the operator chose, and led to an inaccurate interpretation of the test results by the operator. If these deficiencies in the procedure had been identified and corrected, you would likely have recognized that there was still a significant amount of water in the cask before releasing it to the carrier for transport. In addition, when planning for this evolution, you did not adequately consider the possibility of the cask drain lines becoming blocked by particulates during the draining of the cask.

The NRC is particularly concerned that this incident represents another example of a recent trend at Millstone involving management's failure to ensure that adequate oversight and controls are provided during the handling of radioactive material (including the preparation of packages containing radioactive material for offsite shipment and disposal) so that these activities are performed safely and in accordance with regulatory requirements. A transportation violation occurred in September 1989 (Inspection Report Nos. 50-245/89-23; 50-336/89-22; and 50-423/89-23) in which an offsite shipment was made with radiation levels measured at the surface of the package in excess of the regulatory limits. On August 31, 1989, a $25,000 civil penalty was issued to you for transportation violations that resulted from your loss of control of radioactive material (Reference EA 89-124). On March 30, 1990, a $3,750 civil penalty was issued to you as the result of the shipment of a package containing radioactive materials to another nuclear facility with surface radiation levels on a portion of the package in excess of regulatory limits (Reference EA 90-023). Neither your corrective actions for these incidents nor your previous programmatic enhancements in the radioactive materials handling area were sufficiently comprehensive to prevent this most recent violation.

Accordingly, the need exists for increased and improved management oversight of activities involving the handling and transportation of radioactive materials to prevent recurrence of such violations in the future. To emphasize this need, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $50,000 for the violation described in the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990) (Enforcement Policy), the violation has been categorized at Severity Level III.

The base civil penalty for a Severity Level III violation involving transportation of greater than Type A quantities is $50,000. The escalation and mitigation factors set forth in the Enforcement Policy were considered in determining the amount of this civil penalty. Mitigation of the base civil penalty by 50% was warranted due to your corrective actions subsequent to this event, including an independent and comprehensive review of all radioactive materials process procedures currently in use, as well as the development of a procedure/checklist to provide detailed technical analysis of process control procedures for future transportation activities. Escalation of the base amount of the civil penalty by 50% was warranted because of your recent poor

performance in the area of transportation, as described above. Your overall good performance at Millstone was considered in making the decision not to escalate the base civil penalty a full 100% for this factor. Further mitigation for identification of the violation was not warranted because the violation was discovered by an employee at the Low Level Waste Disposal Site, not by the members of your staff. The remaining escalation and mitigation factors were considered and no further adjustment of the civil penalty was deemed appropriate. Therefore, on balance, a $50,000 civil penalty is being proposed.

The NRC recognizes that, as a result of this incident, the State of South Carolina issued a $6,000 civil penalty to you on May 16, 1990 and suspended your South Carolina Waste Transport Permit until you demonstrated compliance with state and federal laws. Notwithstanding this action by the State of South Carolina, the NRC has decided that further action by the NRC is warranted in view of your recent poor performance in the radioactive materials handling and transportation areas.

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

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

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

Sincerely,

for Thomas T. Martin
Regional Administrator

Enclosure: Notice of Violation and Proposed Imposition of Civil Penalty

cc w/encl:
W. D. Romberg, Vice President, Nuclear Operations
S. E. Scace, Station Superintendent
D. O. Nordquist, Director of Quality Services
R. M. Kacich, Manager, Generation Facilities Licensing
D. B. Miller, Station Superintendent, Haddam Neck
Gerald Garfield, Esquire
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
NRC Resident Inspector
State of Connecticut

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Northeast Nuclear Energy Company
Millstone Unit 1

Docket No. 50-245
License No. DPR-21
EA 90-111

On May 10-25, 1990, an NRC inspection was conducted in the Region I office and at Barnwell, South Carolina to review the circumstances associated with the shipment of a Transnuclear, Inc., TN-RAM cask containing radioactive material from Millstone, Unit 1 to the Low Level Waste Disposal Site, Barnwell, South Carolina with free standing liquid in the cask in excess of the regulatory limit. This condition constitutes a violation of NRC requirements as described below. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990), the Nuclear Regulatory Commission 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 71.12(a) states, in part, that a general license is hereby issued to any licensee of the Commission to transport, or deliver to a carrier for transport, licensed material in a package for which a certificate of compliance has been issued by the NRC. 10 CFR 71.12(c)(2) states, in part, that this general license applies only to a licensee who complies with the terms and conditions of the certificate. Condition 7 of NRC Certificate of Compliance No. 9233, issued for a Transnuclear, TN-RAM shipping cask (package) requires that the inner cask cavity and the secondary container be free of water when the package is delivered to a carrier for transport.

10 CFR 61.56(b)(2) requires, in part, that wastes containing liquid be converted into a form that contains as little free standing and noncorrosive liquid as is reasonably achievable, but in no case shall the liquid exceed 1% of the volume of the waste when the waste is in a disposal container designed to ensure stability.

Contrary to the above, on May 7, 1990, a Transnuclear, TN-RAM shipping cask containing approximately 16,000 curies of irradiated hardware was delivered by the licensee to a carrier for transport to the Low Level Waste Disposal Site, Barnwell, South Carolina (Barnwell), and upon receipt of this shipping cask at Barnwell, the cask was found by an employee of the Low Level Waste Disposal Site to contain approximately 196 gallons (approximately 40% of the cask internal volume) of slightly contaminated water (having a near contact dose rate of 5 mR/hour).

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

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

Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, 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, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C (1990), should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

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

The response noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region I, 475 Allendale Road, King of Prussia, Pennsylvania 19406, and the Senior Resident Inspector at Millstone.

FOR THE NUCLEAR REGULATORY COMMISSION

Thomas T. Martin
Regional Administrator

Dated at King of Prussia, Pennsylvania
this 23rd day of July 1990

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

July 16, 1990

Docket Nos. 50-277 and 50-278
License Nos. DPR-44 and DPR-56
EA 90-105

Philadelphia Electric Company
ATTN: Mr. Dickinson M. Smith
Senior Vice President-Nuclear
Nuclear Group Headquarters
Correspondence Control Desk
Post Office Box 195
Wayne, Pennsylvania 19087-0195

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $75,000
(NRC Inspection Report Nos. 50-277/90-200; 50-278/90-200 and
50-277/90-06; 50-278/90-06)

This letter refers to the NRC safety system functional inspection (SSFI) conducted between February 5-February 16 and February 26-March 2, 1990, as well as a routine resident inspection conducted between February 20-April 2, 1990 at the Peach Bottom Atomic Power Station, Delta, Pennsylvania. The inspection reports were sent to you on April 20, 1990 and May 15, 1990, respectively. During these inspections, violations of NRC requirements were identified. Three of those violations involved design, design control and operating practices associated with the emergency service water (ESW) system. On June 1, 1990, an enforcement conference was held with you and members of your staff to discuss the violations, their causes, and your corrective actions.

Violation A, which is described in the enclosed Notice, involves the failure to adequately identify the safety significance of, track, and to correct conditions adverse to quality in the ESW system which were initially identified during a complete network analysis performed by your contractor in 1983 and 1984. Specifically, the analysis indicated that the ESW system flow rates could be significantly lower than design flow rates, and may only minimally meet calculated load demands. Further, it was recommended by your contractor in 1984 and your engineering staff in 1989 that integrated ESW system field tests be performed to validate the network analysis. Despite such recommendations neither the testing nor other prompt and effective actions were taken to assure that the ESW system could meet its design performance requirements until the concern was ra sed by the NRC inspectors during the SSFI inspection. Subsequent to the SSFI inspection, analysis and testing you performed determined that for Unit 2, the ESW system would not provide the minimum acceptable flows to ensure that 11 of the 20 emergency core cooling system (ECCS) and reactor core isolation cooling (RCIC) room coolers would perform their design basis heat removal function during all environmental conditions. As a result, the facility operated for an indeterminate period of time with the ESW system inoperable.

Violations B and C, which are also described in the enclosed Notice and which are of lesser significance, involve (1) violation of a technical specification limiting condition for operation (LCO) by continued operation of Unit 2 for approximately 32 hours with the "A" ESW pump inoperable due to the loss of its emergency power supply, the emergency cooling water pump inoperable due to ongoing maintenance, and the "B" ESW subsystem isolated from Unit 2 due to valve misalignment and (2) two examples in which changes were made to the ESW system as described in the FSAR without adequate written safety analyses to provide a basis for a determination that the changes did not involve unreviewed safety questions. With respect to Violation B, the violation occurred because: (a) two remote manual crosstie valves between the "A" and "B" ESW subsystems were misaligned as a result of improper valve restoration following maintenance activities; (b) operating personnel did not notice the off-normal valve position indication in the control room; and (c) your staff did not recognize this alignment as constituting an inoperable condition. Further, neither an adequate evaluation of ESW operability, nor an adequate evaluation of the reportability of this condition to the NRC was performed until prompted by the NRC staff. Although the mis-alignment of the valves would have prevented normal ESW flow to the Unit 2 ECCS equipment during a design basis accident, the safety significance of the condition was fortuitously minimized by the existence of a previously unrecognized flow path allowing for partial cooling.

The NRC staff is particularly concerned about the lack of aggressive management action to ensure the initiation of corrective actions to resolve the ESW system deficiencies identified by your contractor in 1983 and 1984 during the network analysis. Specifically, although both the engineering department and the plant staff were aware of these deficiencies, neither recognized the potential safety significance of the deficiencies, nor initiated timely and effective corrective actions to resolve the issues until prompted by the NRC staff.

These violations represent instances where plant operational conditions were not systematically evaluated in a timely manner to ensure that the a system important to the operation of your facility was being operated in accordance with the technical specifications and within the design limits set forth in the FSAR. Further, proper coordination and communications were not exercised throughout your organization to ensure that the safety issues involved were promptly identified and corrected. To emphasize the need to improve performance in these areas I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $75,000 for the violations described in the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (Enforcement Policy) (1990), the violations described in the enclosed Notice have been categorized in the aggregate as a Severity Level III problem.

The base civil penalty for a Severity Level III problem is $50,000. The escalation and mitigation factors set forth in the enforcement policy were considered and the base civil penalty has been escalated 50% after evaluating the adjustment factors as follows: (1) Violations A and C were identified by

the NRC inspectors, and reasonably should have been identified by your staff sooner while Violation B, which was identified by your staff, was not properly evaluated or reported, and therefore, escalation of the base civil penalty is warranted; (2) once the violations were identified to you, your corrective actions (which included the implementation of an extensive testing, inspection, maintenance and modification program) were considered prompt and comprehensive and therefore, 50% mitigation of the base civil penalty is warranted; (3) your performance during the past two years improved enough to warrant restart of the facility but has not improved enough to warrant mitigation of the base civil penalty and therefore, no adjustment to the base civil penalty is being made for past performance; and (4) the base civil penalty has been increased by 50% for prior notice because you had specific notice of the potential deficiencies in the ESW system as a result of the network analysis performed by your contractor in 1983 and 1984. The NRC staff also considered escalating the civil penalty amount because Violation A existed for an extended duration; however, since this factor was considered in establishing the severity level of the problem, further escalation on this factor was considered inappropriate. Escalation of the base civil penalty for multiple examples was also considered but found inappropriate in this case. Therefore, on balance, the base civil penalty has been increased by 50%.

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. Your response should also describe the actions you have taken or plan to take to assure safety issues are identified and resolved in a timely manner. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

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

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

Sincerely,

Thomas T. Martin
Regional Administrator

Enclosure:
Notice of Violation and Proposed
Imposition of Civil Penalty

cc w/encl:
D. R. Helwig, Vice President of Nuclear Engineering and Services
R. J. Lees, Chairman, Nuclear Review Board
D. B. Miller, Vice President for Peach Bottom
J. Urban, General Manager, Fuels Department, Delmarva Power & Light Co.
J. F. Franz, Plant Manager, Peach Bottom Atomic Power Station
T. E. Cribbe, Regulatory Engineer, Peach Bottom Atomic Power Station
J. P. Wilson, Acting Project Manager, Peach Bottom Atomic Power Station
T. B. Conner, Jr., Esquire
W. H. Hirst, Director, Joint Generation Projects Department,
Atlantic Electric
B. W. Gorman, Manager, External Affairs
E. J. Cullen, Esquire, Assistant General Counsel (Without Report)
R. L. Hovis, Esquire
T. Magette, Power Plant Siting, Nuclear Evaluations
G. Hunger, Director, Licensing Section
D. Poulsen, Secretary of Harford County Council
J. H. Walter, Chief Engineer, Public Service Commission of Maryland
Public Document Room (PDR)
Nuclear Safety Information Center (NSIC)
NRC Resident Inspector
Commonwealth of Pennsylvania

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Philadelphia Electric Company
Peach Bottom Units 2 and 3

Docket Nos. 50-277 and 50-278
License Nos. DPR-44 and DPR-56
EA 90-105

During an NRC safety system functional inspection (SSFI) conducted between February 5 - March 2, 1990, as well as a routine resident inspection conducted between February 20 - April 2, 1990, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990), the Nuclear Regulatory Commission 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 violations and associated civil penalty are set forth 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, are promptly identified and corrected.

Technical Specification Limiting Condition for Operation (LCO) 3.9.C.1 (Emergency Service Water) requires the ESW system to be operable at all times when reactor coolant temperature is greater than 212 degrees Fahrenheit.

Contrary to the above, measures were not established to assure that conditions adverse to quality in the plant emergency service water (ESW) system were promptly identified and corrected. Specifically, ESW flow calculations performed in 1983 and 1984 indicated that system flow rates could be significantly lower than design flow rates such that the ESW system could not meet the original design flow requirements to the ECCS and RCIC room coolers; however, the licensee did not identify the safety significance of this condition, nor did they initiate adequate corrective actions to correct this condition adverse to quality. As a result, for an indeterminate period prior to the shutdown of the unit on March 3, 1990, Unit 2 operated at up to 100% power (and with the reactor coolant temperature greater than 212° F) with the ESW system inoperable.

B. Technical Specification Limiting Condition for Operation (LCO) 3.0.D requires, in part, that when a system, subsystem, train, component or device is determined to be inoperable solely because its emergency power source is inoperable, it may be considered OPERABLE for the purpose of satisfying the requirements of the Limiting Condition for Operation, provided: (1) its corresponding normal power source is OPERABLE; and (2) all of its redundant systems, subsystems, trains, components and devices are OPERABLE. Unless both conditions (1) and (2) are satisfied, the unit shall be placed in HOT SHUTDOWN with 6 hours and in COLD SHUTDOWN within 36 hours.

Contrary to the above, the Unit 2 ESW system became inoperable when the emergency power source for emergency service water (ESW) pump "A" was rendered inoperable at 11:55 p.m. on August 13, 1989, with the emergency cooling water pump already out of service, and the redundant "B" ESW subsystem isolated from Unit 2 due to the misalignment of two remote manual valves; however, ESW pump "A" was not declared inoperable, nor was the unit placed in HOT SHUTDOWN within 6 hours and COLD SHUTDOWN within 36 hours. Specifically, Unit 2 power operations continued in this configuration until approximately 7:30 a.m. on August 15, 1989 (a period of approximately 32 hours).

C. 10 CFR 50.59(a)(1) permits the holder of a license to make changes in the facility as described in the safety analysis report, without prior Commission approval, unless the proposed change involves a change in the technical specifications or an unreviewed safety question.

10 CFR 50.59(b)(1) requires, in part, that records of these changes be maintained, and these records shall include a written safety evaluation which provides the basis for the determination that the change does not involve an unreviewed safety question.

Section 10.8.3 (Reactor Building Cooling Water System Description) of the facility FSAR states that in the event of off-site power failure, the emergency service water system can supply cooling water to the reactor building cooling water system. Section 10.9.3 (Emergency Service Water System Description) of the FSAR states, in part, the emergency service water system supply to the reactor building cooling water system heat exchangers is sufficient to maintain the cooling water system water design temperature.

Section 10.24.3 (Emergency Heat Sink Description) of the FSAR also states, in part, the emergency service water pumps take suction from the pump bays and supply water to standby diesel-generator coolers and the ECCS's pump room air coolers. The return water from the coolers is boosted in pressure by one of two emergency service water booster pumps and delivered to the emergency cooling tower.

Contrary to the above, changes were made to the facility ESW system as described in the FSAR; however, adequate written safety evaluations were not prepared to provide a basis for a determination that these changes did not involve an unreviewed safety question as evidenced by the following examples:

1. In 1979, the ESW system design was changed by isolating the reactor building closed cooling water system from the ESW system resulting in the reduction of ESW flow to the suction side of the ESW booster pumps; and

2. In 1989, plant procedures were revised such that the ESW booster pump discharge valve was throttled resulting in reduced ESW flow to the ECCS coolers when the emergency heat sink was placed in service.

These violations have been categorized in the aggregate as a Severity Level III problem. (Supplement 1)

Civil Penalty - $75,000

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

Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, 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, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C (1990), 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 provision of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, 475 Allendale Road, King of Prussia, PA, 19406 and a copy to the NRC Senior Resident Inspector, Peach Bottom.

FOR THE NUCLEAR REGULATORY COMMISSION

Thomas T. Martin
Regional Administrator

Dated at King of Prussia, Pennsylvania
this 16 day of July 1990

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

JUL 2 0 1990

Docket Nos. 50-327 and 50-328
License Nos. DPR-77 and DPR-79
EA 90-011

Tennessee Valley Authority
ATTN: Mr. Oliver D. Kingsley, Jr.
Senior Vice President, Nuclear Power
6N 38A Lookout Place
1011 Market Street
Chattanooga, Tennessee 37402-2801

Gentlemen:

SUBJECT: ORDER IMPOSING A CIVIL MONETARY PENALTY - $75,000
(SEQUOYAH NUCLEAR PLANT)

This refers to your letter of May 9, 1990, in response to the Notice of Violation and Proposed Imposition of Civil Penalty (Notice) sent to you on April 12, 1990. Our letter and Notice described violations at the Sequoyah Nuclear Plant, Units 1 and 2, involving corrective actions to prevent RHR pump deadheading. A civil penalty in the amount of $75,000 was proposed to emphasize the need to ensure that potential conditions adverse to quality are adequately evaluated and prompt, effective corrective action taken.

In your response, you admitted the violations but requested reconsideration for escalation of the base civil penalty based on NRC identification and for lack of mitigation of the penalty based on corrective action.

After careful consideration of your response, we have concluded, for the reasons given in the Appendix attached to the enclosed Order Imposing Civil Monetary Penalty, that a sufficient basis was not provided for reduction of the civil penalty amount. Accordingly, we hereby serve the enclosed Order on Tennessee Valley Authority imposing the civil penalty in the amount of Seventy Five Thousand Dollars ($75,000).

During our review of your response, we determined that certain information was unclear in your response and other information conflicted with information previously submitted. Please provide to the Regional Administrator, Region II, the following information within 30 days of the date of this letter:

1. Your response of May 9, 1990 did not clearly address the reason and corrective action for Violation A, Example 1. Some information on this violation was provided in your enforcement conference followup letter dated March 5, 1990. Please address why no action was taken to preclude damage to an RHR pump due to deadheading when information indicated that the Sequoyah design was susceptible to deadheading. Specifically, your response did not address why 20 minutes was used during your Emergency Procedure review as an acceptable time for RHR pump deadheading when TVA

calculations indicated that damage would occur after approximately 11 minutes. That information is considered important because had 11 minutes been used, it appears that these violations may not have occurred. In addition, please provide your corrective actions to assure that when potential degradation of plant systems is indicated, appropriate measures will be taken to prevent the consequences.

2. Please clarify your position on the utilization of the differential pressure data in your review of the deadheading issue between November 28 and December 5, 1989. In your letter of March 5, 1990, you indicated that TVA was not satisfied with the performance of the Systems Engineering group in the evaluation of the data. This concern is not reflected in your response to the violation.

3. TVA addressed whether the response to Bulletin 88-04 contained complete and accurate information in relation to the RHR pumps. However, the revised Bulletin response dated March 15, 1990 also indicated that the portion pertaining to the auxiliary feedwater pumps had been revised. Please address the errors or omission of information in the entire Bulletin 88-04 response, and corrective actions to preclude submittal of incomplete or inaccurate data in the future.

4. Please clarify the statement that "TVA believes that this event resulted from past programmatic weaknesses that had been previously recognized and for which extensive corrective actions had already been implemented or initiated." Although NRC acknowledged that TVA had taken extensive programmatic corrective actions for some of the problem areas, it is not clear that all areas of concern were previously identified or corrected. Examples include the deficiencies in the emergency operating procedure revision process and the evaluation and promptness of corrective action in regard to the pump differential pressure data on Unit 1.

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

In accordance with 10 CFR 2,790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosure will be placed in the NRC Public Document Room.

Sincerely,

James Lieberman

James Lieberman, Director
Office of Enforcement

Enclosure: Order w/Appendix

cc w/encl: See Next Page

cc w/encl:
M. Runyon, Chairman
Tennessee Valley Authority
ET 12A 7A
400 West Summit Hill Drive
Knoxville, TN 37902

C. H. Dean, Jr., Director
Tennessee Valley Authority
ET 12A 11A
400 West Summit Hill Drive
Knoxville, TN 37902

J. B. Waters, Director
Tennessee Valley Authority
ET 12A 9A
400 West Summit Hill Drive
Knoxville, TN 37902

W. F. Willis
Chief Operating Officer
ET 12B 16B
400 West Summit Hill Drive
Knoxville, TN 37902

D. Nunn, Vice President
Nuclear Engineering
Tennessee Valley Authority
400 West Summit Hill Drive
WT 12A 12A
Knoxville, TN 37902

Dr. M. O. Medford
Vice President and Nuclear
Technical Director
Tennessee Valley Authority
6N 38A Lookout Place
Chattanooga, TN 37402-2801

County Judge
Hamilton County Courthouse
Chattanooga, TN 37402

Dr. Henry Myers, Science Advisor
Committee on Interior and
Insular Affairs
U. S. House of Representatives
Washington, D. C. 20515

C. A. Vondra, Plant Manager
Sequoyah Nuclear Plant
Tennessee Valley Authority
P. O. Box 2000
Soddy-Daisy, TN 37379

E. G. Wallace, Manager
Nuclear Licensing and
Regulatory Affairs
Tennessee Valley Authority
5N 157B Lookout Place
Chattanooga, TN 37402-2801

M. Burzynski
Site Licensing Manager
Sequoyah Nuclear Plant
P. O. Box 2000
Soddy-Daisy, TN 37379

TVA Representative
Rockville Office
11921 Rockville Pike
Suite 402
Rockville, MD 20852

General Counsel
Tennessee Valley Authority
400 West Summit Hill Drive
ET 11B 33H
Knoxville, TN 37902

Michael H. Mobley, Director
Division of Radiological Health
T.E.R.R.A. Building
150 -9th Avenue North
Nashville, TN 37247-3201

State of Tennessee

UNITED STATES
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	Docket Nos. 50-327 and 50-328
TENNESSEE VALLEY AUTHORITY	)	License Nos. DPR-77 and DPR-79
Sequoyah Nuclear Plant	)	EA 90-011
Units 1 and 2		

ORDER IMPOSING CIVIL MONETARY PENALTY

I

Tennessee Valley Authority (Licensee) is the holder of Operating License No. DPR-77 and No. DPR-79 issued by the Nuclear Regulatory Commission (Commission or NRC) on September 17, 1980 and September 15, 1981, respectively. The licenses authorize the Licensee to operate the Sequoyah Nuclear Plant, Units 1 and 2, at Soddy-Daisy, Tennessee, in accordance with the conditions specified therein.

II

An inspection of the Licensee's activities was conducted on January 8-12, 1990. The results of this inspection indicated that the Licensee had not conducted its activities in full compliance with NRC requirements. A written Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was served upon the Licensee by letter dated April 12, 1990. The Notice stated the nature of the violations, the provisions of the NRC's requirements that the Licensee had violated, and the amount of the civil penalty proposed for the violations. The Licensee responded to the Notice by letter dated May 9, 1990. In its response, the Licensee admitted the violations but requested reconsideration of escalation of the base civil penalty based on its asserted identification of the

residual heat removal (RHR) pump problem prior to the NRC identification and its asserted extensive corrective action put in place prior to and following discovery of the RHR pump problem.

III

After consideration of the Licensee's response and the statements of fact, explanations, and argument for reconsideration contained therein, the staff has determined, as set forth in the Appendix to this Order, that the violations occurred as stated and that the penalty 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 CFR 2.205, IT IS HEREBY ORDERED THAT:

The Licensee pay a civil penalty in the amount of Seventy-five Thousand Dollars ($75,000) within 30 days of the date of this Order, by check, draft, or money order, payable to the Treasurer of the United States and mailed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555.

V

The Licensee may request a hearing within 30 days of the date of this Order. A request for a hearing shall be clearly marked as a "Request for an Enforcement Hearing" and shall be addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555. Copies also shall be sent to the Assistant General Counsel for Hearings and Enforcement at the same address, and to the Regional Administrator, Region II, Atlanta, Georgia.

If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. If the Licensee fails to request a hearing within 30 days of the date of this Order, 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 Attorney General for collection.

In the event the Licensee requests a hearing as provided above, the issues to be considered at such hearing shall be whether, on the basis of the violations admitted by the Licensee, this Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION

James Lieberman, Director
Office of Enforcement

Dated at Rockville, Maryland
this 20th day of July 1990

APPENDIX

EVALUATIONS AND CONCLUSION

On April 12, 1990, a Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was issued for violations identified during a special NRC inspection at the Sequoyah Nuclear Plant, Units 1 and 2. TVA responded to the Notice in a letter dated May 9, 1990. In its response, the licensee admitted the violations, but requested reconsideration of the proposed civil penalty. The NRC staff's evaluation and conclusion regarding TVA's response is as follows:

I. Restatement of Violations

a. 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, requires in part, that measures shall be established to assure that conditions adverse to quality, such as failures, deviations and nonconformance are promptly identified and corrected.

NRC Bulletin 88-04, Potential Safety Related Pump Loss, issued May 5, 1988, alerted licensees to a significant condition adverse to quality that involved the potential for the deadheading of one or more pumps in safety-related systems that have a miniflow line common to two or more pumps or other piping configurations that do not preclude pump-to-pump interaction during miniflow operation.

Licensee engineering calculation DNE SQN-74-D053, dated July 22, 1988, determined that RHR pump damage would occur for a pump that was run deadheaded for greater than 11 minutes.

10 CFR 50.9 requires, in part, that information provided to the Commission by a licensee, be complete and accurate in all material respects.

Licensee letter to the NRC in response to NRC Bulletin 88-04, dated August 2, 1988, stated that the potential existed for deadheading a safety-related RHR pump due to pump-to-pump interaction under miniflow conditions when the head differential between the pumps exceeded 11 pounds per square inch (psi). The letter also stated that recent surveillance test data demonstrated that the head differential between the two RHR pumps was less than 11 psi, ensuring a minimum flow of 100 gallons per minute to allow pump operation for up to 20 minutes without requiring operator intervention.

Contrary to the above, as of December 5, 1989, the licensee failed to adequately identify and correct a significant condition adverse to quality regarding the potential for safety-related RHR pump damage from deadheading due to pump-to-pump interaction during miniflow conditions in that:

1. No action had been taken to preclude damage to a RHR pump should deadheading develop due to pump-to-pump interaction under miniflow conditions, until a special test demonstrated that the Unit 1 RHR pumps deadheaded under those conditions on December 5, 1989.

2. The licensee's evaluation of Unit 1 RHR pump surveillance test data, referenced in their August 2, 1988 letter to the NRC, was inadequate to identify that an RHR pump was likely to deadhead due to pump-to-pump interaction, as the majority of the test data from July 1987 through August 1988 indicated that the head differential pressure between the pumps exceeded 11 psi. As a result inaccurate information was provided to the Commission on August 2, 1988.

b. Technical Specification 6.8.1, requires in part, that written procedures be established, implemented and maintained covering the applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, Revision 2, February 1978.

Appendix "A" of Regulatory Guide 1.33, Revision 2, requires procedures for combating emergencies and other significant events.

Technical Specifications 6.8.2, requires in part, that changes to procedures be reviewed and approved prior to implementation as set forth in Specification 6.5.1.A.

Technical Specification 6.5.1.A, requires in part, that each review determine whether or not an unreviewed safety question is involved pursuant to 10 CFR 50.59.

Contrary to the above, on December 6, 1989, the licensee performed an inadequate review of Emergency Instruction E-0, Reactor Trip and Safety Injection, Revision 7, required by Regulatory Guide 1.33 to combat emergency events. The procedure change would terminate RHR operation prior to the procedure steps requiring operator examination of certain parameters to diagnose whether a LOCA was occurring. The review failed to ensure that the procedure change did not involve an unreviewed safety question pursuant to 10 CFR 50.59.

Violations A.1, A.2, and B are a Severity Level III Problem (Supplement I).

Civil Penalty - $75,000 (assessed equally among the violations)

II. Summary of Licensee's Response

The licensee admitted the violations cited in the subject Notice. However, the licensee believed that escalation of the base civil penalty based on NRC identification should be reconsidered. In addition, the licensee stated that escalation of the proposed civil penalty to emphasize the need for TVA to identify and address these past problems was unnecessary.

Pertaining to the mitigation factors in Section V.B of the enforcement policy in 10 CFR Part 2, Appendix C, the licensee made the following arguments relative to reconsideration of the proposed civil penalty.

a. The licensee stated that prior to the date of NRC discovery, TVA had discovered data suggesting the problem and was in the process of determining the significance of the data. The licensee contended that its actions to address this issue both preceded and occurred in parallel to NRC's involvement leading up to full identification and confirmation of the RHR pump problem.

b. The licensee also stated that the extensive programmatic corrective actions which had been put in place both prior to and following discovery of the RHR pump problem merited consideration. The licensee believes that these actions demonstrate TVA's willingness and ability to identify and correct problems. Additionally, because many of the corrective actions addressing key programmatic weaknesses had been put in place before discovery of the RHR pump problem, the licensee argued that escalation of the proposed civil penalty to emphasize the need for TVA to identify and address these past problems was unnecessary.

III. NRC Evaluation of Licensee's Response

a. Identification and Reporting

The violation was escalated 50% based on NRC identification of the issue. The NRC determined that the licensee should have reasonably discovered the violation before the NRC identified it.

In its determination to escalate under the Identification and Reporting factor, the NRC had already considered that the system engineer had found the discrepant RHR pump differential pressure data. The NRC believes that the data should have indicated to him that dead-heading of the RHR pumps would actually have occurred if a safety injection signal was received. However, System Engineering forwarded this information to Site Engineering without determining its significance and without determining if this condition constituted inoperability or if a condition adverse to quality existed. Both of these determinations would have entered this issue into licensee administrative programs which would have placed a time limit on correcting the problem.

When the system engineer's memorandum reached Site Engineering, which was about the same time that the NRC identified the problem, Site Engineering also did not determine that this condition constituted inoperability nor that a condition adverse to quality existed until 5 days later when a confirmatory test was run by the operations department.

Similarly, Systems Engineering and Site Engineering were also involved with a review of the Unit 2 RHR pump performance data prior to November 29, 1989 which indicated that the performance of one RHR pump had changed. One of the criteria for changing the ASME Section XI acceptance criteria for the pump to maintain it as operable was whether pump-to-pump differential pressure would result in deadheading of the weaker pump. The determination that dead-heading of the Unit 2 pumps

would not occur was made using the quarterly RHR pump test data. However, in the case of the Unit 1 RHR pumps, these two groups failed to determine that the pumps were inoperable when a majority of the quarterly RHR pump test data indicated that pump-to-pump differential pressure exceeded 11 psi. The NRC believes that sufficient data was available to both System Engineering and to Site Engineering to have immediately questioned operability of the Unit 1 pumps and as a minimum to have identified the condition as a condition adverse to quality.

Since the licensee had not identified the issue in any established program that would have led to corrective action until five days after the issue was identified by the NRC, and since significant additional NRC involvement was necessary to obtain licensee action to properly identify the issue, the NRC concludes that the violation was NRC identified.

Prior opportunities to identify the problem were also available before NRC identified it. These included the original review as part of the Bulletin response, system engineer reviews of the quarterly ASME Section XI pump test data, the System Engineering and Site Engineering reviews of the Unit 2 data described above, and the system engineer review of the Unit 1 data described above. In addition, during preparation of corrective action at the time of the Bulletin response and during implementation after the Bulletin response, the licensee had opportunities to identify that the consequences of deadheading would not be prevented by the implementation of the corrective action. Had the licensee used the 11 minute value calculated by it for time to damage during deadheaded operation instead of 20 minutes (the value submitted by the licensee in its letter dated August 2, 1988, which assumes a 100 gpm minimum flow) when reviewing the Emergency Procedures, the consequences of deadheading probably would have been prevented.

Based on the above, the NRC believes that the licensee should have reasonably discovered the violations prior to NRC involvement.

b. Corrective Action

In the area of corrective action, 10 CFR Part 2, Appendix C states that mitigation should be based on prompt and extensive corrective action. Escalation is appropriate if corrective action is not prompt or minimally acceptable. Consideration should be given to timeliness, degree of licensee initiative, and comprehensiveness of corrective action.

Initial corrective action taken after NRC identification of the issue was not prompt. Plant management was notified by the NRC of this condition on December 1, 1989, the day after the condition was pointed out to Systems Engineering by the resident inspector. During the NRC resident inspector exit on December 4, 1989, the NRC specifically requested the licensee's position on operability of the RHR pumps. The determination that inoperability existed occurred after a confirmation test was run the following day. At that time, the licensee

also determined that a condition adverse to quality existed. Therefore, corrective action began approximately 2 weeks after System Engineering completed it's review of the data and 5 days after Site Engineering and the NRC became aware of the condition.

After the confirmatory test was run and inoperability declared, the licensee's immediate corrective action resulted in Violation B. NRC prompting was necessary in order to achieve adequate immediate corrective action in relation to the emergency procedure revision.

As stated in the letter dated April 12, 1990 transmitting the Notice of Violation and Proposed Imposition of Civil Penalty, the NRC had recognized that most programmatic corrective actions had already been identified and were either already in place or were in the process of being put in place. As a result, the proposed civil penalty was not escalated because the comprehensiveness of the overall programmatic corrective actions offset the lack of promptness and acceptability of the immediate corrective actions, and the degree of NRC interaction necessary to achieve it.

IV. NRC Conclusion

The licensee did not provide a sufficient basis for reduction of the proposed civil penalty. The NRC believes that escalation of the civil penalty is appropriate to emphasize the need to use established programs to identify and correct problems. These programs ensure that potential conditions adverse to quality are adequately evaluated and prompt, effective corrective action taken. Consequently, the NRC staff concludes that the proposed civil penalty in the amount of $75,000 should be imposed.

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

April 12, 1990

Docket Nos. 50-327
and 50-328
License Nos. DPR-77 and DPR-79
EA 90-011

Mr. Oliver D. Kingsley, Jr.
Senior Vice President, Nuclear Power
Tennessee Valley Authority
6N 38A Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

Dear Mr. Kingsley:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $75,000
(NRC INSPECTION REPORT NOS. 50-327/90-01 AND 50-328/90-01)

This refers to the Nuclear Regulatory Commission (NRC) inspection conducted by P. E. Harmon at the Sequoyah facility from January 8-12, 1990. The inspection included a review of the circumstances surrounding your corrective action for the Residual Heat Removal (RHR) pump deadheading issue and your 10 CFR 50.59 safety evaluation program. The report documenting this inspection was sent to you by letter dated February 7, 1990. As a result of this inspection, a significant failure to comply with NRC regulatory requirements was identified. NRC concerns relative to the inspection findings were discussed in an Enforcement Conference held on February 14, 1990. The letter summarizing this conference was sent to you on February 16, 1990.

Violation A.1, described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice), concerns the failure to take effective corrective action for a design deficiency that could result in damage to a RHR pump due to deadheading under certain conditions. NRC Bulletin 88-04, "Potential Safety-Related Pump Loss," issued on May 5, 1988, requested all licensees to evaluate their safety-related systems for piping configurations that do not preclude pump-to-pump interaction during miniflow operation and identify appropriate corrective actions for those systems that do. A Westinghouse letter, dated May 23, 1988, specifically identified Sequoyah as being susceptible to RHR pump deadheading, and recommended a number of possible corrective actions that would prevent pump damage should deadheading develop when both pumps are run simultaneously under miniflow conditions. TVA engineering calculation DNE SQN-74-D053, dated July 22, 1988, determined that RHR pump damage would occur if the pump was deadheaded for greater than 11 minutes.

In your response to this Bulletin, dated August 2, 1988, the RHR system was identified as having the potential to deadhead when operated with the head differential exceeding 11 pounds per square inch (psi) between the two pumps.

The response also stated that recent surveillance test results indicated that the head differential was less than 11 psi, ensuring a 100 gallon per minute flow that allows pump operation for up to 20 minutes without operator action. Your evaluation did not consider the potential for pump performance degradation or other conditions that could result in deadheading. Consequently, no action was taken to preclude damage to an RHR pump should deadheading conditions develop, until December 5, 1989, when a special Unit 1 test demonstrated that that phenomenon was occurring.

Violation A.2. concerns your inadequate evaluation of the test data used to support your August 2, 1988 assertion that deadheading was not occurring. An NRC review performed on November 30 and December 1, 1989, found numerous examples where the surveillance test results demonstrated a head differential between the two Unit 1 RHR pumps in excess of 11 psi when compared on a monthly basis from July 1987 to November 1989. Some data indicated a differential pressure of up to 25 psi which, according to your analysis, would result in deadheading the weaker pump. Besides failure to take adequate corrective action to prevent pump damage should deadhead conditions develop, your evaluation of available test data failed to recognize that deadhead conditions actually existed, until the resident inspectors discussed this concern with plant management on December 1, 1989. This condition was subsequently confirmed during a special test conducted on December 5, 1989. This phenomena should have been identified during your evaluation of Bulletin 88-04.

We note that inaccurate information was provided to the NRC in your letter of August 2, 1988, in that it reported test results that demonstrated the differential pressure was less than 11 psi, when the majority of the data indicated otherwise. This was the result of an engineering error that occurred during the Bulletin review process. This is a regulatory concern, as the NRC must rely on its licensees for ensuring the accuracy of the information they provide. Accordingly, Violation A.1. includes a reference to 10 CFR 50.9. However, because the root cause was an engineering error that contributed toward your inadequate corrective action, which is being cited, no further regulatory action is deemed necessary. Similar errors will be considered for appropriate enforcement in the future, based on their individual merit.

Violation B involved the failure to perform an adequate review of a change to the E-0, Reactor Trip and Safety Injection, emergency procedure. As part of your initial corrective action taken after the December 5, 1989 test, that change involved turning off the RHR pumps early in an accident scenario to avoid pump damage due to deadheading. This action was inserted into the procedure prior to the steps requiring operator examinations of certain parameters to diagnose whether a LOCA was occurring. The preliminary safety assessment incorrectly concluded that a safety evaluation was not needed. Though the revised procedure was only in place one day prior to being superseded, the NRC is concerned that any proposed change to a specified safety-injection pump trip criterion under accident conditions would not receive an adequate safety evaluation as required by Technical Specification 6.5.1.A.

To emphasize the need to ensure that potential conditions adverse to quality are adequately evaluated and prompt, effective corrective action taken, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $75,000 for Violations A and B described in the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions", 10 CFR Part 2, Appendix C (1989) (Enforcement Policy), Violations A and B have been categorized as a Severity Level III problem. The base value of a civil penalty for a Severity Level III violation is $50,000.

The escalation and mitigation factors in the Enforcement Policy were considered. The base civil penalty was escalated by 50 percent because the NRC identified the violations after reviewing the pump test data used in responding to the safety concern specified in Bulletin 88-04. You had adequate prior opportunity after determining that your plant was susceptible to RHR deadheading to correct the situation. The precursor issue to the bulletin had been the subject of two prior Westinghouse letters sent to you and NRC Information Notice 87-59. Though the major concern of those letters addressed deadheading caused by a common recirculation line, a more thorough technical review could have identified the safety issue earlier. Nonetheless, a Westinghouse letter dated May 23, 1988 was sent to you in response to the bulletin which specifically identified Sequoyah as being affected and identified corrective actions to be taken. Other opportunities also existed to identify this issue or prevent its consequences after the date of your bulletin response. These included ASME Section XI RHR pump tests, system engineer reviews of RHR pump surveillance test data, and reviews by site engineering and the plant staff in October through December 1988 of procedural actions necessary to prevent the consequences of deadheading.

Once the RHR deadheading issue was confirmed by the December 5, 1989 test, your initial corrective actions were not satisfactory. Though your first revision to Emergency Instruction E-0 would have prevented pump damage, it introduced a possible technical deficiency requiring additional changes to assure the adequacy of the procedure, as you were unable to determine whether an unreviewed safety question was involved. After you were put on notice, your subsequent corrective actions were comprehensive. Consequently, no escalation or mitigation of the base civil penalty is warranted.

We considered escalating the civil penalty for prior notice of the specific safety concern. However, because the inadequate corrective action for the identified problem is the basis for the underlying violation and is categorized at a Severity Level III, we have determined that further escalation is not necessary to emphasize our regulatory concern. Escalation for past performance was also considered. As past enforcement actions EA 88-307 and EA 89-152 were for events occurring after your August 2, 1988 Bulletin response, and appropriate corrective actions that would have enveloped the Bulletin evaluation process were already underway, further escalation for this factor is not warranted. None of the other factors were deemed appropriate.

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

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

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

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

Sincerely,

Dennis M. Crutchfield

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

Enclosure:
Notice of Violation and
Proposed Imposition of Civil Penalty

cc w/enclosure:
See next page

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Tennessee Valley Authority
Sequoyah Units 1 and 2

Docket Nos. 50-327 and 50-328
License Nos. DPR-77 and DPR-79
EA 90-011

During the Nuclear Regulatory Commission (NRC) inspection conducted on January 8-12, 1990, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1989), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

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

NRC Bulletin 88-04, Potential Safety Related Pump Loss, issued May 5, 1988, alerted licensees to a significant condition adverse to quality that involved the potential for the deadheading of one or more pumps in safety-related systems that have a miniflow line common to two or more pumps or other piping configurations that do not preclude pump-to-pump interaction during miniflow operation.

Licensee engineering calculation DNE SQN-74-D053, dated July 22, 1988, determined that RHR pump damage would occur for a pump that was run deadheaded for greater than 11 minutes.

10 CFR 50.9 requires, in part, that information provided to the Commission by a licensee, be complete and accurate in all material respects.

Licensee letter to the NRC in response to NRC Bulletin 88-04, dated August 2, 1988, stated that the potential existed for deadheading a safety-related RHR pump due to pump-to-pump interaction under miniflow conditions when the head differential between the pumps exceeded 11 pounds per square inch (psi). The letter also stated that recent surveillance test data demonstrated that the head differential between the two RHR pumps was less than 11 psi, ensuring a minimum flow of 100 gallons per minute to allow pump operation for up to 20 minutes without requiring operator intervention.

Contrary to the above, as of December 5, 1989, the licensee failed to adequately identify and correct a significant condition adverse to quality regarding the potential for safety-related RHR pump damage from deadheading due to pump-to-pump interaction during miniflow conditions in that:

1. No action had been taken to preclude damage to a RHR pump should deadheading develop due to pump-to-pump interaction under miniflow conditions, until a special test demonstrated that the Unit 1 RHR pumps deadheaded under those conditions on December 5, 1989.

2. The licensee's evaluation of Unit 1 RHR pump surveillance test data, referenced in their August 2, 1988 letter to the NRC, was inadequate to identify that an RHR pump was likely to deadhead due to pump-to-pump interaction, as the majority of the test data from July 1987 through August 1988 indicated that the head differential pressure between the pumps exceeded 11 psi. As a result inaccurate information was provided to the Commission on August 2, 1988.

B. Technical Specification 6.8.1 , requires in part, that written procedures be established, implemented and maintained covering the applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, Revision 2, February 1978.

Appendix "A" of Regulatory Guide 1.33, Revision 2, requires procedures for combating emergencies and other significant events.

Technical Specifications 6.8.2, requires in part, that changes to procedures be reviewed and approved prior to implementation as set forth in Specification 6.5.1A.

Technical Specification 6.5.1.A, requires in part, that each review determine whether or not an unreviewed safety question is involved pursuant to 10 CFR 50.59.

Contrary to the above, on December 6, 1989 the licensee performed an inadequate review of Emergency Instruction E-0, Reactor Trip and Safety Injection, Revision 7, required by Regulatory Guide 1.33 to combat emergency events. The procedure change would terminate RHR operation prior to the procedure steps requiring operator examination of certain parameters to diagnose whether a LOCA was occurring. The review failed to ensure that the procedure change did not involve an unreviewed safety question pursuant to 10 CFR 50.59.

Violations A.1, A.2, and B are a Severity Level III Problem (Supplement I).

Civil Penalty - $75,000 (assessed equally among the violations)

Pursuant to the provisions of 10 CFR 2.201, Tennessee Valley Authority 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. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each violation: (1) admission or denial of the violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps which will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the licensee may pay the civil penalty by letter addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, 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 violations listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201 but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of 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 the penalty due, which has been subsequently determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Associate Director for Special Projects, Office of Nuclear Reactor Regulation and a copy to the NRC Resident Inspector, Sequoyah.

FOR THE NUCLEAR REGULATORY COMMISSION

Dennis M. Crutchfield

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

Dated at Rockville, Maryland
this 12th day of April 1990.

I.B. REACTOR LICENSEES, SEVERITY LEVEL III VIOLATION,
NO CIVIL PENALTY

August 23, 1990

Docket Nos. 50-373 and 50-374
EA 87-089

Commonwealth Edison Company
ATTN: Mr. Cordell Reed
Senior Vice President
Post Office Box 767
Chicago, Illinois 60690

Gentlemen:

This refers to an NRC inspection conducted during the period of December 30, 1986 through January 27, 1987 and to the closeout inspection conducted by Mr. R. D. Lanksbury of this office on May 3-4, 1990, of activities at LaSalle Nuclear Power Station authorized by Operating Licenses No. NPF-11 and No. NPF-18 and to the discussion of our findings with Mr. G. Diederich and members of his staff at the conclusion of the inspection. An enforcement conference was held on February 13, 1987 in the Region III office to discuss the findings of the first inspection. The closeout inspection was to follow up on concerns regarding a test engineer who falsified another individuals initials in January 1987. The NRC Office of Investigation (OI:RIII) also recently completed their investigation of this event.

The enclosed copy of our inspection report identifies areas examined during the closeout inspection. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations, and interviews with personnel. Enclosed along with our inspection report is a copy of the OI:RIII investigation synopsis regarding their investigation of the circumstances surrounding the record falsification and their conclusions.

The event occurred on January 17, 1987, when, following the completion of a Local Leak Rate Test (LLRT) at LaSalle, and while reviewing the procedure checklists, a test engineer discovered four missing signatures required to verify the position of a valve during the test. One signature was required to verify the pre-test lineup position, one signature was required to verify the post-test lineup position, and a second signature indicating dual verification of each of the above was required.

The test engineer admitted that he falsified the valve lineup checklist during the LLRT by initialing a valve verification that he had not performed. He admitted that he knew it was wrong to initial a verification that he had not performed, but he was concerned that the procedural paperwork was incomplete. The test engineer also admitted that he again falsified the same valve lineup checklist when he signed another test engineer's initials on the checklist, indicating that this engineer had performed a second verification, when he had not. The test engineer admitted that he had used poor judgement and knew that he should not have signed another engineer's initials in order to complete the checklist.

When confronted by the other test engineer who told him that he had not done the verification, the test engineer then removed the individual's initials from the checklist. The test engineer then persuaded a technical staff person to initial and backdate the checklist, indicating that the technical staff person had been the second verifier for both the pre-test and post-test valve lineup on the date of the test knowing that this person had not performed this activity. While the technical staff person admitted that he felt that it was against procedure to backdate the entry and to initial a valve lineup that he had not actually verified, there had not been any proceduralized guidelines established for second verifications at LaSalle at the time of the LLRT.

The NRC considered several factors in determining the severity level of this willful violation. Although (1) the person was not in a supervisory position, (2) test engineer is a responsible position, (3) there was no economic advantage gained as a result of this violation, and (4) the technical safety significance of this event was minimal, in that the particular valve did not impact the test results and a second LLRT was performed upon discovery of the event, the NRC finds the regulatory significance of this event of particular concern. Specifically, record falsification is an activity that cannot be tolerated in the nuclear industry. Moreover, the NRC is particularly concerned that when the test engineer was confronted with the initial falsification, he subsequently persuaded a technical staff person to falsify the checklist, thereby repeating the activity that he knew was unacceptable and wrongfully influencing the action of another employee. Therefore, considering the test engineer's position and the individual's intent to deceive, as evidenced by the two instances of falsification, this violation has been categorized at Severity Level III.

In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy) 10 CFR Part 2, Appendix C (1990), a civil penalty is considered for a Severity Level III violation. However, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support, I have decided that a civil penalty will not be proposed in this case because you promptly identified the violation and subsequently took prompt and extensive corrective action, including suspending the individual for two weeks without pay. The NRC also considered the apparent good behavior of the individual since the time the violation occurred.

