PHILADELPHIA ELECTRIC COMPANY
LIMERICK GENERATING STATION
P. O. BOX A
SANATOGA, PENNSYLVANIA 19464
(215) 327-1200, EXT. 3000

GRAHAM M. LEITCH
VICE PRESIDENT
LIMERICK GENERATING STATION

February 12, 1991

Docket Nos. 50-352
50-353
License Nos. NPF-39
NPF-85

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

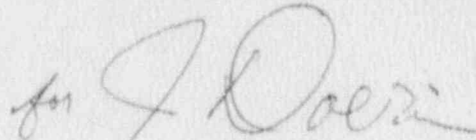
SUBJECT: Limerick Generating Station, Units 1 and 2
Reply to a Notice of Violation
Inspection Report Nos. 50-352/90-28 and 50-353/90-28

Dear Sirs:

Attached is the Philadelphia Electric Company's (PECo) reply to a Notice of Violation for Limerick Generating Station (LGS), Units 1 and 2, which was contained in NRC Inspection Report Nos. 50-352/90-28 and 50-353/90-28, dated January 14, 1991. This Notice of Violation pertains to the failure to adhere to station procedures and was identified during an NRC inspection conducted between December 3 and 7, 1990, at LGS Units 1 and 2.

The attachment to this letter provides a restatement of the violation followed by our response. If you have any questions, or require additional information please contact us.

Very truly yours,



G. M. Leitch

DCS/rgs

Attachment

cc: T. T. Martin, Administrator, Region I USNRC
T. J. Kenny, USNRC Senior Resident Inspector, LGS

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## REPLY TO A NOTICE OF VIOLATION

### Restatement of the Violation

During an NRC inspection conducted on December 3-7, 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 violation is listed below:

A. Technical Specification 6.11 "Radiation Protection Program" for both units requires that procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR 20 and shall be approved, maintained, and adhered to for all operations involving personnel radiation exposure. Station health physics procedure HP-715, Revision [illegible], Paragraph 6.3.4 states, in part, that for surveys performed on outgoing exclusive use vehicles, "...take radiation reading as described in Attachment 8.2.". Attachment 8.2 to HP-715 establishes an administrative limit of 1.6 mrem/hour in the driver compartment (contact with rear of cab/sleeper).

   Contrary to the above, on November 8, 1990, the licensee shipped radioactive material to the Quadrex Recycling Center in Oak Ridge, Tennessee in a vehicle where driver compartment dose rates exceeded the administrative limit established in HP-715. During surveys performed upon receipt of the vehicle at Quadrex, driver compartment dose equivalent rates were determined to be 4.5 to 5.0 mrem/hour.

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

## RESPONSE

### Admission of Alleged Violation

Philadelphia Electric Company (PECo) acknowledges the violation.

### Reason for the Violation

The cause of this violation was poor attention to detail on the part of the Health Physics (HP) technician who surveyed the truck in support of the shipment, resulting in a procedural non-compliance. His survey showed less than 0.5 mR/hr in the cab while previous surveys taken 2 meters in front of the trailer before the cab was attached revealed 2 mR/hr. When attached, the back of the cab was approximately 1.3 meters from the front of the trailer. We concluded that the low measurement in the cab resulted from failure of the HP technician to select the proper scale on his detector. This conclusion is supported by the fact that the measurements obtained at

Quadrex (3-5 mR/hr) were approximately 10 times those recorded in the Limerick Generating Station (LGS) survey.

One contributing causal factor was identified in that HP procedure HP-715, "Surveys in Support of Exclusive Use Radioactive Shipments and Receipt of Non Exempt Radioactive Packages," did not require any comparison between survey results at the front of the shipping container and survey results in the cab area. The HP technician, therefore, did not recognize the disparity. An additional causal factor identified was that no procedural requirement for independent verification of survey results existed. Independent verification may have offset the potential for human error. The LGS detector (Johnson Extender 33-0705) was tested satisfactorily following this event as were the detectors used at Quadrex, therefore instrument malfunction was eliminated as a causal factor.

Corrective Actions Taken and Results Achieved

On November 12, 1990, Quadrex's Radiation Safety Officer notified LGS, the State of Tennessee, and the carrier, Scientific Ecology Group (SEG), of the dose rates inside the cab area of the transport vehicle. On November 12, 1990, at 1734 hours, LGS personnel notified the NRC in accordance with 10CFR 50.72(b)(2)(vi), since this event resulted in notification of the State of Tennessee by Quadrex. Additionally, the NRC Resident Inspector and the LGS Plant Manager were notified of a potential problem with the Radioactive Material shipment to Quadrex in Oak Ridge, TN. On November 13, 1990, the vendor/supplier of the dosimetry worn by the SEG driver verbally reported 110 mR quarterly exposure to date for the fourth quarter (October - December) of 1990 for the driver. LGS personnel, in cooperation with Quadrex and SEG personnel, estimated the total dose received by the truck driver as a result of this shipment to be 88 mR.

Corrective Actions Taken to Prevent Recurrence

The HP technician involved was counseled on the importance of attention to detail when performing surveys, and was appropriately disciplined on December 11, 1990. Procedure HP-715 has been revised to add a note to the attachment on which survey readings are recorded indicating that, if dose rates measured 2 meters from the front of the trailer exceed 1.6 mR/hr (LGS administrative limit), then close attention should be paid to dose rates measured in the cab. This will aid in ensuring that if dose rates in the cab exceed the LGS administrative limit of 1.6 mR/hr the appropriate actions will be taken per procedure HP-715. Direction has also been added to procedure HP-715 to require performance of a second survey by another individual to act as independent verification of initial survey results for all radwaste shipments except those known to have low contamination (i.e., clean radwaste and contaminated protective clothing). An HP Group Information Notice was issued to all HP personnel on February 6, 1991, describing the event and the related procedural enhancements, and emphasizing the importance of attention to detail in processing radwaste shipments.

This procedural non-compliance has been reviewed, along with other procedural non-compliances noted in the inspection report, as part of our ongoing self-assessment process. We will continue to review these types of issues and implement corrective actions as necessary to further minimize personnel errors including those involving procedural non-compliance.

Date When Full Compliance was Achieved

Full compliance with associated Regulatory requirements was achieved on November 12, 1990, at 1734 hours, upon completion of all appropriate notifications. Compliance has been achieved upon revision of procedure HP-715 and notification of these changes to affected HP personnel. This event is considered to be an isolated occurrence. The counseling/discipline of the involved HP technician, the enhancement of HP-715, and the performance of an independent verification of survey results are considered sufficient corrective measures.