The fact that a civil penalty is not being proposed for this violation should not diminish the significance of this violation. As stated before, document falsification cannot be excused in the nuclear industry. In fact, if this violation were to occur today, the NRC would consider issuing an order to remove the individual from licensed activities. However, the NRC recognizes that considerable time has passed since this violation occurred and that actions have been taken to correct the identified violation and to prevent recurrence. Our understanding of your corrective actions is described in Paragraph five of the enclosed inspection report. Nevertheless, despite the apparent good behavior of this individual since the time the violation occurred, you are required to

respond to this letter. Specifically, you are to provide the NRC with your basis for concluding why you currently have confidence in the individual's activities, given the two previous instances of a willful violation.

In accordance with 10 CFR 2.790 of the Commission's regulations, a copy of this letter, the enclosed inspection report, and the OI:RIII investigation synopsis (Case No. 3-87-015) will be placed in the NRC Public Document Room.

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

Sincerely,

A. Bert Davis
Regional Administrator

Enclosures:
1. Notice of Violation
2. Inspection Reports
   No. 50-373/90009(DRP);
   No. 50-374/90012(DRP)
3. NRC Office of Investigation
   (OI:RIII) Investigation Report
   Synopsis (Case No. 3-87-015)

cc w/enclosures:
D. Galle, Vice President - BWR
Operations
T. Kovach, Nuclear
Licensing Manager
G. J. Diederich, Station
Manager
DCD/DCB (RIDS)
Licensing Fee Management Branch
Resident Inspector, RIII
Richard Hubbard
J. W. McCaffrey, Chief, Public
Utilities Division
Patricia O'Brien, Governor's
Office of Consumer Services
R. Pulsifer, NRR LPM

NOTICE OF VIOLATION

Commonwealth Edison
LaSalle Nuclear Power Station

Docket Nos. 50-373 and 50-374
Licenses Nos. NPF-11 and NPF-18
EA 87-089

As a result of the inspections conducted during the period of December 30, 1986 through January 27, 1987 and on May 3-4, 1990, and in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, (1989) (Enforcement Policy) the following violation was identified:

Technical Specification 6.2.A requires the licensee to adhere to detailed surveillance and testing procedures, including check-off lists.

Surveillance Procedure LTS-900-4, "Low Pressure Coolant Injection (LPCI) Pressure Isolation Valve Water Leak Test", requires an instrument stop valve (2E12-F350A) to be closed and verified closed by two people and documented in Attachment A, "Procedure Verification".

Contrary to the above, on January 17, 1987, during the performance of LTS-900-4, Instrument Stop Valve 2E12-F350A was not closed and not verified to be in the closed position by two people.

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

Pursuant to the provisions of 10 CFR 2.201, Commonwealth Edison Company is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555 with a copy to the Regional Administrator, Region III, and a copy to the NRC Resident Inspector, 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 address why the Commonwealth Edison Company currently has confidence in the individual test engineer's activities, given the two previous instances of a willful violation. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Carl J. Paperiello for

A. Bert Davis
Regional Administrator

Dated at Glen Ellyn, Illinois
this 23 day of August 1990

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

SEP 1 5 1990

Docket Nos. 50-456 and 50-457
License Nos. NPF-72 and NPF-77
Construction Permits: CPPR-132 and CPPR-133
EA 88-294

Commonwealth Edison Company
ATTN: Mr. Cordell Reed
Senior Vice President
Opus West III
1400 Opus Place
Downers Grove, Illinois 60515

Gentlemen:

SUBJECT: NOTICE OF VIOLATION
(NRC OFFICE OF INVESTIGATIONS REPORT NO. 3-85-018S)

This refers to the investigation by the NRC Office of Investigations conducted between November 7, 1985 to April 22, 1988 and from November 1, 1988 to April 16, 1990, and reported on April 16, 1990 of activities at the Braidwood Nuclear Generating Station, authorized by NRC Construction Permits CPPR-132 and CPPR-133 and NRC Licenses NPF-72 and NPF-77. A copy of the synopsis of the investigation report was mailed to you on June 29, 1990. The opportunity to meet and consider this issue in an enforcement conference was discussed with you on August 24, 1990, and we agreed an enforcement conference was not necessary. The NRC review of concrete patching and general condition of structural concrete was documented in Inspection Report Nos. 50-456/86020 and 50-457/86018.

On July 29, 1985, a concrete technologist who had been employed by the Sargent and Lundy Company (S&L), the architect-engineer at the Braidwood Nuclear Station, filed a complaint with the U.S. Department of Labor, alleging his employment was terminated by S&L on June 28, 1985, in violation of Section 210 of the Energy Reorganization Act of 1974. The Wage and Hour Division of the Department of Labor conciliated the matter and a monetary settlement was reached on September 26, 1985, between S&L and the concrete technologist.

NRC Region III subsequently requested that the Commonwealth Edison Company provide a basis for the employment action and describe any actions, either taken or planned, to assure the employment action did not have a chilling effect in discouraging other employees from raising safety concerns.

From the information provided by the Commonwealth Edison Company, in response to NRC Region III's request, it appeared that S&L informed the concrete technologist during January 1984 of his potential layoff due to a lack of available work. The information also showed S&L continued the concrete technologist's employment for approximately 18 months by giving him a variety of short term assignments. One of those short term activities was his assignment to the Braidwood Project on January 8, 1985, to review concrete repairs identified under the Braidwood Construction Assessment Program (BCAP).

However, the Commonwealth Edison Company investigation into the concrete technologist's termination found that the Vice President of the Gus K. Newberg Company requested that the Commonwealth Edison Company contact S&L to have the concrete technologist removed from Braidwood. The Commonwealth Edison Company investigation found that Newberg management had a negative impression of the concrete technologist because of their earlier experience with him at the Marble Hill project, and that it appeared to the Newberg Vice President that the concrete technologist was on a "witch hunt for problems" at Braidwood.

Based on the information contained in the Commonwealth Edison Company's investigation report, it appeared that the concrete technologist's transfer from the Braidwood Site to the S&L office in Chicago, Illinois, on January 15, 1985, may have been in violation of 10 CFR 50.7, "Employee Protection." As a result, NRC Region III requested that the NRC Office of Investigations (OI) conduct an investigation of the matter. On April 16, 1990, the report of investigation was issued (the synopsis of that report is enclosed).

The OI investigation concluded that the ultimate termination of the concrete technologist's employment on June 28, 1985, by S&L was not a discriminatory employment practice. However, OI developed information indicating that employees of the Gus K. Newberg Company conspired to arrange for the concrete technologist's removal from the Braidwood Project by proposing to the Commonwealth Edison Company that a personality conflict existed between the concrete technologist and certain Newberg engineers and that a nonproductive work environment would exist as long as the concrete technologist continued to work at Braidwood. OI also developed information that the concrete technologist identified deficiencies in the concrete work at Braidwood and the employees of the Gus K. Newberg Company believed that unless the concrete technologist was removed from Braidwood, his actions might lead to the identification of additional deficiencies. The OI investigation also disclosed that the Commonwealth Edison Company's Braidwood Project Manager, acting upon misinformation provided by the employees of the Gus K. Newberg Company, contacted S&L to arrange for the concrete technologist's transfer from the Braidwood project.

Although the Commonwealth Edison Company did not knowingly discriminate against the concrete technologist, the Commonwealth Edison company should have questioned the motives of the Newberg Company for requesting the concrete technologist's removal since he, as an employee of S&L, was responsible for auditing the activities of the Newberg Company.

After reviewing both the Commonwealth Edison Company's investigation and the OI investigation, the NRC staff has concluded that a violation of the Commission's regulations in 10 CFR 50.7, "Employee Protection," occurred when the concrete technologist was transferred from the Braidwood Site. This has been categorized as a Severity Level III violation because discrimination against employees for raising safety concerns is a significant regulatory concern, whether directly caused by the licensee or its contractor. In accordance with the "General Statement of Policy and Procedure for NRC

Enforcement Actions," (Enforcement Policy) 10 CFR Part 2, Appendix C (1985), a civil penalty is considered for a Severity Level III violation. However, after consultation with the Director, Office of Enforcement, the Deputy Executive Director for Nuclear Reactor Regulation, Regional Operations, and Research. and the Commission, I have decided that a civil penalty will not be proposed in this case in view of the time that has passed since this violation occurred. The NRC also recognizes that no other enforcement actions for discriminatory practices have been taken against the Commonwealth Edison Company since this violation occurred.

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

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

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

Sincerely,

A. Bert Davis

A. Bert Davis
Regional Administrator

Enclosures:
1. Notice of Violation
2. Synopsis of OI Report No. 3-85-018S

See Attached Distribution

NOTICE OF VIOLATION

Commonwealth Edison Company
Braidwood Nuclear Station

Docket Nos. 50-456 and 50-457
License Nos. NPF-72 and NPF-77
Construction Permits: CPPR-132 and CPPR-133
EA 88-294

During an NRC investigation conducted November 7, 1985 to April 22, 1988 and from November 1, 1988 to April 16, 1990, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1985), the violation is listed below:

10 CFR 50.7 prohibits discrimination by a Commission licensee, permittee, an applicant for a Commission license or permit, or a contractor or subcontractor of a Commission licensee, permittee, or applicant 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 protected include, but are not limited to providing the NRC, the licensee, or a contractor or subcontractor of the licensee, information about possible violations of NRC requirements.

Contrary to the above, a concrete technologist who was an employee of the Sargent and Lundy Company, a contractor at the Braidwood Nuclear Plant construction site, was discriminated against for engaging in protected activities. During his assignment at the Braidwood Plant, January 8-15, 1985, the concrete technologist identified potential deficiencies in concrete structures and brought these deficiencies to the attention of the Gus K. Newberg Company, the licensee's civil/structural contractor. This led employees of the Gus K. Newberg Company to believe that the concrete technologist might identify additional deficiencies with the concrete work. The Gus K. Newberg Company then arranged, through the Commonwealth Edison Company, to have the Sargent and Lundy Company transfer the concrete technologist from the Braidwood Site on January 15, 1985.

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

Pursuant to the provisions of 10 CFR 2.201, the Commonwealth Edison Company 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, U.S. Nuclear Regulatory Commission Region III, 799 Roosevelt Road, Glen Ellyn, Illinois 60137, and a copy to the U.S Nuclear Regulatory Commission Resident Inspector at the Braidwood Plant, 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, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. If an

adequate reply is not received with the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked, or why such other actions as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time. Under the authority of Section 182 of the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

A. Bert Davis
Regional Administrator

Dated at Glen Ellyn, Illinois
this 14th day of September 1990

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

September 21, 1990

Docket Nos. 50-295 and 50-304
License Nos. DPR-39 and DPR-48
EA 90-092

Commonwealth Edison Company
ATTN: Mr. Cordell Reed
Senior Vice President
Opus West III
1400 Opus Place
Downers Grove, Illinois 60515

Gentlemen:

SUBJECT: NOTICE OF VIOLATION
(NRC INVESTIGATION REPORT NO. 3-87-010)
(NRC INSPECTION REPORT NOS. 50-295/87008; 50-304/87010
AND 50-295/90011; 50-304/90013)

This refers to the special safety inspection conducted on April 15 and 24, 1987 of activities at the Zion Nuclear Generating Station, authorized by NRC License Nos. DPR-39 and DPR-48. A copy of the report of that inspection (Nos. 50-295/87008; 50-304/87010) was mailed to you on June 2, 1987. This also refers to an investigation conducted by the NRC Office of Investigations and the closeout inspection that was conducted from April 24 through May 8, 1990 and May 29, 1990. The closeout inspection was to follow up on concerns regarding the recent performance of a radwaste foreman who falsified a record in March 1987. A copy of the investigation report summary and the latter inspection report are attached. A violation of NRC requirements was identified during the course of the inspections and investigation. The opportunity to meet and consider this issue in an enforcement conference was discussed with Mr. T. Maiman of your staff and it was agreed that an enforcement conference regarding this matter was not necessary.

On March 14, 1987, a radwaste foreman signed a checklist indicating that he had performed two verifications required by technical specifications governing the radwaste release, when in fact, he had not performed either of the required verifications. One verification required that the foreman personally see that the discharge valves were properly lined up prior to start of the discharge operation; the other required that he personally check to see that the monitoring instruments were working properly and, if not, that he take samples of the discharge. The radwaste foreman asserted that he had received verbal affirmation from the operating equipment attendant that the valves were properly lined up and, therefore, felt that he had not violated prescribed procedures. The radwaste foreman claimed to have no recollection of training he received with regard to management verification. However, the OI investigation disclosed that the radwaste foreman had received training on two separate occasions (one as recent as two weeks prior to this event) that addressed the issue of failure to perform verifications properly.

The staff recognizes that the resultant unmonitored releases were fortuitously within regulatory limits. However, requirements are established for a specific purpose and a foreman who believes that he need not perform the tasks required of him is inexcusable. Besides the trust placed in a foreman due to his supervisory position, a foreman sets the standards of conduct for his subordinates. It is unacceptable for a supervisor to deliberately not perform an assigned task and then falsify the record of that assignment.

The NRC considered several factors in determining the severity level of this willful violation. Although there was no economic advantage gained as a result of this violation and the technical safety significance of the underlying event was minimal, the individual involved was in a supervisory position and the individual had received training two weeks prior to the event regarding dual verification. Therefore, considering the foreman's position, his prior training, and the fact that the NRC considers record falsification a significant regulatory concern, this violation has been categorized at Severity Level III.

In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy) 10 CFR Part 2, Appendix C (1987), a civil penalty is considered for a Severity Level III violation. However, after consultation with the Director, Office of Enforcement, the Deputy Executive Director for Nuclear Reactor Regulation, Regional Operations, and Research, and the Commission, I have decided that a civil penalty will not be proposed in this case because you promptly identified the violation and reported it to the NRC. Further, the disciplinary actions taken by the Commonwealth Edison Company by suspending the foreman's employment for three days without pay and the instituting of a requirement for dual verification of valve positions were taken into consideration. Also, the apparent satisfactory performance by the radwaste foreman subsequent to his return to work from the suspension was considered.

The fact that a civil penalty is not being proposed for this violation should not diminish the importance of this matter. As previously stated, document falsification cannot be excused in the nuclear industry. In fact, if this violation were to occur today, the NRC would consider issuing an order to remove the individual from licensed activities. However, the NRC recognizes that considerable time has passed since this violation occurred and that actions have been taken to correct the identified violation and to prevent recurrence. Nevertheless, despite the apparent good behavior of this individual since the time the violation occurred, you are required to respond to this letter. Specifically, you are to provide the NRC with your formal basis for concluding you currently have confidence in the individual's activities, given the record falsification.

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.

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

Sincerely,

Carl J Paperiello for

A. Bert Davis
Regional Administrator

Enclosures:
1. Notice of Violation
2. Inspection Reports
   No. 50-295/90011;
   No. 50-304/90013
3. Synopsis of OI Report
   3-87-010

cc w/enclosures:
M. Wallace, Vice President,
PWR Operations
T. Kovach, Nuclear
Licensing Manager
T. Joyce, Station Manager
DCD/DCB (RIDS)
OC/LFDCB
Resident Inspectors, Byron,
Braidwood, Zion
Richard Hubbard
J. W. McCaffrey, Chief, Public
Utilities Division
Mayor, City of Zion
Chandu Patel, Project
Manager, NRR
Robert Newmann, Office of Public
Counsel, State of Illinois Center

NOTICE OF VIOLATION

Commonwealth Edison Company
Zion Nuclear Generating Station

Docket Nos. 50-295 and 50-304
Licenses Nos. DPR-39 and DPR-48
EA 90-092

During an NRC inspection conducted April 15 and 24, 1987, and during a subsequent NRC inspection conducted April 24 through May 8, 1990 and May 29, 1990, a violation of an NRC requirement was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1987), the violation is listed below:

Zion Technical Specification 6.2.2 states in part that "Radiation control procedures shall be prepared, implemented and maintained."

Zion Technical Specification 3.11.3.A requires that liquid effluent monitoring instrumentation be operable during planned releases.

Zion Station Procedure ZCP 421-1, "Liquid Release Form," is the governing procedure for radioactive discharges to Lake Michigan. Attachment B, "Lake Discharge Tank Release Form" to ZCP 421-1 on Page 9, Revision 4, December 4, 1986, states verifications are to be made by the radwaste foreman prior to release. Specifically, the foreman is required to "verify proper valve lineup according to SOI-67" and to "verify flow through PRO-5 locally . . . ."

Procedure SOI-67, "Liquid Waste Disposal," is the system operating instruction (SOI) describing ". . . operating necessary to startup, shutdown, special operations and precautions for the operation of the liquid waste disposal system." Section 5.3 of SOI-67, "OB Lake Discharge Tank (LDT) Release," states in Step 11 that, "Radwaste Foreman will verify proper lineup for discharge and initial release form."

Contrary to the above, on March 14, 1987, radiation control procedures were not implemented when discharge monitor PRO-5 was not placed in service for the release of OB Lake Discharge Tank through the Unit 1 discharge canal. This was the result of a failure by the non-licensed shift foreman (radwaste foreman) to properly verify the valve lineup for the discharge. With PRO-5 isolated, liquid effluent monitoring instrumentation was not operable during the release.

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

Pursuant to the provisions of 10 CFR 2.201, the Commonwealth Edison Company 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 of the Regional Administrator, Region III, 799 Roosevelt Road, Glen Ellyn, Illinois 60137, and a copy to the NRC Resident Inspector, 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 address why the Commonwealth Edison Company currently has confidence in the

individual radwaste foreman's activities, given the record falsification. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time. Under the authority of Section 182 of the Act, 42 U.S.C. this response shall be submitted under oath or affirmation.

Carl J Paperiello Jr

A. Bert Davis
Regional Administrator

Dated at Glen Ellyn, Illinois
the 21 day of September 1990

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

AUG 16 1990

Docket No. 50-369
License No. NPF-9
EA 90-125

Duke Power Company
ATTN: Mr. H. B. Tucker, Vice President
Nuclear Production Department
Post Office Box 1007
Charlotte, North Carolina 28201-1007

Gentlemen:

SUBJECT: NOTICE OF VIOLATION (NRC INSPECTION REPORT NOS. 50-369/90-14 AND 50-370/90-14)

This refers to the Nuclear Regulatory Commission (NRC) special inspection conducted by P. K. Van Doorn and T. Cooper on June 26 - July 5, 1990, at the McGuire Nuclear Station. The inspection included a review of activities associated with the inoperability of both Unit 1 emergency diesel generators for approximately 26 hours on June 25-26, 1990, due to painting of the diesel generator fuel racks which was discovered and reported by the licensee. The report documenting this inspection was sent to you by letter dated July 13, 1990. As a result of this inspection, significant failures to comply with NRC regulatory requirements were identified. An enforcement conference was held on July 31, 1990, in the Region II office to discuss the violations, their cause, and your corrective actions to preclude their recurrence. The letter summarizing this conference was sent to you by letter dated August 3, 1990.

The violation described in Part I of the enclosed Notice of Violation resulted in the degradation of two separate and independent emergency diesel generators (EDG) due to painting of the fuel racks, which prevented proper functioning of the fuel-control plungers. Painting of the EDGs was completed on June 25, 1990. On June 26, 1990, the routine operability surveillance test for EDG 1A was initiated at 9:05 a.m. At this time, the EDG attained the required voltage (4160 volts) in 11.35 seconds instead of the required 11 seconds and was subsequently shut down for troubleshooting. During the test, some arcing was observed during operation at the exciter commutator rings and upon shutdown some paint overspray was found on those rings. EDG 1A was declared inoperable at 10:00 a.m. and a second start, initiated at 10:06 a.m., resulted in the EDG being unable to attain the full required loading. Further evaluation disclosed that the overspray on the commutator rings had little effect on the EDG and that the primary cause of the problem was paint on the fuel racks which prevented proper functioning of linkage and injector pump plungers which operate to vary the amount of fuel being injected into the cylinders. At approximately 11:00 a.m., the EDG 1B fuel racks were examined and paint was also found on most of the linkages and these were found to be sticking during attempted manual movement. EDG 1B was declared inoperable at 11:34 a.m. and Technical Specification (TS) 3.8.1.1.f was entered for two EDGs inoperable.

The time which elapsed from completion of painting on both EDGs to declaring EDG 1A inoperable was about 26 and a half hours while Unit 1 was operating in Mode 1. During this period, on-site emergency AC power was degraded and the unit was placed in a condition that violated Technical Specifications. Plant management should have been aware of the potential effects of any maintenance work being performed on safety-related equipment and, in this case, the extensive painting done in the EDG Room should have received special oversight and appropriate functional testing should have been completed. The root cause of this problem was inadequate work control. Therefore, in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy) 10 CFR Part 2, Appendix C (1990), this violation has been categorized at Severity Level III.

In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy) 10 CFR Part 2, Appendix C (1990), a civil penalty is considered for a Severity Level III violation. However, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Reactor Regulation, Regional Operations and Research, I have decided that a civil penalty will not be proposed in this case because you reported the self-disclosing event promptly, you initiated extensive corrective action, and your past performance of maintenance has been good.

The violation identified in Part II of the enclosed Notice involves the violation of administrative procedures regarding the timely logging of this event in the TS Action Item Logbook, and has been categorized as a Severity Level IV violation.

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

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

Sincerely,

James L. Milhoan for

Stewart D. Ebneter
Regional Administrator

Enclosure:
Notice of Violation

NOTICE OF VIOLATION

Duke Power Company
McGuire Nuclear Station
Unit 1

Docket No. 50-369
License No. NPF-9
EA 90-125

During an NRC special inspection conducted on June 26 - July 5, 1990, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990) the violations are listed below:

A. Technical Specification (TS) 6.8.1.a requires written procedures to be established, implemented, and maintained covering the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978.

Appendix A of Regulatory Guide 1.33 requires in part that appropriate procedures be implemented for performing maintenance on safety-related equipment.

Contrary to the above, on June 21-25, 1990, maintenance procedures for safety-related equipment were inadequate regarding the control of Emergency Diesel Generator painting activities in that inadequate instructions were provided concerning what areas on the diesels were not to be painted. As a result of the inadequacies, paint applied to the fuel racks prevented proper functioning of the linkage and injector pump plungers. This resulted in both Unit 1 Emergency Diesel Generators being unable to meet the full loading requirements of Technical Specifications.

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

B. Technical Specification (TS) 6.8.1.a requires written procedures to be established, implemented, and maintained covering the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978.

Appendix A of Regulatory Guide 1.33, requires in part that administrative procedures be implemented for log entries.

Station Directive 2.8.2, Operability Determination, paragraph 5.1.3, requires components which fail to meet quantitative acceptance criteria of TSs be considered clearly inoperable upon initial discovery and that the start of a TS Action Statement begins at the point a decision is reached on operability.

Operations Management Procedure 2-5, Technical Specifications Action Item Logbook, paragraph 6.5, requires that all entries should be made in chronological order at the time of occurrence or when knowledge of the occurrence is first obtained.

Contrary to the above, on June 26, 1990, the licensee logged diesel generator 1A inoperable upon failure of the diesel generator to meet quantitative acceptance criteria approximately 40 minutes after the occurrence and logged diesel generator 1B inoperable approximately 24 minutes after knowledge of an inoperable condition.

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

Pursuant to the provisions of 10 CFR 2.201, Duke Power Company 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 II, and if applicable, a copy to the NRC Resident Inspector, 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, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

FOR THE NUCLEAR REGULATORY COMMISSION

James L. Milhoan for
Stewart D. Ebneter
Regional Administrator

Dated at Atlanta, Georgia
this 16th day of August 1990

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

Docket No. 55-6131
License No. SOP-3655-3
EA 90-064

July 30, 1990

Theodore F. Illjes
HOME ADDRESS DELETED
UNDER 10 CFR 2.790

Dear Mr. Illjes:

SUBJECT: NOTICE OF VIOLATION (NRC Office of Investigations Report No. 1-87-008)

In July 1987, the NRC received information that you, while employed as the shift supervisor of the F-shift at Three Mile Island, Unit 2, had been observed sleeping or giving the appearance of sleeping while on duty. During a subsequent investigation by the NRC Office of Investigations (as well as an independent investigation conducted by an individual retained by your former employer, GPU Nuclear Corporation (GPUN)), the information was confirmed. Several individuals testified during the investigations that you were sleeping, giving the appearance of sleeping, or otherwise inattentive while on duty. In this condition, you were not alert and attentive to the obligations of your license, and this failure constitutes a violation of the senior reactor operator's license that you possessed at the time. A copy of the synopsis of the OI investigation was sent to you in a letter dated December 19, 1989.

The violation is described in the enclosed Notice of Violation and is classified at Severity Level III in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (Enforcement Policy) (1987) that was in effect at the time. As a result of this finding, the NRC provided you an opportunity to meet with the NRC at an enforcement conference, as noted in a NRC letter dated December 19, 1989. The purpose of such a conference was to give you an opportunity to challenge the facts on which the NRC conclusions are based, or to discuss your understanding of the cause and safety significance of your inattentiveness to duty as a shift supervisor. As noted in a letter dated February 13, 1990, from your attorney to the Region I office, you declined to attend such an enforcement conference.

The NRC recognizes that GPUN promptly removed you from licensed duties upon receipt of the allegation in July 1987, GPUN subsequently determined that your license should expire on November 27, 1987 and then terminated your employment with the corporation. Nonetheless, the evidence indicates that the activities described in the enclosed Notice were engaged in by you for an extended period and demonstrated an unprofessional attitude toward the privileges and safety responsibilities of your license. These activities were contrary to safety. Further, in your role as a shift supervisor, you set a poor example for those individuals under your supervision, and you failed to adequately exercise the command and control responsibilities expected of a person in your position.

During the NRC deliberations concerning appropriate enforcement action for this Severity Level III violation, the NRC considered the entire spectrum of possible enforcement actions, including a Letter of Reprimand, Notice of Violation, Civil Penalty, and Orders to Modify, Suspend or Revoke your license. Since you no longer hold a license, an order against your license is not appropriate. After considerable deliberations, the NRC has determined that a Notice of Violation is the appropriate action in this case.

Although a civil penalty is considered for a Severity Level III violation, I have been authorized, after consultation with the Deputy Executive Director for Nuclear Material Safety, Safeguards, and Operations Support and the Commission not to issue a civil penalty in this case because GPUN determined you no longer needed to maintain a license and upon completion of its investigation of this event, terminated your employment.

Because you neither currently hold an NRC license nor are employed by an NRC licensee, you are not required to respond to the enclosed Notice. However, should you seek an NRC operator's license in the future, you should be prepared to describe why the NRC should believe, in light of your actions at Three Mile Island, Unit 2 prior to July 1987, that you would (1) not again engage in such activities, and (2) maintain a proper safety perspective as your primary concern, and perform in a professional and responsible manner consistent with the obligations of an NRC operator's license.

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

Sincerely,

Thomas T. Martin
Regional Administrator

Enclosure:
Notice of Violation

cc w/encl (sanitized copy):
P. R. Clark, President, GPU Nuclear
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
NRC Resident Inspector
Commonwealth of Pennsylvania
Docket File for License No. OP-SOP-3655-3

NOTICE OF VIOLATION

Theodore F. Illjes
HOME ADDRESS DELETED
UNDER 10 CFR 2.790

Docket No. 55-6131
License No. SOP-3655-3
EA 90-064

As a result of an investigation conducted by the NRC Office of Investigations, a violation of your former senior reactor operator license (issued pursuant to 10 CFR Part 55, for work performed at the GPU Nuclear Corporation's Three Mile Island Unit 2 facility) was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1987), the particular violation is set forth below:

Senior Reactor Operator License No. SOP-3655-3, issued pursuant to 10 CFR Part 55, requires, in part, that when directing licensed activities of licensed operators and in manipulating the controls of the Three Mile Island, Unit 2 facility, you shall observe the operating procedures and other conditions specified in the facility license which authorizes operation of the facility.

Technical Specification 6.8.1 of Facility License No. DPR-73 for Three Mile Island, Unit 2, requires that written procedures be established, implemented and maintained covering the activities recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978.

Section 1 of Appendix A of Regulatory Guide 1.33, Revision 2, 1978, requires the establishment of certain administrative procedures.

TMI-2 Departmental Administrative Procedure Manual 4210-ADM-3020.01, entitled "Conduct of Plant Operations," Revision 5-02, dated February 27, 1987, written to satisfy the requirements of Appendix A of Regulatory Guide 1.33, requires, in part, in paragraphs 4.4.2, 4.4.3, and 4.4.4, that all on-duty operators and supervisors be aware of, and responsible for plant status at all times; be particularly attentive to their instrumentation and controls at all times; and, be alert for any unusual trends in plant parameters.

Contrary to the above, for indeterminate periods prior to July 1987, on various shifts, particularly during the 11:00 p.m. to 7:00 a.m. shift, although you were the then shift supervisor (senior reactor operator) of the F-shift and as such, assigned to be the supervisor directly responsible for the operation and control of the unit, you were at times not alert or not attentive to these duties. Specifically, you exhibited a longstanding pattern of sleeping, giving the appearance of sleeping, or otherwise being inattentive to your duties.

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

No response to this Notice is required. However, should you wish to respond you may submit your response to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555 with a copy to the Regional Administrator, Region I, 475 Allendale Road, King of Prussia, PA 19406, within 30 days of the date of this Notice.

Thomas T. Martin
Regional Administrator

Dated at King of Prussia, Pennsylvania
this 30 day of July 1990

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION V
1450 MARIA LANE, SUITE 210
WALNUT CREEK, CALIFORNIA 94596-5368

SEP 2 1 1990

Docket No. 50-344
License No. NPF-1
EA 90-143

Portland General Electric Company
ATTN: Mr. James E. Cross
Vice President, Nuclear
121 S. W. Salmon Street, TB-17
Portland, Oregon 97204

Gentlemen:

SUBJECT: NOTICE OF VIOLATION (NRC INSPECTION REPORT NO. 50-344/90-23)

This letter refers to the special inspection conducted on July 19 through August 17, 1990, at your Trojan Nuclear Power Plant. The inspection included an examination of the circumstances associated with your report of an unauthorized firearm entering the plant's protected area. The report of this inspection was sent to you on August 21, 1990. Subsequently, an Enforcement Conference was held with you and members of your staff on August 30, 1990. At that time we discussed with you the violation, the causes, your corrective actions, and our concerns. A summary report of the conference (NRC Inspection Report No. 50-344/90-26) was sent to you on September 6, 1990.

The violation described in the enclosed Notice of Violation (Notice) involves the failure of your established security measures to detect and prevent an individual carrying a loaded firearm in his briefcase through the Security Access Building and into the plant's protected area. While this event identified limitations with equipment, the weapon nonetheless should have been detected if the required search had been properly performed. Therefore in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy) 10 CFR Part 2, Appendix G, (1990), this violation has been categorized at Severity Level III.

The staff recognizes that immediate corrective action was taken following your identification of the violation. The corrective actions identified in the inspection report (50-344/90-23) appear appropriate and if effectively implemented, would preclude this type incident from recurring. The new access control facility scheduled for completion in 1992 should alleviate the congested work conditions apparent at the present facility during times of heavy personnel traffic. Proper supervision and discipline of security officers, along with the retraining you have already accomplished, should assure proper search of materials in the future.

This violation has been classified as a Severity Level III violation. In accordance with the "General Statement of Policy and Procedures for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990), a civil penalty is

considered for a Severity Level III violation. However, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Reactor Regulation, Regional Operations and Research, I have decided that a civil penalty will not be proposed in this case because you identified and reported the violation to the NRC and initiated a comprehensive program of corrective actions to preclude recurrence of the violation.

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

The material enclosed herewith contains Safeguards Information as defined by 10 CFR Part 73.21, and its disclosure to unauthorized individuals is prohibited by Section 147 of the Atomic Energy Act of 1954, as amended. Therefore, the material will not be placed in the Public Document Room.

The response directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of management and Budget as required by the Paperwork Reduction Action of 1980, Public Law No. 96-511.

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

Sincerely,

John B. Martin
Regional Administrator

Enclosure: Notice of Violation

cc w/enclosure: (c/o Repository TNB-2)
A. Ankrum, Manager, Nuclear Security
W. Robinson, Plant General Manager
S. Bauer, Branch Manager

cc w/o enclosure:
State of Oregon
L. A. Girard, Vice President and General Manager
D. Stewart-Smith, Administrator Siting and Regulations, DOE

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

SEP 2 4 1990

Docket No. 50-244
EA 90-146

Rochester Gas and Electric Company
ATTN: Mr. Robert C. Mecredy
General Manager
Nuclear Production
49 East Avenue
Rochester, New York 14649

Gentlemen:

Subject: Inspection No. 50-244/90-18

This refers to an inspection conducted by a representative of the South Carolina Department of Health and Environmental Control on July 19, 1990, of a shipment of radioactive waste from the Robert E. Ginna Nuclear Power Plant. The shipment was inspected upon its arrival at the Barnwell Disposal Site at Barnwell, South Carolina.

Results of the inspection are summarized in the letter from the South Carolina Department of Health and Environmental Control, dated July 31, 1990, which is attached to the Region I Inspection Report enclosed with this letter.

Based on the results of the inspection, it appears that one of your activities was not conducted in full compliance with NRC requirements, as set forth in the Notice of Violation, enclosed herewith as Appendix A. The violation involved shipment of a cask to a burial facility in South Carolina which contained loose resins located outside the disposal container within the cask. This condition was contrary to both NRC requirements and the condition of the license issued to the burial site by the NRC Agreement State, South Carolina. The violation, as set forth in the Notice of Violation, has been categorized at Severity Level III in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (10 CFR Part 2, Appendix C)(1990). You are required to respond to this letter and in preparing your response, you should follow the instructions in Appendix A.

The violation for which you have been cited has already been the subject of enforcement action by the State of South Carolina by the assessment of a civil penalty in the amount of $1000.00. In view of the actions taken by the State of South Carolina regarding this matter, and your good past performance in this area, we have exercised our discretion under the NRC Enforcement Policy and have chosen to issue at this time the enclosed Notice of Violation. After reviewing your response to this Notice of Violation and your proposed corrective actions, the NRC will determine whether further action is necessary in order to ensure compliance with regulatory requirements. Furthermore, any similar violations in the future may result in more significant enforcement action by the NRC.

Your cooperation with us in this matter is appreciated.

Sincerely,

Thomas T. Martin
Regional Administrator

Enclosures:
1. Appendix A, Notice of Violation
2. NRC Region I Inspection Report No. 50-244/90-18

cc w/encls:
Harry H. Voigt, Esquire
Central Records (4 copies)
Director, Power Division
State of New York, Department of Law
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
NRC Resident Inspector
State of New York, SLO Designee
Heyward Shealy, State of South Carolina

APPENDIX A
NOTICE OF VIOLATION

Rochester Gas and Electric Company
Robert E. Ginna Nuclear Power Plant
49 East Avenue
Rochester, New York 14649

Docket No. 50-244
License No. DPR-18
EA 90-146

As a result of the inspection conducted on July 19, 1990, by a representative of the South Carolina Department of Health and Environmental Control, of a shipment of licensed material sent from your facility on July 13, 1990, and in accordance with the NRC Enforcement Policy, 10 CFR Part 2, Appendix C (1990), the following violation was identified.

10 CFR 20.301(a) states that no licensee shall dispose of licensed material except by transfer to an authorized recipient as provided in the regulations in Parts 30, 40, 60, 61, 70 or 72, whichever may be applicable. 10 CFR 30.41(c) states, in part, that before transferring byproduct material to a specific licensee of the Commission or an Agreement State, the licensee transferring the material shall verify that the transferee's license authorizes the receipt of the type, form, and quantity of byproduct material to be transferred. Condition 60 of the State of South Carolina (an Agreement State) License Number 097, issued to Chem-Nuclear Systems, Inc., for the operation of the Barnwell Disposal Site states, in part, that loose radioactive waste within shipping casks is prohibited.

10 CFR 61.56 states the minimum requirements for all classes of waste to facilitate handling at a disposal site, and specifically requires in 10 CFR 61.56(b)(1), that waste must have structural stability which can be provided by the waste form itself, processing the waste to a stable form, or placing the waste in a disposal container or structure that provides stability after disposal.

Contrary to the above, on July 13, 1990, the licensee shipped a cask containing a disposal container of dewatered spent resin from their facility to Barnwell, South Carolina for disposal in a configuration that did not provide for structural stability after disposal, in that the cask contained some loose resins outside the disposal container but within the shipping cask.

This violation has been categorized at a Severity Level III (Supplement IV).

Pursuant to the provisions of 10 CFR 2.201, Rochester Gas and Electric Company is hereby required to submit to this office within thirty days of the date of the letter which transmitted this Notice, a written statement or explanation in reply, including: (1) the corrective steps which have been taken and the results achieved; (2) corrective steps which will be taken to avoid further violations; and (3) the date when full compliance will be achieved. Where good cause is shown, consideration will be given to extending this response time.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

September 26, 1990

Docket No. 50-346
License No. NPF-3
EA 90-109

Toledo Edison Company
ATTN: Mr. Donald Shelton
Vice President - Nuclear
Edison Plaza
300 Madison Avenue
Toledo, Ohio 43652

Gentlemen:

SUBJECT: NOTICE OF VIOLATION
(NRC INSPECTION REPORTS NO. 50-346/90009(DRP); 50-346/90012(DRSS) AND 50-346/90013(DRP))

This refers to the NRC inspections that were conducted during the period April 17 through July 17, 1990, at the Davis-Besse Nuclear Power Station, of activities authorized by NRC Operating License No. NPF-3. The inspections were conducted to review a series of events which demonstrated a significant breakdown in communication and failure of licensee personnel to engage in adequate planning before carrying out various plant evolutions. Inspection Reports Nos. 50-346/90012; 50-346/90013; and 50-346/90009 were sent to you by letters dated May 25, August 10, and August 13, 1990, respectively. The NRC concerns relative to the inspection findings were discussed with you and other members of your staff during an enforcement conference in the NRC Region III office on June 1, 1990. A subsequent telephone enforcement conference was conducted with Mr. L. Storz and other members of your staff on July 17, 1990.

The enclosed Notice of Violation (Notice) concerns the failure of Toledo Edison to adequately provide oversight and control of operational activities during the time that the unit was shut down for a refueling outage. Specifically, during the period of April, May, and June 1990, a significant number of operational events occurred because evolutions were improperly performed by operations personnel. The events of concern covered a variety of issues ranging from the draining of the refueling canal to the inadvertent draining of the pressurizer to the borated water storage tank (BWST).

The root causes for the violations resulting from these events appear to be inattention to detail and a lack of awareness of plant configuration. Had the operators been properly briefed prior to performing their assigned duties, some of these events may have been prevented.

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

The NRC is concerned with the quality of performance of the operations personnel who were responsible for most of these events. Of particular concern are the violations which resulted from failure to follow existing procedures.

The NRC recognizes that individually these events are of lesser safety significance; however, when taken collectively they represent a significant breakdown and demonstrate an inability to properly perform operational tasks. The deficient performance of your personnel is of concern because of the number of procedural violations that resulted in Technical Specification and 10 CFR Part 50, Appendix B, violations. Moreover, the event that resulted in violations A and C.1 had the potential for a significant exposure. Therefore, the violations are classified in the aggregate as a Severity Level III problem.

The NRC acknowledges that significant corrective actions were taken once these problems were identified by your staff. Following the core support assembly lift event, you revised your procedures and provided more licensee involvement for contractor performed activities. The NRC also acknowledges that after the inadvertent stopping of the make-up pump event, you made a decision to suspend reactor startup activities and implement an aggressive program of self-assessment of operations and management activities. This program included bringing in senior managers from other utilities to analyze your activities. All crews were briefed on the details of the events and "lessons learned" were reviewed. Additionally, a senior operations representative and a quality assurance individual were assigned to each shift to provide ongoing activity oversight.

In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy) 10 CFR Part 2, Appendix C (1990), a civil penalty is considered for a Severity Level III problem. However, after consultation with the Director, Office of Enforcement, I have decided that the civil penalty will be mitigated in its entirety because of your self-identification and prompt reporting and prompt and extensive corrective action. The other factors in the Enforcement Policy were considered but none warranted further adjustment of the civil penalty.

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

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

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

Sincerely,

/s/ J. Miller for

A. Bert Davis
Regional Administrator

Enclosures:
1. Notice of Violation
2. Inspection Reports
   No. 50-346/90009(DRP)
   No. 50-346/90012(DRSS)
   No. 50-346/90013(DRP)

cc w/enclosures:
L. Storz, Plant Manager
DCD/DCB (RIDS)
Licensing Fee Management Branch
Resident Inspector, RIII
James W. Harris, State of Ohio
Roger Suppes, Ohio
  Department of Health
A. Grandjean, State of Ohio
  Public Utilities Commission

NOTICE OF VIOLATION

Toledo Edison Company
Davis-Besse Nuclear Power Station

Docket No. 50-346
License No. NPF-3
EA 90-109

During inspections conducted on April 17 through July 17, 1990 violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990), the violations are listed below:

A. 10 CFR 20.201(b) requires that each licensee make or cause to be made such surveys as (1) may be necessary to comply with the regulations in this part, and (2) are reasonable under the circumstances to evaluate the extent of radiation hazards that may be present. 10 CFR 20.201(a) defines a survey as an evaluation of the radiation hazards incident to the production, use, release, disposal or presence of radioactive materials or other sources of radiation under a specific set of conditions.

Contrary to the above, on April 25, 1990, the licensee transferred the reactor core support assembly from temporary storage and installed it in the reactor vessel. However, the licensee failed to make an adequate survey, which was reasonable under the circumstances, to evaluate the extent of radiation hazards that may be present. As a result, several workers received unplanned radiation doses.

B. 10 CFR Part 50, Appendix B, Criterion V, as implemented by Section V of the licensee's Nuclear Quality Assurance Manual, requires that activities affecting quality be prescribed by documented instructions, procedures, or drawings of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings.

Contrary to the above, examples of the licensee's failure to have procedures appropriate to the circumstances are listed below:

1. Documented instructions in Procedure DB-OP-06023, "Fill, Drain, and Purification of the Refueling Canal," were not appropriate to the circumstances in that they neither addressed draining of the refueling canal with the indexing fixture in place nor contained precautions about the potential loss of decay heat cooling from a partially filled reactor coolant system. As a result, on May 1, 1990 reactor coolant level in the reactor vessel was inadvertently lowered while draining the refueling canal.

2. Procedure DB-PF-10100, "Steam Generator 1 Hydrostatic Test," was not appropriate to the circumstances in that it did not evaluate the effects of connecting the steam generator level tap to the containment vent line and did not require diverse level indicators or the monitoring of open vents. As a result, steam generator 1 was overfilled on May 23, 1990.

C. Technical Specification 6.8.1 requires that written procedures be implemented for activities listed in Regulatory Guide 1.33, Appendix A. Regulatory Guide 1.33, Appendix A lists among other things, the following activities: (1) preparation for refueling and refueling equipment operation; (2) authorities and responsibilities for safe operation and shutdown; (3) performing maintenance; (4) equipment control; (5) shutdown cooling system; (6) cold shutdown to hot standby operating procedures; and (7) loss of component cooling system and cooling to individual components.

Contrary to the above, examples of the licensee's failure to implement procedures described in Appendix A of Regulatory Guide 1.33, are shown below:

1. Procedure DB-MN-00006, "Control of Lifting and Handling Equipment," Sections 6.1.8 and 6.1.9 require that detailed handling instructions or procedures be prepared for items that require special handling. The licensee neither issued special instructions nor were they contained in Procedure DB-MM-09092, "Reactor Vessel Internals Removal and Installation," which described a method for determining the clearance between the bottom of the core support assembly (CSA) and the top of objects in the refueling canal for the installation of the CSA on April 25, 1990. As a result while transferring the CSA, a lift specialist unnecessarily raised the CSA thereby creating higher than expected radiation dose rates and unplanned radiation exposures.

2. Procedure DB-OP-00000, "Conduct of Operations," Section 6.7.6, requires that prior to the performance of critical, complicated, unusual, or infrequent operations a procedure review be performed and briefings be conducted by the individual in charge of the evolution. However, the licensee did not identify during the pre-evolution briefing that the indexing fixture was in place for the draining of the refueling canal (an infrequent operation) on April 30, 1990. Further, on June 21, 1990, the licensee failed to hold a pre-evolution briefing prior to performance of DB-OP-06900, Attachment 16, "Leak Check of DH76 and DH77", (another infrequent operation).

3. Procedure DB-SC-04053, "4160 System Transfer and Lockout Test Buses C1 and C2," Step 4.2.10 requires that the licensee isolate only regulated rectifier YRF3. However, on May 18, 1990, the licensee failed to follow this procedure and isolated both inverter YV3 and regulated rectifier YRF3.

4. Procedure DB-OP-06012, "Decay Heat and Low Pressure Injection Operation Procedure," Section 14.2.3.a requires that, unless otherwise directed by the shift supervisor, valve verification list B-1 is to be performed if Decay Heat Pump 1-1 will be used for recirculation. Valve verification list B-1, Sheet 3, requires DH33 to be closed. However, on May 22, 1990, while decay heat pump 1-1 was used for recirculation, the licensee found DH33 open and the shift supervisor had not directed otherwise.

5. Procedure DB-OP-06012, "Recirculation of BWST with a Decay Heat Pump," Section 14.1.1, requires that the Decay Heat (DH) Pump Suction Valves from the Reactor Coolant System (RCS) be closed before opening test flow valves to the BWST if DH11 and DH12 are open. Specifically, it requires that suction valves DH1517 and DH10 be closed before test valves DH66 and DH68 are opened. However, on May 27, 1990, while DH11 and DH12 were open, the licensee opened test valves DH66 and DH68 while suction valve DH1517 was open.

6. Procedure DB-OP-06900, Attachment 16, "Leak Check of DH76 and DH77," Step 5.0 requires that valve DH1B be closed before opening valve CF1B. However on June 21, 1990, while performing a leak check of valves DH76 and DH77, the licensee failed to close valve DH1B before opening valve CF1B.

7. Procedure DB-OP-02512, "Loss of RCS Makeup," Step 4.1.9.a.1, requires seal injection flow to be restored by slowly opening MU19 to achieve a 5 GPM rise every 2 minutes until normal flow of 36 GPM is reached. However, on June 21, 1990, the licensee inadvertently shut off Makeup Pump No. 1 which interrupted seal injection flow and then immediately restarted the pump which caused full seal injection flow to be restored immediately.

This is a Severity Level III problem (Supplements I and IV)

Pursuant to the provisions of 10 CFR 2.201, Toledo Edison Company 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 III, and if applicable, a copy to the NRC Resident Inspector, 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, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be

taken. Where good cause is shown, consideration will be given to extending the response time. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

FOR THE NUCLEAR REGULATORY COMMISSION

B J Miller for

A. Bert Davis
Regional Administrator

Dated at Glen Ellyn, Illinois
this 26th day of September 1990

I.C. NON-LICENSED VENDOR (PART 21),
NO CIVIL PENALTY

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

September 13, 1990

Docket No. 99901101/88-01
Enforcement Action No. 90-062

Mr. Rodney C. Hanner, President
Planned Maintenance Systems
1002-1004 Main Street
Mount Vernon, Illinois 62864

Dear Mr. Hanner:

This letter addresses the inspection of your facility at Mount Vernon, Illinois, led by Mr. J. J. Petrosino of this office on May 9-12, 1988.

The NRC inspection focused on the concerns expressed in a 10 CFR Part 21 report that was transmitted to the NRC on April 1, 1988 by the Wolf Creek Nuclear Operating Corporation regarding the validity of Certificates of Compliance (COCs) that Planned Maintenance Systems (PMS) provided for safety-related equipment. This inspection consisted of an examination of procedures and representative records, interviews with personnel and observations by the inspectors. The areas inspected, specific findings and references to the pertinent requirements are identified in the enclosures to this letter.

The inspection found that the implementation of your quality assurance (QA) program failed to meet certain NRC requirements. The inspection findings included the following nonconformances: the failure to perform contractually required hardware qualification activities specified in Standard 323 of the Institute of Electrical and Electronics Engineers (IEEE), the failure to adequately delineate many of the IEEE 344 requirements to test laboratories, and the failure to maintain adequate records for quality-related activities involving safety-related hardware supplied to customers. The inspection also revealed violations by PMS of the requirements of 10 CFR Part 21, specifically, PMS neither performed an evaluation of deviations nor informed customers of the deviations as required by 10 CFR Part 21. Further, PMS had inadequate procedures to implement 10 CFR Part 21 and failed to invoke 10 CFR Part 21 on subsuppliers as required.

The most significant inspection finding was the identification of PMS-supplied COCs that incorrectly certified that PMS had satisfactorily performed the required IEEE testing. Furthermore, you made false statements to the NRC regarding the authenticity of Gould and Westinghouse COCs. You subsequently admitted to falsifying these COCs to make it appear that these products were qualified nuclear-grade components even though you had full knowledge that the products deviated from the technical requirements of the applicable procurement documents.

The violations described in the enclosed Notice of Violation have been classified in accordance with the "General Statement of Policy and Procedure

for NRC Enforcement Actions," 10 CFR Part 2 Appendix C (1988). The Severity Level of Violation 2 has been escalated from a Severity Level III to a Severity Level II because a responsible officer of PMS, in this case the President of PMS, willfully modified documents and fraudulently misrepresented safety-related equipment to nuclear power plants. If an appropriate evaluation had been performed as required, a 10 CFR Part 21 report to the NRC may have been required regarding the failure to perform the required IEEE-323 actions and the fraudulent representation of commercial-grade products as safety-related. The NRC strongly condemns such acts.

Furthermore, PMS failed to evaluate the multiple failures to comply with the contractual requirements and knowingly and intentionally modified COCs to fraudulently represent the commercial-grade products as safety-related products. A response detailing your corrective actions for the violations is required. However, the NRC understands that PMS is no longer conducting business activities with NRC licensees. Therefore, the required response is being held in abeyance until such time as PMS or Mr. Rodney C. Hanner plans to recommence business activity with any NRC-licensed facility. If a reply is necessary, the reply should be submitted 60 days prior to Mr. Rodney C. Hanner or PMS undertaking any business activity with any NRC-licensed facility. When submitted, the reply should be clearly marked as a "Reply to a Notice of Violation" and should include the following: (1) the reason for the violation, if admitted, (2) the corrective steps that have been taken and results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. The response should be addressed to the US Nuclear Regulatory Commission, Attn: Document Control Desk, Washington, D.C. 20555 with a copy to the Chief, Vendor Inspection Branch.

Normally, you would also be requested to submit a similar written statement for each item that appears in the enclosed Notice of Nonconformance. However, this request is also being deferred until such time as you or PMS recommence business with NRC licensees.

In accordance with 10 CFR Part 2.790 of the Commission's regulations, a copy of this letter and its enclosures will be placed in the NRC's Public Document Room. The responses requested by this letter are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

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

Sincerely,

/S/

William T. Russell, Associate Director
for Inspection and Technical Assessment
Office of Nuclear Reactor Regulation

Enclosures:
1. Appendix A-Notice of Violation
2. Appendix B-Notice of Nonconformance
3. Appendix C-Inspection Report No. 99901101/88-01

cc: Mr. W. A. Alexander, Esquire
Trout, Alexander, Popit and Warner
105 North Main Street
Post Office Box 548
Benton, Illinois 62812

APPENDIX A

NOTICE OF VIOLATION

As a result of the inspection conducted on May 9-12, 1988 and in accordance with Section 206 of the Energy Reorganization Act of 1974 and its implementing regulation 10 CFR Part 21, the following violations were identified and categorized in accordance with the NRC Enforcement Policy, 10 CFR Part 2, Appendix C, (1988):

1. Section 21.21(a), "Notification of Failure to Comply or Existence of a Defect," of 10 CFR Part 21 requires, in part, that each individual or other entity subject to the regulations adopt appropriate procedures to provide for evaluating deviations or informing the licensee or purchaser of the deviation in order that the licensee or purchaser may cause the deviation to be evaluated unless the deviation has been corrected.

   Contrary to Section 21.21(a), PMS Procedure Q-31086-1, Revision 1, "NRC Notification of Deficiencies or Nonconformances," dated March 10, 1986, is inadequate in that it neither addresses the required PMS evaluation of a deviation nor provides for notifying the licensee or purchaser of the deviation so they may cause an evaluation to be performed. (88-01-01).

   This is a Severity Level IV Violation (Supplement VII).

2. Section 21.21(a), "Notification of Failure to Comply or Existence of a Defect," of 10 CFR Part 21 requires, in part, that the vendor organization either evaluate deviations or inform the purchaser of the deviation so that the purchaser may cause the deviation to be evaluated.

   Contrary to Section 21.21(a), PMS did not perform an evaluation of deviations, specifically, multiple failures to comply with contractually required IEEE-323 requirements for safety-related equipment that it supplied to nuclear plant facilities, nor did PMS inform their customers of these deviations. (See Section E of Inspection Report (IR) No. 9901101/88-01.) Furthermore, PMS failed to evaluate or inform their customers of deviations associated with certificates of compliance (COCs) that were completed by PMS and not the responsible subtier vendor. (See Section E of above-referenced IR.) The most significant issue discovered by the NRC staff was that PMS (Mr. Rodney C. Hanner) willfully modified Westinghouse and Gould COCs to fraudulently represent commercial-grade products supplied to NRC licensees as safety-related. (See Section E of above-referenced IR). (88-01-02).

   This is a Severity Level II Violation (Supplement VII).

3. Section 21.31, "Procurement Documents," of 10 CFR Part 21 requires, in part, that each individual or other entity subject to the Part 21 regulations will assure that each procurement document specifies, when applicable, that the provisions of 10 CFR Part 21 apply.

   Contrary to Section 21.31, as of the date of the inspection, PMS could not provide purchase order documentation that would substantiate that in 1987 it invoked the required 10 CFR Part 21 regulations on applicable subtier vendors, specifically Radiation Sterilizers (PMS Job Reference Nos. T-1015 & P-1010) and Scherrer Calibration Services (PMS Job Reference Nos. T-1015 & P-1010) (88-01-03).

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

Pursuant to the provisions of 10 CFR Part 2.201, PMS would normally be required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, Attn: Document Control Desk, Washington, D.C. 20555 within 30 days of the date of the letter transmitting this Notice. However, based on the sentencing of the President of PMS (Mr. Rodney C. Hanner) on March 12, 1990 to 5 months in prison, 5 months performing community work, 4 years probation and $125,000.00 restitution, the NRC understands that PMS is no longer conducting business activities with NRC licensees. Therefore the required response by PMS is being held in abeyance until such time as PMS or Mr. Rodney C. Hanner plans to recommence business activity with any NRC licensee. The reply should be submitted 60 days prior to Mr. Rodney C. Hanner or PMS undertaking any business activity with any NRC licensee. When submitted, the reply should be clearly marked as a "Reply to a Notice of Violation" and should include the following: (1) the reason for the violations, if admitted, (2) the corrective steps that have been taken and results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. The response should be addressed to the U.S. Nuclear Regulatory Commission, Attn: Document Control Desk, Washington, D.C. 20555, with a copy to the Chief, Vendor Inspection Branch.

APPENDIX B

Planned Maintenance Systems
Docket No. 99901101/88-01

EA 90-062

NOTICE OF NONCONFORMANCE

During an inspection conducted May 9-12, 1988, the NRC staff reviewed the implementation of the quality assurance (QA) program at the Planned Maintenance Systems, Incorporated (PMS) facility in Mount Vernon, Illinois. The results of the inspection revealed that certain of its activities were not conducted in accordance with NRC requirements. These items have been classified as nonconformances with the requirements of Appendix B to 10 CFR Part 50 and ANSI/ASME N45.2 that were contractually imposed on PMS through purchase orders with NRC licensees and within the PMS quality assurance manual.

1. Criterion II, "Quality Assurance Program," of Appendix B to 10 CFR Part 50 requires, in part, that the quality assurance program will provide control over activities affecting the quality of systems and components. The program will take into account the need for special controls and skills to attain the required quality. The program will also provide for indoctrination and training of personnel as necessary to assure that suitable proficiency is achieved and maintained.

   Sections 2.2, 2.4 and 3.5 of ANSI/ASME N45.2.6-1978, "Qualifications of Inspection, Examination, and Testing Personnel for Nuclear Power Plants," requires, in part, that the capabilities of a candidate for certification will be initially determined by an evaluation of the candidate's education, experience, training, test results or capability demonstration. The qualification of personnel will be certified in writing, including: (1) the level of capability; (2) activities certified to perform; (3) the basis used for certification, including: (a) records of education, experience and training; (b) test results, where applicable; and (c) results of capability demonstration; (4) results of periodic evaluations; and (5) date of certification and date of certification expiration. Additionally, there are personnel education and experience requirements for each of the three capability levels, which delineate specific education and experience prerequisites.

   ANSI/ASME N45.2.23-1978, "Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants," requires in part, that a prospective lead auditor will have participated in a minimum of five quality assurance audits within a period of time not to exceed three years prior to the date of qualification and that he will pass an examination to evaluate his comprehension and ability of the requirements. Additionally, lead auditor proficiency records will be maintained and reviewed annually to maintain lead auditor qualification in accordance with the requirements.

   Contrary to these requirements, PMS could not produce adequate documentation to substantiate its qualification of its inspection and auditing staff, specifically:

   a. All of the records for the PMS technical staff Level II and Level III inspection personnel that were reviewed did not indicate

the activities employees were certified to perform nor the basis used for the certification of qualifications (88-01-04);

b. Two of the three records for PMS technical staff level II and level III inspection personnel that were reviewed did not contain objective evidence to substantiate that the education and applicable experience requirements had been satisfied at the time they were certified (88-01-05);

c. PMS could not provide objective evidence to substantiate that Mr. Hanner had participated in a minimum of the required five audits during the three-year period before his certification as lead auditor for PMS (88-01-06);

d. PMS could not provide objective evidence to indicate that Mr. Hanner's lead auditor qualifications had the required annual review performed since the initial July 1985 lead auditor certification (88-01-07); and

e. An NRC telephone verification with the applicable colleges of two out of the three PMS technical staff revealed that a 2-year associate degree for one PMS person and a graduate (MBA) degree for the PMS president were not awarded to the personnel even though the respective resumes indicated that these persons had received the AA and MBA degrees (88-01-08).

2. Criterion III, "Design Control," of Appendix B to 10 CFR Part 50 requires, in part, that the design basis for systems and components is correctly translated into specifications.

Section 4, "Design Control," of ANSI/ASME N45.2-1977 requires, in part, that all applicable design requirements, regulatory requirements, codes, and standards be correctly translated into specifications, drawings, procedures or instructions, and that deviations from specific design requirements or quality standards be identified, documented and controlled.

Contrary to these requirements, PMS failed to correctly and fully translate specifications and purchase order requirements into seismic test procedure requirements for the Wyle test report for transformers in Fitzpatrick Purchase Order No. 86-5790, and failed to perform a material analysis for fuses ordered for Browns Ferry, PMS Job No. TV-1043 (88-01-09).

3. Criterion VIII, "Identification and Control of Materials, Parts and Components," of Appendix B to 10 CFR Part 50 requires, in part, that measures will be established to assure that identification of items is maintained either on the item or on records traceable to the item.

ANSI/ASME N45.2-1977 requires, in part, that measures will provide for assuring that only correct and accepted items are used and installed, and the relation to an item (batch, lot, component, part) at any stage is maintained, from the initial receipt through fabrication, installation

or modification. When codes, standards or specifications require traceability of materials, parts or components to specific inspection or test records, the program will be designed to provide such traceability. Section 6, of IEEE Standard 323-1974, as contractually imposed on PMS, requires, in part, that the qualification of Class 1E equipment will include the identification of the Class 1E equipment being qualified.

Contrary to these requirements, PMS could not verify the identification and subsequent record traceability of components tested by and procured by PMS for the New York Power Authority under its Fitzpatrick Purchase Order No. 86-5790 (88-01-10).

4. Criterion XI, "Test Control," of Appendix B to 10 CFR Part 50 requires, in part, that a test program be established to assure that all testing required to demonstrate that systems and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents. Test results will be documented and evaluated to assure that test requirements have been satisfied.

ANSI/ASME N45.2-1977 requires, in part, that regardless of the degree of standardization or similarity to proven designs, the applicability of standardized or previously proven designs with respect to meeting pertinent design requirements will be verified for each application.

Contrary to these requirements (88-01-11):

a. PMS issued certificates of compliance which indicated that some components, such as electrical relays, vertical scale indicators for control room panels, transformers, and fuses, met various qualification standards without performing a verification that the basis of certification (e.g., previous equipment qualification testing) was relevant, valid and, as a minimum, enveloped the qualification requirements applicable to the current order; and

b. PMS could not provide objective evidence to ensure that each of the IEEE 323-1974 test sequence requirements were followed for the PMS environmental qualification testing performed for the contact assemblies on Public Service and Gas Purchase Order PI-127398 (PMS Job No. P-1010).

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

July 11, 1990

Docket No.: 99900031/90-01
EA-90-122

Mr. Ulrich Bolleter, Ph.D.
Chief Executive Officer
Sulzer Bingham Pumps, Inc.
Portland Pump Division
2800 Northwest Front Avenue
P. O. Box 10247
Portland, Oregon 97210

Dear Dr. Bolleter:

This letter refers to the inspection conducted by Messrs. S. M. Matthews, R. L. Cilimberg, M. R. Snodderly, and J. J. Petrosino of this office on February 5-8, 1990, at your Portland Pump Division facility in Portland, Oregon and the discussion of the findings with Mr. Willy Stucki, Acting Plant Manager, of your staff at the conclusion of the inspection.

The inspection was conducted to assess the design process, design bases controls, verification activities, and implementation of the quality program in selected areas. Areas examined during the inspection and our findings are discussed in the enclosed report. This inspection consisted of an examination of procedures and representative records, interviews with personnel, and observations by the inspectors. The assessment was determined through performance-based reviews of these areas.

The last Nuclear Regulatory Commission (NRC) inspection of Sulzer Bingham Pumps, Incorporated (SBPI), formerly Bingham-Willamette Company, was performed in October 1984, and documented in Inspection Report No. 99900031/84-01. Since that time, several recurring equipment operational problems have been identified in nuclear power plants which use SBPI centrifugal pumps in safety-related systems. The most notable operational problems have been: shaft sleeve failures at South Texas Project Electric Generating Station, Palo Verde Nuclear Generating Station and Catawba Nuclear Station; pump impellers with inadequate solution anealing supplied to the Diablo Canyon and Crystal River nuclear stations; and wear ring failures at the Peach Bottom and Browns Ferry nuclear stations.

The most significant inspection finding was the failure of SBPI to perform the required evaluations of potentially reportable deviations or to inform purchasers so they could cause an evaluation to be performed pursuant to the provisions of 10 CFR Part 21. The NRC inspectors reviewed a number of

deviations regarding failures of impellers, shaft sleeves, and impeller wear rings which were not properly evaluated in accordance with 10 CFR Part 21. In one evaluation performed by SBPI, a 10 CFR Part 21 report was issued in May of 1988; however, the evaluation report did not identify and inform all applicable nuclear power plants. Subsequently, in January 1989, one of the unnotified nuclear power plants (Catawba Nuclear Station) experienced a failure similar to that reported in the May 1988 10 CFR Part 21 report.

In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990), Violation A (90-01-01) described in the enclosed Notice of Violation has been classified as a Severity Level III violation because notification to NRC licensees of a deviation was not made. Violations B (90-01-02) and C (90-01-03) have been categorized at a Severity Level IV.

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

In addition, the inspectors identified that your corrective actions for previously identified violations and nonconformances were inadequate. As a result, eight of the findings identified in this inspection are repeat findings from the 1984 inspection.

During this inspection it was found that the implementation of your quality program failed to meet certain NRC requirements and resulted in the identification of several nonconformances. The inspection identified that, contrary to SBPI procedures, engineering activities failed in numerous instances to adequately control the design bases for basic components including the selection and review for suitability of application of materials, parts, equipment, and processes that are essential to the safety-related function of the components. In addition, design changes were made in several instances without applying adequate measures to control the design bases. The specific findings and references to the pertinent requirements are identified in the enclosed Notice of Nonconformance.

Please provide us within 30 days from the date of this letter a written statement with respect to this Notice of Nonformance containing: (1) a description of steps that have been or will be taken to correct these items; (2) a description of steps that have been or will be taken to prevent recurrence; and (3) the dates your corrective actions and preventive measures were or will be completed. We will consider extending the response time if you can show good cause for us to do so.

The responses requested by this letter are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 95-511. In accordance with 10 CFR Part 2.790, of the Commission's regulations, a copy of this letter and its enclosures will be placed in the NRC's Public Document Room. In addition, a copy of this report will be forwarded to The American Society of Mechanical Engineers for their review and information.

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

Sincerely,

Brian K. Grimes, Director
Division of Reactor Inspection and Safeguards
Office of Nuclear Reactor Regulation

Enclosures:
1. Appendix A-Notice of Violation
2. Appendix B-Notice of Nonconformance
3. Appendix C-Inspection Report No. 99900031/90-01

cc: Melvin R. Green, Executive Director
Codes and Standards
American Society of
Mechanical Engineers
345 East 47th Street
New York, New York 10017

APPENDIX A

NOTICE OF VIOLATION

Sulzer Bingham Pumps, Inc.
Portland Pump Division
Portland, Oregon

Docket No.: 99900031/90-01
EA-90-122

During an inspection conducted at Sulzer Bingham Pumps, Inc. (SBPI), Portland Pump Division, Portland, Oregon facility on February 5-8, 1990, three violations of Nuclear Regulatory Commission (NRC) requirements were identified. In accordance with the "General Statement of Policy and Procedures for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990), the violations are listed below:

A. Section 21.21, "Notification of failure to comply or existence of a defect," of 10 CFR Part 21, requires, in part, that each individual or other entity subject to the regulations evaluate deviations or inform the licensee or purchaser of the deviation in order that the licensee or purchaser may cause the deviation to be evaluated.

Contrary to the above, the following five examples were identified where SBPI either failed to perform an adequate evaluation or failed to notify purchasers so they could cause an evaluation to be performed. (90-01-01)

1. SBPI failed to adequately evaluate the impeller material failure at Diablo Canyon Nuclear Power Plant, Unit 2. In October 1988, the licensee of the Diablo Canyon Nuclear Power Plant issued Licensee Event Report (LER) 88-029, notifying the NRC of abnormal deterioration of safety-related auxiliary salt water pump impellers due to inadequate heat treatment and failure of the vendor (SBPI) to control special processes. Based upon metallurgical analysis performed on the impeller material, the licensee determined that the impellers did not receive adequate solution annealing heat treatment which resulted in accelerated intergranular corrosion (IGC). Although SBPI notified Crystal River Unit 3 of the deviation, SBPI had not performed an evaluation of the deviation, in accordance with SBPI procedures, to support its conclusion that the deviation was not applicable to other facilities with the same impeller material in environments subject to IGC.

2. SBPI failed to provide notification to all licensees of the applicable nuclear power plants with pumps subject to shaft sleeve failures. SBPI informed the owners of Beaver Valley Power Station, Millstone Nuclear Power Station, Palo Verde Nuclear Generating Station (PVNGS) and South Texas Project Electric Generating Station (STPEGS) in a notification dated May 4, 1988 of failed wrought stainless steel center and throttle shaft sleeves. The notification was issued as the result of shaft sleeve failures due to intergranular stress corrosion cracking/hydrogen embrittlement (IGSCC/HE) at PVNGS and STPEGS. However, the notification failed to

include Catawba Nuclear Station, which subsequently experienced a similiar failure of a shaft sleeve in an auxiliary feedwater system pump as reported in LER 89-007, dated March 30, 1989.

3. SBPI failed to adequately evaluate a deviation concerning pump impeller wear ring failures. The initial failures occurred at Peach Bottom Atomic Power Station and Browns Ferry Nuclear Plant in residual heat removal (RHR) system pumps and were the subject of NRC Information Notice No. 86-36 dated May 20, 1986. Based upon metallurgical examinations performed on the wear ring fracture surfaces, the licensees determined the presence of IGSCC. Although SBPI informed the owners of Peach Bottom Atomic Power Station, Browns Ferry Nuclear Plant, Cooper Nuclear Station, Pilgrim Nuclear Power Station, and Vermont Yankee Nuclear Power Station regarding the failed stainless steel impeller wear rings, SBPI limited their evaluation to pumps used in only the RHR systems and as of February 8, 1990 had not considered the adequacy of the source supplying the wear ring material or uses of the failed material in other environments where an IGSCC mechanism exist.

4. SBPI did not adequately process deviations, which were handled as Technical Bulletins (TBs), pursuant to the provisions of 10 CFR Part 21. Numerous TBs (See paragrah 3.1.4 of Inspection Report 99900031/90-01) were reviewed wherein SBPI dispositioned issues that were deviations, as defined in 10 CFR Part 21, and as of February 8, 1990 had not evaluated the deviations, or provided notification to the applicable licensees.

5. SBPI did not adequately process licensee notifications of deviations. Problem notifications from licensees entered SBPI through one of two points of contact; the Field Services Engineer or the Pump Parts Order Manager. As of February 8, 1990 neither individual in charge of these areas had received training in the requirements for processing deviations. As a result, SBPI had not evaluated deviations or made notifications to licensees as required by 10 CFR Part 21.

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

B. Section 21.31, "Procurement Documents," of 10 CFR Part 21, requires, in part, that each corporation shall assure that each procurement document for a basic component specifies, when applicable, that the provisions of 10 CFR Part 21 apply.

Contrary to the above, the following three purchase orders (POs) are examples where SBPI failed to invoke the requirements of 10 CFR Part 21 in safety-related POs to subvendors of basic components or materials: (90-01-02)

1. SBPI PO No. 1-201290, issued to PED Manufacturing for safety-related impeller castings for STPEGS.

2. SBPI PO No. 630648, issued to Action Arc, Incorporated, and SBPI PO No. 630372, issued to Air Products, for welding electrodes used in welded repairs to safety-related impellers for the Diablo Canyon Nuclear Power Plant.

This is a repeat of Violation A.1 identified by the NRC during the previous inspection and documented in Inspection Report 99900031/84-01. This has been classified as a Severity Level IV violation (Supplement VII).

C. Section 21.21, "Notification of Failure to Comply or Existence of a Defect," of 10 CFR Part 21, requires, in part, that each individual, corporation or other entity subject to the regulations adopt appropriate procedures for either evaluating deviations or for informing the licensee or purchaser of the deviation.

Contrary to the above, SBPI Procedure A14.0, "Procedure for Reporting of Safety Related Noncompliance and Defects to Meet 10 CFR Part 21," Revision 6, dated January 26, 1990, did not (1) ensure that licensees or purchasers were informed of deviations so that the deviation may be evaluated regardless of contractual requirements; (2) ensure that product deviations were evaluated to determine whether a particular deviation could create a substantial safety hazard; and, (3) ensure that the bases for SBPI determining reportability, including the scope of the problem, was documented in the required evaluation package. (90-01-03)

This has been classified as a Severity Level IV violation (Supplement VII).

Pursuant to the provisions of 10 CFR 2.201, SBPI 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 Chief, Vendor Inspection Branch, Division of Reactor Inspection and Safeguards, Office of Nuclear Reactor Regulation, within 30 days of the date of the letter transmitting this Notice of Violation. 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, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. Where good cause is shown, consideration will be given to extending the response time.

Dated at Rockville, Maryland
this 11th day of July 1990.

II.A. MATERIALS LICENSEES, CIVIL PENALTIES AND ORDERS

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

JAN 11 1990

Docket No. 030-20567
License No. 24-21362-01
General License 10 CFR 110.23
EA 89-257

American Radiolabeled Chemicals
ATTN: Dr. Surendra K. Gupta
11612 Bowling Green Drive
St. Louis, Missouri 63146

Gentlemen:

SUBJECT: ORDER SUSPENDING LICENSES (EFFECTIVE IMMEDIATELY)

Enclosed is an immediately effective order which suspends your byproduct material license and your general license to export byproduct material. This suspension will remain in effect pending resolution of your application for renewal of your byproduct material license following NRC's completion of its evaluation of recent inspection findings. The reasons for this action are explained in the Order. In accordance with the terms of the Order, you may request a hearing on the Order. This Order supersedes the Confirmatory Action Letters (CAL) issued on December 22 and 29, 1989 with the exception of items 1 and 2 of the December 29, 1989, CAL which still must be met in accordance with 10 CFR 20.103 and 20.201 of the Commission's regulations.

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

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

Any questions regarding the enclosed Order should be directed to Mr. Charles E. Norelius in the NRC Region III Office at 312-790-5510.

Sincerely,

Hugh L. Thompson, Jr.
Deputy Executive Director for
Nuclear Materials Safety, Safeguards,
and Operations Support

Enclosure: As stated

cc: R. E. Boyle, FAA/DOT
J. O'Connell, Jr., RSPA/DOT
State of Missouri

UNITED STATES
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	Docket No. 030-20567
AMERICAN RADIOLABLED CHEMICALS	)	License No. 24-21362-01
St. Louis, Missouri	)	General License 10 CFR 110.23
	)	EA 89-257

ORDER SUSPENDING LICENSES
(EFFECTIVE IMMEDIATELY)

I

American Radiolabeled Chemicals (the licensee) is the holder of Byproduct Materials License No. 24-21362-01 issued by the Nuclear Regulatory Commission (NRC or Commission) on August 15, 1983, pursuant to 10 CFR Part 30. The license was due to expire on August 31, 1988, and is currently in effect pursuant to a timely application for renewal in accordance with 10 CFR 2.109. The license authorizes the licensee to possess and use licensed materials (carbon-14, hydrogen-3, phosphorus-32, and sulfur-35) in the synthesis of radiolabeled chemicals for distribution to persons authorized to receive the licensed material under terms of specific licenses issued by the Commission or an Agreement State. In addition, 10 CFR 110.23(a) grants the licensee a general license to export byproduct materials to any country not listed in 10 CFR 110.28.

II

In response to allegations received by the NRC Region III Office, an inspection was initiated on December 21, 1989. The allegations concerned, among other matters, falsification of shipping records, failure to train personnel handling radioactive materials, and failure to evaluate the results of bioassay testing.

During the NRC inspection on December 21, 1989, and continuing on December 27 and 28, 1989, at the licensee's facility in St. Louis, Missouri, NRC inspectors

identified that on January 3, April 26, June 13, July 10, October 6, October 16, and October 20, 1989, the licensee shipped radiolabeled chemicals manufactured at its facility to a customer in Switzerland on commercial passenger aircraft. On those dates, the containers for shipments of either potassium cyanide, bromoacetic acid or methyl bromide tagged with carbon-14 were improperly labeled and the shipping papers for those shipments incorrectly identified the contents of the containers as carbon-14 tagged glucose. Each of these radiochemicals is designated by 49 CFR 172.101 as a hazardous material. Methyl bromide and potassium cyanide are designated as "Poison B" and bromoacetic acid is designated as "Corrosive Material."

This shipping practice was in violation of the NRC regulation, 10 CFR 71.5, which requires compliance with applicable Department of Transportation (DOT) requirements concerning transportation of hazardous materials. DOT requirements violated include:

1. 49 CFR 172.203(k)(1), which requires that the shipping papers include the name of the compound or principal constituent that causes a material to be classified as a poison if the compound or constituent name is not part of the proper shipping name, and 49 CFR 172.203(k)(2), which requires that the word "Poison" be included on the shipping papers. The shipping papers for shipments of potassium cyanide and/or methyl bromide tagged with carbon-14 occurring on January 3, April 26, July 10, and October 6, 16 and 20, 1989, listed the material shipping name as "Radioactive, N.O.S."

without the "Poison" designation or the compound name indicated on the shipping papers.

2. 49 CFR 172.402(a)(1) and 49 CFR 172.403(e), which require packages of radioactive material that meet the definition of other hazards be labeled as radioactive material and labeled for each additional hazard class. The radioactive materials contained in the packages offered for shipment as described in 1, above, and the material, bromoacetic acid tagged with carbon-14, contained in the package offered for shipment on June 13, 1989, were also classified as poison or corrosive hazards, but the packages were not labeled as poison or corrosive, as applicable.

3. 49 CFR 172.204, which requires the shipper to certify that hazardous materials offered for shipment are properly described and labeled according to applicable regulations. The licensee offered hazardous materials for shipment as described in 1 and 2, above, without meeting the requirements described in 1 and 2, above, but falsely certified that those shipments met those requirements.

When confronted with evidence indicating improper shipment of materials on December 21, 1989, the licensee's president stated that the licensee was having difficulty transporting the hazardous radiochemicals to Switzerland, and admitted that at the customer's request, the licensee misrepresented the chemicals to avoid shipping delays. A Confirmatory Action Letter (CAL) was issued on December 22, 1989, describing interim controls agreed to by the licensee to ensure proper documentation of shipments in the future.

In addition, the NRC inspection on December 27 and 28, 1989, at the St. Louis facility, also identified that the licensee's evaluations of bioassay data, laboratory workspace airborne radioactive material data, and radioactive effluent release data were inadequate to assure compliance with regulatory requirements. The following violations were identified:

1. During the period from July through December 1989, the licensee failed to comply with 10 CFR 20.201(b) in that it did not adequately evaluate radioactive effluent release data from its effluent monitoring system to assure compliance with 10 CFR 20.106. Based on the licensee's records for this period, the average radioisotope release rates were frequently in excess of the maximum permissible concentrations (MPC) allowed in 10 CFR Part 20, Appendix B, Table II, Column 1 and, an analysis completed August 7, 1989, indicated releases during one week were in excess of 80 times the MPC.

2. During the period from July through December 1989, the licensee failed to comply with 10 CFR 20.201(b) in that it did not adequately evaluate airborne radioisotope concentrations in the laboratory working environment or bioassay data to assure compliance with 10 CFR 20.103(a). Further, the licensee failed to comply with Condition 15 of the Byproduct Materials License in that it did not take corrective actions to minimize further exposure when the licensee's records indicated that radiation workers were exposed to greater than 10% of the maximum permissible concentrations stated in 10 CFR Part 20, Appendix B, Table I, Column 1; an action limit established by that license condition.

3. During 1989, the licensee failed to comply with 10 CFR 19.12 in that it failed to instruct two radiochemists and one secretary who handled licensed material in the applicable provisions of the Commission's regulations and the licensee's procedures regarding radiation protection.

On December 29, 1989, the NRC issued a second CAL documenting the licensee's agreement to suspend production activities using licensed materials. Notwithstanding the issuance of these CALs, further action is required as stated below.

III

The federal regulations for shipping hazardous materials have been established, in part, to protect the public, including passengers in aircraft, from the potential dangers of hazardous materials. For the safety of handlers and passengers, regulations dictate labeling, documentation, and packaging requirements for shipping hazardous materials. The federal regulations controlling the safe use of radioactive materials have been established to protect workers and the public from the potential hazards of radioactive material. For the safety of workers and members of the general public, NRC regulations specify that licensees evaluate the radiation hazards associated with licensed activities, train radiation workers, and limit the releases of radioactive materials to the environment.

While the NRC evaluation of licensed activities conducted by this licensee is continuing, the information developed to date indicates that violations of very significant regulatory concern occurred. The violations described in Section II, above, involve significant failures to evaluate radiation hazards and control radioactive materials, and demonstrate at least a careless disregard of Commission requirements designed to protect the public health and safety, including licensee employees. Therefore, I conclude that the licensee is either unable or unwilling to protect its employees and members of the general public from the hazards of radioactive materials. Moreover, the licensee's admission of its intentional violations of NRC and DOT transportation requirements demonstrates a disregard for the public health and safety. Given the extensiveness the significance, and willfulness of the violations, I no longer have reasonable assurance that the licensee's current operations can be conducted under License No. 24-21362-01 and its general export license in compliance with the Commission's requirements without undue risk to the public health and safety, including the licensee's employees. Therefore, License No. 24-21362-01 and the licensee's general export license are being suspended pending resolution of the licensee's application for renewal of License No. 24-21362-01 following NRC's completion of its evaluation of recent inspection findings. Furthermore, pursuant to 10 CFR 2.204, 110.62(c) and 110.63(d), I find that the public health, safety, and interest require that this Order be immediately effective and that no prior notice is required.

IV

Accordingly, in view of the foregoing and pursuant to Sections 81, 161b, 161c, 161i, 161o, 182, and 186 of the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR 2.204, 110.60(d), and 110.63, and 10 CFR Part 30, IT IS HEREBY ORDERED, EFFECTIVE IMMEDIATELY, THAT:

A. Activities under License No. 24-21362-01 and activities pursuant to the licensee's general export license, granted pursuant to 10 CFR 110.23, are suspended pending NRC's resolution of the licensee's application for renewal of License No. 24-21362-01.

B. The licensee shall immediately, if it has not done so already, place all byproduct material in its possession in locked safe storage and, within 24 hours of the receipt of this Order, notify the Regional Administrator, Region III, in writing under oath or affirmation, of compliance with the provisions of this Order.

The Regional Administrator, Region III, may in writing relax or rescind any of the above provisions on demonstration of good cause shown by the licensee. Nothing in this Order relieves the licensee from complying with all applicable Commission requirements including the radiological protection requirements of its license conditions and 10 CFR Part 20.

V

The licensee may file an answer to this Order within 20 days of the date of issuance of this Order, setting forth the matters of fact and law on which the licensee relies. Any answer to this Order shall be submitted to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555. Copies also shall be sent to the the Assistant General Counsel for Hearings and Enforcement at the same address and to the Regional Administrator, NRC Region III, 799 Roosevelt Road, Glen Ellyn, IL 60137.

VI

The licensee or any other person adversely affected by this Order may request a hearing within 20 days of the date of this Order. Any request for a hearing shall be sent to the Secretary, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Chief, Docketing and Service Section, and shall include a copy of the answer to the Order. Copies of the hearing request also shall be sent to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, to the Assistant General Counsel for Hearings and Enforcement at the same address, and to the Regional Administrator, NRC Region III, 799 Roosevelt Road, Glen Ellyn, IL 60137. If a person other than the licensee requests a hearing, that person shall set forth with particularity the manner in which its interest is adversely affected by this Order and shall address the criteria set forth in 10 CFR 2.714(d).

If a hearing is requested by the licensee or 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 Order should be sustained.

VIII

Upon the licensee's consent to the provisions set forth in Section IV of this Order, or upon failure of the licensee to file an answer within the specified time, and in the absence of any request for a hearing, the provisions specified in Section IV above shall be final without further Order or proceedings.

AN ANSWER UNDER SECTION V OR A REQUEST FOR HEARING UNDER SECTION VI OF THIS ORDER SHALL NOT STAY THE IMMEDIATE EFFECTIVENESS OF THIS ORDER.

FOR THE NUCLEAR REGULATORY COMMISSION

Hugh L. Thompson, Jr.
Deputy Executive Director for
Nuclear Materials, Safety, Safeguards,
and Operations Support

Dated at Rockville, Maryland
this 17th day of January 1990

SEP 13 1990

American Radiolabeled Chemicals, Inc.
ATTN: Donald W. Soldan
Radiation Safety Officer
11612 Bowling Green Drive
St. Louis, MO 63146

Gentlemen:

Enclosed is Amendment No. 05 renewing your NRC License No. 24-21362-01 in accordance with your request.

Please note that we have added License Conditions 11.B., 17., 18., 19., 20., and 21. to your license which require the following: (1) licensed material may be used by Dr. Gupta only under the direct supervision and physical presence of the Radiation Safety Officer (RSO) or Alternate Radiation Safety Officer; (2) package opening procedures as outlined in Appendix L of Regulatory Guide 10.8 (enclosed) will be followed; (3) a monthly statement signed by the RSO and Dr. Gupta certifying that operations have been conducted in full compliance with the license and NRC requirements shall be submitted to the NRC Region III office; (4) third party audits shall be performed monthly during the first quarter and quarterly thereafter, without the scope of the audit revealed to the licensee prior to the audit beyond that outlined in Section 4.3.6 of material attached to letter dated September 13, 1990; (5) management or financial control over licensed activities and materials, including, but not limited to, hiring and firing decisions, may not be exerted by Dr. Gupta; and (6) the authority of the RSO will include stopping any unsafe operations or operations which violate the license or NRC requirements.

The tritium gas manifold system discussed in your submissions has not been approved. The NRC does not approve manufacturing processes or equipment; however, the radiation protection program and procedures associated with such processes and equipment must be approved by the NRC. Therefore, your radiation safety committee will need to evaluate the tritium manifold system and procedures. If these evaluations show a need for changes in your radiation safety program, you will need to amend your NRC license to indicate those changes and procedures.

Also note, as you requested in your letter dated September 6, 1990, the license authorizes phosphorus-32 and sulfur-35 in prepackage units for redistribution only.

We have received and deemed timely your certification of financial assurance in accordance with 10 CFR 30.35, which is currently under review. Be advised that certain records of information important to decommissioning must be maintained (see License Condition 16.).

The issuance of this license renewal for a two year probationary period rescinds the January 11, 1990 Order Suspending Licenses and all other Order modifications. At the end of the two-year probationary period, should you submit a renewal request, your performance during this probationary period will be evaluated by the NRC to determine whether you may continue conducting licensed activities.

Please review the enclosed document carefully and be sure that you understand all conditions. You must conduct your program involving radioactive materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.

2. Possess radioactive material only in the quantity and form indicated in your license.

3. Use radioactive material only for the purpose(s) indicated in your license.

4. Notify NRC in writing of any change in mailing address.

5. Request and obtain appropriate amendment if you plan to change ownership of your organization, change locations of radioactive material, change personnel from those listed in the license, or make any other changes in your facility or program which are contrary to your license conditions or representations made in your license application and any supplemental correspondence with NRC. Any amendment request should be accompanied by the appropriate fee specified in 10 CFR Part 170.

6. Request termination of your license if you plan to permanently discontinue activities involving radioactive material prior to your expiration date.

You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations in your license application will result in enforcement action against you in accordance with the General Policy and Procedures for NRC Enforcement Actions, 10 CFR Part 2, Appendix C.

If you have any questions or require clarification of any of the above stated information, contact us at (708) 790-5625.

Sincerely,

A. Bert Davis
Regional Administrator

Enclosures:
1. Amendment No. 05
2. Regulatory Guide 10.8,
   Revision 2

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

APR 12 1990

Docket No. 30-30691
License No. 35-26953-01
EA 90-069

Barnett Industrial X-Ray
ATTN: Loyd D. Barnett
P.O. Box 1991
Stillwater, Oklahoma 74076

Gentlemen:

SUBJECT: ORDER MODIFYING LICENSE (EFFECTIVE IMMEDIATELY)

On April 6, 1990, Barnett Industrial X-Ray notified NRC of an incident which occurred during the conduct of industrial radiography and which resulted in a significant radiation exposure to an assistant radiographer employed by your company. NRC's preliminary inquiry into this incident indicates that violations of NRC requirements led to the occurrence of this incident. The enclosed Order is being issued to modify Barnett Industrial X-Ray's NRC license to prohibit Ray Thomas Croteau, the radiographer responsible for these violations, and Michael Porter, the assistant radiographer involved in this incident, from engaging in any NRC-licensed activities on behalf of your company.

This letter also serves official notice that the commitments you made following the occurrence of this incident, which were documented in an April 9, 1990, Confirmation of Action Letter (CAL) to you, remain in effect.

The issuance of this Order does not preclude NRC from considering and taking other enforcement action for the violations that led NRC to issue this Order. NRC's inquiry into the circumstances surrounding this incident is continuing.

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,

Hugh L. Thompson, Jr.
Deputy Executive Director for
Nuclear Materials Safety, Safeguards,
and Operations Support

Enclosure: As stated

cc: Ray Thomas Croteau
Michael Porter
NRC Public Document Room
Oklahoma Rediation Control Program Director

UNITED STATES
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
Barnett Industrial X-Ray	)	Docket No. 30-30691
Stillwater, Oklahoma	)	License No. 35-26953-01
	)	EA 90-069

ORDER MODIFYING LICENSE (EFFECTIVE IMMEDIATELY)

I

Barnett Industrial X-Ray (Licensee) is the holder of Materials License No. 35-26953-01 which was issued by the NRC pursuant to 10 CFR Parts 30 and 34 on December 28, 1988, and which was last amended in its entirety on October 5, 1989. The license authorizes the possession of iridium-192 as sealed sources in various radiography exposure devices for use in industrial radiography in accordance with the conditions specified in the license. The license is scheduled to expire on December 31, 1993.

II

On April 6, 1990, the Licensee's Radiation Safety Officer (RSO), who serves as RSO on a contractual basis, contacted the NRC Operations Center, Bethesda, Maryland, to report an incident that resulted in a radiation exposure to an assistant radiographer that may have significantly exceeded NRC's radiation exposure limits. The RSO reported that the incident occurred during work being performed by a radiographer and assistant radiographer at a refinery in Ardmore, Oklahoma on April 6, 1990. The radiation exposure to the assistant radiographer occurred after a sealed iridium-192 source became disconnected from its drive cable and did not return to the shielded position within the

exposure device when the drive cable was retracted following a radiographic exposure. Although required to do so by NRC regulations, neither the radiographer nor the assistant radiographer performed a radiation survey to confirm that the source had returned to the shielded position within the exposure device. The assistant radiographer then disconnected the guide tube from the exposure device, wrapped it around his neck and shoulders and transported the guide tube, with the unshielded source apparently still in it, to another location, unknowingly incurring a significant radiation exposure as a result. When the assistant radiographer arrived at the new location and began preparing for another radiographic exposure, the source fell to the ground. The source was ultimately recovered and was returned to the shielded exposure device by the radiographer. Although the radiographer and assistant radiographer are required to do so by NRC regulations, the assistant radiographer was not wearing a film badge or thermoluminescent dosimeter (TLD), and there is some question as to whether the radiographer was wearing a film badge or TLD. The purpose of the film badge or TLD is to measure the extent of the radiation received. The actual radiation exposure to both individuals and possible health effects are still being evaluated by competent medical practitioners.

NRC's inspection concerning this incident is continuing. Based on NRC's preliminary inquiry, Ray Thomas Croteau, a radiographer employed by Barnett Industrial X-Ray and authorized by License No. 35-26953-01 to act as a radiographer as defined in 10 CFR 34.2, and Michael Porter, an assistant radiographer employed by the same company, failed to conduct radiation surveys following radiographic exposures on April 6, 1990, even though both

individuals admitted to the NRC inspector that they knew such surveys were required by NRC regulations (10 CFR 34.43(b)). Further, during radiographic operations on April 6, 1990, Michael Porter did not wear either a film badge or a TLD, and there is some question as to whether Ray Thomas Croteau wore a film badge or a TLD. The film badge and TLD are devices that are intended to provide an accurate assessment of exposure to radiation. 10 CFR 34.33(a) requires that such devices be worn during all radiographic operations.

III

The requirements that Mr. Croteau and Mr. Porter violated in this instance are fundamental to ensuring radiation safety and to monitoring the exposure to radiation incurred by radiographers and their assistants in the course of their work. The sealed sources of radioactivity employed in this work, if used carelessly and without regard to their potential hazard, are capable of causing serious injury and can, in the worst cases, cause death. The failure to meet requirements designed to protect against such injury is unacceptable. Mr. Croteau received training in order to work as a radiographer and Mr. Porter received training in order to work as an assistant radiographer. Radiographers, by definition in 10 CFR 34.2, are responsible for assuring compliance with Commission requirements. Consequently, I lack the requisite reasonable assurance that Mr. Croteau and Mr. Porter will conduct activities under License No. 35-26953-01 in compliance with the Commission's requirements and that the health and safety of the public, including the Licensee's employees, will be

protected. Therefore, pending further inspection by the NRC, the public health, safety, and interest require that License No. 35-26953-01 be modified to prohibit Ray Thomas Croteau from acting as a radiographer as defined in Section 34.2, 10 CFR Part 34, and to prohibit both Mr. Croteau and Mr. Porter from engaging in any activities performed under the authority of this license. Furthermore, pursuant to 10 CFR 2.201(c), no prior notice is required and, pursuant to 10 CFR 2.204, I find that the public health, safety and interest require that this Order be immediately effective.

IV

Accordingly, pursuant to Sections 81, 161b, 161i, 182 and 186 of the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR 2.204 and 10 CFR Parts 30 and 34, IT IS HEREBY ORDERED, EFFECTIVE IMMEDIATELY, THAT LICENSE NO. 35-26953-01 IS MODIFIED AS FOLLOWS:

A. License Condition 12 is amended by removing Ray Thomas Croteau from the list of individuals authorized to act as radiographers as that term is defined in Section 34.2, 10 CFR Part 34.

B. Ray Thomas Croteau and Michael Porter are prohibited from engaging in any activities subject to NRC requirements.

The Regional Administrator, NRC Region IV, may, in writing, relax or rescind any of the above conditions upon demonstration by the Licensee of good cause.

V

The Licensee or any other person adversely affected by this Order may submit an answer to this Order within 20 days of the date of this Order. The answer may set forth the matters of law upon which the licensee or other person adversely affected relies and the reasons as to why the Order should not have been issued. An answer filed within 20 days of the date of this Order may also request a hearing. Any answer or request for a hearing shall be submitted to the Secretary, U.S. Nuclear Regulatory Commission, ATTN: Chief, Docketing and Service Section, Washington, DC 20555. Copies of the hearing request and answer also shall be sent to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555, to the Assistant General Counsel for Hearings and Enforcement at the same address, and to the Regional Administrator, Region IV, 611 Ryan Plaza Drive, Arlington, Texas 76011. If a person other than the Licensee 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). In the absence of any request for a hearing within the specified time, this Order shall be final without further Order or proceedings. A REQUEST FOR A HEARING SHALL NOT STAY THE IMMEDIATE EFFECTIVENESS OF THIS ORDER.

If a hearing is requested by the Licensee or 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 Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION

Hugh L. Thompson, Jr.
Deputy Executive Director for
Nuclear Materials Safety, Safeguards,
and Operations Support

Dated at Rockville, Maryland
this 12th day of April 1990

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

July 19, 1990

Docket No. 030-31445
License No. 37-28463-01
EA 90-115

M. Berkowitz and Company, Inc., dba HTP
ATTN: Richard L. Goldman
Chief Operating Officer
Post Office Box 753
700 South Dock Street
Sharon, Pennsylvania 16146

Gentlemen:

Subject: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $500
(Inspection Report No. 030-31445/90-001)

This letter refers to the NRC inspection conducted at your facility at 700 South Dock Street, Sharon, Pennsylvania on May 21, 1990 to review the circumstances associated with an event reported to the NRC by the Commonwealth of Pennsylvania's Department of Environmental Resources (DER). The report of this NRC inspection was forwarded to you June 14, 1990. The event involved a representative of the United Steel Workers of America (USWA) finding a Kevex source (containing licensed radioactive material) in your parking lot in Sharon, Pennsylvania on February 26, 1990. The USWA subdistrict office notified the Mercer County Emergency Management Coordinator, who in turn notified the Commonwealth of Pennsylvania's DER. The NRC Region I office subsequently traced the source to your license.

During the NRC inspection in May 1990, six violations of NRC requirements were identified, including violations associated with this event, or which may have contributed to the event. As a result, on June 26, 1990, an enforcement conference was conducted with you by telephone to discuss the violations, their causes and your corrective actions. The violations are described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice).

The three violations for which a civil penalty is proposed are described in Section I of the Notice and involve: (1) two examples of loss of control of radioactive material at your facility, including the loss of control of the Kevex source found by the USWA representative in February 1990; (2) the failure to perform inventories of radioactive material at the required frequency; and (3) failure to have a Radiation Safety Officer (RSO) at your facility. The other three violations, which are set forth in Section II of the enclosed Notice, include, but are not limited to, failure to properly label containers of radioactive material, and failure to maintain records of receipt of radioactive material.

The NRC is particularly concerned with the violations in Section I of the Notice because they demonstrate a lack of adequate control, for an unknown duration, of radioactive material that you were authorized to possess under the terms of your license. This failure could have resulted in misuse of the material by, and a potential for an excessive exposure to, members of the public. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy) 10 CFR Part 2, Appendix C (1990), the three violations set forth in Section I of the enclosed Notice have been classified in the aggregate at Severity Level III.

The lack of adequate control of licensed material, the failure to designate and hold accountable an individual responsible for complying with regulations and license conditions (the RSO), and the lack of proper inventories of radioactive sources to verify their location, are matters of significant concern to the NRC. To emphasize the importance of these concerns, I have been authorized, after consultation with the Director, Office of Enforcement, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $500 for the violations set forth in Section I of the Notice.

The base civil penalty for a Severity Level III violation or problem is $500. The escalation and mitigation factors set forth in the policy were considered, and, on balance, no adjustment of the base civil penalty amount is appropriate because: (1) the apparent loss was not identified by you or your staff, but rather by a member of the public, and therefore, no adjustment of the civil penalty on this factor is warranted; (2) your corrective actions, as described at the enforcement conference (which included locking, at the time of the inspection, the room where the remaining source is stored) were not considered prompt and comprehensive (in fact, a new Radiation Safety Officer had not yet been appointed at the time of the enforcement conference), and therefore, no adjustment of the civil penalty on this factor is warranted; and (3) your past performance, which included three violations during the only previous inspection in 1987, provides no basis for an adjustment in the civil penalty amount. The other escalation and mitigation factors in the Enforcement Policy were considered, and no further adjustment is appropriate because the violations did not involve prior notice or multiple examples, and although the loss of control did exist for an unknown duration without being identified, this factor was a consideration in the NRC decision to classify the three violations in the aggregate at Severity Level III.

The three other violations set forth in Section II of the Notice have been classified at Severity Level V.

As a related matter, we note that your current license authorizes possession of americium-241 not to exceed eight millicuries per source. At the time that the license is next amended, we plan to increase the authorization for americium-241 to include up to 20 millicuries per source. As part of the radioactive material record review discussed in the next paragraph, you should insure that this is the correct quantity or request an appropriate amendment. During the interim, we do not plan to take any enforcement action concerning this matter.

You are required to respond to this letter and the enclosed Notice, and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to take to prevent recurrence. Further, during the enforcement conference, you agreed to carefully review your records to account for all radioactive material received by you since the license was issued in 1980. You should document this review and state the location or disposition of that material. Further, you should ensure that records used to develop this summary be retained for future inspection by NRC. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further enforcement action is needed to ensure compliance with regulatory requirements.

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

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

Sincerely,

Thomas T. Martin
Regional Administrator

Enclosure:
Notice of Violation and Proposed
Imposition of Civil Penalty

cc w/encl:
Public Document Room
Nuclear Safety Information Center (NSIC)
Commonwealth of Pennsylvania

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

M. Berkowitz and Company, Inc., dba HTP
Sharon, Pennsylvania

Docket No. 030-31445
License No. 37-28463-01
EA 90-115

During an NRC inspection conducted at the licensee's facility in Sharon, Pennsylvania on May 21, 1990, in response to an event involving the loss of control of radioactive material, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions", 10 CFR Part 2, Appendix C, (1990), the Nuclear Regulatory Commission 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 violations and associated civil penalty are set forth below:

I. VIOLATIONS ASSESSED A CIVIL PENALTY

A. 10 CFR 20.207(a) requires that licensed materials stored in an unrestricted area be secured against unauthorized removal from the place of storage. 10 CFR 20.207(b) requires that licensed materials in an unrestricted area and not in storage be under constant surveillance and immediate control of the licensee. As defined in 10 CFR 20.3(a)(17), an unrestricted area is any area access to which is not controlled by the licensee for purposes of protection of individuals from exposure to radiation and radioactive materials.

Contrary to the above,

1. On or about February 26, 1990, a Kevex source housing (Serial No. 3673) containing 20 millicuries of americium-241 and about 0.2 millicuries of cadmium-109, was located in a parking lot, which is an unrestricted area at the HTP site in Sharon, Pennsylvania, and at the time, this material, which was not in storage, was not under the constant surveillance or immediate control of the licensee.

2. On May 21, 1990, a Kevex analyzer containing a source of approximately 0.28 millicuries of cadmium-109 (and believed to also contain approximately 20 millicuries of americium-241) was stored in a room that was unlocked, open and accessible to unauthorized individuals, and the source was not secured against unauthorized removal from its place of storage.

B. Condition 14 of License No. 37-28463-01 requires that the licensee conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license.

Contrary to the above, as of May 21, 1990, inventories had not been made in the prior two years of all sources received and possessed under the license.

C. Condition 11.B of License No. 37-28463-01 states that the Radiation Safety Officer (RSO) for this license is Leslie V. Szirmay, Ph.D.

Contrary to the above, as of May 21, 1990, Leslie V. Szirmay was not the RSO for this license, nor was he employed by the licensee in any capacity at the HTP site.

These violations have been classified in the aggregate at Severity Level III (Supplements IV and VI).

Civil Penalty - $500 (assessed equally among the three violations)

II. VIOLATIONS NOT ASSESSED A CIVIL PENALTY

A. 10 CFR 20.203(f)(1) and (2) require, in part and with certain exceptions not relevant here, that each container of specified amounts of licensed material bear a durable, clearly visible label identifying the radioactive contents and bear the radiation caution symbol and the words, "Caution" or "Danger", and "Radioactive Material."

Contrary to the above, on May 21, 1990, a Kevex analyzer believed to contain approximately 20 millicuries of americum-241 did not bear a clearly visible label identifying the Am-241 contents, nor the words "Caution" or "Danger", and "Radioactive Material."

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

B. 10 CFR 30.51(a) requires, in part, that each licensee keep records showing the receipt of byproduct material as long as the material is possessed.

Contrary to the above, as of May 21, 1990, the licensee possessed byproduct material in a Kevex analyzer but did not have a record showing the receipt of this material.

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

C. 10 CFR 19.11(a)(1)-(3) and (b) require that the licensee post current copies of Part 19, Part 20, the license, license conditions, documents incorporated into the license by reference, license amendments and operating procedures applicable to licensed activities, or a notice describing these documents and where they may be examined. 10 CFR 19.11(c) requires that Form NRC-3, "Notice to Employees," be posted.

Contrary to the above, on May 21, 1990, neither the documents nor the notice required by 10 CFR 19.11(a) and (b), nor a notice describing these documents and where they might be examined, were posted. Further, Form NRC-3 was not posted.

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

Pursuant to the provisions of 10 CFR 2.201, M. Berkowitz and Company, Inc., dba HTP (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. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Atomic Energy Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, 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 violations listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, such answer may request remission or mitigation of the penalty.

In requesting the mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C (1990), should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

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

The response to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement,

U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region I, 475 Allendale Road, King of Prussia, Pennsylvania 19406.

FOR THE NUCLEAR REGULATORY COMMISSION

Thomas T. Martin
Regional Administrator

Dated at King of Prussia, Pennsylvania
this 19 day of July 1990

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

June 21, 1990

Docket No. 030-00394
License No. 34-00466-02
EA 90-074

Cleveland Clinic Foundation
ATTN: Floyd Loop, M.D.
Chief Executive Officer
9500 Euclid Avenue
Cleveland, OH 44106

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY -$6,875
(NRC INSPECTION REPORT NO. 030-00394/90001(DRSS) AND
NO. 030-02649/90001(DRSS))

This refers to the inspection conducted on March 7-9 and 14-16, 1990 at your facilities located at 9500 Euclid Avenue and at the NASA Lewis Research Center in Cleveland, Ohio. The inspection was conducted in response to a teletherapy misadministration which your staff identified on February 8, 1990, but did not report to the NRC until February 15, 1990. It was also conducted in response to several allegations concerning radiological safety problems at Cleveland Clinic Foundation (CCF). The report of the inspection was forwarded to you by letter dated April 27, 1990. During the inspection, violations of NRC requirements were identified. The violations, their causes, and your corrective actions were discussed during an enforcement conference in the NRC Region III office on May 2, 1990, between Mr. J. E. Lees, Chief Administrative Officer, and other members of your staff and Dr. C. J. Paperiello and other members of the Region III staff.

The violation described in Section I of the Notice of Violation and Proposed Imposition of Civil Penalty (Notice) occurred after a technologist failed to observe the first page of a patient's chart which specified that teletherapy treatments should be terminated after two treatment doses. As a result of this failure, a third treatment dose was inadvertently administered. Consequently, the patient's dose exceeded the prescribed dose by more than 10 percent and a therapy misadministration occurred. Although NRC regulations require that a therapy misadministration be reported within 24 hours after it is discovered, CCF did not report this event to the NRC until 7 days after it was discovered by a therapy technologist and brought to the Therapy Department management's attention.

The violation described in Section I of the enclosed Notice represents a significant breakdown in the implementation of your radiation safety program as it relates to the timely reporting of a therapy misadministration. In

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

addition, this violation represents a significant failure to correct a previously identified problem. An NRC inspection conducted during the period November 20, 1986 through February 10, 1987, disclosed that CCF had identified a therapy misadministration on November 11, 1986, but did not report it to the NRC until November 17, 1986. As a result of that failure to make a timely report of a therapy misadministration, a $2,500 civil penalty was proposed on April 15, 1987, and was paid by CCF on May 14, 1987. In its letter responding to the proposed civil penalty CCF stated, "the corrective steps that have been taken include a Technical Staff Meeting on December 5, 1986, in two sessions wherein the Foundation's Radiation Therapy technicians and dosimetrists were advised of the 24-hour notification requirement and the other NRC requirements, and also the distribution of a written memorandum dated December 15, 1986, to all Radiation Therapy physicians, physicists and technologists, addressing the same subjects . . . The subject of the reporting requirement will be included in orientation of all new Radiation Therapy employees . . . Full compliance was achieved with the issuance of the aforementioned memorandum dated December 15, 1986."

In addition, resulting from discussions on another matter involving a misadministration, on March 15, 1989, your Radiation Safety Officer (RSO), Dr. S. J. Aron, Jr., requested clarification regarding reporting requirements for therapy misadministrations. In our June 22, 1989 response to Dr. Aron, we explained that 10 CFR 35.33(a) requires, among other things, that a licensee notify the NRC within 24 hours after it discovers a misadministration involving any therapy procedure. We further stated that there is no provision in the regulations for delay in reporting for medical analysis or evaluation by the Radiation Safety Committee.

NRC attaches great importance to comprehensive licensee programs for detection, correction, and reporting of problems that may constitute, or lead to, violations of regulatory requirements and expects all licensees to comply with NRC requirements. Repeated failures to comply are unacceptable. We note that in this case, the chairman of the Radiation Therapy Department (RTD), as well as other RTD management personnel were aware on February 12, 1990, that a therapy treatment misadministration or error had occurred but did not take any follow-up action until the supervisor of the Radiation Therapy Department (a technologist), on her own initiative, contacted the Radiation Safety Officer on February 15, 1990. This matter is of particular significance because it appears that this violation of NRC reporting requirements was caused by communication and coordination problems between your Therapy and Radiation Safety Departments and the careless disregard of the RTD management in reviewing an incident report to determine whether a therapy misadministration had occurred.

On two previous occasions in the past three and one-half years, members of your professional staff and management, including the chairman of the RTD and your RSO were made aware of the NRC regulatory requirements for making 24 hour notifications of all therapeutic misadministrations. Notwithstanding these prior occasions, CCF failed to ensure proper controls were in place for prompt reporting of the misadministration to the NRC in this case.

After careful review and consideration of the circumstances surrounding the late reporting of this therapy misadministration, we have concluded that RTD management and therefore CCF acted with careless disregard, in that: the individuals involved were trained; an incident report was filed with RTD management; RTD management was aware of the of the incident on February 12 and made no attempt to notify the RSO; and even after being questioned by the supervisor of the Radiation Therapy Department (a technologist) on February 15 as to whether the RSO had been notified, RTD management made no effort to contact the RSO. The NRC also concluded that CCF had ample notification and clarification from the NRC as to the requirements of 10 CFR 35.33(a) to make a timely report of the therapy misadministration that occurred on February 8, 1990. We reached this conclusion after considering the June 22, 1989, clarification we provided to you and your assurance that full compliance was achieved with the issuance of your December 15, 1986, memorandum which was provided to all Radiation Therapy physicians, physicists and technologists. Therefore, in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990) (Enforcement Policy), the violation involving the failure to promptly report the teletherapy misadministration which occurred on February 8, 1990, has been categorized at Severity Level III.

To emphasize the importance of this matter and the need to ensure accountability, effective communications, and management control over your radiation safety program, I have been authorized, after consultation with the Director, Office of Enforcement and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $6,875 for the violation described in Section I of the Notice. The base civil penalty for a Severity Level III violation or problem is $2,500. The escalation and mitigation factors in the Enforcement Policy were considered.

A 25 percent escalation was warranted because even though you reported an incident to the NRC on February 15, 1990, you did not specify that it was a therapy misadministration, did not identify this as being a violation of NRC regulations as the report was not made within the required 24 hours, and did not initiate immediate actions to correct your reporting problems. A 50 percent escalation was warranted because your corrective action was neither prompt nor extensive. In addition, a 100 percent escalation was warranted because your past performance in the area of reporting therapy misadministrations has been poor. The other adjustment factors in the Policy were considered and no further adjustment to the base civil penalty is considered appropriate. Therefore, based on the above, the base civil penalty has been increased by 175 percent.

The violation set forth in Section II of the enclosed Notice has been classified at Severity Level IV. This violation is repetitive of a violation identified during a previous inspection. A civil penalty is not proposed for this violation. However, your corrective actions for the previous violation appear to have been ineffective. In your response to this violation, address why your corrective actions will be more effective and lasting. Failure to assure lasting corrective action may result in civil penalties in the future for this violation.

Also, during the inspection, we reviewed maintenance procedures that were performed on a Picker Model C/5000 teletherapy unit by members of your staff. We are currently evaluating this matter and will inform you of our conclusions at a later date.

You are required to respond to this letter and should follow the instructions 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. Your response should describe in detail how management will ensure that you will achieve lasting compliance with NRC reporting requirements. The response should also provide a basis for concluding that each person involved in licensed activities is committed to effective coordination and communication between departments and understands his or her responsibility to ensure that NRC requirements will be followed. In addition, as discussed during the enforcement conference, we request that you submit an amendment to your license incorporating: (1) your procedures for ensuring prompt evaluation and reporting of potential misadministrations; and (2) your procedures for ensuring that therapy treatment with NRC licensed materials is properly controlled and administered by your staff as prescribed, including revisions to the prescription during treatment.

After reviewing your response to this Notice, including your proposed corrective actions and the results of further inspections, the NRC will determine whether further enforcement action, including a larger civil penalty or an order to modify, suspend, or revoke your license, is necessary to ensure compliance with NRC requirements.

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

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

Sincerely,

Edward J. Hammons /Au

A. Bert Davis
Regional Administrator

Enclosures:
1. Notice of Violation and Proposed Imposition of Civil Penalty
2. Inspection Reports
   No. 030-00394/90001(DRSS);
   No. 030-02649/90001(DRSS)

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Cleveland Clinic Foundation
Cleveland, Ohio

Docket No. 030-02649
Docket No. 030-00394
License No. 34-00466-01
License No. 34-00466-02
EA 90-74

During an NRC inspection conducted on March 7-9 and 14-16, 1990, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990), the Nuclear Regulatory Commission 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 violations and associated civil penalty are set forth below:

I. VIOLATION ASSESSED A CIVIL PENALTY - LICENSE NO. 34-00466-02

10 CFR 35.33(a) requires, in part, that when a misadministration involves any therapy procedure, the licensee notify by telephone the appropriate NRC Regional Office listed in Appendix D of 10 CFR Part 20. The notification must be made within 24 hours after the licensee discovers the misadministration.

10 CFR 35.2 defines "misadministration," among other things, as the administration of a therapy radiation dose from a sealed source such that errors in the source calibration, time of exposure, and treatment geometry result in a calculated total treatment dose different from the final prescribed total treatment dose by more than 10 percent.

Contrary to the above, the licensee notified the NRC on February 15, 1990, of a therapy misadministration that the licensee discovered on February 8, 1990. Specifically, on February 8, 1990, a therapy misadministration occurred when a patient at Cleveland Clinic Foundation received a total delivered dose of 834 rads due to a time of exposure error but the final written prescription stated the total dose should be limited to 556 rads, and the licensee did not notify the NRC within the required 24 hours.

This is a repeat violation.

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

Civil Penalty - $6,875

II. VIOLATION NOT ASSESSED A CIVIL PENALTY - LICENSE NO. 34-00466-01

License Condition No. 16 states that this license is based on the licensee's statements and representations listed in certain referenced documents. The referenced application, dated January 18, 1985 states in Item 10 that Appendix D of Regulatory Guide 10.8 (1980) will be followed for calibration of survey instruments. Appendix D requires that all survey instruments be calibrated annually.

Contrary to the above, a survey instrument used monthly to perform required surveys in Laboratory No. NN1-12 had not been calibrated during the period March 1988 through March 15, 1990.

This is a repeat violation.

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

Pursuant to the provisions of 10 CFR 2.201, Cleveland Clinic Foundation (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 to the alleged violation, (2) the reasons for the violation if admitted, and if denied, the reason why, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required under 10 CFR 2.201, the Licensee may pay the civil penalty by letter 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 penalty proposed above, 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 violations listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In

addition to protesting the civil penalty, in whole or in part, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty the factors addressed in Section V.B. of 10 CFR Part 2, Appendix C (1990) 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 other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 235c of the Act, 42 U.S.C. 2282c.

The responses noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Regional Administrator, Region III, U.S. Nuclear Regulatory Commission, 799 Roosevelt Road, Glen Ellyn, Illinois, 60137.

FOR THE NUCLEAR REGULATORY COMMISSION

Edward A. Hummer Jr.

A. Bert Davis
Regional Administrator

Dated at Glen Ellyn, Illinois
this 21st day of June 1990

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

MAY 0 2 1990

Docket No. 030-20787
License No. 29-21452-01
EA 90-060

Consolidated NDE, Inc.
ATTN: J. Lee Ballard
President
6 Woodbridge Avenue
Post Office Box 593
Woodbridge, New Jersey 07095

Gentlemen:

Subject: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $10,000 (NRC Inspection No. 90-001)

This letter refers to the NRC inspections conducted on March 20, 1990 and April 25, 1990 at temporary field sites of activities authorized by License No. 29-21452-01. During these inspections, several violations of NRC requirements were identified. This letter also refers to the NRC inspection conducted on November 14, 15 and 29, 1989, during which other violations of NRC requirements were identified. The reports of the November and March inspections were sent to you with the NRC letter dated March 29, 1990. On April 5, 1990, an enforcement conference was conducted with Mr. C. Williams and other members of your staff to discuss the violations, their causes, and your corrective actions. In addition, on April 27, 1990 a meeting was held with you and other members of your staff to discuss the April 25, 1990 inspection. By separate correspondence an Order Suspending Operations and Modifying License (Effective Immediately) is being issued today to address the findings of the April 25, 1990 inspection.

The violations, which are described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty, include, but are not limited to: (1) failure to maintain direct surveillance of a high radiation area at the Lacey Township field site for a short period on March 20; (2) failure to adequately post radiation area and high radiation area signs and symbols at the Lacey Township field site to warn individuals of the presence of radiation; (3) failure to adequately perform required surveys of radiographic exposure devices after completing radiographic exposures at the Lacey Township site on March 20, and at a Virginia job site in August 1989; (4) failure by a radiographer to wear required dosimetry/badges while performing radiography at the Lacey Township site; (5) failure to properly establish a restricted area boundary at the Lacey Township field site; and (6) failure to lock the source in the shielded position upon completion of radiographic surveys at the Virginia site in August 1989.

The performance of any licensed activities requires meticulous attention to detail to ensure these activities are conducted safely and in accordance with requirements. Such attention during the performance of radiography is particularly important given the activity of the radioactive sources that are utilized. The failure to properly control the use of the radiography devices can result in significant exposures of individuals to radiation. The violations identified during the two most recent NRC inspections of your activities represent significant inattention to regulatory requirements by members of your staff. For example, the failure to establish and post appropriate restricted area boundaries at the Lacey Township site resulted in a truck driver being in the restricted area approximately 40 feet from a radioactive source while the source was exposed.

The NRC has issued Information Notices in the past to all radiography licensees concerning the importance of proper conduct of radiography activities (Reference: Information Notice (IN) 84-45: "Recent Serious Violations of NRC Requirements by Radiography Licensees," IN 87-45: "Recent Safety-Related Violations of NRC Requirements by Industrial Radiography Licensees," and IN 88-66: "Industrial Radiography Inspection and Enforcement"). In addition, a $5,000 civil penalty was issued to Consolidated NDE, Inc in July 1987 for two similar violations involving the failure to conspicuously post signs around, and maintain direct surveillance of, radiation and high radiation areas. Although no violations were identified during the previous two inspections of your licensed activities in 1988 and October 1987, this is the third time these two violations have been identified in the past six NRC inspections conducted since 1986, and they demonstrate that your corrective actions to prevent recurrence have not been long lasting.

As a result, a Confirmatory Action Letter (No 1-90-008) was issued to you on March 23, 1990, which confirmed, in part, your commitments to retrain personnel, disseminate these findings to other radiographers, increase emphasis on adherence to requirements, and increase auditing of radiographic activities. A Confirmatory Action Letter (No. 1-90-10) was also issued on April 26, 1990 to, among other things, remove certain radiographers from radiography activities. Notwithstanding those commitments, the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) is being issued in the amount of $10,000 for the violations described in the enclosed Notice to emphasize the unacceptability of violations that individually or collectively cause a substantial potential for exposure in excess of 10 CFR Part 20 limits and the importance of management providing sufficient oversight of radiographic activities to ensure that they are performed safely and in accordance with requirements. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1989) (Enforcement Policy), these violations have been classified in the aggregate as a Severity Level III problem to focus on our underlying concern, namely, a significant lack of attention or carelessness toward a system of NRC requirements intended to protect against exposure in excess of 10 CFR Part 20 limits. The base civil penalty for a Severity Level III violation or problem is $5,000. The escalation and mitigation factors set forth in the enforcement policy were considered as follows: (1) the majority of the violations were identified by the NRC, and therefore, a 50% escalation of the penalty is warranted; (2) your corrective actions were considered ineffective in view of the deficiencies found during the April 25,

1990 inspection at your field sit in East Vineland, New Jersey, and therefore, a 50% escalation of the penalty is warranted; (3) no violations were identified during the previous two NRC inspections in 1988 and 1987, and therefore, 100% mitigation of the penalty based on this factor is warranted; and (4) you had prior Notice, via the above referenced NRC Information Notices of the importance of strict adherence to the radiography requirements specified therein, and furthermore, a civil penalty was assessed for previous similar violations; therefore, 100% escalation of the penalty based on prior notice is warranted. The other escalation and mitigation factors were considered and no further adjustment is warranted.

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

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

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

Sincerely,

Hugh L. Thompson Jr.
Deputy Executive Director
for Nuclear Materials Safety, Safeguards,
and Operations Support

Enclosure:
Notice of Violation and Proposed
Imposition of Civil Penalty

cc w/encl:
Public Document Room (PDR)
Nuclear Safety Information Center (NSIC)
State of New Jersey

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Consolidated NDE, Inc.
Woodbridge, New Jersey

Docket No. 030-20787
License No. 29-21452-01
EA 90-060

During an NRC inspection conducted on March 20, 1990, at a field site in Lacey Township, New Jersey, several violations of NRC requirements were identified. Other violations of NRC requirements were identified during an inspection conducted on November 14, 15 and 29, 1989, at the licensee's facility in Woodbridge, New Jersey. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1989), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

A. 10 CFR 34.41 requires, in part, that during each radiographic operation, the radiographer or radiographer's assistant maintain direct surveillance of the operation to protect against unauthorized entry into a high radiation area, unless the area is locked or equipped with a control device or an alarm system as described in 10 CFR 20.203(c)(2).

Contrary to the above, for approximately two minutes on March 20, 1990, while a radiographic operation was being performed on an in-ditch pipeline at a field site in Lacey Township, New Jersey, direct surveillance over the radiographic operation was not maintained (in that the high radiation area was completely out of view of the licensee's radiographer and his assistant and an individual could have gained access to the source without being observed by the radiographer), and the area was neither locked nor equipped with a control device or an alarm system described in 10 CFR 20.203 (c)(2).

B. 10 CFR 20.203(b) and (c)(1) require, respectively, that each radiation area and high radiation area be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words: "Caution - Radiation Area" or "Caution - High Radiation Area".

Contrary to the above, on March 20, 1990, although a "radiation area and high radiation" area were created whenever a licensee radiographer performed radiographic operations at a field site in Lacey Township, New Jersey,

1. the radiation area was not conspicuously posted, in that only one sign was posted and it could only be seen from one direction; and

2. the high radiation area was not posted with any signs.

C. 10 CFR 34.43(b) requires that a physical radiation survey be made with a calibrated and operable radiation survey instrument after each radiographic exposure to determine that the sealed source has been returned to its shielded position. The survey must include the entire circumference of the exposure device and the source guide tube.

Contrary to the above;

1. On March 20, 1990, after a radiographic exposure was completed at a field site in Lacey Township, New Jersey, the licensee's radiographer's survey consisted of approaching the exposure device and placing the meter down beside it, but did not include the entire circumference of the exposure device and the entire length of the source guide tube to ensure that the sealed source had returned to its shielded position; and

2. On August 17, 1989, after a radiographic exposure was completed at a field site in Petersburg, Virginia, the licensee's radiographer's survey was inadequate in that it was made with an inoperable radiation survey instrument and did not include the entire circumference of the radiographic exposure device.

D. 10 CFR 34.33(a) requires, in part, that the license not permit any individual to act as a radiographer or radiographer's assistant unless, at all times during radiographic operations, the individual wears a direct-reading pocket dosimeter and either a film badge or a thermoluminescent dosimeter (TLD).

Contrary to the above, on March 20, 1990, at a field site in Lacey Township, New Jersey, a license radiographer did not wear a pocket dosimeter, nor a film badge or TLD, during radiographic operations.

E. Condition 17 of License No. 29-21452-01 requires, in part that licensed material be possessed and used in accordance with statements, representations and procedures contained in the application received on August 15, 1983, and a letter dated May 9, 1985.

1. The Operating and Emergency Procedures included with the May 9, 1985, letter, state, in Section I, Page 1, Paragraph C, that perimeter radiation area surveys will be performed before radiography begins and each time a handling procedure varies which will change the previously established radiation output perimeter.

Contrary to the above, radiography was performed on March 20, 1990 at a field site in Lacey Township, New Jersey, and a perimeter radiation survey was not performed before radiography began, nor was a survey performed after manipulation of the collimator which would change the previously established radiation output perimeter.

2. The Licensee's Operating and Emergency Procedures for Use of Radioactive Byproduct Material, included with the application and letter, require, in Section IV, Page 5, Item 16, that the SPEC Model 2-T exposure device be locked after a physical survey is performed to ascertain that the source has returned to the shielded position.

   Contrary to the above, on August 17, 1989 after radiography was performed at a field site in Petersburg, Virginia, the SPEC Model 2-T exposure device was not locked after a physical survey was performed by a radiographer, in order to ascertain that the source had returned to the shielded position.

These violations have been classified in the aggregate as a Severity Level III problem. (Supplements IV and VI)

Civil Penalty - $10,000 (Assessed equally among the violations)

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

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

In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C (1989), should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

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

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555 with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region I, 475 Allendale Road, King of Prussia, Pennsylvania 19406.

FOR THE NUCLEAR REGULATORY COMMISSION

Hugh L. Thompson, Jr.
Deputy Executive Director
for Nuclear Materials Safety, Safeguards,
and Operations Support

Dated at King of Prussia, Pennsylvania
this 2nd day of May 1990

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

SEP 05 1990

Docket No. 030-20787
License No. 29-21452-01
EA 90-060

Consolidated NDE, Inc.
ATTN: J. Lee Ballard
President
6 Woodbridge Avenue
Post Office Box 593
Woodbridge, New Jersey 07095

Gentlemen:

Subject: ORDER IMPOSING A CIVIL MONETARY PENALTY - $10,000

This letter refers to your two letters, both dated July 9, 1990, in response to the Notice of Violation and Proposed Imposition of Civil Penalty (Notice) sent to you by our letter dated May 2, 1990. This letter also responds to your letter dated August 18, 1990. Our letter and Notice described violations that were identified during three NRC inspections conducted on November 14, 15 and 29, 1989, March 20, 1990, and April 25, 1990. The violations involved the failure to perform radiographic operations in accordance with regulatory requirements at temporary field locations. To emphasize the unacceptability of violations that individually or collectively cause a substantial potential for exposure in excess of 10 CFR Part 20 limits and the importance of management providing sufficient oversight of radiographic activities to ensure that they are performed safely and in accordance with regulatory requirements, a civil monetary penalty of $10,000 was proposed.

In your response to the Notice, you denied Violations A and E.1 (as well as examples of Violations B and C) and requested that the civil penalty be mitigated, for the reasons described in your response. After careful consideration of your response, we have concluded, for the reasons given in the Appendix attached to the enclosed Order Imposing a Civil Monetary Penalty, that the violations did occur as stated in the Notice, and that mitigation of the civil penalty is inappropriate. Accordingly, we hereby serve the enclosed Order on Consolidated NDE, Inc. imposing a civil monetary penalty in the amount of $10,000. We will review the effectiveness of your corrective actions during a subsequent inspection.

In response to your letter dated August 18, 1990, the first page of NRC's May 2, 1990 Order, more accurately characterized, states that during the NRC inspections conducted on April 25, 1990, no violations were identified at the

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

field site in Lacey Township. There were, however, violations identified at the field site in Lacey Township during the NRC inspection conducted on March 20, 1990. Those violations are documented in the Notice referenced above. Further, similar violations were identified at the field site near East Vineland, New Jersey on April 25, 1990; and those violations are well documented within the body of the May 2, 1990 Order. Your letter of August 18, 1990 provides no basis for further mitigation of the civil penalty or further relief from the requirements of the May 2, 1990 Order.

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

Sincerely,

Hugh L. Thompson, Jr.
Deputy Executive Director for
Nuclear Materials Safety, Safeguards
and Operations Support

Enclosures:
1. Order Imposing Civil Monetary Penalty
2. Appendix - Evaluation and Conclusion

cc w/encls:
Public Document Room (PDR)
Nuclear Safety Information Center (NSIC)
State of New Jersey

UNITED STATED
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	Docket No. 030-20787
CONSOLIDATED NDE, INCORPORATED	)	License No. 29-21452-01
Woodbridge, New Jersey	)	EA 90-060

ORDER IMPOSING A CIVIL MONETARY PENALTY

I

Consolidated NDE, Incorporated (licensee) is the holder of Byproduct Material License No. 29-21452-01 issued by the Nuclear Regulatory Commission (Commission or NRC) which authorizes the licensee to possess and use byproduct material for the conduct of industrial radiography and related activities. The license was most recently renewed on October 6, 1983, and although scheduled for expiration on September 30, 1988, has remained in effect pursuant to 10 CFR 30.37(b) since the licensee has submitted a timely application for renewal.

II

Three NRC safety inspections of the licensee's activities under the license were conducted at the licensee's facility in Woodbridge, New Jersey and at various field sites on November 14, 15 and 29, 1989, March 20 and April 25, 1990. The results of these inspections indicated that the licensee had not conducted its activities in full compliance with NRC requirements. A written Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was served upon the licensee by letter dated May 2, 1990, covering the violations identified as a result of the November 1989 and March 1990 inspections. The Notice stated the nature of the violations, the provisions of the NRC's requirements that the licensee had violated, and the amount of the civil penalty proposed for the violations. The licensee responded to the Notice with two letters, both dated

July 9, 1990. In its responses, the licensee denied Violations A and E.1, as well as examples of Violations B and C in the Notice, and requested mitigation of the proposed civil penalty.

III

Upon consideration of the licensee's responses and the statements of fact, explanation, and argument for mitigation contained therein, the NRC Staff has determined, as set forth in the Appendix to this Order, that the violations occurred as stated in the Notice, and that the penalty 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 CFR 2.205, IT IS HEREBY ORDERED THAT:

The licensee pay a civil penalty in the amount of $10,000 within 30 days of the date of this Order, by check, draft, or money order, payable to the Treasurer of the United States and mailed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555.

V

The licensee may request a hearing within 30 days of the date of this Order. A request for a hearing shall be clearly marked as a "Request for an Enforcement Hearing" and shall be addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555. Copies of the hearing request shall also be sent to the Assistant General Counsel for Hearings and Enforcement at the same address, and to the Regional Administrator, NRC Region I, 475 Allendale Road, King of Prussia, Pennsylvania 19406.

If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. If the licensee fails to request a hearing within 30 days of the date of this Order, 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 Attorney General for collection.

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

(a) whether the licensee was in violation of the Commission's requirements as described in Violations A, B.1, C.1 and E.1 set forth in the Notice referenced in Section II above, which the licensee denied, and

(b) whether, on the basis of such violations, and the additional violations set forth in the Notice of Violation, which the licensee admitted, this Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION

Hugh L. Thompson, Jr.
Deputy Executive Director for
Nuclear Materials Safety, Safeguards
and Operations Support

Dated at Rockville, Maryland
this 5th day of September 1990

APPENDIX

EVALUATION AND CONCLUSION

On May 2, 1990, a Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was issued to Consolidated NDE, Inc., Woodbridge, New Jersey, for violations identified during NRC inspections. The licensee responded to the Notice by two letters, both dated July 9, 1990. In its response, the licensee denied two of the violations, Violations A and E.1, and denied examples of two other violations (Examples B.1 and C.1). The licensee also requested mitigation of the civil penalty proposed for the violations. The NRC's evaluation and conclusion regarding the licensee's arguments are as follows:

1. Restatement of the Violations

A. 10 CFR 34.41 requires, in part, that during each radiographic operation, the radiographer or radiographer's assistant maintain direct surveillance of the operation to protect against unauthorized entry into a high radiation area, unless the area is locked or equipped with a control device or an alarm system as described in 10 CFR 20.203(c)(2).

Contrary to the above, for approximately two minutes on March 20, 1990, while a radiographic operation was being performed on an in-ditch pipeline at a field site in Lacey Township, New Jersey, direct surveillance over the radiographic operation was not maintained (in that the high radiation area was completely out of view of the licensee's radiographer and his assistant and an individual could have gained access to the source without being observed by the radiographer), and the area was neither locked nor equipped with a control device or an alarm system described in 10 CFR 20.203(c)(2).

B. 10 CFR 20.203(b) and (c)(1) require, respectively, that each radiation area and high radiation area be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words: "Caution - Radiation Area" or "Caution - High Radiation Area."

Contrary to the above, on March 20, 1990, although a "radiation area and high radiation" area were created whenever a licensee radiographer performed radiographic operations at a field site in Lacey Township, New Jersey,

1. the radiation area was not conspicuously posted, in that only one sign was posted and it could only be seen from one direction; and

2. the high radiation area was not posted with any signs.

C. 10 CFR 34.43(b) requires that a physical radiation survey be made with a calibrated and operable radiation survey instrument after each radiographic exposure to determine that the sealed source has been returned to its shielded position. The survey must include the entire circumference of the exposure device and the source guide tube.

Contrary to the above;

1. On March 20, 1990, after a radiographic exposure was completed at a field site in Lacey Township, New Jersey, the licensee's radiographer's survey consisted of approaching the exposure device and placing the meter down beside it, but did not include the entire circumference of the exposure device and the entire length of the source guide tube to ensure that the sealed source had returned to its shielded position; and

2. On August 17, 1989, after a radiographic exposure was completed at a field site in Petersburg, Virginia, the licensee's radiographer's survey was inadequate in that it was made with an inoperable radiation survey instrument and did not include the entire circumference of the radiographic exposure device.

D. 10 CFR 34.33(a) requires, in part, that the license not permit any individual to act as a radiographer or radiographer's assistant unless, at all times during radiographic operations, the individual wears a direct-reading pocket dosimeter and either a film badge or a thermoluminescent dosimeter (TLD).

Contrary to the above, on March 20, 1990, at a field site in Lacey Township, New Jersey, a license radiographer did not wear a pocket dosimeter, nor a film badge or TLD, during radiographic operations.

E. Condition 17 of License No. 29-21452-01 requires, in part, that licensed material be possessed and used in accordance with statements, representations and procedures contained in the application received on August 15, 1983, and a letter dated May 9, 1985.

1. The Operating and Emergency Procedures included with the May 9, 1985, letter, state, in Section I, Page 1, Paragraph C, that perimeter radiation area surveys will be performed before radiography begins and each time a handling procedure varies which will change the previously established radiation output perimeter.

Contrary to the above, radiography was performed on March 20, 1990 at a field site in Lacey Township, New Jersey, and a perimeter radiation survey was not performed before radiography began, nor was a survey performed after manipulation of the collimator which would change the previously established radiation output perimeter.

2. The Licensee's Operating and Emergency Procedures for Use of Radioactive Byproduct Material, included with the application and letter, require, in Section IV, Page 5, Item 16, that the SPEC Model 2-T exposure device be locked after a physical survey is performed to ascertain that the source has returned to the shielded position.

Contrary to the above, on August 17, 1989 after radiography was performed at a field site in Petersburg, Virginia, the SPEC Model 2-T exposure device was not locked after a physical survey was performed by a radiographer, in order to ascertain that the source had returned to the shielded position.

These violations have been classified in the aggregate as a Severity Level III problem. (Supplements IV and VI)

Civil Penalty - $10,000 (Assessed equally among the violations)

2. Summary of Licensee Response Denying Violation A

The licensee admits the radiographer should have instructed the radiographer's assistant to stand at a more strategic location to provide total area surveillance, and that a small portion of the high radiation area may not have been in the direct view of the radiographers. However, the licensee denies that the high radiation area was completely out of view.

The licensee states that the radiographic operations were conducted in a remote, isolated area and all personnel related to the pipeline installation had left the area. The licensee also asserts that the radiographer and his assistant did in fact maintain surveillance of the area in the direction from which entry by an individual would be expected or anticipated. The licensee states the NRC inspectors entered the restricted area by such a route and in such a manner that their sole objective was detection avoidance. The licensee also states that the likelihood of other individuals using the same route was unrealistic. Further, the licensee concludes that even if an individual(s) had followed the same access route as the NRC personnel into the area, they could not have gained access to the source without being observed. The licensee also notes that the NRC inspectors, by their own admissions, did not enter into the high radiation area.

NRC Evaluation of Licensee Response concerning Violation A

With respect to this violation, the NRC notes that the location of the radiographic operations was not remote. The work area, an in-ditch pipe line operation, was located only a few hundred feet from a major highway thoroughfare and was in a heavily populated business and residential area west of Route 9 in Forked River, Lacey Township, New Jersey.

Regardless of the location of the radiographic operations site, the licensee is not relieved of its responsibility for ensuring full compliance with all applicable NRC regulations. In this case, the fact that the NRC inspectors were able to approach the high radiation area undetected and unchallenged is precisely the reason that direct surveillance of the entire high radiation area is required. It is irrelevant that the NRC inspectors, in the exercise of basic radiation protection procedures, did not actually attempt to enter the high radiation area. At the time of the inspector's observations, the source was in the exposed position, and the radiographer

and his assistant were completely out of view of the high radiation area in that they were physically located down an embankment and in a thicket of trees approximately 50 feet from the exposure device. From this position, the licensee's employees could neither detect nor prevent an entry into the high radiation area, and members of the public, who were unaware of the location of the exposed source, could have proceeded directly into the high radiation area from a variety of perimeter routes. Therefore, the violation occurred as stated in the Notice.

3. Summary of Licensee Response Denying Example B.1 of Violation B

With respect to the violation, the licensee states that two "Caution - Radiation Area" signs had been posted as required; however, due to the inclement weather, one of the signs had been blown over while the radiography was in progress.

NRC Evaluation of Licensee Response concerning Violation B

The NRC inspectors specifically located only one "Radiation Caution" sign in place at the time of the inspection. Further, during the Enforcement Conference, the licensee representatives were specifically requested by the NRC to point out on a map provided by the NRC where the "Radiation Caution" sign that blew over was located. The area pointed out by licensee management was precisely the area where the NRC inspectors were positioned for a portion of the inspection, and no "Radiation Caution" signs were in evidence at that position, either lying on the ground or posted. Therefore, the NRC concludes that the violation occurred as stated in the Notice.

4. Summary of Licensee Response Denying Example C.1 of Violation C

With respect to this violation, the licensee asserts that both the radiographer's assistant who performed the survey, and the radiographer who was present at the time, maintain that the entire circumference of the exposure device, as well as the entire length of the guide tube were surveyed. The licensee states the NRC inspectors' view of the area was at least partially obscured since they were located approximately 40 feet from the exposure device, and the survey was performed in a ditch on the other side of the pipe away from the inspectors. Under these circumstances, the licensee alleges that the inspectors could easily have been led to the misconception that the survey was inadequate. The licensee states the NRC regulations do not specifically state how a survey is to be performed, but only that a complete survey be performed. The licensee asserts that the NRC's opinion on how to conduct a survey goes beyond what the regulations require.

NRC Evaluation of Licensee Response concerning Violation C

The applicable regulation, 10 CFR 34.43(b), clearly requires that the survey include the entire circumference of the radiographic exposure device and the entire length of the source guide tube. The NRC inspectors viewed the radiographer and his assistant approach the exposure device with

a survey meter and retract the source. The inspectors then observed the individuals immediately set the survey meter down and begin to change the film and manipulate the source guide tube. The inspectors clearly observed that neither the full circumference of the exposure device, nor the entire length of the source guide tube, were surveyed. The inspectors immediately approached the radiographer, informed him that the survey was inadequate, and the radiographer acknowledged that an adequate survey had not been performed. Therefore, the NRC concludes that the violation of an NRC regulation (10 CFR 34.43(b)) occurred as stated in the Notice.

5. Summary of Licensee Response Regarding Violation E.1

With respect to this Violation, the licensee asserts the radiographic operations in question were repetitious in nature. Specifically, the licensee states the pipe weld examination was continuously performed throughout the previous week, with the same radiation source and collimator, on pipe having the same diameter and wall thickness, and therefore, having the same radiation scattering characteristics. The licensee asserts the intent of the "O & E Manual" is to have the radiographer perform radiation surveys initially, and if the work is repetitious, no further boundary surveys are necessary.

NRC Evaluation of Licensee Response concerning Violation E

The NRC agrees that if an initial perimeter radiation area survey is performed, and all subsequent radiography is performed under identical conditions, then subsequent surveys would not need to be performed. However, the radiography was not performed under identical conditions because: (1) the inspectors observed the radiation collimator being changed three times, which resulted in a change of the radiation beam characteristics; and (2) the shielding conditions and barriers continually changed as radiography was performed on different areas of the pipeline due to different land slope considerations and changing locations of the dirt piles which acted as shielding. Therefore, the NRC concludes that the violation occurred as stated in the Notice.

6. Summary of Licensee Response Requesting Mitigation of the Civil Penalty

The licensee states that, of the violations, some are denied or involved extenuating circumstances. The licensee states the remaining violations were caused by the deliberate misconduct or negligence of otherwise properly trained and equipped employees. The licensee also states that the April 25, 1990, inspection at East Vineland, New Jersey, indirectly references deficiencies that are denied, have extenuating circumstances, or are of less significance in their severity. [Here, the licensee apparently in referring to the fact that NRC found the violations which were noted during the inspection of the licensee's activities at the field site in East Vineland on April 25, 1990 to be similar to the violations noted during the inspection at the Lacey Township site on March 20, 1990.] Based on these considerations, the licensee asserts that mitigation of the proposed civil penalty is warranted.

NRC Evaluation of Licensee Response

As previously stated, the NRC concludes that the violations occurred as stated in the Notice. Further, the NRC holds the licensee fully accountable for the activities of its employees, and expects that the licensee will provide sufficient management oversight of its employees to ensure that licensed activities are performed in accordance with regulatory requirements. Moreover, by definition in 10 CFR 34.2, a "Radiographer" is responsible to the licensee for assuring compliance with the requirements of the Commission's regulations and the conditions of the license.

In this case, the violations were classified in the aggregate at Severity Level III because they demonstrate a significant lack of attention or carelessness toward a system of NRC requirements intended to protect against exposure in excess of 10 CFR Part 20 limits. In addition, although mitigation was allowed because the licensee's prior enforcement history has been good, 100% escalation of the base civil penalty is appropriate because: (1) the violations were identified by the NRC; (2) the licensee's corrective actions after the March 1990 inspection were inadequate in view of the similar violations found during the inspection of the licensee's activities at the field site in East Vineland, New Jersey, on April 25, 1990; and (3) the licensee had prior notice of the need to strictly adhere to the regulatory requirements for performing radiography. Therefore, no further mitigation of the civil penalty is warranted.

7. NRC Conclusion

For the reasons set forth above, the NRC has concluded that the violations occurred as stated in the Notice of Violation and that further mitigation of the civil penalty is not warranted. Therefore, the NRC concludes that a civil penalty in the amount of $10,000 should be imposed for the violations set forth in the Notice.

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

MAY 0 2 1990

Docket No. 30-20787
License No. 29-21452-01
EA 90-080

Consolidated NDE, Inc.
ATTN: J. Lee Ballard
Chief Executive Officer
6 Woodbridge Avenue
Post Office Box 593
Woodbridge, New Jersey 07095

Gentlemen:

SUBJECT: ORDER SUSPENDING OPERATIONS AND MODIFYING LICENSE (EFFECTIVE IMMEDIATELY)

Enclosed is an Order Suspending Operations and Modifying License (Effective Immediately), requiring that certain short term and long term actions be taken to improve performance and control of radiography activities. The order is based, in part, on the findings of recent inspections conducted on March 20, 1990 and April 25, 1990 at radiography field sites. During those inspections, several violations of NRC requirements were identified, including violations that were similar to each other, as well as similar to violations identified during previous inspections.

This letter notifies you that the commitments you made which were documented in two Confirmatory Action Letters (CAL), dated March 23, and April 26, 1990, following the two inspections, have been superseded by this Order.

The issuance of this Order does not preclude NRC from considering and taking other enforcement action for the violations that led to issuance of this Order. NRC's inquiry into the circumstances surrounding the violations is continuing.

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,

Hugh L. Thompson, Jr.
Deputy Executive Director
for Nuclear Materials Safety, Safeguards,
and Operations Support

Enclosure: As stated

cc: State of New Jersey
State of Connecticut
State of Georgia
State of North Carolina

UNITED STATES
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	Docket No. 30-20787
Consolidated NDE, Inc.	)	License No. 29-21452-01
Woodbridge, New Jersey	)	EA 90-080

ORDER SUSPENDING OPERATIONS AND MODIFYING
LICENSE (EFFECTIVE IMMEDIATELY)

I

Consolidated NDE, Inc. (licensee) is the holder of Materials License No. 29-21452-01 issued by the Nuclear Regulatory Commission ("NRC" or "Commission") which authorizes the licensee, in part, to possess numerous sealed radioactive sources in various radiography exposure devices used for the performance of industrial radiography in accordance with the conditions specified in the license. The license was most recently renewed on October 6, 1983, and although scheduled for expiration on September 30, 1988, has remained in effect pursuant to 10 CFR 30.37(b) since the licensee has submitted a timely application for renewal.

II

On April 25, 1990, an NRC inspection was conducted at a field site in Lacey Township and one near East Vineland, New Jersey, where radiography was being performed by licensee personnel. Although no violations were identified during the inspection at the field site in Lacey Township, New Jersey, numerous violations were identified at the field site near East Vineland, New Jersey, where radiography was being performed on a gas pipeline temporarily located above ground. The specific violations, which were identified by two NRC inspectors during their observation of twelve radiographic exposures, involved the failures by the individual performing the radiography to:

1. survey the radiographic exposure device, as well as the associated guide tube, on at least one occasion, as well as the failure to perform adequate surveys on several other occasions in that those surveys did not include the entire circumference of the exposure device nor the full length of the guide tube as required by 10 CFR 34.43(b);

2. lock the exposure device after radiographic exposures on at least three occasions, as required by 10 CFR 34.22(a);

3. maintain direct surveillance of the high radiation area (created whenever the source was exposed), as required by 10 CFR 34.41, on at least three occasions in that the individual turned his back for a short period on each occasion and did not observe the area while walking away after having "cranked out" the source from the exposure device. During these three short periods, three non-radiation workers from the company responsible for the pipeline were within the posted radiation area and were approximately 100 feet from the high radiation area;

4. adequately post required signs showing the radiation area and high radiation area, as required by 10 CFR 20.203(b) and (c), in that there were no signs posted on the side opposite the street along which the pipeline was being placed. At the time this was observed, the placement of the collimator was such that the highest radiation levels were in the area where the signs were not posted, specifically, the area perpendicular to the pipeline where the radiographic exposure was being taken; and

5. survey the perimeter of the restricted area to assure that the area was appropriately established in accordance with Condition 17 of the license.

III

During a previous NRC inspection of the licensee at a field site in Lacey Township, New Jersey on March 20, 1990, the NRC had observed similar violations of regulatory and license requirements, including violations of requirements for surveying, surveillance, and posting. As a result of those March 20 findings, the NRC issued a Confirmatory Action Letter (No. 1-90-008) to the licensee on March 23, 1990, which confirmed the licensee's commitments to take certain actions to improve performance and control of radiography activities. Those commitments included the retraining of the responsible radiographers, discussion of these violations (as well as the company's policies on adherence to requirements) with all other radiographic personnel, and a visit to all job sites to discuss these matters and to audit the radiographers at those sites to confirm adherence to regulatory requirements. In addition, an enforcement conference was conducted with licensee management on April 5, 1990 to discuss the findings of that March 20, 1990 inspection.

Prior to these findings, the licensee had been issued a $5,000 civil penalty, on July 15, 1987, for the repetitive failure to adequately post and maintain surveillance of high radiation areas.

IV

Notwithstanding those previous findings, as well as the actions taken by the NRC and the licensee subsequent to identification of those findings, the licensee has not been effective in initiating appropriate corrective actions to prevent a recurrence of such violations, as evidenced by the recent violations identified at the field site near East Vineland. As a result, the NRC, Region I, issued another Confirmatory Action Letter (I-90-010) to the licensee on April 26, 1990 to confirm the licensee's commitments to remove the responsible individuals from radiography activities, and to meet with the NRC on April 27, 1990 to discuss these findings, their causes, and the planned corrective actions. At the April 27 meeting, the licensee denied that the first two safety violations had occurred. In addition, the licensee's President and Radiation Safety Officer raised questions regarding the validity of the third violation, involving the surveillance requirement. Furthermore, the licensee's President and Radiation Safety Officer attributed the cause of the other two violations to the licensee's failure to fully understand those specific NRC requirements, even though similar violations were identified during the March inspection and the specific NRC requirements were discussed during the April 5, 1990 enforcement conference.

V

The performance of licensed activities requires use of appropriate procedures, training of personnel regarding those procedures, and meticulous attention to detail by implementing personnel to ensure these activities are conducted safely and in accordance with regulatory requirements. Such attention is particularly

important during the performance of radiography given the high radiation levels of the radioactive sources that are used. The failure to properly control the use of the radiography devices could result in significant exposures of individuals to radiation.

Given these recent findings, as well as the the past performance of this licensee, it is apparent that licensee management is not adequately controlling and monitoring licensed activities performed by its employees, to assure adherence with requirements, and prompt identification and correction when violations exist. Therefore, I lack the requisite reasonable assurance that activities conducted under License No. 29-21452-01 will be performed safely and in compliance with the Commission's requirements unless certain measures are taken, both in the short term and the long term, to improve performance and control of radiographic activities. The health, safety, and interest of the public, including the licensee's employees, dictates that these actions be made effective immediately. Further, I have determined that no prior notice under 10 CFR 2.201 is required.

VI

Accordingly, pursuant to Sections 81, 161b, 161c, 161i, 161o, 182, and 186 of the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR 2.204 and 10 CFR Parts 30 and 34, IT IS HEREBY ORDERED, EFFECTIVE IMMEDIATELY, THAT THE LICENSEE SHALL:

A. Prohibit any individual from using radiography sources under License No. 29-21452-01 after the date of this order until such time as:

1. the individual has been retrained concerning NRC requirements, including the Licensee's existing procedures contained in License 29-21452-01 for the safe performance of radiographic activities, as modified by Section A.6 of this order, and the importance of assuring that regulatory requirements are met;

2. the specific findings of the NRC inspections conducted in March and April 1990, as well as the corrective actions taken, have been explained to the individual;

3. the licensee's specific disciplinary program for failure to adhere to requirements has been explained to the individual;

4. the individual submits a signed statement to the licensee that he or she understands the requirements, including his or her responsibilities as a radiographer under 10 CFR 34.2, and that he or she is committed to implementing these requirements;

5. appropriate procedures have been revised to include:

   a. use of rope barriers to establish restricted areas at field sites, as well as other specific actions radiographers and radiographer's assistants will take to control access to those areas;

b. specific designation in licensee records of the duties of each radiographer and radiographer's assistant as defined in 10 CFR 34; and

6. the licensee's Corporate Executive Officer has submitted to the NRC Region I a statement, under oath or affirmation, that items A.1 through A.5 have been completed.

B. The licensee shall retain for 3 years and make available for NRC inspection the training records and signed statements required by this order;

C. Until further notice, notify the NRC Region I, by 9:00 a.m. on the Monday of each week, of the field sites where radiography is planned that week, as well as the specific date such radiography is planned;

D. Within 30 days of the date of this Order,

1. obtain the services of one or more independent consultant(s) to perform an assessment of the licensee's radiation safety program. The consultant(s) shall have in-depth knowledge of radiation protection theory and good practice, management of radiation protection programs and radiation protection quality assurance program, as obtained through a combination of academic training and practical experience of its staff assigned to perform the assessment;

2. submit to the Regional Administrator, Region I, for approval, the name(s) of the proposed organization(s), the qualifications and experience of the individuals who will perform the assessment, statements from these individuals and organization(s) regarding the extent to which they have been previously employed by licensees and a description of the plan to accomplish the assessment. The consultant(s) shall complete the assessment within 120 days of NRC approval. This assessment shall include a review of the:

   a. adequacy and implementation of the licensee's Radiation Safety procedures related to assigned radiation protection functions at all field sites under NRC jurisdiction;

   b. qualifications and training of licensee employees to perform assigned radiation protection functions at all job sites and field sites;

   c. adequacy of the number of licensee staff assigned to perform radiation safety management and supervision activities;

   d. adequacy of the field audits conducted by licensee personnel and the audit procedure used by these personnel;

e. adequacy of all licensee records (including the records of licensee management's audits of radiographers) to demonstrate that the radiation protection program is conducted as required; and

f. adequacy of the system that management uses to assure itself that the radiation protection program is adequate and being implemented.

This assessment shall include the independent consultant accompanying each licensee auditor on at least one day's unannounced audit activities at field sites. This assessment is to address the ability of the licensee's auditors to adequately assess radiographers performance in the field, as well as ascertain radiographers' knowledge, understanding of, and adherence to, radiation safety requirements as required by procedures.

Based on its assessment, the consultant(s) shall prepare a written report which identifies the specific and programmatic weaknesses that could contribute to further violations of NRC requirements, and shall provide recommendations for improvements necessary to assure compliance with NRC requirements. The assessment report shall be prepared within 30 days of completion of the assessment, and the licensee shall direct the consultant(s) to submit to the Regional Administrator, Region I, a copy of the report and any drafts thereof, at the same time they are sent or disclosed to the licensee or any of its employees.

D. Within 30 days after receipt of the consultant(s) report, submit a plan to the Regional Administrator, NRC Region I in response to the findings and recommendations of the assessment report, which describes how the licensee will incorporate and implement recommendations set forth in the consultant's assessment report, as well as a schedule for implementation of the recommendations. If any of the consultant's recommendations are not adopted, the licensee shall provide in its report justification for not adopting any recommendation(s). Furthermore, the plan shall also include retraining and testing of radiographers, auditors, and the RSO on all the radiation safety procedures revised as a result of this Order.

The Regional Administrator, NRC Region I, may, in writing, relax or terminate any of the above conditions upon demonstration by the Licensee of good cause.

VII

The Licensee or any other person adversely affected by this Order may submit an answer to this Order within 20 days of the date of this Order. The answer may set forth the matters of law upon which the licensee or other person adversely affected relies and the reasons as to why the Order should not have been issued. An answer filed within 20 days of the date of this Order may also request a hearing. Any answer or request for a hearing shall be submitted to the Secretary, U.S. Nuclear Regulatory Commission, ATTN: Chief, Docketing and Service Section, Washington, DC 20555. Copies of the hearing request and answer also shall be sent to the Director, Office of Enforcement,

U.S. Nuclear Regulatory Commission, Washington, DC 20555, to the Assistant General Counsel for Hearings and Enforcement at the same address, and to the Regional Administrator, Region I, 475 Allendale Road, King of Prussia, PA 19406. If a person other than the Licensee 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). In the absence of any request for a hearing within the specified time, this Order shall be final without further Order or proceedings. A REQUEST FOR A HEARING SHALL NOT STAY THE IMMEDIATE EFFECTIVENESS OF THIS ORDER.

If a hearing is requested by the Licensee or 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 Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION

Hugh L. Thompson, Jr.
Deputy Executive Director for
Nuclear Materials Safety, Safeguards,
and Operations Support

Dated at Rockville, Maryland
this 21st day of May 1990

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

JUL 24 1990

Docket No. 030-29484
License No. 47-24864-01
EA 90-101

Davis Memorial Hospital
ATTN: Mr. Robert L. Hammer, II
Chief Executive Officer
P. O. Box 1484
Elkins, WV 26241

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $10,000 (NRC INSPECTION REPORT NO. 47-24864-01/90-01 AND INVESTIGATION REPORT 2-90-005)

This refers to the Nuclear Regulatory Commission (NRC) inspection conducted on February 7, 1990, and an investigation by the NRC's Office of Investigations conducted between February 15 and June 1, 1990. The inspection was an examination of activities conducted under your NRC license and included a review of your radiation safety program and your compliance with NRC regulations and license conditions. Based on the inspection, a Confirmation of Action Letter was issued on February 16, 1990. The report documenting this inspection was sent to you by letter dated May 22, 1990. The investigation involved the review of 1) apparent discrepancies and improprieties relating to daily radioisotope use and dose calibration linearity determination records prepared and maintained by the Chief Nuclear Medicine Technologist (CNMT), 2) circumstances surrounding apparent misadministrations of iodine-131, the administration of which were all significantly below the prescribed dose for the intended diagnostic procedure, and 3) the apparent failure of the Radiation Safety Officer to execute required responsibilities associated with the Radiation Safety Program.

As a result of this inspection and investigation, significant failures to comply with NRC regulatory requirements were identified. An Enforcement Conference was held on May 30, 1990, to discuss the violations, their causes, and your corrective actions to preclude their recurrence. The letter summarizing this conference and a copy of the synopsis of the investigation report was sent to you on June 8, 1990. A second Confirmation of Action Letter was issued on June 15, 1990, regarding evaluation of the impact of the misadministrations that have occurred.

The violations described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) include, but are not limited to: (1) failure to conduct Radiation Safety Committee (RSC) meetings at least once in

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

each calendar quarter, (2) failure to perform annual reviews of the entire radiation safety program, (3) failure to mathematically calculate isotope activity for all radiopharmaceutical doses that were administered to patients, (4) failure to decontaminate areas containing removable radioactive contamination, (5) failure to properly determine the molybdenum-99 breakthrough concentration (6) failure to perform linearity testing on a dose calibrator, and (7) failure to assay iodine-131 doses prior to administering to patients, which resulted in diagnostic misadministrations of radiopharmaceuticals. The NRC views these violations to be indicative of a programmatic breakdown in your radiation safety program. The violations are of particular concern to the NRC not only because of the large number of violations but also because certain violations involve multiple examples over a number of years wherein there were repeated failures by your staff to comply with license conditions. These violations, when considered individually, would normally be classified at Severity Level IV or V. However, the violations collectively indicate a lack of management oversight. Neither hospital management, the Radiation Safety Committee, nor the Radiation Safety Officer have maintained the necessary level of oversight and control to ensure the adequacy of your radiation safety program and compliance with regulatory requirements.

The investigation found that the Radiation Safety Officer (RSO) has been remiss in the performance of his duties and responsibilities as RSO and Radiation Safety Committee chairman for an extended period of time. His admitted abandonment of those duties to the health physics consultant, his apparent lack of involvement in the nuclear medicine program, and his repeated failures to heed and implement the consultant's recommended remedial and corrective actions in the program demonstrate a careless disregard for and a callous indifference to regulatory requirements and the operational aspects of the Nuclear Medicine Department. The investigation confirmed that the Chief Nuclear Medical Technologist (CNMT) recorded prescribed rather than assayed dosages, administered diagnostic dosages that were substantially, in some cases more than five-fold, below the prescribed amount, and recorded arbitrary values of dose calibrator linearity test results in lieu of conducting the required tests to obtain measured data. The investigation concluded that these improper activities were the results of inadequate training, lack of guidance and supervision, and the perceived pressure that she bore the full responsibility for all activities of the Nuclear Medicine Department. If adequate attention and oversight of licensed activities had been provided, these violations would not have gone undetected until the NRC inspection. Therefore, in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy) 10 CFR Part 2, Appendix C (1990), the violations are classified in the aggregate as a Severity Level II problem due to your lack of management oversight and the careless disregard demonstrated by your RSO.

In view of the number and nature of the violations, consideration was given to issuance of an Order suspending your license. However, in view of your voluntary shutdown and corrective actions taken, once you were put on notice, which are described below, an Order is not being issued. Nevertheless, to emphasize the importance of maintaining management oversight and control of

licensed activities, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $10,000 for the Severity Level II problem. The base value of a civil penalty for a Severity Level II problem is $4,000. The escalation and mitigation factors in the Enforcement Policy were considered.

Escalation of the base civil penalty by 50 percent was applied because the violations were identified by the NRC. Mitigation of 50 percent of the base civil penalty was warranted as a result of the extensive corrective actions initiated once the gravity of the problem was comprehended. Those actions included the voluntary cessation of nuclear medicine activities until management was convinced that the department could operate safely and in full compliance with regulatory requirements. Other comprehensive corrective actions included training for Nuclear Medicine Department personnel, immediate involvement of the Radiation Safety Officer in daily operational activities of the department, and a comprehensive review of the radiation safety program by an outside consultant. No mitigation or escalation was applied for past performance as this was the initial inspection conducted at your facility. Escalation of 50 percent of the base civil penalty was warranted for prior notice of similar events because your consultant's July 25, 1989 audit, pointed out several problems that were cited as violations by the NRC. Furthermore, NRC Information Notice No. 88-10, Materials Licensees: Lack of Management Controls Over Licensed Programs, dated March 28, 1988, served notice that licensees were responsible for ensuring that radiation safety activities are performed in accordance with license conditions and other regulatory requirements. Finally, escalation of 100 percent was applied on the basis of multiple examples and duration because of the numerous violations, many of which occurred over a period of time. Therefore, based on the above, the base civil penalty has been increased by 150 percent.

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

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.

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

Sincerely,

Stewart D. Ebneter

Stewart D. Ebneter
Regional Administrator

Enclosure:
Notice of Violation and Proposed
Imposition of Civil Penalty

cc w/encl:
State of West Virginia

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Davis Memorial Hospital
Elkins, West Virginia

Docket No. 030-29484
License No. 47-24864-01
EA 90-101

During the Nuclear Regulatory Commission (NRC) inspection conducted on February 7, 1990, and an NRC investigation conducted during the period of February 15 - June 1, 1990, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990), the Nuclear Regulatory Commission 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 violations and associated civil penalty are set forth below:

A. License Condition 14 requires that the licensed program be conducted in accordance with the statements, representations, and procedures contained in the application dated September 12, 1986, and letters dated August 14, 1986 and November 10, 1987.

1. Item 7 of this application states, in part, that the Radiation Safety Committee (RSC) shall meet as often as necessary to conduct its business but not less than once in each calendar quarter.

   Contrary to the above, between September 29, 1986 and February 5, 1987; between February 5, 1987 and October 8, 1987; and between May 10, 1989 and January 1, 1990; the RSC did not meet in the 4th calendar quarter of 1986, the 2nd and 3rd calendar quarters of 1987 and the 3rd and 4th calendar quarters of 1989.

2. Item 24(d), Section II.B. of this application requires, in part, that management perform a formal annual review of the radiation safety program, including as low as reasonably achievable (ALARA) considerations.

   Contrary to the above, between January 1, 1988 and February 7, 1990, a formal review for the annual year of 1989 of the radiation safety program, including ALARA considerations, was not performed by the hospital management.

3. Item 24(c), Section III.C. of this application requires that the RSC perform an annual audit of all aspects of the radiation safety program to ensure that the overall philosophy and policies of the ALARA program are being accomplished.

   Contrary to the above, between January 1, 1988 and February 7, 1990, an audit for the annual year of 1989 of all aspects of the radiation safety program was not performed by the RSC to ensure that the overall philosophy and policies of the ALARA program were being accomplished.

4. Item 24(d), Section IV.A.1 of this application requires, in part, that the RSO perform an annual review of the radiation safety program for adherence to ALARA concepts.

   Contrary to the above, between January 1, 1988 and February 7, 1990, an review for the annual year of 1989 of the radiation safety program for adherence to ALARA concepts was not performed by the RSO.

5. Item 7 of this application requires, in part, that the Radiation Safety Committee review the training and experience of any individual who uses radioactive material (including physicians, technologists, physicists, and pharmacists) and determine that the qualifications are sufficient to enable them to perform their duties safely and in accordance with NRC regulations and the conditions of the license.

   Contrary to the above, between September 29, 1986 and February 7, 1990, the Radiation Safety Committee did not review the training and experience of the Nuclear Medicine Technologists and did not determine that the individuals' qualifications were sufficient to enable them to perform their duties safely and in accordance with NRC regulations and the conditions of the license.

6. Item 14 of this application requires, in part, that wipe tests of the external surface of the final source container be performed when opening packages containing radioactive material which are received in the Nuclear Medicine Department, and that the opening procedure will be stopped and the Radiation Safety Officer notified if the removable contamination levels exceed 200 disintegrations per minute per 100 square centimeters (dpm/100cm^2).

   Contrary to the above, for packages of radioactive material received between October 26, 1988 and February 7, 1990, opening procedures were not stopped and the Radiation Safety Officer was not notified when removable contamination levels between 1,500 and 2,000 dpm/100cm^2 were measured on the external surface of the final source container.

7. Item 17 of this application requires, in part, that each area where radioactive material is used or stored be cleaned if the contamination level exceeds 200 dpm/100cm^2.

   Contrary to the above, between October 26, 1988 and February 7, 1990, removable contamination levels between 1,500 and 3,000 dpm/100cm^2 were measured in areas where radioactive material was used, and the areas were not cleaned.

8. Item 15 of this application requires, in part, that every elution of generators be assayed by use of the dose calibrator for technetium-99m (Tc-99m) activity and molybdenum-99 (Mo-99) breakthrough contamination, and that the eluates from the generator not be used if there is more than one microcurie of Mo-99 per millicurie of Tc-99m or more than five microcuries of Mo-99 per administered dose of Tc-99m.

10 CFR 35.204 requires, in part, that the licensee's record retained of each measured molybdenum concentration include the ratio of the measures expressed in microcuries of molybdenum per millicurie of technetium .

Contrary to the above, between October 28, 1987 and February 7, 1990, the the licensee's retained records of molybdenum-99 breakthrough contamination assays did not contain the correct ratio of the measurements. As a result, the licensee was unable to ensure that every elution from the generators did not exceed one microcurie of molybdenum-99 per millicurie of technetium-99m or more than five microcuries of molybdenum-99 per administered dose of technetium-99m.

9. Item 10 of this application requires, in part, that the linearity of the dose calibrator be determined quarterly in accordance with the NRC Medical Licensing Guide, Appendix D, Section 2.E., over the full range of activities of Technetium used.

   Contrary to the above, between November 1986 and November 1989, linearity testing of a Model 632507 dose calibrator was not performed for eleven calendar quarters.

10. Item 10 of this application requires, in part, that a cobalt-57 source of approximately 10 millicuries be used to insure the dose calibrator accuracy at intervals not to exceed six months, and should the calibration deviate by greater than ±5 percent, appropriate adjustment or instrument repair be conducted.

    Contrary to the above, a) between October 18, 1988 and January 23, 1990, a cobalt-57 source of approximately 10 millicuries was not used to perform the accuracy tests on a dose calibrator in use; and b) between April 25, 1989 and July 25, 1989, the results of the accuracy tests that were performed deviated from the expected values between 5.6 and 12 percent and no adjustments or repairs were made to the dose calibrator as required.

11. Item 10 of this application requires, in part, that daily floods of the gamma camera be conducted to ensure integrity of the camera.

    Contrary to the above, between January 11 and December 22, 1989, the daily floods of the gamma camera were not performed to ensure integrity of the camera on at least thirty-seven separate occasions.

12. Item 15 of this application requires, in part, that the activity for all radionuclides or radiopharmaceutical doses to be administered to patients first be determined by mathematical calculations.

    Contrary to the above, between September 29, 1986 and February 7, 1990, the activity of radiopharmaceutical doses was not first determined by mathematical calculations prior to patient administration.

13. Item 15 of this application requires, in part, that each patient dose be

assayed in the dose calibrator just prior to administration, and that any doses that differ from the prescribed dose by more than 10 percent will not be used.

Contrary to the above, between October 20, 1986 and March 19, 1990, on at least 39 occasions patient doses containing iodine-131 used for the thyroid function studies were not assayed in the dose calibrator prior to administration and on at least 46 separate occasions doses that differed from the prescribed dose by more than ten percent were administered to patients. At least 25 iodine-131 doses differed from the prescribed dose by more than 50 percent.

14. Item 15 of this application requires, in part, that patient dose information of administered technetium-99m and all other administered radioactive materials be recorded in the patient dose log.

Contrary to the above, between September 29, 1986 and February 7, 1990, patient doses from administered technetium-99m were not recorded in the patient dose log.

15. Item 24d, Section II.C. of this application states, in part, that modifications to operating and maintenance procedures and to equipment and facilities will be made where they will reduce exposures unless the cost is unjustified.

Item 24d, Section III.A. states, in part, that the RSC shall determine whether current procedures are maintaining radiation exposures ALARA, and that the efforts of the users of radiation sources will be reviewed.

Item 24d, Section V.B. states, in part, that the authorized user will ensure that those under his supervision who are subject to occupational radiation exposure are trained and educated in good health physics practices and in maintaining exposures ALARA.

Contrary to the above, between September 29, 1986 and February 7, 1990, adequate equipment, facilities and procedures which would reduce exposures were not provided and individuals under the supervision of the authorized user were not trained and educated in maintaining exposures ALARA, in that technologists routinely transferred radiopharmaceuticals from a vial to a syringe without the use of shielding to reduce the radiation dose to the technologist.

B. 10 CFR Part 19.12 requires, in part, that all individuals working in a restricted area be instructed in the precautions and procedures to minimize exposure to radioactive materials, in the purpose and functions of protective devices employed, and in the applicable provisions of the Commission's regulations and licenses.

Item 12 of the license application dated September 12, 1986, requires that all personnel including technical, clerical, nursing, housekeeping, and security, who work with or in the vicinity of radioactive materials receive proper instruction in the items specified in 10 CFR Part 19.12 and specific topics

defined in Item 12 of the license before assuming duties with or in the vicinity of radioactive materials, during annual refresher training, and whenever there is a significant change in duties, regulations, or the terms of the license.

Contrary to the above, between September 26, 1986 and February 7, 1990, initial and annual refresher radiation safety training which covered the specific items in 10 CFR 19.12 and those contained in item 12 of the license application were not provided to licensee nursing and housekeeping personnel who worked with or in the vicinity of radioactive materials.

C. 10 CFR 35.51(b) requires, in part, that the licensee, when calibrating a survey instrument used to show compliance with 10 CFR Part 35, consider a point as calibrated if the indicated exposure rate differs from the calculated exposure rate by not more than 20 percent.

Contrary to the above, between [illegible]1, 1989 and February 7, 1990, radiation surveys were performed to demonstrate compliance with 10 CFR Part 35 with a CDV-700 survey instrument which had an indicated exposure rate that differed from the calculated exposure rate by more than 20 percent and up to 29 percent on various scales.

D. 10 CFR 35.51(d) requires, in part, that a licensee retain a record of each survey instrument calibration for three years and that the record include the correction factors deduced from the calibration data.

Contrary to the above, between between April 27, 1987 and February 7, 1990, the licensee's retained records of each survey instrument calibration did not include the correction factors deduced from the calibration data.

E. 10 CFR 35.220 requires, in part, that a licensee authorized to use byproduct material for imaging and localization studies have in its possession a portable radiation measurement survey instrument capable of measuring dose rates over the range of one millirem per hour to 1000 millirem per hour.

Contrary to the above, on February 7, 1990, the licensee did not possess a portable radiation measurement survey instrument capable of measuring dose rates over the range of one millirem per hour to 1000 millirem per hour.

F. 10 CFR 35.50(e) and 10 CFR 35.59 require, in part, that the signature of the Radiation Safety Officer be included on all the licensee's retained records of: accuracy, linearity, and geometry tests of the dose calibrator; quarterly physical inventory of sealed sources; six-month leak tests of sealed sources; and ambient dose rate measurements performed quarterly in areas where sealed sources are stored.

Contrary to the above, between April 1, 1987 and February 7, 1990, the licensee's retained records for: accuracy, linearity and geometry tests of the dose calibrator; physical inventory of sealed sources; leak tests of sealed sources, and ambient dose rate measurements of areas where sealed sources were stored did not include the signature of the Radiation Safety Officer.

G. 10 CFR 20.203(b) requires each radiation area to be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words: "Caution Radiation Area."

Contrary to the above, on February 7, 1990, the door which accesses the Nuclear Medicine Hot Lab and Imaging Area, a radiation area, was not posted with a "Caution Radiation Area" sign.

H. 10 CFR 20.105(b)(2) requires, in part, that no licensee possess, use or transfer licensed material in such a manner as to create in any unrestricted area from radioactive material and other sources of radiation in his possession radiation levels which, if an individual were continuously present in the area, could result in his receiving a dose in excess of 100 millirems in any seven consecutive days.

Contrary to the above, on February 7, 1990, licensed material was possessed in such a manner as to create in the unrestricted area outside the waste/generator storage room, radiation levels between 1.0 and 1.5 millirems per hour as measured at a distance of 18 inches from the exterior door to the hospital's waste/generator storage room. This condition existed for more than seven consecutive days, and therefore, could have resulted in an individual, if continuously present, receiving a dose in excess of 100 millirems in seven consecutive days.

I. 10 CFR 35.21(a) requires, in part, that the licensee, through the Radiation Safety Officer, ensure that radiation safety activities are being performed in accordance with approved procedures and regulatory requirements in the daily operation of the licensee's byproduct material program.

Contrary to the above, between April 1, 1987 and February 7, 1990, the RSO failed to ensure that radiation safety activities were being performed in accordance with approved procedures and regulatory requirements in the daily operation of the Nuclear Medicine Department.

J. 10 CFR 35.70 requires, in part, that a licensee survey with a radiation detection survey instrument at least once each week all areas where radiopharmaceuticals or radiopharmaceutical waste is stored and that radiation dose rate trigger levels be established.

Contrary to the above, between April 1, 1987 and February 7, 1990, a) surveys with a radiation detection instrument were not performed in the area where radiopharmaceutical wastes, including molybdenum-99 generators, are stored; and b) radiation dose rate trigger levels were not established for the waste storage area.

These violations are classified in the aggregate as a Severity Level II problem (Supplements IV and VI).

Cumulative Civil Penalty - $10,000 (assessed equally among the 24 violations).

Pursuant to the provisions of 10 CFR 2.201, Davis Memorial Hospital (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 may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalty by letter addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, money order, or electronic transfer payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or the cumulative amount of the civil penalties if more than one civil penalty is proposed, 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 violations listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty in whole or in part, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C (1990), should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201 but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205 regarding the procedure for imposing a civil penalty.

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

The responses noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator, U. S. Nuclear Regulatory Commission, Region II, 101 Marietta Street, N.W., Atlanta, Georgia.

FOR THE NUCLEAR REGULATORY COMMISSION

Stewart D. Ebneter
Regional Administrator

Dated at Atlanta, Georgia
this 24th day of July 1990

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

Docket No. 030-01315
License No. 08-01709-04
EA 90-103

July 18, 1990

Georgetown University
ATTN: Dr. John F. Griffith, M.D.
Executive Vice President and
Director of Medical Center
3800 Reservoir Road
Podium Level
Washington, DC 20007

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $625
(Notice of Report No. 030-01315/90-001)

This letter refers to the NRC inspection conducted at Georgetown University, Washington, DC, on May 2 and 3, 1990 and at the NRC Region I office on May 8, 1990 to review the circumstances associated with an event reported to the NRC by your staff on May 2, 1990. The event involved the transfer of radioactive material (a 2.1 curie iridium-192 source) to a common carrier for shipment without proper authorization by the Radiation Control Officer and without appropriate controls being established. As a result, when the Radiation Control Officer returned to the facility on April 30, 1990, he could not locate the source and its whereabouts remained unknown until May 3, 1990, at which time the source was subsequently located at a warehouse in Des Plaines, Illinois. During the NRC inspection, three violations of NRC requirements were identified, including violations that contributed to the apparent lack of control of the source, and its subsequent improper shipment. As a result, on May 31, 1990, an enforcement conference was conducted with members of your staff to discuss the event, associated violations, the causes and your corrective actions.

The source had been removed from a remote after-loading medical irradiator on April 18, 1990, and was placed in its shielded container in the source storage closet awaiting preparations for, and completion of, the required radiological surveys and paperwork necessary for shipment back to the manufacturer in Holland. However, while the Radiation Control Officer was on vacation, the Chief Radiation Physicist gave the package containing the source to an unidentified courier on April 26, 1990 when the individual stated that he was there to pick up a large package. The courier had been directed to pick up a package from the Department of Radiology, but mistakenly went to the Department of Radiation Medicine where he encountered the Chief Radiation Physicist (CRP). The CRP, aware that the source was to be returned to the

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

manufacturer, assumed the courier was there to pick up that package and gave it to the courier without ensuring that it was properly prepared for the shipment, and without obtaining the appropriate authorization from the Radiation Control Officer.

The violations are described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice). The violations involve: (1) transfer of the radioactive material to a common carrier on April 26, 1990 by the Chief Radiation Physicist without the transfer first being reviewed and approved by the Radiation Control Officer, as required; (2) transfer of the material to the courier without ensuring that certain shipping criteria had been met; and (3) failure to properly describe the activity of the source on the related shipping papers.

These violations demonstrate the importance of appropriate coordination, control, and oversight of these activities in the future to ensure licensed material is transferred safely and in accordance with the requirements and the terms of your license. Given the large source activity involved (2.1 curies, IR-192), a substantial potential for a personnel exposure existed if the source had become unshielded after it left the control of the hospital. Therefore, in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions." (Enforcement Policy) 10 CFR Part 2, Appendix C, (1990), the violations are classified in the aggregate as a Severity Level III problem.

The staff recognizes that your corrective action as described at the enforcement conference was extensive, and included thorough searches of the facility and numerous contacts with common carriers to locate the source; issuance of a press release on May 2, 1990; prompt retention of a consultant when the source was located to ensure its safe delivery back to your facility; and appropriate revision of procedures and training of personnel.

Nevertheless, to emphasize the importance of coordination, especially in a large organization, and control of licensed material, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $625 for the violations set forth in the Notice.

The base civil penalty for a Severity Level III violation or problem is $2,500. The escalation and mitigation factors set forth in the policy were considered as follows: (1) the apparent loss was identified by your Radiation Control Officer on April 30, 1990 upon his return to the facility, and after being unable to locate the source, he notified the NRC on May 2, 1990, and therefore, 25% mitigation on this factor was considered warranted (full 50% mitigation based on this factor was considered inappropriate because the report was not made until May 2 and over 13 hours elapsed from the time Dr. Rodgers found the Waybill until a call was made to Profit/LEP); (2) your corrective actions, as described at the enforcement conference were prompt and comprehensive and therefore, 50% mitigation on this factor is warranted; and (3) your past performance, which included a total of six violations during the last inspection in February, 1990 (and no violations during the prior inspection in 1988), is

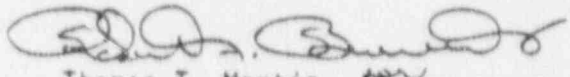
average and provides no basis for an adjustment in the civil penalty amount. The other escalation and mitigation factors in the Enforcement Policy were considered and no further adjustment was deemed appropriate because the violations did not involve prior notice or multiple examples, nor did they exist for an extended duration. Therefore, based on the above, the base civil penalty has been decreased by 75%.

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

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

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

Sincerely,



Thomas T. Martin
Regional Administrator

Enclosure:
Notice of Violation and Proposed
Imposition of Civil Penalty

cc w/encl:
Public Document Room
Nuclear Safety Information Center (NSIC)
District of Columbia
State of Illinois

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Georgetown University Medical Center
Washington, DC

Docket No. 030-01315
License No. 08-01709-04
EA 90-103

During an NRC inspection conducted at the licensee's facility in Washington, DC, on May 2 and 3, 1990 and at the Region I office on May 8, 1990, in response to an event at the facility involving the loss of control of radioactive material, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions", 10 CFR Part 2, Appendix C, (Enforcement Policy) (1990), the Nuclear Regulatory Commission 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 violations and associated civil penalty are set forth below:

A. Condition 21 of License No. 08-01709-04 requires, in part, that licensed material be possessed and used in accordance with statements, representations and procedures contained in the applications dated September 20, 1982 and October 28, 1985.

The application dated October 28, 1985 requires that the Radiation Control Committee follow the requirements in Regulatory Guide 10.8, Appendix B and additional duties as described in the attachment entitled "Committee on Radiation Control."

The attachment to Appendix B entitled "Committee on Radiation Control" requires that the Committee, upon recommendation of the Director of Radiation Control, establish the policies which govern the safe use of ionizing radiation.

The policies and procedures the Committee established to govern the safe use of ionizing radiation are described in the license application dated October 28, 1985, and the licensee's Radiation Safety Manual.

Item 3.10 of the Radiation Safety Manual, entitled "Shipping Radioactive Material," requires, in part, that the transfer of radioactive material either on or off the GUMC campus be reviewed and approved in writing by the Radiation Control Officer prior to any transfer.

Contrary to the above, on April 26, 1990, the licensee transferred a 2.1 curie iridium-192 source to a Common Carrier for transport, without the transfer being reviewed or approved in writing by the Radiation Control Officer.

B. 10 CFR 71.87(a), (b), (f) and (i)(1) respectively require, in part, that prior to each shipment of licensed material, the licensee shall ensure

that the package is proper for the contents to be shipped; the package is in unimpaired physical condition except for superficial defects such as marks or dents; the package has been loaded and closed in accordance with written procedures; and the level of non-fixed (removable) radioactive contamination on the external surfaces of each package offered for shipment is as low as reasonably achievable (ALARA).

Contrary to the above, on April 26, 1990, a package (crate) containing a 2.1 curie iridium-192 source was shipped by the licensee to Des Plaines, Illinois, and prior to the shipment, the licensee did not first ensure that: (1) the package was proper for the contents to be shipped; (2) the package was in unimpaired physical condition except for superficial defects such as marks or dents; (3) the package was loaded and closed in accordance with written procedures; and (4) the level of non-fixed (removable) radioactive contamination on the external surfaces of the package offered for shipment was as low as reasonably achievable (ALARA).

C. 10 CFR 71.5 requires, in part, that each licensee who transports licensed material outside of the confines of its plant or other place of use, or who delivers licensed material to a carrier for transport, comply with the applicable requirements of the regulations appropriate to the mode of transport of DOT in 49 CFR Parts 170 through 189.

49 CFR 172.203(d)(1)(iii) requires, in part, that the description for a shipment of radioactive material include the activity contained in each package of the shipment.

Contrary to the above, when a radioactive material shipment containing a 2.1 curie iridium-192 source was offered to a common carrier for transport on April 26, 1990, the shipping papers did not accurately describe the activity of the iridium-192 source that comprised the shipment. Specifically, the shipping papers stated that the package contained 4.9 curies of iridium-192, when, in fact, the activity of the source was 2.1 curies.

This is a Severity Level III problem. (Supplements V and VI).

Cumulative Civil Penalty - $625 (assessed equally among the three violations).

Pursuant to the provisions of 10 CFR 2.201, Georgetown University (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. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the

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

Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, 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 violations listed in this Notice, in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, such answer may request remission or mitigation of the penalty.

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

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

The responses noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region I, 475 Allendale Road, King of Prussia, Pennsylvania 19406.

FOR THE NUCLEAR REGULATORY COMMISSION

Thomas T. Martin for
Regional Administrator

Dated at King of Prussia, Pennsylvania
this 18 day of July 1990

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

JUN 0 8 1990

Docket No. 030-29727
License No. 39-24888-01
EA 90-058

Industrial NDT Company, Inc.
ATTN: Mr. John Ridgeway
President
3377 Ridgeway Street
North Charleston, SC 29405

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $6,250 (NRC INSPECTION REPORT NOS. 39-24888-01/89-01, 39-24888-01/90-01, AND 39-24888-01/90-02; NRC INVESTIGATION REPORT NO. 2-89-010)

This refers to the Nuclear Regulatory Commission (NRC) inspections conducted by Mr. M. Elliott and others at Industrial NDT Company, Inc. (INDT), facilities on February 15, March 13-14, April 25-26, May 4, 1989, and February 22-23 and April 2, 1990. The inspections included a review of the circumstances surrounding events in Woodland, Maine, and Richmond, Virginia. Also included was a routine inspection conducted in Richmond. The reports documenting these inspections were sent to you by letters dated March 30, April 2, and April 11, 1990. As a result of these inspections, significant failures to comply with NRC regulatory requirements were identified, and accordingly, NRC concerns relating to the inspection findings were discussed with you in an Enforcement Conference held on April 17, 1990. The letter summarizing this conference was sent to you on April 30, 1990.

The violations described in Part I of the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) occurred on March 3, 1990, at your Richmond, Virginia facility and involved an unplanned personnel exposure of 2.52 rems to a licensee radiographer. This incident resulted because the radiographer failed to lock the sealed source when it was in the shielded position. As a result, when the camera crank assembly accidentally fell off a chair, the source was moved out of the shielded position. Furthermore, available survey equipment was improperly used.

It was fortuitous that the assistant radiographer came back to the radiography cell when he did and alerted the radiographer when he saw the "source exposed" light on the gamma radiation alarm system. Had this not happened, the radiographer could have received a significant overexposure from the 48 curie iridium-192 source that was being used at the time. Because of the potential for significant exposure in this event and the failure of the radiographer to

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

follow well established safety procedures, these violations have been classified in the aggregate as a Severity Level III problem in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, (1990) (Enforcement Policy).

The staff recognizes that immediate corrective actions were taken when the violation was identified. Those actions included suspending the radiographer from further licensed activity pending his recertification, repositioning the gamma radiation alarm light inside the permanent radiography cell so as to make it more visible to personnel inside the cell, and adding an intrusion alarm to the cell door which will sound if entry is attempted into the cell during radiographic operations. We are also mindful of the argument that you expressed during the enforcement conference that any NRC enforcement action associated with this event should be directed toward the individual radiographer. While under certain limited conditions, NRC may take action against individuals by modifying a license to remove the individual from licensed activities, sanctions are normally not imposed on unlicensed individuals. In addition, the Enforcement Policy clearly provides that licensees are held responsible for the acts of their employees.

To emphasize the need for diligent management oversight of radiographic operations, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support, to issue the enclosed Notice in the amount of $6,250 for the Severity Level III problem. The base value of a civil penalty for a Severity Level III problem is $5,000. The escalation and mitigation factors in the Enforcement Policy were considered.

Mitigation of 25 percent was warranted because of your prompt investigation and subsequent reporting of the event to the NRC. Full mitigation for this factor was not given because of the ease of discovery. Escalation of 50 percent was applied for Prior Notice of Similar Events. In escalating for this factor, consideration was given to the fact that the NRC has notified materials licensees on several occasions in the past that radiation surveys constituted an important element in industrial radiography. For example, NRC Information Notice 88-66, Industrial Radiography Inspection and Enforcement, dated August 22, 1988, and Information Notice 87-45, Recent Safety-Related Violations of NRC Requirements by Industrial Radiography Licensees, dated September 25, 1987, discussed the need to ensure that proper surveys are conducted. Neither escalation nor mitigation was deemed appropriate for your Corrective Actions to Prevent Recurrence and your Past Performance. Although your corrective actions were prompt and adequate, they were not considered to be very extensive. Your past performance was considered average. The factors of Multiple Occurrences and Duration were not applicable to this case. Therefore, based on the above, the base civil penalty has been increased by 25 percent.

The violations identified in Part II of the enclosed Notice were not assessed a civil penalty and were categorized at either Severity Level IV or Severity Level V because of their safety significance. These violations, some of which resulted from the source disconnect incident at Woodland, Maine, on February 13, 1989, involve failures to adhere to various regulatory requirements associated with approved operations and emergency procedures and indicate weaknesses in

your program for evaluating radiological events. The remaining violations identified in this part are associated with a routine inspection conducted at your Richmond, Virginia facility and indicated weaknesses in the radiation safety program. We are concerned with the number of these violations and would urge that closer management attention be focused on your program requirements.

Our March 30, 1990 letter provided you with a synopsis of the NRC Office of Investigations Report associated with the Woodland, Maine event. The investigation did not substantiate any misconduct or intentional improprieties by licensee personnel regarding that event.

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

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

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

Sincerely,

James L. Milhoan for
Stewart D. Ebneter
Regional Administrator

Enclosure:
Notice of Violation and Proposed
Imposition of Civil Penalty

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Industrial NDT Company, Inc.
North Charleston, South Carolina

Docket No. 030-29727
License No. 39-24888-01
EA 90-058

During the Nuclear Regulatory Commission (NRC) inspections conducted on February 15, March 13-14, April 25-26, May 4, 1989, and February 22-23, and April 2, 1990, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990), the Nuclear Regulatory Commission 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 violations and associated civil penalty are set forth below:

I. Violations Assessed a Civil Penalty

A. 10 CFR 34.22(a) requires, in part, that during radiographic operations, the sealed source assembly be secured in the shielded position each time the source is returned to that position.

Contrary to the above, on March 3, 1990, a licensee radiographer did not secure the sealed source assembly in the shielded position after each time the source was returned to that position.

B. 10 CFR 34.43(b) requires the licensee to ensure that a survey with a calibrated and operable radiation survey instrument is made after each radiographic exposure to determine that the sealed source has been returned to its shielded position. The entire circumference of the radiographic exposure device including the source guide tube must be included in the survey.

Contrary to the above, on March 3, 1990, the licensee did not ensure that a survey was made of the entire circumference of the radiographic exposure device including the source guide tube after a radiographic exposure.

These violations have been evaluated in the aggregate as a Severity Level III problem (Supplement VI).

Cumulative Civil Penalty - $6,250 (assessed equally between the two violations).

II. Violations Not Assessed a Civil Penalty

A. The following violations are associated with the inspection conducted February 22-23, 1990, at the Richmond, Virginia facility:

1. 10 CFR 34.29(b) requires that each entrance used for personnel access to the high radiation area in a permanent radiographic installation have both visible and audible warning signals to

warn of the presence of radiation. The visible signal must be actuated by radiation whenever the source is exposed and the audible signal must be actuated when an attempt is made to enter the installation while the source is exposed.

Contrary to the above, on February 22-23, 1990, the audible warning signal at the entrance to the high radiation area in the licensee's permanent facility in Richmond, Virginia did not actuate when an attempt was made to enter the installation while the source was exposed.

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

2. 10 CFR 71.12(c)(1) states that the general license issued by this part applies only to a licensee who has a copy of the specific license, certificate of compliance, or other approval of the package and has the drawings and other documents referenced in the approval relating to the use and maintenance of the packaging and to the actions to be taken prior to shipment.

   Contrary to the above, on February 23, 1990, the licensee did not have a copy of a specific license, certificate of compliance, or other approval for Amersham Model 660 exposure devices and Amersham Model 650 source changers, which were used to transport licensed material.

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

B. The following violations are associated with the inspections conducted February 15, March 13-14, and April 25-26, 1989, at licensee operations in Woodland, Maine:

1. 10 CFR 34.43(b) requires the licensee to ensure that a survey with a calibrated and operable radiation survey instrument is made after each radiographic exposure to determine that the sealed source has been returned to its shielded position. The entire circumference of the radiographic exposure device including the source guide tube must be included in the survey.

   Contrary to the above, on February 13, 1989, the entire circumference of the exposure device and the source guide tube were not surveyed after each exposure.

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

2. 10 CFR 34.11(d)(1) requires, in part, that an applicant have an inspection program that requires the observation of the performance of each radiographer and radiographer's assistant during an actual radiographic operation at intervals not to exceed three months.

The licensee's approved inspection program, as submitted in the application dated July 31, 1986, contains the requirements stated in 10 CFR 34.11(d)(1) and is incorporated into License No. 39-24888-01 by License Condition 19.

Contrary to the above, the performance of the radiographer involved in the source disconnect incident on February 13, 1990, had not been observed between September 3, 1988 and February 13, 1989.

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

3. License Condition 19 requires the licensee to conduct its program in accordance with statements, representations, and procedures contained in the application dated July 31, 1986.

Section 6.9 of the licensee's emergency procedures contained in this application requires the radiographer, following an emergency incident, to take the names of all personnel who were in the area involved and who may have been exposed to unmeasured radiation.

Contrary to the above, on February 13-14, 1989, following an emergency incident due to a source disconnect, the licensee's radiographer did not take the names of the personnel evacuated from the power house (Recovery Building) who may have been in the area involved and who may been exposed to unmeasured radiation.

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

4. 10 CFR 20.201(b) requires that each licensee make such surveys as may be necessary for the licensee to comply with the regulations of Part 20, and which are reasonable under the circumstances to evaluate the extent of radiation hazards that may be present. As defined in 10 CFR 20.201(a), "survey" means an evaluation of the radiation hazards incident to the production, use, release, disposal, or presence of radioactive materials or other sources of radiation under a specific set of conditions.

10 CFR 20.105(b) requires that, except as authorized by the Commission in 10 CFR 20.105(a), no licensee allow the creation of radiation levels in unrestricted areas so that an individual who was continuously present in the area could receive a dose in excess of 2 millirems in any one hour or 100 millirems in any seven consecutive days.

10 CFR 20.405 requires that, within 30 days, each licensee make a written report to the Commission concerning levels of radiation (whether or not involving excessive exposure of individuals) in an unrestricted area in excess of ten times any applicable limit set forth in 10 CFR Part 20 or in the license. 10 CFR 20.405 also requires reports to describe the extent of exposure to individuals to radiation for each involved individual.

Contrary to the above, the licensee did not make surveys (evaluations) to assure compliance with 10 CFR 20.105(b) nor with 10 CFR 20.405. Such evaluations were reasonable in that there were obviously levels of radiation in the unrestricted area on the 191-foot elevation of the building at the Georgia Pacific site in excess of ten times the limits in 10 CFR 20.105 (b) during the source disconnect incident which occurred on February 13, 1989.

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

5. License Condition 19 requires the licensee to conduct its program in accordance with statements, representations, and procedures contained in the application dated July 31, 1986.

Section A7.3.3.1 (1.b) of the licensee's operating and emergency procedures contained in the application requires the licensee to attach the source tube in place prior to making an exposure.

Contrary to the above, on February 13, 1989, the source tube was not properly attached in place prior to making an exposure, which resulted in detachment of the source tube from the exposure device.

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

C. The following violation is associated with the inspections indicated in both "A" and "B" above:

License Condition 12 states that B. Greer shall be the Radiation Safety Officer (RSO) at the Richmond, Virginia, Division Office and that M. Scott shall be the RSO at the Mexico, Maine, Division Office.

Contrary to the above, since November 4, 1989 and February 14, 1990, respectively, B. Greer and M. Scott have not been employed by the licensee as the RSOs of the Richmond, Virginia and Mexico, Maine Division Offices, and licensee has continued to conduct its licensed activities.

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

Pursuant to the provisions of 10 CFR 2.201, Industrial NDT Company, Inc., (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. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each violation: (1) admission or denial of the violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps which will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified,

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

Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalty by letter addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, money order, or electronic transfer payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or the cumulative amount the civil penalties if more than one civil penalty is proposed, 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 violations listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, in whole or in part, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C (1990), 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 the civil penalty due, which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region II, 101 Marietta Street, N.W., Atlanta, Georgia 30323.

FOR THE NUCLEAR REGULATORY COMMISSION

James L. Milhoan for
Stewart D. Ebneter
Regional Administrator

Dated at Atlanta, Georgia
this 8th day of June 1990

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

March 13, 1990

Docket No. 030-02941
License No. 37-00148-06
EA 90-013

Thomas Jefferson University
ATTN: Thomas J. Lewis
Executive Director and
Chief Operating Officer
Suite 401
Edison Building
130 South Ninth Street
Philadelphia, Pennsylvania 19107

Gentlemen:

Subject: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $3125
(Inspection Report No. 030-02941/89-002)

This letter refers to the NRC inspection conducted on December 15, 1989 and January 9, 1990 at Thomas Jefferson University, Philadelphia, Pennsylvania to review the circumstances associated with a violation involving the loss and apparent improper disposal of radioactive material in the normal trash. The trash was subsequently sent to a landfill for disposal. The improper disposal was reported to the NRC by your Radiation Safety Officer on December 15, 1989 after a Medical Physicist at your facility determined that a 53 millicurie (mCi) cesium-137 brachytherapy source was missing. During the subsequent NRC inspection, additional violations were identified, including violations which contributed to the improper disposal of the radioactive material. The report of the inspection was sent to you on January 29, 1990. On February 1, 1990, an enforcement conference was conducted with you and members of your staff to discuss the violations, their causes and your corrective actions.

The violations are described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice). The violations set forth in Section I of the Notice involve: (1) failure to perform an adequate inventory of the radioactive sources upon returning the sources to their source storage area in October 1989; (2) failure to survey waste which originated from a brachytherapy insert prior to disposal; and (3) the improper disposal of the cesium-137 source. A fourth violation, which is set forth in Section II of the Notice, involves the failure by the Chief Radiation Oncology Technologist to wear the required ring badge while using these radioactive sources.

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

With respect to the violations set forth in Section I of the Notice, the disposal apparently occurred when the Chief Technologist retrieved from the storage area a nylon insert containing four cesium-137 sources in preparation for a gynecological implant for a patient. The Chief Technologist had trouble removing the sources so she cut the insert containing the sources and the plastic stopper that held them in place. The Chief Technologist retrieved three of the four smaller sources and used them in preparing the new gynecological implant. However, a 53 millicurie cesium-137 source (which was the same color as the stopper material and which was not needed for the next implant) was apparently inadvertently discarded with the nylon debris that was placed in the normal trash.

The NRC is concerned that an adequate inventory was not performed to ensure proper control of the source, and that an appropriate survey of the nylon debris was not performed prior to disposal. If an adequate inventory and/or survey had been performed, your staff likely would have detected the presence of the material prior to its disposal. These violations demonstrate the importance of (1) appropriate control and oversight of licensed material to prevent the improper disposal of radioactive material; and (2) aggressive management oversight of the radiation safety program to ensure that all aspects of the program are carried out in conformance with regulatory requirements and license conditions. To emphasize the importance of such control, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $3,125 for the violations set forth in Section I of the Notice.

Since the amount of material disposed of was significant and could have been a potential threat to public health and safety, the violation involving the improper disposal would normally be classified individually as a Severity Level III Violation. However, the other violations set forth in Section I of the Notice were causal factors leading to the improper disposal and represent a significant lack of attention to the oversight and control of your radiation safety and radioactive material control program. Therefore, in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, (Enforcement Policy) (1989), the violations set forth in Section I of the Notice have been classified in the aggregate as a Severity Level III problem.

The base civil penalty for a Severity Level III violation or problem is $2,500. The escalation and mitigation factors set forth in the Enforcement Policy were considered and, on balance, the base civil penalty amount has been increased by 25% because: (1) the loss was identified by one of your Medical Physicists prior to the next scheduled inventory, and was promptly reported to the NRC, and therefore, 25% mitigation on this factor was considered warranted (full 50% mitigation based on this factor was inappropriate because another Medical Physicist had an opportunity to detect the loss on the previous day, but did not do so); (2) your corrective actions, as described at the

enforcement conference, although acceptable, were not considered prompt and comprehensive (since diligent search measures were not promptly initiated, and the actions did not include a description of improved oversight of the program to assure its effectiveness) and therefore, no adjustment on this factor is warranted; and (3) your past performance, which included a total of six violations during the past two inspections in 1989 and 1986, including similar violations of survey requirements, provides a basis for 50% increase in the civil penalty amount. The other escalation and mitigation factors in the Enforcement Policy were considered and no further adjustment was deemed appropriate.

The violation set forth in Section II of the Notice has been classified at Severity Level IV.

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

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

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

Sincerely,

William T. Russell
Regional Administrator

Enclosure: Notice of Violation and Proposed
Imposition of Civil Penalty

cc w/encl:
Public Document Room
Nuclear Safety Information Center (NSIC)
Commonwealth of Pennsylvania

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Thomas Jefferson University
Philadelphia, Pennsylvania

Docket No. 030-02941
License No. 37-00148-06
EA 90-013

During an NRC inspection conducted at the licensee's facility in Philadelphia, Pennsylvania, on December 15, 1989 and January 9, 1990, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, (Enforcement Policy) (1989), the Nuclear Regulatory Commission 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 violations and associated civil penalty are set forth below:

I. VIOLATIONS ASSESSED A CIVIL PENALTY

A. 10 CFR 35.406(a) requires that licensees return brachytherapy sources to the storage area promptly after removing them from a patient, and count the number returned to ensure that all sources taken from the storage area have been returned.

Contrary to the above, on October 5, 1989, brachytherapy sources were returned to the storage area after they were removed from a patient, but the sources returned were not counted in the storage area to ensure that all had been returned.

B. 10 CFR 20.201(b) requires that each licensee make such surveys as (1) may be necessary to comply with the regulations in Part 20, and (2) are reasonable under the circumstances to evaluate the extent of radiation hazards that may be present. As defined in 10 CFR 20.201(a), "survey" means an evaluation of the radiation hazards incident to the production, use, release, disposal, or presence of radioactive materials or other sources of radiation under a specific set of conditions.

Contrary to the above, on October 19, 1989, necessary and reasonable surveys were not made to assure compliance with 10 CFR 20.301, which describes authorized means of disposing of licensed material contained in waste. Specifically, surveys were not conducted on brachytherapy waste and a waste receptacle in a room adjacent to the brachytherapy source storage area prior to disposal as non-radioactive waste.

C. 10 CFR 20.301 requires that no licensee dispose of licensed material except by transfer to an authorized recipient or as authorized in the regulations in Part 20 or Part 61.

Contrary to the above, at some time prior to December 14, 1989, a 53 millicurie cesium-137 brachytherapy source was disposed of by a method not authorized by the regulations in Part 20 or Part 61 in that it is unaccounted for and was most likely placed into the normal trash, which was sent to a landfill in Pottstown, Pennsylvania for burial.

These violations have been categorized in the aggregate as a Severity Level III problem (Supplements IV and VI).

Cumulative Civil Penalty - $3,125 (assessed equally among the 3 violations)

II. VIOLATION NOT ASSESSED A CIVIL PENALTY

10 CFR 35.21(a) requires that the licensee appoint a Radiation Safety Officer responsible for implementing the radiation safety program. The licensee, through the Radiation Safety Officer, is required to ensure that radiation safety activities are being performed in accordance with approved procedures.

The licensee's procedures for using byproduct material safely are described in the application dated December 21, 1987 and approved by License Condition 23. One of these procedures, entitled, "Instructions for Brachytherapy Hot Room Personnel," Item 5, requires, in part, that ring badges be worn by personnel working in the area as instructed by the Radiation Safety Officer.

Contrary to the above, on October 19, 1989, the Chief Radiation Oncology Technologist was working in the brachytherapy "Hot Room" using cesium-137 sources without wearing a ring badge as instructed by the Radiation Safety Officer.

This is a Severity Level IV Violation (Supplement VI).

Pursuant to the provisions of 10 CFR 2.201, Thomas Jefferson University (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. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response

time for good cause shown. Under the authority of Section 182 of the Atomic Energy Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

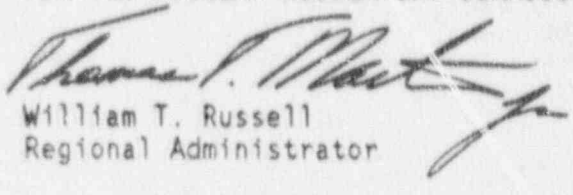
Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, 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 violations listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, such answer may request remission or mitigation of the penalty.

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

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

The response to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region I, 475 Allendale Road, King of Prussia, Pennsylvania 19406.

FOR THE NUCLEAR REGULATORY COMMISSION



William T. Russell
Regional Administrator

Dated at King of Prussia, Pennsylvania
this 13 day of March 1990

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

JUL 0 9 1990

Docket No. 030-02941
License No. 37-00148-06
EA 90-013

Thomas Jefferson University
ATTN: Thomas J. Lewis
Executive Director and
Chief Operating Officer
Suite 401
Edison Building
130 South Ninth Street
Philadelphia, Pennsylvania 19107

Gentlemen:

Subject: ORDER IMPOSING A CIVIL MONETARY PENALTY - $3,125

This letter refers to your two undated letters received by NRC Region I on April 13, 1990, in response to the Notice of Violation and Proposed Imposition of Civil Penalty (Notice) sent to you by our letter dated March 13, 1990. Our letter and Notice described violations that occurred between October 1989 and December 14, 1989 and that were reviewed and/or identified during an NRC inspection conducted on December 15, 1989 and January 9, 1990. The violations involved improper disposal of a 53 millicurie cesium-137 brachytherapy source, as well as failures to perform adequate inventories and surveys which could have prevented the improper disposal. To emphasize the need for improved control and oversight of licensed material and aggressive management oversight of all aspects of the radiation safety program, a civil monetary penalty of $3,125 was proposed.

In your response to the Notice, you denied Violations I.A and I.B and requested that the civil penalty be mitigated, for the reasons described in your response. After careful consideration of your response, we have concluded, for the reasons given in the Appendix attached to the enclosed Order Imposing a Civil Monetary Penalty, that the violations did occur as stated in the Notice, and that mitigation of the civil penalty is inappropriate. Accordingly, we hereby serve the enclosed Order on Thomas Jefferson University imposing a civil monetary penalty in the amount of $3,125. We will review the effectiveness of your corrective actions during a subsequent inspection.

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

Sincerely,

Hugh L. Thompson, Jr.,
Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support

Enclosures:
1. Order Imposing Civil Monetary Penalty
2. Appendix - Evaluation and Conclusion

cc w/encls:
Public Document Room (PDR)
Nuclear Safety Information Center (NSIC)
Commonwealth of Pennsylvania

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

UNITED STATES
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	Docket No. 030-02941
Thomas Jefferson University	)	License No. 37-00148-06
Philadelphia, Pennsylvania	)	EA 90-013

ORDER IMPOSING A CIVIL MONETARY PENALTY

I

Thomas Jefferson University (licensee) is the holder of Byproduct Material License No. 37-00148-06 issued by the Nuclear Regulatory Commission (Commission or NRC) which authorizes the licensee to possess and use various licensed radioactive materials for purposes of medical research, diagnosis and therapy in accordance with the conditions specified therein. The license was issued on March 15, 1957, was most recently renewed on April 14, 1989 and is due to expire on April 30, 1994.

II

An NRC safety inspection of the licensee's activities under the license was conducted at the licensee's facility on December 15, 1989 and January 9, 1990. The results of this inspection indicated that the licensee had not conducted its activities in full compliance with NRC requirements. A written Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was served upon the licensee by letter dated March 13, 1990. The Notice stated the nature of the violations, the provisions of the NRC's requirements that the licensee had violated, and the amount of the civil penalty proposed for the violations. The licensee responded to the Notice by two undated letters received by the NRC Region I Office on April 13, 1990. In its response, the licensee denied Violations A and B in Section I of the Notice, and also requested mitigation of the proposed civil penalty.

Upon consideration of the licensee's responses and the statements of fact, explanation, and argument for mitigation contained therein, the NRC Staff has determined, as set forth in the Appendix to this Order, that the violations occurred as stated in the Notice, and that the penalty proposed for the violations designated in the Notice should be imposed.

III

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 CFR 2.205, IT IS HEREBY ORDERED THAT:

The licensee pay a civil penalty in the amount of $3,125 within 30 days of the date of this Order, by check, draft, or money order, payable to the Treasurer of the United States and mailed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555.

IV

The licensee may request a hearing within 30 days of the date of this Order. A request for a hearing shall be clearly marked as a "Request for an Enforcement Hearing" and shall be addressed to the Director, Office of Enforcement, Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington 20555. Copies of the hearing request shall also be sent to the Assistant

General Counsel for Hearings and Enforcement at the same address, and to the Regional Administrator, NRC Region I, 475 Allendale Road, King of Prussia, PA 19406.

If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. If the licensee fails to request a hearing within 30 days of the date of this Order, 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 Attorney General for collection.

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

(a) whether the licensee was in violation of the Commission's requirements as described in Violations I.A and I.B set forth in the Notice referenced in Section II above, which the licensee denied and

(b) whether, on the basis of such violations, and the additional violations set forth in the Notice of Violation, which the licensee admitted, this Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION

Hugh L. Thompson, Jr.
Deputy Executive Director for
Nuclear Materials Safety, Safeguards
and Operation Support

Dated at Rockville, Maryland
this 9th day of July 1990

APPENDIX

EVALUATION AND CONCLUSION

On March 13, 1990, a Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was issued to Thomas Jefferson University, Philadelphia, Pennsylvania, for violations identified during an NRC inspection. The licensee responded to the Notice by two undated letters received by the NRC Region I Office on April 13, 1990. In its response, the licensee denied two of the violations, Violations I.A. and I.B. The licensee also requested mitigation of the civil penalty proposed for the violations in Section I of the Notice. The NRC's evaluation and conclusion regarding the licensee's arguments are as follows:

Restatement of the Violations

I. VIOLATIONS ASSESSED A CIVIL PENALTY

A. 10 CFR 35.406(a) requires that licensees return brachytherapy sources to the storage area promptly after removing them from a patient, and count the number returned to ensure that all sources taken from the storage area have been returned.

Contrary to the above, on October 5, 1989, brachytherapy sources were returned to the storage area after they were removed from a patient, but the sources returned were not counted in the storage area to ensure that all had been returned.

B. 10 CFR 20.201(b) requires that each licensee make such surveys as (1) may be necessary to comply with the regulations in Part 20, and (2) are reasonable under the circumstances to evaluate the extent of radiation hazards that may be present. As defined in 10 CFR 20.201(a), "survey" means an evaluation of the radiation hazards incident to the production, use, release, disposal, or presence of radioactive materials or other sources of radiation under a specific set of conditions.

Contrary to the above, on October 19, 1989, necessary and reasonable surveys were not made to assure compliance with 10 CFR 20.301, which describes authorized means of disposing of licensed material contained in waste. Specifically, surveys were not conducted on brachytherapy waste and a waste receptacle in a room adjacent to the brachytherapy source storage area prior to disposal as non-radioactive waste.

C. 10 CFR 20.301 requires that no licensee dispose of licensed material except by transfer to an authorized recipient or as authorized in the regulations in Part 20 or Part 61.

Contrary to the above, at some time prior to December 14, 1989, a 53 millicurie cesium-137 brachytherapy source was disposed of by a method not authorized by the regulations in Part 20 or Part 61 in that it is unaccounted for and was most likely placed into the normal trash, which was sent to a landfill in Pottstown, Pennsylvania for burial.

These violations have been categorized in the aggregate as a Severity Level III problem (Supplements IV and VI).

Cumulative Civil Penalty - $3,125 (assessed equally among the 3 violations)

II. VIOLATION NOT ASSESSED A CIVIL PENALTY

10 CFR 35.21(a) requires that the licensee appoint a Radiation Safety Officer responsible for implementing the radiation safety program. The licensee, through the Radiation Safety Officer, is required to ensure that radiation safety activities are being performed in accordance with approved procedures.

The licensee's procedures for using byproduct material safely are described in the application dated December 21, 1987 and approved by License Condition 23. One of these procedures, entitled, "Instructions for Brachytherapy Hot Room Personnel," Item 5, requires, in part, that ring badges be worn by personnel working in the area as instructed by the Radiation Safety Officer.

Contrary to the above, on October 19, 1989, the Chief Radiation Oncology Technologist was working in the brachytherapy "Hot Room" using cesium-137 sources without wearing a ring badge as instructed by the Radiation Safety Officer.

This is a Severity Level IV Violation (Supplement VI).

Summary of Licensee Response Denying Violations I.A and I.B

With respect to Violation I.A (failure to count sources upon return to storage), the licensee states that 10 CFR 35.406(a) is clearly intended to ensure that all sources are returned to the storage area and, indirectly, that none of the sources have been left in the patient or patient's room. The licensee asserts that the regulation does not specify that the count of brachytherapy sources must be made in the storage area and does not require that the steps (in the regulation) be done in any sequence. The licensee maintains that the regulation only requires that a count be performed "promptly after removal from a patient". The licensee states that its procedures call for the source count to be performed immediately after removal from the patient to provide additional safeguards against leaving a source in the patient. The licensee further states the sources are then placed in a shielded container and transported to the storage area under the direct observation and control of the physicist, at which time the sources are logged in as returned to storage.

The licensee asserts that these aforementioned procedures were adhered to on October 19, 1989 (the date the licensee speculates the source was lost) and clearly satisfy the intent of the regulation. The licensee argues that since, in the licensee's opinion, the regulation does not specify a temporal sequence or location for the required count of the returned sources, a violation may not have occurred at all. The licensee contends that, in any case, it was the sequence of events after the sources were returned to storage that led to the inadvertent disposal and therefore, the lack of a source count immediately upon return to storage did not contribute to the loss of the source.

With respect to Violation I.B (failure to perform surveys of brachytherapy waste), the licensee states that radioactive waste is not routinely generated in the brachytherapy work/storage area. The licensee also states that the cesium-137 tube sources are discrete, visible sources which, after use in a patient, are separated from the plastic inserts (applicators) comprised of non-radioactive materials. The licensee maintains that this routine procedure is necessarily a visual process, which means that a visual survey is performed during the dismantling of the source/insert arrangement and whenever the non-radioactive debris is picked up for placement into non-radioactive trash receptacles. The licensee asserts that this process is a routine practice at any hospital which performs brachytherapy.

The licensee states that this visual survey was performed by the Chief Technologist on October 19, 1989 and that the Chief Technologist specifically reported that she did not dispose of the source in the trash receptacle at the time. The licensee argues that, although the Chief Technologist may have been mistaken, or some other error was involved resulting in the loss of the source, a visual survey was nonetheless performed at that time which normally would have detected the presence of this "usually readily visible source." However, the licensee admits that "a visual survey could (and apparently did) fail to detect the presence of . . . [the] source." Further, the licensee does recognize that if a monitoring procedure utilizing a radiation detection instrument had been in place to monitor all non-radioactive waste material being removed from the brachytherapy work/storage area, the improper disposal of the source would likely have been detected. However, the licensee argues that this recognition is not equivalent to saying that no reasonable survey was performed at the time.

The licensee contends that the appropriateness of Violation I.B depends on an interpretation of what constitutes a "necessary and reasonable survey" under the regulations. The licensee states such judgments are based on guidance which includes, among other things, standards and practices at similar institutions, NRC regulatory guidance, regulatory review of proposed licensee procedures, and review by NRC inspectors. The licensee argues that if a "meter survey" of all regular trash from a brachytherapy work area is a "necessary and reasonable" survey, such an example should be included in the previously mentioned guidance. The licensee asserts that no example of such monitoring has been found at any similar hospital, nor has there been any reference to such monitoring either in advisory or professional publications,

or in NRC guidance. Further, the licensee states that neither NRC licensing reviews nor previous inspections have noted a lack of reasonable monitoring at the licensee's facility. The licensee concludes that the practice of conducting a visual survey is the prevailing, widespread practice and has historically been shown to be reasonable. Therefore, the licensee asserts that Violation I.B is not appropriate and should be retracted.

NRC Evaluation of Licensee Response

With respect to Violation I.A, the NRC agrees that the licensee's procedure requiring a count of brachytherapy sources "immediately" upon removal from a patient provides a safeguard against leaving a source in a patient. However, the licensee's procedure does not satisfy the requirements set forth in 10 CFR 35.406(a), which states: " Promptly after removing them from a patient, a licensee shall return brachytherapy sources to the storage area, and count the number returned to ensure that all sources taken from the storage area have been returned [emphasis added]." It is clear from this language that, in order to satisfy this regulation, the required source count must be done 1) after the return of the sources to the storage area, and 2) promptly. Contrary to the licensee's arguments, a count of the sources upon removing them from the patient but before returning them to the storage area clearly does not satisfy this requirement. This count of the sources upon their return to the storage room is required to ensure that, if a source is inadvertently lost during transit from the patient treatment room to the storage area or otherwise, the loss will be quickly identified and an immediate search undertaken to recover the source. Rapid identification of the loss and execution of search procedures are particularly important since the loss of a source during transit is likely to place the source in an unrestricted area (including hallways, elevators etc.) where numerous personnel could be unknowingly exposed to the source. Therefore, the NRC does not accept the licensee's assertion that the count of the sources after their removal from the patient satisfies the intent of 10 CFR 35.406(a).

The licensee admits that the sources were not counted promptly upon their return to the storage area, but asserts that this did not contribute to the loss of the source, and contests the NRC's description of this violation as being "contributory." The licensee appears to be referring to the explanation in the cover letter transmitting the Notice of Violation that the violations set forth in Section I of the Notice, other than the violation involving improper disposal of the source, were causal factors leading to the improper disposal and represent a significant lack of attention to the oversight and control of the licensee's radiation safety and radioactive material control program, and that therefore, the violations in Section I have been classified in the aggregate as a Severity Level III problem. Such aggregation is appropriate in order to focus the licensee's attention on the overall problem concerning its control of radioactive material. Moreover, as indicated in the cover letter and in accordance with Supplement IV of the Enforcement Policy, the improper disposal of licensed material in and of itself is classified as a Severity Level III problem that would have warranted the same proposed civil penalty which was proposed for the aggregated violations. Therefore, this argument by the licensee does not provide a basis for mitigation of the proposed civil penalty.

With respect to Violation I.B (failure to perform adequate surveys), the NRC agrees with the licensee's assertion that in some circumstances, a visual survey of the cesium-137 tube sources could be an adequate means to assure compliance with 10 CFR 20.301, such as if the sources are large enough to visualize and separate from the non-radioactive material. In this case, however, because the radioactive source, which was color-coded white, was located along with other radioactive sources on white toweling that also contained white nylon debris, NRC maintains that visual surveys conducted for this specific situation were not reasonable under the circumstances.

A radiological survey, using an appropriate radiation detection instrument, was particularly important in this case since potentially significant health and safety consequences could result from the loss of a 53 millicurie cesium-137 source in an unrestricted area, or from an otherwise improper disposal (such as disposal in a commercial landfill). In this case, performing such a survey was necessary and reasonable to assure compliance with 20.301 and, as acknowledged by the licensee, would likely have prevented the inadvertent disposal of the radioactive material in the normal trash. Therefore, the NRC concludes that Violation I.B occurred as stated.

Summary of Licensee Response Requesting Mitigation of the Civil Penalty

The licensee contests the NRC's conclusion that the licensee's corrective actions were not prompt and comprehensive because diligent search measures were not promptly initiated and corrective actions did not include a description of improved program oversight. The licensee states that diligent search procedures were begun immediately upon discovery of the missing source. The licensee states that within 24 hours of the loss, an extensive search of the facility had been conducted and personnel had been interviewed in an effort to establish the circumstances of the loss. The licensee argues that within 48 hours of the loss, additional surveys/searches were conducted of all areas where implants are used, as well as searches of the transport routes from the brachytherapy storage area to patient floors where implants are used. The licensee asserts that key personnel were alerted with instructions to inform their respective staffs about the loss. The licensee also states that when its investigation indicated the source may have been disposed of in the normal trash, licensee personnel made efforts (although unsuccessful) to contact the landfill owners in order to survey the landfill.

The licensee also asserts that its corrective actions were prompt and focused on initiating those steps necessary to prevent recurrence, including, among others, changing the source color code, revising internal procedures related to the return of sources to storage, and instituting a meter survey requirement for monitoring all trash originating in the brachytherapy work/storage area. The licensee states that these, as well as other corrective actions, were instituted before any subsequent brachytherapy treatment was performed. The licensee also argues that, in weighing the comprehensiveness of the licensee's corrective actions, the NRC has not considered the licensee's corrective actions to prevent recurrence of these violations.

The licensee states that its personnel did not discuss their particular management oversight procedures at the enforcement conference because its radiation safety program has historically been judged effective (based on previous NRC inspections) and a further description of its long standing procedures related to the oversight of its program at the enforcement conference appeared to be unwarranted, especially since the focus of the conference was specific to the loss of the cesium-137 source. The licensee also notes that subsequent to the enforcement conference, as part of its corrective action, it has taken under consideration the use of an independent consultant to review various aspects of the radiation safety program.

With respect to its past performance, the licensee argues that escalation based on this factor is not warranted because, for the reasons set forth previously, the citation for the "failure to survey" (Violation I.B) is not warranted. Alternatively, the licensee states that previous violations at this facility are similar to Violation I.B only in that they fall into the broad category of survey/monitoring. The licensee maintains that, based on the nature of the previous violations (which involved failure to survey patient rooms contiguous with a radiopharmaceutical therapy patient), compared with the specifics of this case, it is inappropriate to escalate the civil penalty for such dissimilar occurrences. Further, the licensee argues that it is inappropriate to utilize prior violations as a basis to escalate a civil penalty when the corrective actions for those earlier violations would have no impact on preventing the later violations that resulted in the civil penalty.

The licensee concludes that the application of this factor to escalate the civil penalty in this case implies that even if a licensee has properly responded to a violation and has instituted proper corrective actions, the NRC may still escalate a subsequent penalty even if the previous violations are only remotely related.

NRC Evaluation of Licensee Response

The NRC has considered the licensee's argument that the licensee's corrective actions were prompt and comprehensive and that the civil penalty should be mitigated based on this factor. In this case, although the licensee initiated a search for the source as soon as the licensee learned that it was missing on December 14, 1989, the initial search was limited to the Radiation Oncology area, including those areas immediately adjacent to the patient rooms used for housing brachytherapy patients and the source storage room. However, when these immediate searches failed to recover the source, expanded searches outside of the Radiation Oncology area were not initiated until the need for such searches was suggested by NRC inspectors at the facility during an NRC inspection on December 15, 1989 and re-emphasized during a telephone discussion between NRC Regional Management and the licensee on December 18, 1989. Further, although key personnel within the Radiation Oncology Department were aware that the source was missing, prompt efforts were not made by the licensee to interview personnel in other departments (such as security, housekeeping and maintenance) in an attempt to locate the source, until such interviews were prompted by the NRC. In addition, until such actions were suggested by the NRC on three occasions between December 15-19, 1989, no written information was provided to any of the hospital departments outside of the Radiation Oncology Department to describe the event and provide

a description of the source and its potential hazards. The licensee's written notice to the hospital staff describing the event and the associated hazards was not issued until December 20, 1989 (six days after the initial determination that the source was missing.)

In the NRC's view, prompt and full notification to the staffs of the various departments within the hospital should have been undertaken immediately after the source was determined to be missing. At the time the licensee first learned that the source was missing, there was reason to believe that the source was still located within the facility and thus, posed a potential threat to unknowing personnel. In addition, after the licensee's investigation indicated a possibility that the source may have been disposed of in the normal trash, and thus posed a potential threat to unknowing members of the public, aggressive efforts were not undertaken to promptly contact the trash hauler and the landfill operator in an attempt to track the source. Specifically, although the licensee's investigation indicated on December 15, 1989 that the source may have been disposed of in the normal trash, the landfill operator was not questioned as to the probable disposition of the source until December 18, 1989.

The licensee contends that there are valid reasons why it did not discuss, at the Enforcement Conference, corrective action to improve its program oversight. Nevertheless, the licensee did have ample opportunity to do so following receipt of the Notice of Violation, and has provided some additional information in its subsequent letters requesting that the civil penalty be mitigated. Upon consideration of all information currently available, the NRC acknowledges that the licensee's stated actions (including the proposed installation of radiation monitors in the trash loading area and brachytherapy work/storage area, as well as the proposal to engage an independent consultant to review the radiation safety program), if fully implemented, will be sufficiently comprehensive to prevent recurrence of similar violations. However, since corrective actions are always required whenever a regulatory violation occurs, mitigation of the civil penalty on this factor is justified only when the corrective actions are extensive. Specific considerations by the NRC when evaluating this factor include the timeliness of the corrective actions, the degree of licensee initiative, and comprehensiveness. In this case, for the reasons set forth above, the licensee's initial actions to locate and recover the source were not considered prompt and extensive, and many of the corrective actions were implemented only after prompting by NRC personnel. Thus the degree of licensee initiative was limited. Therefore, although the licensee's actions to prevent recurrence, if implemented, are considered sufficiently comprehensive, no mitigation based on this factor is warranted.

The NRC has also considered the licensee's argument that the civil penalty should not be escalated based on its past performance. However, the NRC maintains that escalation of the civil penalty on this factor is warranted because the previous violations associated with the failure to perform surveys reflect a continuing programmatic failure to evaluate the radiation hazards associated with the handling of radioactive material. In addition, when evaluating a licensee's past performance, the NRC considers not only the licensee's performance in the specific area of concern, but its overall regulatory performance as well. Therefore, the fact that the previous survey violations are not precisely the same as the survey violations associated with this incident does not preclude the NRC from escalating the penalty, as has been done in this case.

NRC Conclusion

For the reasons set forth above, the NRC has concluded that the violations occurred as stated in the Notice of Violation and that mitigation or remission of the civil penalty is not warranted. Therefore, the NRC concludes that a civil penalty in the amount of $3,125 should be imposed for the violations set forth in the Notice.

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

AUG 03 1990

Docket No. 030-20298
License No. 35-23137-01
EA 90-131

Petro Data, Inc.
ATTN: Harold Haught
President
Post Office Box 337
Hominy, Oklahoma 74035

Gentlemen:

SUBJECT: ORDER MODIFYING LICENSE (EFFECTIVE IMMEDIATELY)

Enclosed is an Order Modifying License (Effective Immediately), requiring that O. C. LaMascus and J. G. LaMascus, who are employed by your company, be restricted from performing licensed activities. The Order is based on the findings of a recent NRC investigation into the activities of these two individuals since the expiration of Materials License No. 35-19797-01, issued to Saturn Wireline Services, Inc., on June 30, 1986. The assets of Saturn Wireline Services were subsequently purchased by Condrin Oil Company, which formed Saturn Services, Inc. During this investigation it was determined that both individuals performed activities involving licensed material without a license, that both individuals provided false information to the NRC investigator concerning whether individuals at Condrin Oil Company had been informed that Saturn Services, Inc. needed a license to perform well logging activities, and that O. C. LaMascus provided false information to the NRC when he stated that licensed material had been placed in storage and was not being used.

The issuance of this Order does not preclude the NRC from considering and taking additional enforcement action for the violations that led to the issuance of this Order. NRC's inquiry into this matter is continuing.

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's Public Document Room.

Sincerely,

Hugh L. Thompson, Jr.
Deputy Executive Director
for Nuclear Materials Safety, Safeguards,
and Operations Support

cc: See Next Page

cc: O. C. LaMascus
303 Cedar Lane
Hominy, Oklahoma 74035

J. G. LaMascus
303 Cedar Lane
Hominy, Oklahoma 74035

Dale McHard, Chief
Consumer Protection Service
Oklahoma Department of Health
Post Office Box 53551
Oklahoma City, Oklahoma 73152

UNITED STATES
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	Docket No. 030-20298
PETRO DATA, INC.	)	License No. 35-23137-01
Hominy, Oklahoma	)	EA 90-131

ORDER MODIFYING LICENSE
(EFFECTIVE IMMEDIATELY)

I

Petro Data, Inc. (Licensee) is the current holder of Materials License No. 35-23137-01 issued by the Nuclear Regulatory Commission ("NRC" or "Commission") pursuant to 10 CFR Part 30 which authorizes the licensee, in part, to possess sealed sources of radioactive Americium-241 and Cesium-137 for use in oil and gas well logging, and Iodine-131 and Iridium-192 in any form for use in oil and gas well tracer studies. The license had initially been issued to B&H Wireline and was amended on August 3, 1990 to transfer the license from B & H Wireline Services to Petro Data, Inc. The license expired on September 30, 1989, and is under timely renewal pursuant to 10 CFR 30.37(b).

II

Petro Data, Inc. currently employs two individuals, Mr. O. C. LaMascus as Treasurer and Secretary and Mr. J. G. LaMascus as a well logging supervisor, who, as employees of other companies, were previously involved with licensed activities, as discussed below.

Mr. O. C. LaMascus was formerly president of Saturn Wireline Services, Inc., an NRC licensee. On August 29, 1986, two months following the expiration of Saturn Wireline Services, Inc.'s (SWI) NRC license, License No. 35-19797-01, a Notice of Violation (Notice) was issued to SWI for possession of NRC-licensed material without a valid NRC license. This correspondence, which was mailed to

Mr. O. C. LaMascus, then the president of SWI, stated that SWI was to keep licensed material in secure storage and that no additional byproduct material was to be purchased pending SWI's obtaining a valid license. In an undated response received by NRC Region IV on September 22, 1986, Mr. O. C. LaMascus, on behalf of SWI, replied that SWI's radioactive sources were in secure storage.

In correspondence received by NRC Region IV on September 3, 1986, SWI applied for a new NRC license to possess and use the same sealed sources possessed under the authority of the company's expired NRC license. A September 30, 1986 letter from the NRC's Region IV office to SWI reiterated NRC's position that SWI's radioactive material must remain in secure storage until a valid license was obtained.

On November 13, 1986, the NRC's Region IV office wrote to SWI and asked it to provide additional information in order for the NRC to continue processing the license application. On January 13, 1987, Mr. John Condrin, owner of Condrin Oil Company, incorporated Saturn Services, Inc. (SSI) and subsequently purchased the assets of SWI, including the licensed material, without possessing or applying for a license. On February 20, 1987, NRC's License Fee Management Branch in Bethesda, Maryland, unaware of the purchase of SWI by Mr. John Condrin and the change of the company name to SSI, wrote to SWI and informed it that until an outstanding inspection fee of $370 plus interest of $37.12 was paid, the NRC was discontinuing its consideration of the application for a new license. This letter also informed SWI that it was in violation of 10 CFR 30.36 for

possessing byproduct material without a valid NRC license. Neither SWI nor SSI responded to the February 20, 1987 letter. Based on a telephone conversation with Mr. O. C. LaMascus on August 4, 1987, NRC Region IV issued a Confirmation of Action Letter (CAL) on the same date to SWI (addressed to Mr. O. C. LaMascus) which confirmed SWI's commitments to (1) pay the outstanding inspection fee and submit a revised license application within 10 days of his receipt of the letter, and (2) maintain radioactive materials in SWI possession in locked storage until SWI obtained a valid license. The NRC received no response to the February 20, 1987 letter. No information as to SWI's purchase by Mr. John Condrin was provided to NRC at that time.

On January 10, 1989, an NRC Region IV inspector visited SWI's facility at 220 East Main Street in Hominy, Oklahoma, and determined that (1) one of SWI's radioactive sources was not in locked storage and in fact was in use on that date, (2) SWI/SSI had been using its radioactive sources regularly in the conduct of gas and oil well logging without a valid NRC license to possess and use such materials and in violation of SWI's previous commitments made by Mr. O. C. LaMascus, and (3) SWI had been purchased by Mr. John Condrin and was performing licensed activities as SSI, a new corporation, without notification to and approval by the NRC as is required. The inspection also disclosed several other apparent violations of NRC requirements associated with SWI's safe use of these sources. On January 11, 1989, Mr. O. C. LaMascus acknowledged that SWI/SSI had been using these materials without a license and agreed to transfer to an authorized recipient all licensable material, which was confirmed in a CAL issued on that date. The transfer of three sealed sources from SWI/SSI

to B & H Wireline Services, 300 E. Main Street, Hominy, Oklahoma, an NRC licensee authorized to possess these materials, was carried out on the same date. On January 13, 1989, Mr. John Condrin, President of SSI, committed that SSI would continue not to use radioactive material until notified otherwise by the NRC. This commitment was confirmed in a CAL issued on the same date.

On February 8, 1989, the NRC issued an Order, immediately effective, to SSI that required that SSI certify that all regulated material has been transferred to an authorized recipient and that no such material remains in SSI's possession.

On January 25, 1989, the NRC initiated an investigation into the activities of Mr. O. C. LaMascus and Mr. J. G. LaMascus involving licensed material. During the investigation, interviews were conducted with both individuals. During the investigation it was established that Mr. J. G. LaMascus had been employed by SWI from 1981 to the fall of 1986, and had worked as a logging engineer trainee. After the sale to SSI, Mr. J. G. LaMascus was hired by SSI as a well logging trainee and six months later was working alone as a well logger. During this investigation it was (1) confirmed that both of these individuals knowingly performed activities involving licensed material without a license as owner and employee, respectively, of SWI after SWI's license had expired and as employees of SSI; (2) determined that both individuals provided false information to the NRC investigator concerning which individuals, if any, at Condrin Oil Company had been informed that Saturn Services Inc. needed a license to perform well logging activities; and (3) confirmed that Mr. O. C. LaMascus provided false information

to the NRC when he stated verbally and later confirmed in writing that licensed material in SWI's possession had been placed in storage and was not being used.

III

Based on the results of NRC inspections and investigations, the NRC has concluded that Mr. O. C. LaMascus and Mr. J. G. LaMascus made false statements to an NRC investigator, both individuals knowingly performed activities involving licensed material without a license, and Mr. O. C. LaMascus provided false information to the NRC verbally and in writing regarding whether the licensed material had been placed in storage and was not being used.

The conduct described above of these two individuals cannot be tolerated. The public health and safety require that all persons engaged in licensed activities provide the NRC with accurate and complete information. Based on the information provided above and the recognition that Mr. O. C. LaMascus and Mr. J. G. LaMascus are presently employed by Petro Data, Inc., I lack reasonable assurance that licensed activities conducted by or supervised by these two individuals would be conducted in accordance with NRC requirements. Accordingly, I have concluded that it is necessary that Mr. O. C. LaMascus and Mr. J. G. LaMascus be prohibited from licensed activities. Furthermore, pursuant to 10 CFR 2.201(c), 2.202(f), and 2.204, I find that the public health, safety, and interest require that this Order be immediately effective and that no prior notice is required.

IV

Accordingly, pursuant to sections 81, 161b, 161c, 161i, 161o, 182, and 186 of the Atomic Energy Act of 1954, as amended, and 10 CFR 2.204 and 10 CFR Part 30, IT IS HEREBY ORDERED, EFFECTIVE IMMEDIATELY, THAT LICENSE NO. 35-23137-01 IS MODIFIED AS FOLLOWS:

1. O. C. LaMascus is prohibited from performing or supervising licensed activities.

2. J. G. LaMascus is prohibited from performing or supervising licensed activities.

Petro Data, Inc., shall certify under oath or affirmation within 10 days of the effective date of this order that O. C. LaMascus and J. G. LaMascus will not perform or supervise licensed activities. The certification shall be sent to the Regional Administrator, USNRC Region IV, 611 Ryan Plaza Drive, Suite 1000, Arlington, Texas 76011.

The Regional Administrator, Region IV, may, in writing, relax or rescind any of the above conditions upon demonstration by the Licensee of good cause.

V

The licensee, Mr. O. C. LaMascus, Mr. J. G. LaMascus, or any other person adversely affected by this Order may submit an answer to this Order within twenty days of the date of this Order. The answer shall set forth the matters

of fact and law on which the Licensee or other person adversely affected relies and the reasons as to why the Order should not have been issued. An answer filed within twenty days of the date of this Order may also request a hearing. Any answer or request for a hearing shall be submitted to the Secretary, U.S. Nuclear Regulatory Commission ATTN: Chief, Docketing and Servicing Section, Washington, DC 20555. Copies of the hearing request also shall be sent to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555, to the Assistant General Counsel for Hearings and Enforcement at the same address, and to the Regional Administrator, Region IV, 611 Ryan Plaza Drive, Suite 1000, Arlington, Texas 76011. If a person other than the Licensee, Mr. O. C. LaMascus, or Mr. J. G. LaMascus, 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 a hearing is requested by the Licensee, Mr. O. C. LaMascus, Mr. J. G. LaMascus, or 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 Order should be sustained.

Upon the Licensee's, Mr. O. C. LaMascus's, and Mr. J. G. LaMascus's consent to the provisions set forth in Section IV of this Order, or upon their failure to file an answer within the specified time, and in the absence of any request

for hearing, the provisions specified in Section IV above shall be final without further order or proceedings. AN ANSWER OR A REQUEST FOR HEARING SHALL NOT STAY THE IMMEDIATE EFFECTIVENESS OF THIS ORDER.

FOR THE NUCLEAR REGULATORY COMMISSION

Hugh L. Thompson, Jr.
Deputy Executive Director
for Nuclear Materials Safety, Safeguards,
and Operations Support

Dated at Rockville, Maryland
this 24 day of August, 1990

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

JUL 02 1990

Docket No. 030-19861
License No. 47-21163-01
EA 90-67

Potomac Valley Hospital
ATTN: Mr. Harry Schweinberg
Administrator
South Mineral Street
Keyser, West Virginia 26726

Gentlemen:

SUBJECT: DEMAND FOR INFORMATION

As you know, there has been an NRC investigation involving the fabrication of Radiation Safety Committee (RSC) meeting minutes at Potomac Valley Hospital, Grant Memorial Hospital, and Hampshire Memorial Hospital. Activities conducted at all three institutions are now authorized under NRC License No. 47-21163-01, issued to Potomac Valley Hospital. Dr. Buenaventura Orbeta is currently the Radiation Safety Officer for the activities conducted under that license. By letter dated November 14, 1989, you requested that the license be amended to add Dr. Karl Reckenthaler as an authorized user.

The synopsis from the investigation report is enclosed for your review. Based on facts which were developed during the investigation and which are more fully described in the enclosed Demand for Information, the NRC is concerned that: (1) minutes of RSC meetings were fabricated for meetings that were not actually held, (2) individuals were given insufficient time and resources to exercise their responsibilities under the NRC license, (3) Drs. Orbeta and Reckenthaler failed to exercise their responsibility as Radiation Safety Officers to assure that activities were conducted in accordance with NRC regulatory requirements, (4) Dr. Reckenthaler, in his position as RSO, exhibited an apparent callous attitude toward compliance with a known NRC regulatory requirement and lack of action in correcting the situation involving falsification of Radiation Safety Committee meeting minutes, and (5) there was a lack of management oversight and involvement which allowed the failure to conduct the required RSC meetings and the fabrication of minutes of RSC meetings to go unchecked from 1983 until 1989.

Prior to taking further action concerning these matters, including your amendment request to include Dr. Reckenthaler as an authorized user, and in order to have the appropriate assurances that there will be compliance with regulatory requirements, the enclosed DEMAND FOR INFORMATION is being served herewith.

Upon receipt of the information requested, we will continue our review of this matter.

Sincerely,

Hugh L. Thompson, Jr.
Deputy Executive Director for Nuclear
Materials Safety, Safeguards,
and Operations Support

Enclosures:
1. Demand for Information
2. Investigation Report Synopsis
No. 2-89-012

UNITED STATES
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	Docket No. 030-19861
POTOMAC VALLEY HOSPITAL	)	License No. 47-21163-01
Keyser, West Virginia	)	EA 90-67

DEMAND FOR INFORMATION

I

Potomac Valley Hospital (the licensee) is the holder of Byproduct Material License No. 47-21163-01 issued by the Nuclear Regulatory Commission (NRC or Commission) on November 8, 1982 pursuant to 10 CFR Part 30 and Part 35. The license authorizes possession and use of diagnostic radiopharmaceuticals in the operation of a nuclear medicine service. The license, originally issued on November 8, 1982, was renewed on April 14, 1988, and is due to expire on April 30, 1993.

II

An NRC safety inspection of the licensee's activities under the license was conducted at the licensee's facility on September 6, 1989. During that inspection, the inspector was informed that meetings of the Radiation Safety Committee (RSC) had not been held between January 27, 1983 and March 16, 1987 and that minutes of the RSC meetings shown to the inspector had been fabricated with the consent of the Hospital Administrator. The individual providing that information also indicated that he had fabricated minutes for RSC meetings, which were not actually held, while he was employed as a nuclear medicine technologist at Grant Memorial Hospital, Petersburg, WV, and Hampshire Memorial Hospital, Romney, WV. In response to the inspection

findings, an investigation by the NRC Office of Investigations was initiated in September 1989. The investigation determined that the minutes of the RSC meetings at each of the hospitals had been intentionally fabricated. The investigation also determined that the Radiation Safety Officers at each of the hospitals knew, or should have known, that the minutes were being fabricated.

Dr. Buenaventura Orbeta is currently named as the Radiation Safety Officer (RSO) on Byproduct Material License No. 47-21163-01. Dr. Orbeta was also the RSO during the time that RSC meeting minutes were fabricated for Potomac Valley Hospital. During the NRC investigation, Dr. Orbeta stated that, at the time of the fabrications, he could not meet all of his professional responsibilities and that RSO functions were delegated to an "Acting RSO." Dr. Orbeta admitted that he was aware of the requirement to hold RSC meetings, and that the individual designated "Acting RSO" always had an excuse for not having those meetings. Thus, Dr. Orbeta knew about the requirement to hold meetings but failed to exercise his authority and responsibility as RSO to assure that the meetings were held.

In a letter dated November 14, 1989, Potomac Valley Hospital requested that Dr. Karl J. Reckenthaler be added to its license as an authorized user. Dr. Reckenthaler was the Radiation Safety Officer at Grant Memorial Hospital during the time the RSC meeting minutes were being fabricated. During the NRC Investigation, Dr. Reckenthaler admitted that he knew the RSC meetings were required by the Code of Federal Regulations (CFR), but considered the requirement to be "just another ridiculous government regulation."

Dr. Reckenthaler also stated that he knew minutes of the RSC meetings were required, and that the individual who fabricated the minutes knew that the minutes were required, and that that is why the minutes were fabricated. In addition, Dr. Reckenthaler stated that there was nothing to discuss at such meetings and that the meetings were essentially unnecessary.

III

The NRC relies on the integrity of licensees and their employees to perform licensed activities in accordance with regulatory requirements and places great trust in those individuals named as Radiation Safety Officers and authorized users on NRC licenses. Licensee management must allow individuals sufficient time and resources to carry out their responsibilities under the NRC license; and licensee management must accept ultimate responsibility for assuring, by appropriate means, that those responsibilities are carried out. In addition, 10 CFR 30.9 requires that information which is required by statute or by the Commission's regulations, orders, or license conditions to be maintained by the licensee be complete and accurate in all material respects. As such, NRC is concerned that: (1) minutes of RSC meetings were fabricated for meetings that were not actually held, (2) individuals were given insufficient time and resources to exercise their responsibilities under the NRC license, (3) Drs. Orbeta and Reckenthaler failed to exercise their responsibility as Radiation Safety Officers to assure that activities were conducted in accordance with NRC regulatory requirements, (4) Dr. Reckenthaler, in his position as RSO, exhibited an apparent callous attitude toward

compliance with a known NRC regulatory requirement and lack of action in correcting the situation involving falsification of Radiation Safety Committee meeting minutes, and (5) there was a lack of management oversight and involvement which allowed the failure to conduct the required RSC meetings and the fabrication of minutes of RSC meetings to continue from 1983 until 1989.

Accordingly, further information is needed to determine whether the Commission can have reasonable assurance that, in the future, the licensee will conduct its activities in accordance with the Commission's requirements and whether Dr. Reckenthaler should be added to the license as an authorized user.

IV

Therefore, to determine whether the license should be modified, suspended, or revoked, or other enforcement action taken to ensure compliance with NRC regulatory requirements, pursuant to Sections 161c, 161o, 182, and 186 of the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR 30.34(e)(4), the licensee is required to submit within 30 days, to the Regional Administrator, Region II, U.S. Nuclear Regulatory Commission, 101 Marietta Street, NW, Suite 2900, Atlanta, GA 30323, the following information in writing under oath or affirmation:

a. your plans for assuring that information and records required by the NRC are accurate and complete in all material respects;

b. your plans to maintain continued and effective management control over activities authorized by your license;

c. your plans to assure that individuals are given sufficient time and resources to fully execute their responsibilities under your license; and

d. your plans to assure that Drs. Orbeta and Reckenthaler will adhere to NRC requirements and fully execute their responsibilities under the license.

Copies shall also be sent to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, and to the Assistant General Counsel for Enforcement at the same address.

After reviewing your response, the NRC will determine whether further action is necessary to ensure compliance with statutory and regulatory requirements.

FOR THE NUCLEAR REGULATORY COMMISSION

Hugh L. Thompson, Jr.
Deputy Executive Director for Nuclear
Materials Safety, Safeguards,
and Operations Support

Dated at Rockville, Maryland
this 2 day of July 1990

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

AUG 2 0 1990

Docket No. 030-19861
License No. 47-21163-01
EA 90-127

Potomac Valley Hospital
ATTN: Mr. Harry E. Schweinsberg
Administrator
167 South Mineral Street
Keyser, WV 26726

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $6,250
(NRC INVESTIGATION REPORT NO. 2-89-012)

This refers to the Nuclear Regulatory Commission (NRC) inspection conducted on September 6, 1989 and the investigation by the NRC's Office of Investigations (OI) conducted between September 13, 1989 and March 16, 1990. This investigation addressed the willful fabrication of Radiation Safety Committee (RSC) meeting minutes by the contract Nuclear Medical Technologist (NMT) at Potomac Valley Hospital, Keyser, WV; Hampshire Memorial Hospital, Romney, WV; and Grant Memorial Hospital, Petersburg, WV. The synopsis of the investigation was previously provided to you by letter dated July 2, 1990. As a result of this investigation, a significant failure to comply with NRC regulatory requirements was identified, and accordingly, NRC concerns relative to the investigation were discussed in an Enforcement Conference held on July 24, 1990. The letter summarizing this conference was sent to you on August 3, 1990.

The violations described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) involve the failure of your staff to conduct quarterly RSC meetings during the period January 27, 1983 to September 6, 1989. During the period in question, only two such meetings were actually conducted; however, fabricated documents were maintained within your official files that indicated RSC meetings were conducted at the required intervals and those documents were subsequently made available for NRC review. Further, OI determined that the Radiation Safety Officers (RSOs) at Potomac Valley Hospital (prior to April 1988), Hampshire Memorial Hospital, and Grant Memorial Hospital knew, or should have known, 1) that quarterly RSC meetings were required, and 2) that the contract NMT was preparing and maintaining fabricated meeting minutes. Your lack of awareness of license requirements and lack of involvement in managing the daily administrative activities associated with the nuclear medicine program contributed to the occurrence of these problems and the extended period of time that they existed.

The NRC relies on its licensees to prepare and maintain required records that are complete and accurate in all material respects. The ability to rely on the

integrity of individuals involved in licensed activities and the completeness and accuracy of NRC-required records is inherent in the issuance and continuation of an NRC license to conduct activities involving radioactive materials. The failure to conduct quarterly RSC meetings would normally be categorized at Severity Level IV. However, because of the careless disregard for regulatory requirements on the part of the RSO and the deliberate falsification of RSC minutes by the contract NMT, the Severity Level has been increased. Therefore, in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy) 10 CFR Part 2, Appendix C (1990), the violations are classified in the aggregate as a Severity Level III problem.

The staff recognizes that you have initiated actions to ensure that similar violations do not occur in the future. Your response of July 11, 1990, to our Demand for Information dated July 2, 1990, detailed planned actions to address NRC concerns. Those actions include contracting a licensed Nuclear Physicist to visit the facility at least quarterly to inspect and review activities associated with the nuclear medicine department, as well as more management involvement in the oversight of the program to ensure that regulatory requirements and department personnel responsibilities are met.

To emphasize the importance of aggressive management involvement in your licensed program to ensure that NRC requirements are met and that required records are accurate and complete, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $6,250 for the Severity Level III problem. The base value of a civil penalty for a Severity Level III problem is $2,500.

The escalation and mitigation factors in the Enforcement Policy were considered. The base civil penalty was escalated by 50 percent because the violations were identified by the NRC. Neither escalation nor mitigation is considered appropriate for your corrective action to prevent recurrence as those actions, while acceptable, were not particularly prompt or extensive. Although we recognize that your enforcement history as a result of previous inspections has been good, in retrospect, the violations listed in the enclosed Notice have been ongoing since 1983 and therefore, it is inappropriate to mitigate the civil penalty based on past performance. Escalation of 100 percent is considered to be appropriate because of the multiple occurrences of these violations, which, in this case, also incorporates the duration of the problems. Therefore, based on the above, the base civil penalty has been increased by a factor of 150 percent.

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

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.

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

Sincerely,

James L. Milhoan for
Stewart D. Ebneter
Regional Administrator

Enclosure:
Notice of Violation and Proposed
Imposition of Civil Penalty

cc w/encl:
State of West Virginia

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Potomac Valley Hospital
Keyser, WV 26726

Docket No. 030-19861
License No. 47-21163-01
EA 90-127

During an NRC investigation conducted between September 13, 1989 and March 16, 1990, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990), the Nuclear Regulatory Commission 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 violations and associated civil penalty are set forth below:

A. 10 CFR 35.22(a)(2), effective April 1, 1987, requires that the Radiation Safety Committee meet at least quarterly.

Prior to April 1, 1987, Condition 19 of NRC Radioactive Material License No. 47-21163-01 required that licensed radioactive material be possessed and used in accordance with the statements, representations and procedures contained in the license application dated August 31, 1982, and in the correspondence submitted in support of that application.

Item 7, Page 6 of the license application dated August 31, 1982, states that the Medical Isotopes Committee (Radiation Safety Committee) shall meet as often as necessary to conduct its business but not less than once in each calendar quarter.

Contrary to the above, between January 27, 1983 and September 6, 1989, the Radiation Safety Committee did not meet quarterly. Specifically, the Radiation Safety Committee met on only two occasions during this interval.

B. 10 CFR 30.9 requires, in part, that information required by statue or by the Commission's regulations, orders, or license conditions to be maintained by a licensee be complete and accurate in all material respects.

10 CFR 35.22(a)(4) requires that the minutes of each Radiation Safety Committee meeting include the date of the meeting; the members present; the members absent; summary of deliberations and discussions; recommended actions and the numerical results of all ballots; and ALARA program reviews described in 10 CFR 35.20.(c).

Contrary to the above, between February 1, 1988 and September 6, 1989, the licensee's contract Nuclear Medical Technologist prepared documents which were maintained as representing the minutes of quarterly Radiation Safety Committee meetings, when in fact, these meetings were not conducted.

This is a Severity Level III problem (Supplements VI and VII).
Civil Penalty - $6,250

Pursuant to the provisions of 10 CFR 2.201, Potomac Valley Hospital (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 may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalty by letter addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, money order, or electronic transfer payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or the cumulative amount of the civil penalties if more than one civil penalty is proposed, 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 V.B of 10 CFR Part 2, Appendix C (1990), should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

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

The response noted above (Reply to Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region II.

FOR THE NUCLEAR REGULATORY COMMISSION

James L. Milhoan for
Stewart D. Ebneter
Regional Administrator

Dated at Atlanta, Georgia
this 24th day of August 1990

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

March 6, 1990

Docket No. 030-05604
License No. 24-00188-02
EA 90-009

St. Louis Testing
Laboratories, Inc.
ATTN: Frederick W. Wiese
President
2810 Clark Ave.
St. Louis, Missouri 63103

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY-$5,000 (NRC INSPECTION REPORT NO. 030-05064/90001(DRSS))

This refers to the NRC inspection conducted on December 20 and 21, 1989, and January 17, 1990, of activities authorized by NRC License No. 24-00188-02. The report of the inspection was sent to you on January 30, 1990. During the inspection, violations of NRC requirements were identified. On January 11, 1990, an enforcement conference was conducted in the NRC Region III office with you and other members of your staff and Mr. C. E. Norelius and other members of the NRC staff to discuss the violations, their causes, and your corrective actions.

The inspection revealed that a radiographer's 0-500 millirem dosimeter had gone off-scale on April 8, 1989, when a 91 curie iridium-192 source remained in the exposed position while the radiographer was in the area changing a film. A number of violations associated with this event are described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) and include: (1) failure to limit a radiographers quarterly whole body dose to three rem during the first quarter of 1989, (2) failure to perform a survey after each exposure to determine that a radiography source had been returned to a shielded position, (3) failure to send a film badge for immediate processing after a dosimeter worn by a radiographer was discharged beyond its range, (4) failure to report within 24 hours that an individual may have received a radiation dose in excess of 10 CFR Part 20 limits, (5) failure to evaluate the dose received by a radiographer after his dosimeter went off-scale, (6) failure to properly train a radiographer before permitting him to use a TechOps Model 660 radiographic exposure device, (7) failure of a radiographer to immediately cease operations when he became aware that his dosimeter discharged beyond its range, and (8) failure to follow the manufacturer's instructions for retracting a radiography source into a shielded position after a radiographic exposure. One additional violation not associated with the incident involved failure to ensure that an NRC-authorized individual acted as Radiation Safety Officer.

These violations demonstrate a significant breakdown in control over activities authorized by your license. There appear to be three root causes that led to these violations: (1) failure to adequately train a radiographer to ensure that he was familiar with a new exposure device, (2) failure to implement adequate management oversight of radiographers to ensure they were complying with regulatory requirements, including the requirement to perform an adequate radiation survey after each radiographic exposure to determine that the sealed source had returned to its fully shielded position, and (3) failure to evaluate the dose that an individual may have received during a potentially significant event. We acknowledge, however, that once you became aware of the magnitude of this problem, you took aggressive and comprehensive corrective actions to preclude a similar event from occurring in the future.

To emphasize the significance of these violations and the need for continued and effective management control over activities authorized by your license, I have been authorized, after consultation with the Director, Office of Enforcement, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $5,000 for the violations described in Section I. of the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1989) (Enforcement Policy), the violations described in Section I. of the enclosed Notice have been categorized as a Severity Level III problem. The violation described in Section II. has been classified at Severity Level IV.

The base value of a civil penalty for a Severity Level III problem is $5,000. The escalation and mitigation factors in the Enforcement Policy were considered and no adjustment has been deemed appropriate. In reaching this conclusion we allowed a total of 150 percent mitigation because of your good past performance and comprehensive corrective actions. This was offset by a total of 150 percent escalation because the violations were identified by the NRC and should have been identified by you and because you had prior notification of similar events as provided by NRC Information Notices 87-45, "Recent Safety-Related Violations of NRC Requirements by Industrial Radiography Licensees," dated September 25, 1987, and 88-66, "Industrial Radiography Inspection and Enforcement," dated May 25, 1988. These Notices were sent to all radiography licensees.

You are required to respond to this letter and should follow the instructions 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. Further, you should describe in detail your plans for performing an assessment of your radiation protection program and making needed improvements, particularly with regard to training, audits, and supervisory oversight. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

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

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

Sincerely,

A. Bert Davis
Regional Administrator

Enclosures:
1. Notice of Violation and Proposed Imposition of Civil Penalty
2. Inspection Report No. 030-05064/90001(DRSS)

See Attached Distribution

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

St. Louis Testing Laboratories, Inc.
St. Louis, Missouri

Docket No. 030-05064
License No. 24-00188-02
EA 90-009

During an NRC inspection conducted on December 20 and 21, 1989, and January 17, 1990, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1989), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

I. A. 10 CFR 20.101(b) provides, in part, that a licensee may permit an individual in a restricted area to receive a total occupational dose to the whole body greater than that permitted under paragraph (a) of 10 CFR 20.101 provided that during any calendar quarter the total occupational dose to the whole body shall not exceed 3 rems.

Contrary to the above, a radiographer employed by the licensee received a whole body occupational dose of 4.02 rems while performing radiography in a restricted area during the first calendar quarter of 1989.

B. 10 CFR 34.43(b) requires that the licensee ensure that a survey with a calibrated and operable radiation survey instrument is made after each exposure to determine that the sealed source has been returned to its shielded position.

Contrary to the above, on April 8, 1989, a radiographer failed to perform a survey with a calibrated survey instrument after each exposure to determine that the sealed source had been returned to its shielded position.

C. 10 CFR 34.33(d) requires that if an individual's pocket dosimeter is discharged beyond its range, his film badge or TLD shall be immediately sent for processing.

Contrary to the above, on April 8, 1989, an individual's pocket dosimeter was discharged beyond its range and his film badge was not sent for processing until April 10, 1989.

D. 10 CFR 20.403(b)(1) requires that each licensee, within 24 hours of discovery of the event, report any event involving licensed material possessed by the licensee that may have caused or threatens to cause exposure of the whole body of any individual to 5 rems or more of radiation; exposure of the skin of the whole body of any individual to 30 rems or more of radiation; or any exposure of the feet,

ankles, hands, or forearms to 75 rems or more of radiation. Reports required by this section must be made to the NRC in accordance with 10 CFR 20.403(d)(2).

10 CFR 20.201(b) requires that each licensee make or cause to be made such surveys as (1) may be necessary for the licensee to comply with the regulations in 10 CFR Part 20, and (2) are reasonable under the circumstances to evaluate the extent of radiation hazards that may be present. As defined in 10 CFR 20.201(a), "Survey" means an evaluation of the radiation hazards incident to the production, use, release, disposal, or presence of radioactive materials or other sources of radiation under a specific set of conditions.

Contrary to the above:

1. On April 8-9, 1989, the licensee failed to make an adequate survey to ensure compliance with 10 CFR 20.403(b)(1) after an individual was exposed to a 91 curie iridium-192 source. Specifically, the licensee failed to evaluate the dose received by a radiographer after it was determined that the radiographer's 500 millirem dosimeter had gone off-scale.

2. On April 8, 1989, a radiographer entered an area containing an exposed 91 curie iridium-192 sealed source which, according to the information available at that time, may have caused a personnel radiation exposure in excess of that specified in 10 CFR 20.403(b)(1), and the licensee failed to report this event to NRC.

E. License Condition No. 22 (Amendment No. 25) requires the licensee to conduct its program in accordance with statements, representations, and procedures contained in the application dated September 6, 1978, and letters dated June 26, 1984, April 2, 1985, with revised attachments, and April 15, 1989, with enclosed manuals.

1. Attachment 2 of the application dated September 6, 1978, states in Item 6(f) that the attached Radiographic Training Program will be followed in training radiographers and radiographer's assistants. The Radiographic Training Program states that any new equipment will be shown and demonstrated by the Radiation Safety Officer (RSO) or his assistants to all radiographers prior to their using the equipment. The use, application, safety precautions, and all pertinent information will be thoroughly explained. In addition, a semiannual refresher course will be given to all radiographers.

   The letter dated April 15, 1988 (with enclosed manuals) states in an enclosed letter dated February 16, 1988, that the Amersham/TechOps "Operation and Maintenance Manual" for the

Model 660 gamma radiography systems has been incorporated into the licensee's Operating and Emergency Procedures. The Amersham/TechOps "Operation and Maintenance Manual," Page 15, Item 7 states that to return the source to the exposure device [shielded position] after the desired exposure time has elapsed, the crank should be turned rapidly in the "RETRACT" (clockwise) direction until the crank will no longer move.

Contrary to the above:

a. A radiographer who was involved in an overexposure incident with a TechOps Model 660 exposure device on April 8, 1989, had not been given a demonstration of this equipment by the RSO or his assistant prior to using it when it was new and had not received instruction in the use, application, and safety precautions for this equipment. In addition, semiannual refresher training had not been provided for eight radiographers during the period July 1988 through December 21, 1989.

b. On April 8, 1989, the radiographer attempted to retract the radiography source into a Model 660 exposure device by trying to turn the crank in the counterclockwise direction. This caused the source to remain in the fully exposed position.

2. Attachment 2 of the application dated September 6, 1978, states in Item 6(d) that the Radiographer's manual will be followed for personnel monitoring procedures. Section 3.5 of this manual requires that any time a person's pocket dosimeter is discharged beyond its range, the individual is to immediately cease radiographic operations.

   Contrary to the above, on April 8, 1989, a radiographer's dosimeter was discharged beyond its range and the individual failed to cease radiographic operations immediately. Instead, the individual completed radiography work on April 8, 1989, and performed additional radiography work on April 10, 1989, before he was removed from radiographic operations.

Collectively, these violations have been classified as a Severity Level III problem (Supplements IV and VI).

Cumulative Civil Penalty - $5,000 (assessed equally among the 6 violations).

II. License Condition No. 22 (Amendment No. 25) requires the licensee to conduct its program in accordance with statements, representations, and procedures contained in the application dated September 6, 1978, and letters dated June 26, 1984, April 2, 1985, with revised attachments, and April 15, 1989, with enclosed manuals.

The letter dated June 26, 1984, specifies that a designated individual will function as the Radiation Safety Officer (RSO) for the licensed program.

Contrary to the above, from December 1 through 5, 1989, an individual other than the designated individual authorized by the NRC functioned as the RSO for the licensed program.

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

Pursuant to the provisions of 10 CFR 2.201, St. Louis Testing Laboratories, Inc. (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. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation; (2) the reasons for the violation if admitted; (3) the corrective steps that have been taken and the results achieved; (4) the corrective steps that will be taken to avoid further violations; and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required under 10 CFR 2.201, the Licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, 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 violations listed in this Notice in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, in whole or in part, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C, should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and

paragraph numbers) to avoid repetition. The attention of 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 provision of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Regional Administrator, Region III, U.S. Nuclear Regulatory Commission, 799 Roosevelt Road, Glen Ellyn, Illinois 60137.

FOR THE NUCLEAR REGULATORY COMMISSION

A. Bert Davis
Regional Administrator

Dated at Glen Ellyn, Illinois
this 6th day of March 1990

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

JUN 2 0 1990

Docket No. 030-05604
License No. 24-00188-02
EA 90-009

St. Louis Testing Laboratories, Inc.
ATTN: Frederick W. Wiese
President
2810 Clark Ave.
St. Louis, Missouri 63103

Gentlemen:

SUBJECT: ORDER IMPOSING CIVIL MONETARY PENALTY - $5,000

This letter refers to your letters dated April 4 and April 25, 1990, in response to the Notice of Violation and Proposed Imposition of Civil Penalty (Notice) sent to you by our letter dated March 6, 1990. Our letter and Notice described violations identified during an NRC inspection conducted on December 20 and 21, 1989, and January 17, 1990.

To emphasize the significance of these violations and the need for continued and effective management control over activities authorized by your license, a civil penalty of Five Thousand Dollars ($5,000) was proposed.

In your response, you denied Violation I.A and Part 2 of Violation I.D. In addition, you protested the imposition of the civil penalty and requested remission.

After consideration of your response, we have concluded for the reasons given in the Appendix attached to the enclosed Order Imposing Civil Monetary Penalty that all violations occurred as stated in the Notice. We have also concluded that remission of the civil penalty is inappropriate. Accordingly, we hereby serve the enclosed Order on St. Louis Testing Laboratories, Inc. imposing a civil monetary penalty in the amount of $5,000. We will review the effectiveness of your corrective actions during a subsequent inspection.

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

Sincerely,

Hugh L. Thompson, Jr.
Deputy Executive Director for
Nuclear Materials Safety, Safeguards
and Operations Support

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

St Louis Testing Laboratories, Inc.

Enclosure:
Order Imposing Civil Monetary
Penalty with Appendix

cc w/enclosure:
Public Document Room (PDR)
Nuclear Safety Information Center (NSIC)
State of Missouri

UNITED STATES NUCLEAR REGULATORY COMMISSION

St. Louis Testing
Laboratories, Inc.
St. Louis, Missouri

Docket No. 030-05604
License No. 24-00188-02
EA 90-009

ORDER IMPOSING CIVIL MONETARY PENALTY

I

St. Louis Testing Laboratories, Inc. (Licensee) is the holder of Byproduct Material License No. 24-00188-02 issued by the Nuclear Regulatory Commission (NRC or Commission) on April 19, 1985. The license authorizes the Licensee to perform industrial radiography in accordance with the conditions specified therein.

II

An inspection of the Licensee's activities was conducted on December 20 and 21, 1989, and January 17, 1990. The results of this inspection indicated that the Licensee had not conducted its activities in full compliance with NRC requirements. A written Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was served upon the Licensee by letter dated March 6, 1990. The Notice states the nature of the violations, the provisions of the NRC's requirements that the Licensee had violated, and the amount of the civil penalty proposed for the violations. The Licensee responded to the Notice on April 4 and April 25, 1990. In its responses, the Licensee denied Violation I.A and Part 2 of Violation I.D. In addition, the Licensee protested the imposition of the civil penalty and requested remission.

III

After consideration of the Licensee's responses and the statements of fact, explanation, and argument for mitigation contained therein, the NRC staff has determined, as set forth in the Appendix to this Order, that the violations occurred as stated and that the penalty 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 CFR 2.205, IT IS HEREBY ORDERED THAT:

The Licensee pay a civil penalty in the amount of $5,000 within 30 days of the date of this Order, by check, draft, or money order, payable to the Treasurer of the United States and mailed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555.

V

The Licensee may request a hearing within 30 days of the date of this Order. A request for a hearing should be clearly marked as a "Request for an

Enforcement Hearing" and shall be addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555. Copies also shall be sent to the Assistant General Counsel for Hearings and Enforcement at the same address and to the Regional Administrator, NRC Region III, 799 Roosevelt Road, Glen Ellyn, Illinois 60137.

If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. If the Licensee fails to request a hearing within 30 days of the date of this Order, 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 Attorney General for collection.

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

(a) whether the licensee was in violation of NRC requirements as described in Violation I.A and Part 2 of Violation 1.D set forth in the Notice referenced in Section II above, which the licensee denied, and

(b) whether on the basis of those violations, and the additional violations set forth in the Notice of Violation, which the licensee admitted, this Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION

Hugh L. Thompson, Jr.
Deputy Executive Director for
Nuclear Materials Safety, Safeguards
and Operations Support

Dated at Rockville, Maryland
this 20th day of June 1990

APPENDIX
EVALUATIONS AND CONCLUSIONS

On March 6, 1990, a Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was issued for violations identified during an NRC inspection. St. Louis Testing Laboratories, Inc. responded to the Notice in letters dated April 4, and April 25, 1990. In its response, the licensee denied Violation I.A and Part 2 of Violation I.D. In addition, the licensee protested imposition of the penalty and requested remission of the civil penalty. The NRC's evaluation and conclusion regarding the licensee's requests are as follows:

Violation I. A.

Statement of Violation

10 CFR 20.101(b) provides, in part, that a licensee may permit an individual in a restricted area to receive a total occupational dose to the whole body greater than that permitted under paragraph (a) of 10 CFR 20.101 provided that during any calendar quarter the total occupational dose to the whole body shall not exceed 3 rems.

Contrary to the above, a radiographer employed by the licensee received a whole body occupational dose of 4.02 rems while performing radiography in a restricted area during the first calendar quarter of 1989.

Summary of Licensee's Response to Violation I. A.

The licensee denies this violation but agrees that the radiographer was exposed to an iridium-192 source. The licensee states that based upon its calculations, the dose received by the radiographer was within the 10 CFR Part 20 limits. The licensee further states that the dose received by the badge and the dose received by the individual can vary, and that the licensee's calculations are more reliable than the badge readings.

NRC Evaluation of Licensee's Response

While the calculations conducted by the licensee and used to evaluate this exposure appear to indicate that neither the hands nor the head area were exposed in excess of the 10 CFR Part 20 limit (18.75 rems and 3 rems, respectively), there are numerous unknowns involved in those calculations, including the licensee's assumption that the source was fully collimated by a tungsten collimator. Further, the licensee's calculations did not address the potential exposure to a part of the body other than the hands or head (i.e., chest area). According to the radiographer's statements to the inspector during the inspection, both the film badge and the dosimeter were worn in the chest pocket of his shirt. NRC must assume that any exposure to these devices was also received by the chest of the individual wearing the devices. The

dosimeter (500 millirem) was off-scale and the film badge reports indicate 3.77 rems for that period and 4.02 rems for the quarter. The Commission considers a non-extremity, non-skin exposure to a significant volume (greater than or equal to one cubic centimeter) of tissue in excess of 3 rems in a calendar quarter to be a whole body exposure pursuant to 10 CFR 20.101. Thus, the NRC concludes that the radiographer received a 4.02 rem whole body exposure, which is in excess of the 3 rem limit allowed in 10 CFR 20.101(b), and that the violation occurred as stated in the Notice.

Violation I. B.

Statement of Violation

10 CFR 34.43(b) requires that the licensee ensure that a survey with a calibrated and operable radiation survey instrument is made after each exposure to determine that the sealed source has been returned to its shielded position.

Contrary to the above, on April 8, 1989, a radiographer failed to perform a survey with a calibrated survey instrument after each exposure to determine that the sealed source had been returned to its shielded position.

Summary of Licensee's Response to Violation I. B.

The licensee did not dispute this violation.

Violation I. C.

Statement of Violation

10 CFR 34.33(d) requires that if an individual's pocket dosimeter is discharged beyond its range, his film badge or TLD shall be immediately sent for processing.

Contrary to the above, on April 8, 1989, an individual's pocket dosimeter was discharged beyond its range and his film badge was not sent for processing until April 10, 1989.

Summary of Licensee's Response to Violation I. C.

The licensee does not deny this violation and does agree that the badge was not sent in immediately as required. However, the licensee further states that since the incident occurred on a weekend (Saturday), the badge was sent as soon as it could have been (Monday) and in that respect was sent immediately.

NRC Evaluation of Licensee's Response

The NRC staff does not agree with the licensee's opinion that Monday was the soonest that the badge could be sent for processing. The film badge vendor provides emergency processing of badges on the weekend upon request. In addition, the U. S. Postal Service Express Mail provides service between

St. Louis and Chicago (the film badge vendor is located in a Chicago suburb) seven days a week including holidays. The inspector was able to identify several courier companies which would have accepted the badge on Saturday and delivered the badge early Monday morning. Had the licensee wanted to send the badge for processing on Saturday, numerous options were available for delivery to the film badge vendor. It is also noted in the inspection report that the badges were not sent in Monday until after the individual had completed additional radiographic work for that day. Further, when the badges were sent, they were sent via normal mail with no request for emergency processing. The NRC concludes that a violation of 10 CFR 34.33(d) did occur as stated in the Notice.

Violation I. D.

Statement of Violation

10 CFR 20.403(b)(1) requires that each licensee, within 24 hours of discovery of the event, report any event involving licensed material possessed by the licensee that may have caused or threatens to cause exposure of the whole body of any individual to 5 rems or more of radiation; exposure of the skin of the whole body of any individual to 30 rems or more of radiation; or any exposure of the feet, ankles, hands, or forearms to 75 rems or more of radiation. Reports required by this section must be made to the NRC in accordance with 10 CFR 20.403(d)(2).

10 CFR 20.201(b) requires that each licensee make or cause to be made such surveys as (1) may be necessary for the licensee to comply with the regulations in 10 CFR Part 20, and (2) are reasonable under the circumstances to evaluate the extent of radiation hazards that may be present. As defined in 10 CFR 20.201(a), "Survey" means an evaluation of the radiation hazards incident to the production, use, release, disposal, or presence of radioactive materials or other sources of radiation under a specific set of conditions.

Contrary to the above:

1. On April 8-9, 1989, the licensee failed to make an adequate survey to ensure compliance with 10 CFR 20.403(b)(1) after an individual was exposed to a 91 curie iridium-192 source. Specifically, the licensee failed to evaluate the dose received by a radiographer after it was determined that the radiographer's 500 millirem dosimeter had gone off-scale.

2. On April 8, 1989, a radiographer entered an area containing an exposed 91 curie iridium-192 sealed source which, according to the information available at that time, may have caused a personnel radiation exposure in excess of that specified in 10 CFR 20.403(b)(1), and the licensee failed to report this event to NRC.

Summary of Licensee's Response to Part 1. of Violation I. D.

The licensee does not dispute Part 1. of this violation.

Summary of Licensee's Response to Part 2. of Violation I. D.

The licensee agrees that the incident was not reported to the NRC, but denies that this constitutes a violation. The licensee indicates that a report of the incident was not made at the time because the facts which the licensee believed to be true did not clearly reflect a reportable situation. The licensee further cites the erroneous initial reading of the film badge as support for having to rely on its own survey information in evaluating the incident, and states that its own survey information showed that the radiographer did not receive a dose above the authorized level.

NRC Evaluation of Licensee's Response

The initial reading of the film badge by the vendor was reported to the licensee as "faultily manufactured", indicating that the badge could not be read; however, the badge was not sent for processing until the Monday following the incident and therefore, the erroneous initial reading of the film badge could not have affected the licensee's decision regarding the reporting of the incident to NRC within the initial 24 hours. [In December 1989 the vendor, at the NRC's request, re-evaluated the badge and was able to determine an exposure of 3.77 rem.]

10 CFR 20.403(b)(1) requires that the licensee report any event that "may have caused or threatens to cause" exposure in excess of the limits stated therein [emphasis added]. Based on the information available to the licensee, within the initial 24 hours that the regulation allows for reporting, the licensee could not conclusively rule out the possibility that an exposure to the whole body of 5 rems or more had occurred. Therefore, in accordance with the regulation, the report was required. Specifically, as they were known at that time, the facts were that a radiographer had walked into a room where a 91 curie iridium-192 source was exposed and had worked in close proximity to the exposed source while he changed a film and prepared to do another radiograph before he realized that the source was fully exposed, and that the radiation exposure reading on his 500 millirem dosimeter was off-scale. Further, the calculations referenced by the licensee as the basis for not reporting the event did not address any areas of the body other than the head and hands. According to the film badge reading, the chest area of the body received exposure in excess of 3 rems. Depending upon the position of the radiographer at the time of this event, a portion of the body could have received an exposure greater than the 5 rems whole body referenced in the regulation. Also, the licensee's calculations were not conducted until several days after the incident had occurred and therefore, could not have been of any benefit to the licensee in determining whether or not this was a 24 hour reportable event. Based upon the significant potential for an exposure to the whole body in excess of 5 rems, the NRC conclusion is that Part 2 of the violation occurred as set forth in the Notice.

Violation I. E. 1.

Statement of Violation

License Condition No. 22 (Amendment No. 25) requires the licensee to conduct its program in accordance with statements, representations, and procedures contained in the application dated September 6, 1978, and letters dated June 26, 1984, April 2, 1985, with revised attachments, and April 15, 1989, with enclosed manuals.

Attachment 2 of the application dated September 6, 1978, states in Item 6(f) that the attached Radiographic Training Program will be followed in training radiographers and radiographer's assistants. The Radiographic Training Program states that any new equipment will be shown and demonstrated by the Radiation Safety Officer (RSO) or his assistant to all radiographers prior to their using the equipment. The use, application, safety precautions, and all pertinent information will be thoroughly explained. In addition, a semiannual refresher course will be given to all radiographers.

The letter dated April 15, 1988, (with enclosed manuals) states in an enclosed letter dated February 16, 1988, that the Amersham/TechOps "Operation and Maintenance Manual" for the Model 660 gamma radiography systems has been incorporated into the licensee's Operating and Emergency Procedures. The Amersham/TechOps "Operation and Maintenance Manual," Page 15, Item 7 states that to return the source to the exposure device [shielded position] after the desired exposure time has elapsed, the crank should be turned rapidly in the "RETRACT" (clockwise) direction until the crank will no longer move.

Contrary to the above:

a. A radiographer who was involved in an overexposure incident with a TechOps Model 660 exposure device on April 8, 1989, had not been given a demonstration of this equipment by the RSO or his assistant prior to using it when it was new and had not received instruction in the use, application, and safety precautions for this equipment. In addition, semiannual refresher training had not been provided for eight radiographers during the period July 1988 through December 21, 1989.

b. On April 8, 1989, the radiographer attempted to retract the radiography source into a Model 660 exposure device by trying to turn the crank in the counterclockwise direction. This caused the source to remain in the fully exposed position.

Summary of Licensee's Response to Part a. of Violation I. E. 1.

The licensee did not dispute Part a. of this violation.

Summary of Licensee's Response to Part b. of Violation I. E. 1.

The licensee agrees that the radiographer failed to follow the manufacturer's instructions. However, the licensee does not believe that the reason the radiographer did not follow the instructions was because the radiographer had not been trained properly. The licensee contends that the radiographer had used the equipment on numerous occasions and knew how to properly use the equipment and that the radiographer was just careless and inattentive of his work.

NRC Evaluation of Licensee's Response

The NRC agrees with the licensee that the radiographer was careless. However, for whatever the reason, the individual did fail to follow the manufacturer's instructions in operation of the equipment which constitutes a violation as described above. The NRC concludes that this violation occurred as stated in the Notice.

Violation I. E. 2.

Statement of Violation

License Condition No. 22 (Amendment No. 25) requires the licensee to conduct its program in accordance with statements, representations, and procedures contained in the application dated September 6, 1978, and letters dated June 26, 1984, April 2, 1985, with revised attachments, and April 15, 1989, with enclosed manuals.

Attachment 2 of the application dated September 6, 1978, states in Item 6(d) that the Radiographer's manual will be followed for personnel monitoring procedures. Section 3.5 of this manual requires that any time a person's pocket dosimeter is discharged beyond its range, the individual is to immediately cease radiographic operations.

Contrary to the above, on April 8, 1989, a radiographer's dosimeter was discharged beyond its range and the individual failed to cease radiographic operations immediately. Instead, the individual completed radiography work on April 8, 1989, and performed additional radiography work on April 10, 1989, before he was removed from radiographic operations.

Summary of Licensee's Response to Violation I. E. 2.

The licensee does not dispute this violation.

Violation II (Violation not assessed a Civil Penalty)

Statement of Violation

License Condition No. 22 (Amendment No. 25) requires the licensee to conduct its program in accordance with statements, representations, and procedures contained in the application dated September 6, 1978, and letters dated June 26, 1984, April 2, 1985, with revised attachments, and April 15, 1989, with enclosed manuals.

The letter dated June 26, 1984, specifies that a designated individual will function as the Radiation Safety Officer (RSO) for the licensed program.

Contrary to the above, from December 1 through 5, 1989, an individual other than the designated individual authorized by the NRC functioned as the RSO for the licensed program.

Summary of Licensee's Response to Violation II

The licensee responded to this violation in a separate letter dated April 25, 1990. In that letter, the licensee did not dispute the violation.

Summary of Licensee's Request for Remission of the Civil Penalty

In addition to the arguments set forth above, the licensee concluded its response with a general statement indicating that in the future it will report to the NRC each event and let the NRC decide if it is reportable or not. The licensee further stated that the reporting requirements of 10 CFR Part 20 are vague and require the licensee to make a judgement call regarding certain issues. The licensee also indicates that no attempt was made on its part to hide any actions from the NRC, and that it used its best judgement as required by the regulation. Finally, the licensee states that it is "disheartened" with a system that encourages an employee to intentionally create conditions detrimental to fellow workers and members of the public and does not hold that individual accountable and provides that individual protection. [Note: It appears that the licensee is referring to the former Radiation Safety Officer (RSO) employed at the facility until December 1989.] The licensee further states that, in participating in allegations to NRC, it was almost as if the employee had reported himself to the NRC, and that this constitutes a strong reason for mitigation.

NRC Evaluation of Licensee's Request for Remission

The regulations in 10 CFR Part 20 require licensees to report, within the first 24 hours, any incident that may have caused an exposure in excess of the regulatory limits. It is clear that certain events which meet specific criteria, as outlined in 10 CFR Part 20, must be reported to the NRC. If the event does not clearly meet those criteria, and if it is not possible to conclusively rule out such an overexposure within the first 24 hours, then a conservative approach must be taken by the licensee by reporting the event. Moreover, although the NRC may provide some guidance on the reportability of a particular event, the decision to report an event is the responsibility of the licensee.

Regarding the licensee's statement that it did not try to hide anything from the NRC, this was never alleged by the Commission. Furthermore, this issue had no bearing on the proposed imposition of the civil penalty.

Regarding the licensee's statements on individual accountability, Section V.E. of the Enforcement Policy provides for enforcement action against individuals in some circumstances; however, the Commission also holds its licensees accountable for the actions of their employees. NRC expects adequate management oversight of a licensee's program to determine whether individuals given responsibility for management of the program (i.e., the RSO) are conducting it in compliance with NRC rules and regulations and license conditions.

Concerning the licensee's argument that mitigation is appropriate because the employee's participation in allegations to the NRC were almost as if he had reported himself to the NRC, the Enforcement Policy does allow mitigation where the licensee self-identifies a violation, takes immediate action to correct the problem, and, if required, makes a prompt and complete report to the NRC. Since that did not occur in this case, mitigation based on this factor is not appropriate.

Conclusion

After reviewing the licensee's response to the violations and request for remission of the civil penalty, the NRC has determined that the violations occurred as stated and that the licensee has not provided any basis for reduction or remission of the civil penalty. Therefore, the proposed civil penalty in the amount of $5,000 should be imposed.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

Docket No. 030-29146
License No. 21-24685-01
EA 90-123

August 16, 1990

Somat Engineering, Inc.
ATTN: Roger Safford
Project Manager
26417 Northline Road
Taylor, Michigan 48180

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $125
(NRC INSPECTION REPORT NO. 030-29146/90001)

This refers to the special safety inspection conducted on June 27, 1990 at your facility in Taylor, Michigan. It also refers to the July 5, 1990 telephone contact during which additional information was obtained regarding the June 20, 1990 event. The inspection was conducted in response to a notification from the Warren, Michigan, Hazardous Material Team that an empty case which is used to transport a moisture/density gauge had been found by a private citizen on a public roadway. During the inspection, violations of NRC requirements were identified. The report of the inspection was sent to you on July 12, 1990. On July 17, 1990, an enforcement conference was conducted in the NRC Region III office with you and Mr. Neeraj Buch of your staff and Mr. C. E. Norelius and other members of the NRC staff to discuss the violations, their causes, and your corrective actions.

The violations identified during the June 27, 1990 inspection and described in the enclosed Notice of Violation (Notice) include: (1) failure to maintain constant surveillance and immediate control over licensed material in an unrestricted area and (2) failure to exchange film badges at the required one month interval.

The NRC is concerned that your failure to maintain constant control over a moisture density gauge that had been left unattended in an unrestricted area created a significant potential for the loss of the gauge. It is fortuitous that the gauge was recovered by one of your personnel before it was stolen or handled by a member of the public. Further, the individual involved stated that he knew he was not supposed to leave the gauge unattended but did so since he only intended to be gone a few minutes. Thus, this violation involves an element of willfulness on the part of that individual that cannot be tolerated. Therefore, in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy) 10 CFR Part 2, Appendix C (1990), NRC has classified this violation at Severity Level III.

To emphasize the importance of maintaining proper control of licensed material at all times and the unacceptability of willful violations of any nature, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) in the amount of $125.

The base civil penalty for a Severity Level III violation is $500. The escalation and mitigation factors in the Enforcement Policy were considered. Mitigation of the base civil penalty by 25% is considered warranted because of your prompt identification and response to the event. Further mitigation based on this factor is not considered appropriate because the event was essentially self-disclosing. Mitigation of the base civil penalty by 50% is also considered appropriate because of your prompt and extensive corrective action. The other adjustment factors in the Enforcement Policy were considered and no further adjustment to the base civil penalty is considered appropriate.

One additional violation involving the frequency of exchange of film badges has been classified at Severity Level IV. A civil penalty is not proposed for this violation.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. In addition, you should specifically address your basis for having confidence in the integrity of the individual involved in the violation in Section I of the notice and your basis for having confidence that that individual will not, in the future, willfully commit violations of NRC requirements. After reviewing your response to this Notice, including your proposed corrective actions and the result of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

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

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

Sincerely

A. Bert Davis
Regional Administrator

Enclosures:
1. Notice of Violation and Proposed Imposition of Civil Penalty
2. Inspection Report No. 030-29146/90001(DRSS)

cc w/enclosures:
Public Document Room (PDR)
Nuclear Safety Information Center (NSIC)
State of Michigan

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Somat Engineering, Inc.
Taylor, Michigan

Docket No. 030-29146
License No. 21-24685-01
EA 90-123

During an NRC inspection conducted on June 27 and July 5, 1990, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990), the Nuclear Regulatory Commission 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 is set forth below:

I. Violation Assessed a Civil Penalty

10 CFR 20.207(a) requires that licensed materials stored in an unrestricted area be secured against unauthorized removal from the place of storage. 10 CFR 20.207(b) requires that licensed material in an unrestricted area and not in storage be tended under the constant surveillance and immediate control of the licensee. 10 CFR 20.3(a)(17) defines an unrestricted area as any area access to which is not controlled by the licensee for purposes of protection of individuals from exposure to radiation and radioactive materials.

Contrary to the above, on June 20, 1990, a licensee employee left a Troxler Model 3401 moisture/density gauge containing approximately 10 millicuries (mCi) of cesium-137 and 50 mCi of americium-241 in an unrestricted area at a temporary job site near Warren, Michigan, and at the time, the gauge was not secured against unauthorized removal nor was it under the constant surveillance and immediate control of the licensee.

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

Civil Penalty - $125

II. Violation Not Assessed a Civil Penalty

License Condition No. 18 requires that the licensee exchange film badges at one month intervals.

Contrary to the above, since about May 1989, the licensee has exchanged film badges at quarterly intervals rather than at one month intervals, as required.

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

Pursuant to the provisions of 10 CFR 2.201, Somat Engineering, Inc. (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 may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required at [illegible] under 10 CFR 2.201, the Licensee may pay the civil penalty by letter addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, money order, or electronic transfer payable to the Treasurer of the United States in the amount of the civil penalty proposed above, 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 V.B of 10 CFR Part 2, Appendix C (1990), should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

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

The response noted above (Reply to Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region III, 799 Roosevelt Road, Glen Ellyn, Illinois 60137.

FOR THE NUCLEAR REGULATORY COMMISSION

A. Bert Davis
Regional Administrator

Dated at Glen Ellyn, Illinois
this 16th day of August 1990

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

February 13, 1990

Docket No. 030-29789
License No. 34-24871-01
EA 90-001

Testmaster Inspection Company, Inc.
ATTN: Wendell B. Carr
President
Post Office Box 31
Perrysburgh, Ohio 43551

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $3,750
(NRC INSPECTION REPORT NO. 030-29789/89001(DRSS))

This refers to the NRC inspection conducted on December 7-27, 1989 of activities authorized by NRC License No. 34-24871-01. The report of the inspection was sent to you on January 16, 1990. During the inspection, violations of NRC requirements were identified. On January 19, 1990, an enforcement conference was conducted in the NRC Region III office with you, Dr. C. J. Paperiello, and other members of the NRC staff to discuss the violations that were identified during the inspection and are described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice). These violations include: (1) failure to make a survey after each radiographic exposure on December 6, 1989, and on December 7, 1989, failure to make an adequate survey following each radiographic exposure, (2) failure to retract the source into the exposure device at the end of an exposure, (3) failure to immediately contact the Radiation Safety Officer or Assistant Officer after it was determined that dosimeters worn by a radiographer and a radiographer's assistant were off scale and the source was in an exposed position, and (4) failure to maintain records of field examinations taken by two radiographer's assistants.

When viewed collectively, the first three violations demonstrate a significant failure to follow radiological safety procedures. The failure on December 6, 1989 to make a survey of the exposure device after each radiographic exposure resulted in a radiographer locking the exposure device while the source was in an exposed position. As a result, there was a significant potential for the radiographer and a radiographer's assistant to be exposed to radiation doses in excess of 10 CFR Part 20 limits. After the exposed source was discovered, it was returned to the shielded position by another radiographer without contacting the Radiation Safety Officer or Assistant Officer, as required by your procedures. In addition, on December 7, 1989, the NRC inspectors observed a radiographer's assistant make three radiographic exposures and in each instance the individual failed to survey the circumference of the exposure device and the guide tube after completing the radiographic exposures.

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

We are also concerned that you assigned the radiographer who was involved in the December 6, 1989 event to supervise a radiographer's assistant even though you had not determined the radiation dose received by that radiographer. Although the radiographer was not routinely positioning the radiographic source, he would be required to carry out this function in an emergency.

To emphasize the need for compliance with radiological safety procedures and for more effective management attention to activities authorized by your license, I have been authorized, after consultation with the Director, Office of Enforcement, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $3,750 for the violations described in Section I of the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1989) (Enforcement Policy), the violations described in Section I in the enclosed Notice have been categorized in the aggregate as a Severity Level III problem. The violation in Section II has been categorized at a Severity Level IV.

The base value of a civil penalty for a Severity Level III problem is $5,000. The NRC Enforcement Policy allows for adjustment of a civil penalty under certain circumstances. In this case, the escalation and mitigation factors were considered and it was concluded that 25 percent mitigation of the base civil penalty is appropriate. This is based on the fact that you identified and reported the December 6, 1989 event. The mitigation is limited to 25 percent because the event was self-disclosing. In addition, 100 percent mitigation was considered appropriate because of your good past performance; however, this was offset by your limited corrective actions and by your prior notice of similar events which was provided by NRC Information Notice 88-66, "Industrial Radiography Inspection and Enforcement." This Notice was sent to all radiography licensees.

You are required to respond to this letter and should follow the instructions 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. Further, you should describe in detail your plans for performing an assessment of your radiation protection program, particularly with regard to audits and to improvements in supervisory oversight of radiological controls activities. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

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

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

Sincerely,

A. Bert Davis
Regional Administrator

Enclosures:
1. Notice of Violation and Proposed Imposition of Civil Penalty
2. Inspection Report No. 030-19789/89001(DRSS)

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Testmaster Inspection Company, Inc.
Perrysburg, Ohio

Docket No. 030-29789
License No. 34-24871-01
EA 90-001

During an NRC Inspection conducted during the period December 7 through December 27, 1989, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1989) the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C 2282, and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

I. Violations Assessed a Civil Penalty

A. 10 CFR 34.43(b) requires the licensee to ensure that a survey with a calibrated and operable radiation survey instrument is made after each exposure to determine that the sealed source has been returned to its shielded position. The entire circumference of the radiographic exposure device must be surveyed. If the radiographic exposure device has a source guide tube, the survey must include the guide tube.

Contrary to the above:

1. On December 6, 1989, an individual failed to survey a radiographic exposure device after each radiographic exposure. As a result, the individual locked the exposure device without realizing that the source had remained in an exposed position.

2. On three occasions on December 7, 1989, an assistant radiographer failed to survey the circumference of the exposure device and the source guide tube after each radiographic exposure.

B. License Condition No. 18 requires that the licensee conduct its program in accordance with the statements, representations, and procedures contained in the application dated March 6, 1987 and other referenced documents.

The application dated March 6, 1987 gives detailed instructions for safely operating a crank out type device (radiographic exposure device). Section 10.3.1.(11) states: "At end of exposure, retract source into the exposure device by reversing the cranking action."

Contrary to the above, on December 6, 1989 an individual failed to retract the source into the exposure device at the end of an exposure.

C. License Condition No.18 requires that the licensee conduct its program in accordance with the statements, representations, and procedures contained in the letter dated May 15, 1987, (identified as a letter dated May 18, 1987, on the license based on a receipt date stamp) and other referenced documents.

Paragraph 5.1.5 of the May 15, 1987 (date stamped May 18, 1987), letter requires, in part, that if an individual's pocket dosimeter goes off scale and if the source is in the exposed position, the Radiation Safety Officer or Assistant Officer shall be notified immediately for instructions pertaining to the conditions of the dosimeter and the source.

Contrary to the above, on December 6, 1989, the radiographer's and radiographer's assistant's dosimeters were off scale, the source was in an exposed position, and neither the Radiation Safety Officer nor the Assistant Officer were notified immediately for instructions pertaining to the conditions of the dosimeters and the sources.

Collectively, these violations have been classified as a Severity Level III problem (Supplement VI)

Cumulative Civil Penalty - $3,750 (assessed equally among the three violations)

II. Violation Not Assessed a Civil Penalty

10 CFR 34.31(c) requires that records of field examinations of a radiographer's assistant be maintained for three years.

Contrary to the above, as of the date of the inspection, records of the field examination for a radiographer's assistant given on October 9, 1989, and for a second radiographer's assistant given on November 9, 1989, were not maintained.

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

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

Within the same time as provided for the response required under 10 CFR 2.201, the Licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, 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 violations listed in this Notice in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, in whole or in part, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C, should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of 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 provision of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Regional Administrator, Region III, U.S. Nuclear Regulatory Commission, 799 Roosevelt Road, Glen Ellyn, Illinois 60137.

FOR THE NUCLEAR REGULATORY COMMISSION

A. Bert Davis
Regional Administrator

Dated at Glen Ellyn, Illinois
this 13th day of February 1990

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

JUN 2 0 1990

Docket No. 030-29789
License No. 34-24871-01
EA 90-001

Testmaster Inspection Company, Inc.
ATTN: Wendell B. Carr
President
Post Office Box 31
Perrysburgh, Ohio 43551

Gentlemen:

SUBJECT: ORDER IMPOSING CIVIL MONETARY PENALTY - $3,750

This letter refers to your two letters dated March 7, 1990, in response to the Notice of Violation and Proposed Imposition of Civil Penalty (Notice) sent to you by our letter dated February 13, 1990. Our letter and Notice described four violations identified during an NRC inspection conducted on December 7-27, 1989.

To emphasize the need for compliance with radiological safety procedures and for more effective management attention to activities authorized by your license, a civil penalty of $3,750 was proposed.

In your response, you admitted the violations occurred, but requested mitigation of the civil penalty.

After consideration of your response, we have concluded for the reasons given in the appendix attached to the enclosed Order Imposing Civil Monetary Penalty that mitigation of the proposed civil penalty is not appropriate. Accordingly, we hereby serve the enclosed Order on Testmaster Inspection Company, Inc. imposing a civil monetary penalty in the amount of $3,750.

Our February 13, 1990 letter, which transmitted the Notice of Violation and Proposed Imposition of Civil Penalty, asked that you describe how you will assess your radiation protection program, particularly with regard to audits and improvements in supervisory oversight of radiological controls activities. Your March 7, 1990 response included a form which is used to document field examinations of radiography personnel. We will review the use of this form and the implementation of your audit and assessment program along with the effectiveness of your other corrective actions during a subsequent inspection.

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

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

Sincerely,

Hugh L. Thompson, Jr.
Deputy Executive Director for
Nuclear Materials Safety, Safeguards,
and Operations Support

Enclosure:
Order Imposing Civil Monetary
Penalty with Appendix

cc w/enclosures:
Public Document Room (PDR)
Nuclear Safety Information Center (NSIC)
State of Ohio

UNITED STATES
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
TESTMASTER INSPECTION COMPANY	)	Docket No. 030-29789
Perrysburgh, Ohio	)	License No. 34-24871-01
	)	EA 90-001

ORDER IMPOSING CIVIL MONETARY PENALTY

I

Testmaster Inspection Company (Licensee) is the holder of Byproduct Material License No. 34-24871-01 issued by the Nuclear Regulatory Commission (NRC or Commission) on June 8, 1987. The license authorizes the Licensee to perform industrial radiography in accordance with the conditions specified therein.

II

An inspection of the Licensee's activities was conducted on December 7-27, 1989. The results of this inspection indicated that the Licensee had not conducted its activities in full compliance with NRC requirements. A written Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was served upon the Licensee by letter dated February 13, 1990. The Notice stated the nature of the violations, the provisions of the NRC's requirements that the Licensee had violated, and the amount of the civil penalty proposed for the violations. The Licensee responded to the Notice by letters dated March 7, 1990. In its responses, the Licensee admits the violations occurred, but requests mitigation of the proposed civil penalty.

III

After consideration of the Licensee's responses and the statements of fact, explanation, and argument for mitigation contained therein, the NRC staff has

determined, as set forth in the Appendix to this Order, that the violations occurred as stated and that the penalty 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 CFR 2.205, IT IS HEREBY ORDERED THAT:

The Licensee pay a civil penalty in the amount of $3,750 within 30 days of the date of this Order, by check, draft, or money order, payable to the Treasurer of the United States and mailed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555.

V

The Licensee may request a hearing within 30 days of the date of this Order. A request for a hearing should be clearly marked as a "Request for an Enforcement Hearing" and shall be addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555. Copies also shall be sent to the Assistant General Counsel for Hearings and Enforcement at the same address and to the Regional Administrator, NRC Region III, 799 Roosevelt Road, Glen Ellyn, Illinois 60137.

If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. If the Licensee fails to request a hearing within 30 days of the date of this Order, 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 Attorney General for collection.

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

Whether, on the basis of the violations admitted by the Licensee, this Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION

Hugh L. Thompson, Jr.
Deputy Executive Director for
Nuclear Materials Safety, Safeguards,
and Operations Support

Dated at Rockville, Maryland
this 20th day of June 1990

APPENDIX

EVALUATIONS AND CONCLUSIONS

On February 13, 1990, a Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was issued for violations identified during an NRC inspection. Testmaster Inspection Company responded to the Notice in two letters, both dated March 7, 1990. In its response, the licensee admitted the violations occurred, but requested mitigation of the proposed civil penalty. The NRC's evaluation and conclusion regarding the licensee's requests are as follows:

Restatement of Violations

I. Violations Assessed a Civil Penalty

A. 10 CFR 34.43(b) requires the licensee to ensure that a survey with a calibrated and operable radiation survey instrument is made after each exposure to determine that the sealed source has been returned to its shielded position. The entire circumference of the radiographic exposure device must be surveyed. If the radiographic exposure device has a source guide tube, the survey must include the guide tube.

Contrary to the above:

1. On December 6, 1989, an individual failed to survey a radiographic exposure device after each radiographic exposure. As a result, the individual locked the exposure device without realizing that the source had remained in an exposed position.

2. On three occasions on December 7, 1989, an assistant radiographer failed to survey the circumference of the exposure device and the source guide tube after each radiographic exposure.

B. License Condition No. 18 requires that the licensee conduct its program in accordance with the statements, representations and procedures contained in the application dated March 6, 1987 and other referenced documents.

The application dated March 6, 1987 gives detailed instructions for safely operating a crank out type device (radiographic exposure device). Section 10.3.1(11) states: "At end of exposure, retract source into the exposure device by reversing the cranking action."

Contrary to the above, on December 6, 1989, an individual failed to retract the source into the exposure device at the end of an exposure.

C. License Condition No. 18 requires that the licensee conduct its program in accordance with the statements, representations, and procedures contained in the letter dated May 15, 1987 (identified as a letter dated May 18, 1987 on the license based on a receipt date stamp), and other referenced documents.

Paragraph 5.1.5 of the May 15, 1987 (date stamped May 18, 1987) letter requires, in part, that if an individual's pocket dosimeter goes off scale and if the source is in the exposed position, the Radiation Safety Officer or Assistant Officer shall be notified immediately for instructions pertaining to the conditions of the dosimeter and the source.

Contrary to the above, on December 6, 1989, the radiographer's and radiographer assistant's dosimeters were off scale, the source was in an exposed position, and neither the Radiation Safety Officer nor the Assistant Officer were notified immediately for instructions pertaining to the conditions of the dosimeters and the sources.

Collectively, these violations have been classified as a Severity Level III problem (Supplement VI)

Cumulative Civil Penalty - $3,750 (assessed equally among the three violations)

II. Violation Not Assessed A Civil Penalty

10 CFR 34.31(c) requires that records of field examinations of a radiographer's assistant be maintained for three years.

Contrary to the above, as of the date of the inspection, records of the field examination for a radiographer's assistant given on November 9, 1989, were not maintained.

This is a Severity Level IV violation (Supplement VI)

Summary of Licensee's Response

The licensee admitted that the violations in Section I of the Notice occurred as stated. It further stated that it makes continuous efforts to make radiographers and radiographer's assistants aware of the need for safe operation and compliance with procedures. It has established an incentive plan to emphasize the need for commitment to these objectives on the part of these individuals. The licensee stated that it achieved compliance with Violations I.A., I.B., and I.C as of March 7, 1990.

The licensee also admitted the violation in Section II of the Notice occurred as stated. The licensee's president stated the violation occurred because he was not aware that records of field examinations must be kept on file. The licensee submitted a form which will be used to document the results of these field examinations.

NRC Evaluation Of Licensee's Response

The licensee admitted the violations in Section I and the violation in Section II occurred as stated in the Notice. The effectiveness of the licensee's corrective action program, which requires that licensee personnel comply with procedures, will be reviewed during the next inspection.

Summary of Licensee's Request For Mitigation

The licensee provided four reasons why the civil penalty should not be imposed. These reasons are as follows:

1. The licensee reported the violation to the NRC as soon as it was identified.

2. The licensee recognized the need for stricter adherence to procedures, and implemented an incentive program.

3. The licensee has had a good performance record since obtaining its license and strives to comply with all regulations.

4. The licensee believes that imposition of a penalty of the amount proposed would be a detriment to a small company such as Testmaster Inspection.

NRC Evaluation Of Licensee's Request For Mitigation

The NRC considered the licensee's prompt reporting when the amount of the proposed civil penalty was being determined. The NRC Enforcement Policy allows up to 50 percent mitigation for identification and prompt reporting. However, as explained in the February 13, 1990, letter transmitting the Notice of Violation, in this case only 25 percent mitigation was allowed because the licensee discovered the problem, not by aggressive self-evaluation, but by an event which was self-disclosing.

Although the licensee states that it recognized the need for stricter compliance with procedures, its short term corrective actions were poor in that, the day after the December 6, 1989 event, another individual was observed making three radiographic exposures without surveying the circumference of the exposure device or the guide tube. Also, licensee management did not take steps to immediately inform other radiography personnel of the event and did not take steps to ensure that these individuals understood the importance of adequate surveys. As a result of the licensee's poor short term corrective action, the base civil penalty was escalated 50 percent.

The NRC agrees with the licensee's assertion that it had good past performance and, in recognition of this past performance the base civil penalty was mitigated by 100 percent. However, the base civil penalty was escalated by 50 percent because the licensee had prior notice of similar problems when it received NRC Information Notice 88-66, "Industrial Radiography Inspection and Enforcement." This Notice addressed failure to survey exposure devices to ensure that the radiography source was secured in a safe position.

In its response the licensee asserts that the imposition of a civil penalty would be a detriment to a small company. The NRC Enforcement Policy recognizes that a licensee's ability to pay is a proper consideration in determining the amount of a civil penalty and that the imposition of a civil penalty should not result in the termination of the licensee's

business or a financial burden of such magnitude that a licensee is unable to safely conduct licensed activities. However, in its response, the licensee did not provide specific information or records which would enable the NRC to evaluate the licensee's financial status. Therefore, the licensee has not provided any basis for mitigation of the civil penalty based on financial hardship.

NRC Conclusion

The NRC has concluded that the violations occurred as stated and a sufficient basis for mitigation of the civil penalty was not provided by the licensee. Consequently, the proposed civil penalty of $3,750 should be imposed.

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

August 16, 1990

Docket Nos. 030-04530 and 030-06920
License Nos. 19-00915-03 and 19-00915-06
EA 90-120

U.S. Department of Agriculture
ATTN: Dean Plowman, Administrator
Agricultural Research Service
Administration Building
14th and Independence S.W.
Washington, D.C. 20250

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $5,000
(NRC Inspection Nos. 90-001 through 90-020)

This letter refers to the twenty NRC inspections conducted between January 25, 1990 and June 15, 1990 at your facilities throughout the country, including your headquarters office in Hyattsville, Maryland. The inspections consisted of reviews, evaluations and observations of activities authorized by NRC License Nos. 19-00915-03 and 19-00915-06. The report of these inspections was sent to you on June 28, 1990. During the inspections, violations of NRC requirements were identified, some of which were repetitive and some of which involved multiple examples. The majority of the violations were identified at the USDA's Richard B. Russell Agricultural Research Center in Athens, Georgia. One or more violations were identified at seven of the other facilities inspected.

As a result of the findings at the Athens, Georgia facility, a Confirmatory Action Letter (CAL No. 1-90-009) was issued to you on March 30, 1990 confirming your commitment to initiate appropriate corrective actions, including, among other things, training of personnel, as well as performing an independent review of the Athens facility by your Radiation Safety Officer, who is located in your central office in Hyattsville, Maryland. Further, on July 11, 1990, an enforcement conference was conducted with Dr. Mary Carter and other members of your staff to discuss the violations, their causes, and your corrective actions.

The violations, which are described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) include, but are not limited to: (1) the failure by management to ensure that your facilities were inspected internally by your radiation safety staff at the required frequencies; (2) failure to secure licensed material in unrestricted areas at three of your facilities; (3) failure to provide required training to certain individuals at the Athens and Beltsville facilities; (4) failure to perform a number of different types of surveys or evaluations, as required by your license or the NRC's regulations; (5) failure to perform leak tests of radioactive sources at the required frequency; and (6) failure to properly post and label radioactive materials and post areas in which such materials are used or stored.

The failure to ensure that your facilities are inspected by your radiation safety staff at the required frequencies is especially significant because the broad scope license issued to USDA allows great latitude in the management of the radiation safety program. In return for this latitude, the broad scope licensee accepts an incumbent responsibility to assure that all requirements of the NRC license are met and to identify and immediately correct potential violations of NRC requirements. Had the audits been conducted as required, the violations listed in the enclosed Notice should have been identified and corrected without the need for NRC to intercede. Furthermore, the failure to perform these audits at the required frequencies was also identified during NRC inspections in October 1988 and November 1989 and remained uncorrected. You should be aware that any further recurrence of this or similar violations may result in more significant escalated enforcement action.

Other than the violation involving failure to perform audits at the required frequencies, the safety significance of the individual violations is such that the violations, if considered individually, would normally be classified at Severity Level IV or V. However, as noted in the enclosed Notice, some of these violations involved multiple examples and some of the violations were identified either during previous NRC inspections at various USDA facilities in 1988 and 1989, or during your internal inspections. For example, on March 2-5, 1987, your former Radiation Safety Officer identified several deficiencies during an audit of the Athens facility; however, effective actions were not taken to correct these deficiencies as evidenced by the fact that an NRC inspector identified similar deficiencies in March 1990.

When viewed collectively, the violations in the enclosed Notice demonstrate a lack of management attention to, and oversight of, licensed activities. Therefore, they have been classified in the aggregate as a Severity Level III problem in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990) (Enforcement Policy).

At the enforcement conference, your staff acknowledged the need for improved oversight of, and attention to, your radiation safety program, by management of the individual facilities, as well as increased staffing of the Radiation Safety staff located in Hyattsville, Maryland. Such actions are particularly important because you possess a broad scope license and have authorized use of licensed materials at approximately 950 of your facilities throughout the country. Furthermore, you also described the corrective actions taken or planned to improve performance at, and oversight of, your facilities. These actions included: (1) the hiring of a new Radiation Safety Officer (RSO) in February 1990; (2) planned hiring of two additional health physicists to assist the Radiation Safety Officer and the one current health physicist on his staff; (3) planned hiring of a local Radiation Safety Officer for the Beltsville facility; (4) planned retention of an outside consultant to perform an independent audit of your radiation safety program; (5) dissemination of the findings at the Athens facility to all similar facilities (i.e., Category I facilities); (6) plans to use other USDA resources to assist in internal inspections of your facilities; and (7) initiation of additional specific controls at

the Athens facility, including requirements for internal assessments at that facility on a quarterly basis for one year, and then annually thereafter, by the responsible Industrial Health and Safety Officer.

To emphasize the importance of licensee management (including the Radiation Safety Committee and RSO) aggressively monitoring and evaluating licensed activities to assure that (1) these activities are conducted safely and in accordance with the terms of your license and (2) your corrective actions are long-lasting, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) in the amount of $5,000 for the violations described in the enclosed Notice.

The base civil penalty for a Severity Level III violation or problem is $2,500. The escalation and mitigation factors set forth in the Enforcement Policy were considered, and on balance, the base civil penalty has been escalated by 100% because: (1) the violations were identified by the NRC, and therefore, 50% escalation on this factor is warranted; (2) your corrective actions, as described above, were extensive, and therefore, 50% mitigation on this factor is warranted; and (3) the enclosed Notice lists four violations that have recurred from previous inspections and a number of additional violations that could have been prevented if the findings of an audit performed by your staff at the Athens, Georgia facility in 1987 had been acted upon; therefore 100% escalation is warranted on the combined basis of your past enforcement history and the prior notice that you received. The NRC also considered escalating the penalty because some of the violations involved multiple examples that existed for an extended duration. However, these factors were a consideration in the NRC's classification of the violations in the aggregate at Severity Level III, and therefore, the NRC has decided that further escalation based on these factors is not warranted.

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

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

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

Sincerely,

Thomas T. Martin
Regional Administrator

Enclosure: Notice of Violation and Proposed
Imposition of Civil Penalty

cc w/encl:
Public Document Room (PDR)
Nuclear Safety Information Center (NSIC)
State of Maryland
State of Arizona
State of Georgia
State of California
State of North Dakota
State of Texas
State of Florida

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

U.S. Department of Agriculture
Washington, DC

Docket Nos. 030-04530 and 030-06923
License Nos. 19-00915-03 and 19-00915-06
EA 90-120

During NRC inspections conducted at twenty licensee facilities between January 25 and June 15, 1990, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990), the Nuclear Regulatory Commission 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 violations and associated civil penalty are set forth below:

A. 10 CFR 20.207(a) requires that licensed materials stored in an unrestricted area be secured against unauthorized removal from the place of storage. 10 CFR 20.207(b) requires that licensed materials in an unrestricted area and not in storage be under constant surveillance and immediate control of the licensee. As defined in 10 CFR 20.3(a)(17), an unrestricted area is any area access to which is not controlled by the licensee for purposes of protection of individuals from exposure to radiation and radioactive materials.

Contrary to the above,

1. on March 5, 1990, at the Wilcox Field Office, Soil Conservation Service, Wilcox, Arizona, a moisture gauge containing licensed material (americium-241) was stored in an unrestricted area consisting of an unlocked storage room accessible to unauthorized persons, and at the time, the gauge was not secured against unauthorized removal nor was it under constant surveillance or immediate control of the licensee;

2. on March 23, 1990, at the Richard B. Russell Agricultural Research Center, Athens, Georgia, licensed material (radioactive waste) was stored in an unrestricted area consisting of unlocked laboratories accessible to unauthorized persons, and at the time, the material was not secured against unauthorized removal nor was it under constant surveillance or immediate control of the licensee;

3. on April 3, 1990, and for at least three years prior to that date, at the Pasadena Subtropical Fruit Laboratory, Pasadena, California, millicurie quantities of licensed material (carbon-14) were stored in unrestricted areas consisting of unlocked refrigerators in three separate unlocked laboratories, and at the time, this material was not secured against unauthorized removal nor was it under constant surveillance or immediate control of licensee.

This is a repeat violation.

B. Condition 24 of License No. 19-00915-03 requires that licensed materials be used in accordance with the statements, representations, and procedures included with the July 11, 1989 license application.

1. Item 3 of the July 11, 1989 license application defines U.S. Department of Agriculture (USDA) Category I, II, and III facilities and requires that USDA Category I facilities be inspected at intervals not to exceed three years and that USDA Category II facilities be inspected at intervals not to exceed five years.

   Contrary to the above, as of June 15, 1990, nine of sixteen USDA Category I facilities had not been inspected within the previous three years, and 25 of 107 USDA Category II facilities had not been inspected within the previous five years.

   This is a repeat violation.

2. Items 10.5.1.C and 10.5.1.B.1 of the July 11, 1989 license application require that radioiodinations involving more than 100 microcuries of iodine be performed in an operating laboratory fume hood having a minimal face velocity of 100 linear feet per minute (LFM). Item 9.2.F of the July 11, 1989 license application requires all operations (of laboratory fume hoods) to be conducted beyond a safety line six to eight inches inside the face of the hood.

   Contrary to the above, as of March 23, 1990, at the Richard B. Russell Agricultural Research Center, Athens, Georgia, radioiodinations involving more than 100 microcuries of iodine were performed routinely in hoods having face velocities less than 100 LFM, and these operations were conducted inside the hood less than six inches from the face of the hood (none of the hoods inspected had a marked safety line six to eight inches inside the hood).

3. Items 10.5.1.C and 10.5.1.B.2 of the application require that, during radioiodinations involving more than 100 microcuries, an appropriate survey meter with a crystal-type detector shall be available to monitor radiation levels and contamination on personnel and work areas during and after each use of iodine. Item 9.14 of the application requires that equipment involved in use of radioactive materials r be removed from the laboratory and not be mixed with "clean equipmen until demonstrated to be free of contamination.

   Contrary to the above, as of March 23, 1990, at the Richard B. Russell Agricultural Research Center, Athens, Georgia, the licensee performed radioiodinations involving more than 100 microcuries and did not have available a survey meter with a crystal type detector during those radioiodinations. Further, during these operations, the license did not survey the equipment for personnel contamination, and removed equipment after use and mixed it with clean equipment without a survey of the equipment prior to removal.

4. Items 10.5.1.C. and 10.5.1.B.3 of the July 11, 1989, application require that, for radioiodinations utilizing more than 100 microcuries of iodine, quantitative thyroid uptake evaluations be performed prior to the start of use and again 24 hours after each use of radioiodine, and records of all evaluations be maintained by each responsible user.

   Contrary to the above, as of March 23, 1990, at the Richard B. Russell Agricultural Research Center, Athens, Georgia, radioiodinations were routinely performed utilizing more than 100 microcuries of iodine-125, and thyroid evaluations were not performed.

5. Item 9.18 of the license application requires that laboratory areas where less than 200 microcuries are used at a time, be surveyed monthly for removable contamination. It further requires weekly surveys of laboratory, storage, and waste areas where quantities greater than 200 microcuries are used.

   Contrary to the above, as of March 23, 1990, at the Richard B. Russell Agricultural Research Center, Athens, Georgia, and, as of June 15, 1990, at the Beltsville Agricultural Research Center, Beltsville, Maryland, contamination surveys of laboratory areas where greater than 200 microcuries were used, as well as storage and waste areas, were not performed on a weekly basis. Furthermore, contamination surveys of laboratory areas, where less than 200 microcuries were used, were not performed on a monthly basis.

6. Item 9.16 of the license application requires that users of gamma emitters and beta emitters whose energy exceeds 0.3 MeV have suitable survey instruments and that these survey instruments have a label attached that shows the date tested, the testing facility and whether corrections need to be made for any readings. It further requires each user to obtain a small check source for making frequent operational checks of the meter.

   Contrary to the above, between December 1989 and March 23, 1990, at the Richard B. Russell Agricultural Research Center, Athens, Georgia, the toxicology laboratory, which used millicurie quantities of phosphorus-32 (whose energy exceeds 0.3 MeV), had no operational survey instrument and other laboratories, although possessing a survey meter, did not have the required labels or check sources for the survey instruments.

C. 10 CFR 19.12 requires that all individuals frequenting a restricted area be kept informed of the storage or use of radioactive materials in such area; be instructed in the health protection problems associated with exposure to such radioactive materials, in precautions or procedures to minimize exposure, and in the functions of protective devices employed; and be instructed to observe the applicable provisions of Commission regulations and licenses for the protection of personnel from exposures to radioactive materials.

Contrary to the above,

1. as of March 23, 1990, at the Richard B. Russell Agricultural Research Center, Athens Georgia, individuals working in the licensee's restricted area had not been instructed in the provisions in the licensee's license and the licensee's operating procedures, including the procedures for the safe opening of packages of radioactive materials and the prohibition on eating in laboratories where radioactive materials are used.

2. as of June 15, 1990, at the Beltsville Agricultural Research Center, Beltsville, Maryland, individuals working in the licensee's restricted area had not been instructed in the provisions in the licensee's license and the licensee's operating procedures, including the requirement to wear gloves while handling radioactive materials and the prohibition on eating in laboratories where radioactive materials are used.

D. 10 CFR 20.201(b) requires that each licensee make such surveys as may be necessary to comply with the regulations in Part 20. As defined in 10 CFR 20.201(a), "survey" means an evaluation of the radiation hazards incident to the production, use, release, disposal, or presence of radioactive materials or other sources of radiation under a specific set of conditions.

Contrary to the above, as of March 23, 1990, at the Richard B. Russell Agricultural Research Center, Athens, Georgia,

1. the licensee had not performed an evaluation of the combined contribution of licensee researchers' radioactive waste leaving the facility via the sewerage line to assure compliance with 10 CFR 20.303;

2. a licensee researcher had not, for approximately two months prior to the inspection, surveyed potentially radioactive waste prior to disposal in the normal trash to assure compliance with 10 CFR 20.301; and

3. the licensee had not performed an evaluation of airborne releases of licensed material from an incinerator to unrestricted areas, to assure compliance with 10 CFR 20.106.

E. Condition 19 of Amendment No. 100 of License No. 19-00915-03, as well as Condition 20 of previous Amendments Nos. 93-99 of the license (in effect between August 6, 1985 through February 10, 1990) require that ash residues from the incineration of licensed material be disposed of as ordinary waste only after appropriate surveys are made to determine the concentration of licensed material in the ash.

Contrary to the above, from August 14, 1986, through December 26, 1989, at the Grand Forks Human Nutrition Research Center, Grand Forks, North Dakota, and as of March 23, 1990, at the Richard B. Russell Agricultural

Research Center, Athens, Georgia, ash from the incineration of licensed materials was disposed of as ordinary waste without a survey to determine the concentration of licensed material in ash.

F. Condition 12 of License No. 19-00915-03 requires that sealed sources be tested for leakage at intervals not to exceed 6 months or at such other intervals as are specified by the certificate of registration, not to exceed 3 years.

Contrary to the above, as of June 15, 1990, approximately 280 of the licensee's 1500 sources had not been tested for leakage at 6-month intervals nor was there a certificate of registration that authorized testing at intervals less frequent than every 6 months.

G. 10 CFR 71.5(a) requires that each licensee who transports licensed material outside the confines of its plant comply with the applicable requirements of 49 CFR Parts 170-189.

49 CFR 173.422 permits the shipment of certain devices containing radioactive materials as "instruments and manufactured articles", exempt from the specification packaging, shipping paper and certification, marking and labeling requirements described therein, provided, among other things, that the dose rate at any point on the external surface of the package does not exceed 2 millirem per hour.

Contrary to the above, as of February 15, 1990, at the Soil Conservation facility in Bryan, Texas, a package containing an instrument (portable gauge containing 8 millicuries of cesium-137 and 40 millicuries of americium-241) was routinely shipped from that facility to temporary job sites as exempt from the specification packaging, shipping paper and certification, marking and labeling requirements described in 49 CFR 173.422, with shipping papers indicating that it contained "instruments and articles", and at the time of shipments, the dose rate on a portion of the external surface of the package was 8 millirem per hour.

H. 10 CFR 19.11(a)(2) and (3) require, in part, that current copies of the license and operating procedures be posted. 10 CFR 19.11(b) requires that if such posting is not practicable, a notice, which describes the documents and where they may be examined, must be posted.

Contrary to the above, on March 23, 1990, at the Richard B. Russell Agricultural Research Center, Athens, Georgia; on April 27, 1990 at the Stored Products Insects Research and Development Laboratory, Savannah, Georgia; and on May 2, 1990, at the South Atlantic Area Aquatic Weed Research facility, Fort Lauderdale, Florida, a current copy of the license or operating procedures was not posted, nor was a notice posted describing those documents and where they could be examined.

This is a repeat violation.

I. 10 CFR 20.203(f)(1) requires that each container of licensed material bear a durable, clearly visible label identifying the radioactive contents. 10 CFR 20.203(f)(2) requires that the label bear the radiation caution symbol and the words "CAUTION - RADIOACTIVE MATERIALS" and provide sufficient information to permit individuals handling the containers or working in the vicinity thereof to take precautions to avoid or minimize exposures, including, as appropriate, the kind of material, estimate of activity, and date of the estimate of activity. 10 CFR 20.203(e) requires that each room or area in which licensed material is used or stored, and which contains any radioactive material (other than natural uranium or thorium) in an amount exceeding ten times the quantity of such material specified in Appendix C of 10 CFR Part 20, be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words "CAUTION - RADIOACTIVE MATERIALS".

Contrary to the above,

1. on March 29, 1990, at the Richard B. Russell Agricultural Research Center, Athens, Georgia, the door to a freezer which contained 250 microcuries of phosphorus-32, and the door to a freezer which contained 15 millicuries of carbon-14 (amounts in excess of 10 times the quantities set forth in Appendix C of 10 CFR Part 20), were not posted with a "CAUTION - RADIOACTIVE MATERIALS" warning sign. Further, another container of 15 millicuries of carbon-14 did not indicate the kind of material, estimate of activity, or the date for which the activity was estimated.

2. on April 27, 1990, at the Stored Products Insects Research and Development Laboratory, Savannah, Georgia, the toxicology laboratory as well as containers of licensed materials stored in the toxicology laboratory and containing quantities in excess of 10 times the limits set forth in Appendix C, were not posted or labelled with a "CAUTION - RADIOACTIVE MATERIALS" sign. Further, the containers did not bear a label identifying the radioactive contents and activity.

This is a repeat violation.

J. 10 CFR 20.401(b) requires that licensees maintain records of surveys showing the results of surveys required by 10 CFR 20.201(b).

Contrary to the above, as of April 27, 1990, at the Stored Products Insects Research and Development Laboratory, Savannah, Georgia, the licensee did not maintain records of surveys of the toxicology laboratory.

These violations have been classified in the aggregate as a Severity Level III problem. (Supplements IV and VI)

Cumulative Civil Penalty - $5,000 (assessed equally among the 15 violations)

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

Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, 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 violations listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C (1990), should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

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

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington,

DC 20555 with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region I, 475 Allendale Road, King of Prussia, Pennsylvania 19406.

FOR THE NUCLEAR REGULATORY COMMISSION

Thomas T. Martin
Regional Administrator

Dated at King of Prussia, Pennsylvania
this 16 day of August 1990

II.B. MATERIAL LICENSEES, SEVERITY LEVEL III VIOLATION,
NO CIVIL PENALTY

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

July 26, 1990

Docket No. 030-16055
License No. 34-19089-01
EA 90-051

Advanced Medical Systems, Inc.
ATTN: Seymour S. Stein, Ph.D.
1020 London Road
Cleveland, OH 44110

Gentlemen:

SUBJECT: NOTICE OF VIOLATION
(NRC INSPECTION REPORT NO. 030-16055/90001)

This refers to an NRC inspection conducted on January 23 - 26, 1990, at Advanced Medical Systems, Inc. (AMS) in Cleveland, Ohio. An inspection report documenting the findings of this inspection was sent to you on March 13, 1990. An Enforcement Conference between me and members of the Region III and Headquarters staffs and you and members of your staff was conducted in Cleveland, Ohio on March 27, 1990.

This inspection identified several violations: (1) the emergency electrical generator for your air handling and radiological monitoring equipment was inoperable; (2) bioassays of workers were not performed as required; (3) high radiation area access controls were not adequate; (4) an alarming dosimeter used during a hot cell entry had not been calibrated within 6 months prior to its use; (5) physical inventories of sealed sources and devices had not been conducted; (6) the evaluation of exposure to an individual in excess of 40 MPC hours was not documented; (7) an external semiannual audit of facilities and procedures was not conducted as required; (8) the master alarm panel did not properly indicate opening of the basement door, nor was there any warning light over the basement door as required; and (9) the roof area was not conspicuously posted as a radiation area.

With regard to the specific violation for failure to conduct physical inventories of radioactive material, we understand that you have such an inventory underway which will be completed by the end of the year. We also understand that you will propose, in a request for a license amendment, an alternative means of assuring that the location and amount of licensed material in your possession is accurately known. During the Enforcement Conference, you discussed the difficulties inherent in performing a physical inventory at six month intervals. While we appreciate those difficulties, you should be aware that you are required to comply with NRC license conditions and

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

regulations unless you request and receive specific relief in the form of a license amendment.

In addition to the violations that were identified, the NRC staff identified the following concerns regarding your operations: (1) your corrective actions regarding problems with the automatic start of the emergency generator, including two previous failed tests, were not initially effective; (2) there was no battery powered emergency lighting in your hot cell or other radiological areas to provide illumination during the loss of offsite power and inoperability of the emergency generator that occurred on January 24, 1990; (3) the hot cell HEPA filtration system was supported by rope which could fail in the event of a fire in that area; and (4) the accumulation of radwaste located in various areas of the facility appeared to be excessive. Collectively, these violations and concerns demonstrate inadequate attention to detail and inadequate management oversight regarding the radiation safety requirements of your license.

On March 27, 1990, we conducted an Enforcement Conference to review the apparent violations and to determine the corrective actions you have taken regarding these items. We note that you have initiated or completed corrective actions for the individual problems identified during the January inspection. However, you did not completely address the underlying causes of these violations, and therefore also failed to address the steps you plan to take to preclude repetition of these violations. Some underlying causes that we identified included: (1) AMS management was not fully aware of the regulatory requirements, including the procedures contained in its license; (2) aggressive action was not taken by AMS management to self-identify and correct problems; and (3) AMS erroneously believed it could change practices required by license conditions prior to the receipt of written NRC approval in the form of a license amendment. In addition, we were concerned that during the enforcement conference, you failed to demonstrate an awareness of the significance of the failure to maintain the emergency generator in operable condition.

In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" 10 CFR Part 2, Appendix C (1990) (Enforcement Policy), the violations described in the enclosed Notice of Violation (Notice) represent a breakdown in control over your licensed activities and have been classified as a Severity Level III problem. In accordance with the Enforcement Policy, a civil penalty normally is proposed for a Severity Level III problem. However, in this case, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support, I have decided not to propose a civil penalty. This decision is based on the positive steps you have taken to improve your facility over the past several years, especially with regard to decontamination of the facility and ongoing improvements to the hot cell ventilation system, and the positive safety attitude expressed by your Radiation Safety Officer during the

tour prior to the Enforcement Conference and at the Enforcement Conference. We expect you to fully resolve the management issues identified above without the need for a civil penalty.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. The response is required within 30 days of the date of this letter transmitting the Notice. In addition to your response to the specific violations, we also request that you address the apparent underlying causes of the violations discussed above. Specifically, we request that you describe:

A. Plans for ensuring that the management team of AMS fully understands the applicable regulatory requirements, including 10 CFR Parts 19, 20, and 30, and the requirements of License No. 34-19089-01, including the licensee's own procedures which formed the basis for the license and which are currently referenced in License Condition 17, Amendment No. 17.

B. Plans for self-identification of safety issues and violations through internal and/or independent audits. These audits should include direct observation of worker activities as well as oversight of programmatic activities required by the license. These plans should include specific dates or frequencies at which adherence to requirements will be reviewed.

C. Corrective action plans, including root cause evaluations, that will address how, by whom, and in what time frame the items noted as a result of the self-identification of problems in Item B will be addressed.

You should be fully aware that we are using enforcement discretion as permitted in the NRC Enforcement Policy, anticipating that you will correct the underlying causes of the violations.

We note that your communications with NRC representatives during the tour of your facility prior to the Enforcement Conference and during the Enforcement Conference were professional. We appreciate that professionalism and hope that future technical and regulatory differences will be discussed and resolved in a similar professional manner.

After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements. It is anticipated that an on-site review will be conducted within the next six months to examine your corrective actions.

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

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the paperwork reduction act of 1980, Pub. L. 96-511.

Sincerely,

A Bert Davis

A. Bert Davis
Regional Administrator

Enclosures:
1. Notice of Violation
2. Inspection Report
   No. 030-16055/90001

cc w/enclosures:
DCD/DCB (RIDS)

NOTICE OF VIOLATION

Advanced Medical Systems, Inc.
Cleveland, Ohio

Docket No. 030-16055
License No. 34-19089-01
EA 90-051

During an inspection conducted on January 23-26, 1990, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990) the violations are listed below:

A. License Condition No. 17 of Amendment No. 17, which became effective on December 13, 1989, requires that the licensee conduct its program in accordance with the statements, representations, and procedures contained in referenced documents, including any enclosures. A referenced letter, dated December 4, 1986, transmitted a revised ISP-1 Manual which describes the hot cell supporting facilities and equipment. Page 12 of ISP-1 states, "The operation of the air handling equipment, the monitoring facilities and the liquid waste facilities is insured in the event of electrical power failure by a natural gas burning emergency generator with automatic rapid changeover. An emergency lighting system is also powered by this generator."

Contrary to the above, as of January 24, 1990, the operation of the air handling equipment, monitoring facilities, and liquid waste facilities was not insured by rapid automatic changeover to the emergency generator. Specifically, 1) on that date, a power outage occurred at the licensee's facility and the emergency generator failed to start automatically; and 2) the licensee's records revealed that on January 6, 1990 and January 19, 1990, the licensee had checked this system for startup and noted that the generator did not automatically start upon initial attempts and that a possible battery problem existed; however, no action was taken to correct the apparent problem.

B. License Condition No. 19 of Amendment No. 16, which became effective on January 19, 1989, requires that the licensee conduct its program in accordance with statements, representations, and procedures contained in referenced documents, including any enclosures. A referenced letter, dated December 4, 1986, transmitted a revised ISP-1 Manual which includes the licensee's bioassay program. Item H of the bioassay program requires, among other things, that all personnel who have extended employment at the London Road facility and who routinely enter bioassay areas for routine operation or maintenance be assayed annually and prior to employment termination. Also, a special bioassay is required when there is an internal exposure in excess of 40 MPC-Hrs in seven consecutive days.

Contrary to the above, the licensee failed to perform:

1. Annual bioassays in 1989 for two individuals who had extended employment at the London Road Facility and who routinely entered bioassay areas for routine operations or maintenance.

2. A special bioassay for one of these two individuals who had received an internal exposure of 66.7 MPC-hrs on April 13, 1989.

3. A bioassay prior to employment termination (in early 1989) of at least one individual who routinely entered bioassay areas for operation or maintenance at the London Road facility.

C. 10 CFR 20.203(c)(2)(i)-(iii) requires that each entrance or access point to a high radiation area be equipped with certain control devices or be maintained locked except during periods when access to the area is required, with positive control over each individual entry.

Contrary to the above, during the January 23-26, 1990 inspection period, the access point to the decontamination room, a high radiation area, was not equipped with a control device pursuant to 10 CFR 20.203(c)(2)(i) or (c)(2)(ii); the lock on the decontamination room door was broken; and the door was not locked during periods when access to the area was not required.

D. License Condition No. 19 of Amendment No. 16, which became effective January 19, 1989, requires that the licensee conduct its program in accordance with statements, representations, and procedures contained in referenced documents including any enclosures. A referenced letter, dated December 4, 1986, transmitted a revised ISP-1 Manual which includes ISP-31 and attachment 10.6 to ISP-1. Attachment 10.6 to ISP-1 requires that alarming dosimeters be calibrated at a frequency of "six months per ISP-31 or before the first use if greater than six months since last calibration."

Contrary to the above, an alarming dosimeter that was last calibrated on July 27, 1987, was used during a hot cell entry in April 1989.

E. License Condition No. 14 of Amendment No. 14, which became effective on January 26, 1988, requires that the licensee conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license.

Contrary to the above, during the period January 1988 through January 26, 1990, the licensee did not conduct a physical inventory to account for all sources and/or devices received and possessed under the license.

F. 10 CFR 20.103(b)(2) requires, in part, that whenever the intake of radioactive material by any individual exceeds the specified 40-hour control measure, the licensee make such evaluations and take such actions as are necessary to assure against recurrence, and further requires that the licensee maintain records of such occurrences, evaluations, and actions taken in a clear and readily identifiable form suitable for summary review and evaluation.

Contrary to the above, although the licensee asserted that an evaluation was made after a worker exceeded the 40-hour control measure on April 13, 1989, records of this evaluation and action to assure against recurrence were not maintained.

G. License Condition No. 19 of Amendment No. 14, which became effective on January 26, 1988, requires that the licensee conduct its program in accordance with statements, representations, and procedures contained in referenced documents, including any enclosures. A referenced letter, dated May 7, 1987, transmitted the ATC Medical Group's Management Plan, revised April 30, 1987. The management plan provides that external audits of the isotope handling facilities, source manufacturing procedures, and documentation will be conducted on a semiannual basis by a third party quality assurance auditing service.

Contrary to the above, no semiannual external audits of the isotope handling facilities, source manufacturing procedures, and documentation were performed by a third party quality assurance auditing service during the period January 1, 1989 through December 13, 1989.

(Repeat violation from November 1988 inspection.)

H. License Condition No. 17 of Amendment No. 17, which became effective on December 13, 1989, requires that the licensee conduct its program in accordance with statements, representations, and procedures contained in referenced documents including any enclosures. A referenced letter, dated December 4, 1986, transmitted a revised ISP-1 Manual which describes the Master Alarm Panel operation. Page 18 of ISP-1 states that the Master Alarm Panel shows a warning light for the basement door in the Isotope Shop Area, which will indicate a steady bright red light when the door has been opened and indicate to the hot cell operator that personnel are in this area. Page 20 of ISP-1 states that when the basement door is opened, a steady red light turns on above the door.

Contrary to the above, during the January 23-26, 1990 inspection period, the Master Alarm Panel did not indicate any light when the basement door in the Isotope Shop Area was opened and no warning light existed above the basement door.

I. 10 CFR 20.203(b) requires that each radiation area be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words: Caution Radiation Area.

Contrary to the above, on January 24, 1990, the roof area above the equipment room, a radiation area, was not conspicuously posted in that the radiation area sign was face down on the roof and partially covered with roofing material.

Collectively, these violations represent a Severity Level III problem (Supplement VI).

Pursuant to the provisions of 10 CFR 2.201, Advanced Medical Systems, Inc. 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 III, U.S. Nuclear Regulatory Commission, 799 Roosevelt Road, Glen Ellyn, IL 60137, 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, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

FOR THE NUCLEAR REGULATORY COMMISSION

A. Bert Davis
Regional Administrator

Dated at Glen Ellyn, Illinois
this 26th day of July 1990

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

JUL 2 3 1990

Docket No. 030-30391
License No. 45-24967-01
EA 90-113

Tri-State Associates, Inc.
Materials Testing and Inspection
ATTN: Ms. JoAnn Dunn
President
Post Office Box 1579
Woodbridge, Virginia 22193

Madam:

SUBJECT: NOTICE OF VIOLATION
(NRC INSPECTION REPORT NO. 45-24976-01/90-01)

This refers to the Nuclear Regulatory Commission (NRC) special safety inspection conducted by Mr. D. Collins on May 30, 1990, at Tri-State Associates, Inc., Woodbridge, Virginia, to evaluate the radiography incident that occurred on May 28, 1990, at a temporary field radiography site in Gainesville, Virginia, which you reported to the NRC by telephone on May 29, 1990. The report documenting this inspection was sent to you by letter dated June 13, 1990. As a result of this inspection, a significant failure to comply with NRC regulatory requirements was identified. An Enforcement Conference was held on June 20, 1990, to discuss the violation, its cause, and your corrective actions to preclude its recurrence. A letter summarizing this conference was sent to you on June 27, 1990.

The violation described in the enclosed Notice of Violation (Notice) involved the failure to perform a survey to evaluate radiation hazards incident to radiographic operations. The failure to perform the survey resulted from a serious lapse of attentiveness to operational activity by a licensee radiographer and led to a situation where there was substantial potential for exposure in excess of limits established in 10 CFR Part 20. On May 28, 1990, an experienced licensee radiographer began disassembling the guide tubes of a radiographic exposure device while the sealed 98 Curie iridium-192 source was still exposed for a radiographic operation which he had initiated approximately ten minutes earlier. After removing edge defining bars from the sample piece being exposed and when disconnecting the guide tube coupling, the radiographer saw that the radiographic source drive cable was still inside the guide tube and he immediately realized the source was still exposed. He quickly reconnected the coupling and retreated to the crank assembly to retract the source and secure it in the shielded position.

Subsequent evaluation of the radiographer's dosimetry indicated that he received a whole body radiation exposure of 880 mrem. Although no radiation dose in excess of regulatory requirements occurred, the potential for a serious radiation exposure was clearly present. Any unnecessary radiation dose must be kept

as low as reasonably achievable and in this particular case, a significant radiation dose could have been avoided had a survey been performed prior to the radiographer approaching the radiographic exposure device. Therefore, this violation has been categorized at Severity Level III.

In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy) 10 CFR Part 2, Appendix C (1990), a civil penalty is considered for a Severity Level III violation. However, after consultation with the Director, Office of Enforcement, I have decided that a civil penalty will not be proposed in this case after considering your reporting of the event to the NRC, corrective actions, and prior performance.

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

In accordance with 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.

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

Sincerely,

Stewart D. Ebneter

Stewart D. Ebneter
Regional Administrator

Enclosure:
Notice of Violation

cc: Commonwealth of Virginia

NOTICE OF VIOLATION

Tri-State Associates, Inc.
Woodbridge, Virginia

Docket No. 030-30391
License No. 45-24967-01
EA 90-113

During the Nuclear Regulatory Commission (NRC) inspection conducted on May 30, 1990, a violation of NRC requirement was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990), the violation is listed below:

10 CFR 20.201(b) requires that each licensee make such surveys as may be necessary to comply with the requirements of Part 20 and which are reasonable under the circumstances to evaluate the extent of radiation hazards that may be present. As defined in 10 CFR 20.201(a), "survey" means an evaluation of radiation hazards incident to the production, use, release, disposal, or presence of radioactive materials or other sources of radiation under a specific set of circumstances.

Contrary to the above, on May 28, 1990 the licensee did not make surveys to assure compliance with that part of 10 CFR 20.101 that limits the radiation exposure to the whole body. Specifically, a licensee radiographer failed to survey an exposed radiographic source as he approached the vicinity of the source. The sealed 98 curie iridium-192 radiography source had an estimated exposure rate of 509 rem per hour at a distance of one foot.

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

Pursuant to the provisions of 10 CFR 2.201, Tri-State Associates, Inc., (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 II, 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, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

FOR THE NUCLEAR REGULATORY COMMISSION

Stewart D. Ebneter
Regional Administrator

Dated at Atlanta, Georgia
this 23rd day of July 1990

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

July 2, 1990

Docket No. 030-02764
License No. 34-06903-05
EA 90-040

University of Cincinnati
ATTN: Donald Harrison, MD
Senior Vice President and
Provost for Health Affairs
141 Health Professions Building
Cincinnati, OH 46627-0553

Gentlemen:

SUBJECT: NOTICE OF VIOLATION
(NRC INSPECTION REPORT NO. 030-02764/89002(DRS))

This refers to the special safety inspections of the radiation safety program conducted by the NRC Region III Staff during the period of August through October 1989 at the University of Cincinnati and to the August 22 and November 1, 1989, meetings with the University of Cincinnati in the Region III office concerning your radiation safety program.

On August 22, 1989, Dr. J. Wiot, Chairman of the Radiation Safety Committee, visited the Region III office and reported that the University of Cincinnati had received a series of allegations concerning the management of the University's radiation safety program, including questions about the integrity of the Radiation Safety Officer (RSO) and the Deputy RSO. Dr. Wiot also discussed the University's plan to investigate the allegations utilizing the services of a consultant. You subsequently notified Region III that the RSO and Deputy RSO were administratively relieved of their responsibilities in the radiation safety program, and the replacement of the RSO was confirmed by license amendment on August 24, 1989.

Your consultant's review was conducted from August through October 1989 and included field inspections at approximately 700 research laboratories in various facilities operated by the University of Cincinnati. This review included not only visits to the laboratories, but also radiological surveys in the laboratories, observation of laboratory practices and procedures, review of research protocols, and inventorying licensed materials. These activities resulted in the identification of 30 violations of NRC requirements. The majority of the violations related to the failure to either perform or document the results of various required surveys and inventories, and included the failure to conduct source leak tests, dose calibrator constancy checks, radiopharmaceutical dose checks, surveys of research laboratories and nuclear medicine preparation and injection areas, and evaluations of Xenon gas effluent concentrations. Other violations included either the failure to provide training or document the training given, the use and/or storage of NRC licensed

materials in unauthorized locations, improper disposal of radioactive materials in sanitary sewers and in trash, and unauthorized service activities for other licensees. Those violations are summarized in Attachment 1 of the enclosed Notice of Violation (Notice).

As a result of these violations you instituted the following changes to your radiation safety program:

- The Radiation Safety Committee and the radiation safety office were reorganized and a number of committee members were replaced.
- Procedures and guidelines were developed for the operation of the radiation safety committee.
- Standardized operating procedures were developed for the daily operations of the radiation safety office.
- A computer enhanced material control and accountability system was created to replace the previously used hand-generated method of inventorying licensed materials.
- The audit program of the radiation safety office was expanded to include the development of an enforcement policy to promote compliance among the researchers.

The inspection conducted by the Region III staff, which identified many of the same violations, found that all of the significant program weaknesses and regulatory violations were already identified through the University's evaluation of the program. The NRC inspectors also verified that corrective action was underway for all violations. That corrective action was discussed at the November 1, 1989, management meeting held in the Region III office and described in your consultant's report, transmitted to NRC Region III by letter dated November 3, 1989.

The 30 violations described in Attachment 1 of the enclosed Notice represent a serious breakdown in the management of your radiation safety program. Four violations were repetitions of violations disclosed during NRC inspections in 1986 and 1988, which indicates that your corrective action for those earlier violations was not effective or lasting. The broad scope license issued to the University of Cincinnati allows the University significant latitude in the management of the radiation safety program and entrusts great responsibility to those individuals responsible for radiation safety at the University. Incumbent on the broad scope licensee is the responsibility to protect the public health and safety by assuring that all requirements of the NRC license are met and that potential violations of NRC requirements are not only identified, but are also immediately corrected. To have allowed 30 violations of NRC requirements to occur, many of which involved numerous examples and continued over a significant period of time, is indicative of ineffective control and oversight of the radiation safety program by the University, notably by the members of the Radiation Safety Committee and the Radiation

Safety Officer. To have allowed these violations of NRC requirements to occur and go undetected and uncorrected, including your failure to effectively correct prior violations, demonstrates that a careless disregard existed for the radiation safety duties and responsibilities at the University of Cincinnati.

Breakdowns in the performance of a radiation safety program are usually classified at Severity Level III. In this case, the severity of these violations is exacerbated by the careless disregard for regulatory requirements demonstrated by those University employees responsible for managing and overseeing the radiation safety program. Therefore, the severity level for this breakdown in the radiation safety program at the University of Cincinnati has been classified at Severity Level II.

Severity Level II violations are normally accompanied by a civil monetary penalty. However, we recognize that senior management of the University of Cincinnati took strong initiatives to fully identify the weaknesses in the radiation safety program and the potential violations of NRC requirements, once they appreciated the scope of the regulatory problems that existed within the University's program. After consultation with the Commission, the Executive Director for Operations, and the Director, Office of Enforcement, I have decided not to assess a civil penalty in this case in order to encourage and support the initiative and effectiveness of senior managers of the University of Cincinnati in fully identifying and correcting these problems in the radiation safety program. However, further enforcement action will be taken should these violations recur.

As you are aware, we have under continuing investigation certain activities of your former Radiation Safety Officer and former Assistant Radiation Safety Officer. We will inform you of the results of our investigation when they are available and will determine if enforcement action concerning this matter is warranted. While we are taking no position concerning these individuals at this time, if you authorize either of these two individuals to use or supervise the use of licensed material under your license, we request that you notify NRC Region III within one week of taking this action.

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

Sincerely,

A. Bert Davis

A. Bert Davis
Regional Administrator

Enclosures:
1. Notice of Violation
2. Inspection Report
   No. 030-02764/89002(DRSS)

NOTICE OF VIOLATION

University of Cincinnati
Cincinnati, Ohio

Docket No. 030-02764
License No. 34-06903-05
EA 90-040

As a result of an inspection conducted during the period of September 19 through November 1, 1989, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1989), the particular violation is set forth below:

10 CFR 33.13 states that an application for a Type A specific license of broad scope will be approved if the applicant has established administrative controls and procedures, record keeping, material control, and accounting and management review that are necessary to ensure safe operations. The licensee submitted its administrative controls to satisfy Section 33.13 in its application for license renewal dated August 13, 1984.

Effective May 21, 1986, Condition No. 20 of NRC License No 34-06903-05 requires, in part, that the licensee conduct its program in accordance with the statements, representations, and procedures contained in the application dated August 13, 1984, including an attachment dated August 9, 1984.

Item No. 6 of the attachment to the referenced application states, in part, that the Radiation Safety Committee (RSC) has the responsibility to take remedial action if safe procedures are not being observed or if procedures are not in compliance with government regulations.

Item No. 15 of the attachment to the referenced application states that the RSO is responsible for administering the radiation safety program established by the RSC, including inspecting users for compliance with RSC specified procedures.

Contrary to the above, during the two years prior to the date of the inspection, September 19, 1989, as evidenced by 30 violations of NRC requirements that were identified in a Licensing Audit Report prepared by the licensee's contractor and issued October 30, 1989:

(1) The RSO failed to adequately administer the radiation safety program established by the RSC, and

(2) The RSC failed to take remedial action when safe procedures were not being observed and when procedures were not in compliance with NRC regulations.

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

The 30 violations of NRC requirements identified in the Licensing Audit Report prepared by the licensee's contractor are summarized in Attachment 1, which is hereby incorporated into this Notice by reference.

The inspection showed that steps had been taken to correct the identified violations and to prevent recurrence. Consequently, no reply to the violations is required and we have no further questions at this time regarding this matter.

FOR THE NUCLEAR REGULATORY COMMISSION

A. Bert Davis
Regional Administrator

Dated at Glen Ellyn, Illinois
this 23rd day of ~~June~~ July 1990

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

U.S. NUCLEAR REGULATORY COMMISSION

BIBLIOGRAPHIC DATA SHEET

(See instructions on the reverse)

1. REPORT NUMBER (Assigned by NRC, Add Vol., Supp., Rev., and Addendum Numbers, If any.)

NUREG-0940
Vol. 9, No. 3

2. TITLE AND SUBTITLE

Enforcement Actions: Significant Actions Resolved
Quarterly Progress Report
July - September 1990

3. DATE REPORT PUBLISHED

MONTH: November
YEAR: 1990

4. FIN OR GRANT NUMBER

5. AUTHOR(S)

Office of Enforcement

6. TYPE OF REPORT

Technical

7. PERIOD COVERED (Inclusive Dates)

8. PERFORMING ORGANIZATION – NAME AND ADDRESS (If NRC, provide Division, Office or Region, U.S. Nuclear Regulatory Commission, and mailing address; if contractor, provide name and mailing address.)

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

9. SPONSORING ORGANIZATION – NAME AND ADDRESS (If NRC, type "Same as above"; if contractor, provide NRC Division, Office or Region, U.S. Nuclear Regulatory Commission, and mailing address.)

Same as above

10. SUPPLEMENTARY NOTES

11. ABSTRACT (200 words or less)

This compilation summarizes significant enforcement actions that have been resolved during one quarterly period (July - September 1990) and includes copies of letters, Notices, and Orders sent by the Nuclear Regulatory Commission to 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.

12. KEY WORDS/DESCRIPTORS (List words or phrases that will assist researchers in locating the report.)

Technical Specifications, Radiographers, Quality Assurance, Radiation Safety Program, Safety Evaluation

13. AVAILABILITY STATEMENT

Unlimited

14. SECURITY CLASSIFICATION

(This Page)
Unclassified

(This Report)
Unclassified

15. NUMBER OF PAGES

16. PRICE

THIS DOCUMENT WAS PRINTED USING RECYCLED PAPER.

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

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

SPECIAL FOURTH-CLASS RATE
POSTAGE & FEES PAID
USNRC
PERMIT No. G-67

120555139531 1 1AN1CJ1CY1XB1
US NRC-OADM
DIV FOIA & PUBLICATIONS SVCS
TPS PDR-NUREG
P-223
WASHINGTON DC 20555