

Commonwealth Edison Company  
Dresden Generating Station  
6500 North Dresden Road  
Morris, IL 60450  
Tel 815-942-2920



January 4, 1996

JSPLTR: 96-0025

Mr. James Lieberman  
Director, Office of Enforcement  
U. S. Nuclear Regulatory Commission  
One White Flint North  
11555 Rockville Pike  
Rockville, Maryland 20852-2738

Subject: Dresden Nuclear Power Station Units 2 and 3 Response to Notice of Violation and Imposition of Civil Penalty.

References: 1) H. J. Miller letter to M. J. Wallace (EA 95-214), dated December 5, 1995, transmitting Notice of Violation and Proposed Imposition of Civil Penalty.

2) C. D. Pederson letter to T. Joyce (EA 95-214), dated October 4, 1995, transmitting Inspection Report 50-237/95011; 50-249/95011.

The attachment to this letter details ComEd's response to the Notice of Violation regarding a radioactive waste shipment which was received by an offsite vendor with an external radiation level in excess of the Department of Transportation (DOT) limit. ComEd does not contest your classification of this matter as a Severity Level III violation or the proposed civil penalty. Accordingly, a check is enclosed in full payment of that penalty.

ComEd determined that this event resulted from problems in implementation of the program for shipping material generated during reactor water cleanup (RWCU) pipe replacement work. While programs were in place to adequately perform radioactive material shipping, responsibility for ensuring that this shipment met applicable requirements was not clearly established. Corrective actions to address the specific causes of the shipping violation are listed in Attachment A, Reply to Notice of Violation, along with actions to improve management oversight of radiation practices, worker performance, and accountability of Radiation Protection personnel.

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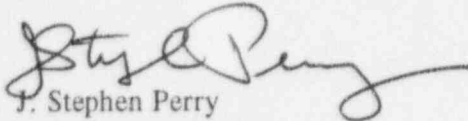
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If there are any questions concerning this letter, please refer them to Mr. Peter Holland, Dresden Station Regulatory Assurance Supervisor, at 815-942-2920, extension 2714.

To the best of my knowledge I believe the information in this letter and Attachment A, Reply to Notice of Violation, to be true and correct.

Very truly yours,

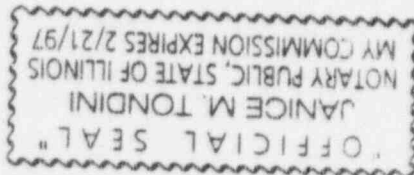


J. Stephen Perry  
Site Vice President  
Dresden Station

Subscribed and sworn to before

me

January 4, 1996  
Janice M. Tondini  
NOTARY PUBLIC



- cc: H. J. Miller, Regional Administrator, NRC, Region III  
J. F. Stang, Project Manager, NRR (Unit 2/3)  
C. L. Vanderniet, Senior Resident Inspector, Dresden  
D. A. Nalepa-Whitmill, Tennessee Department of Environment and Conservation

**ATTACHMENT A**

**REPLY TO NOTICE OF VIOLATION**

**ADMISSION OF VIOLATION:**

The Notice of Violation states as follows:

10 CFR Part 71.5(a) requires that a 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 the Department of Transportation (DOT) in 49 CFR Parts 170 through 189.

49 CFR Part 173.441(a) requires in part, with exceptions not applicable here, that each package of radioactive materials offered for transportation be designed and prepared for shipment so that under conditions normally incident to transportation the radiation level does not exceed 200 millirem per hour at any point on the external surface of the package.

Contrary to the above, on August 11, 1995, the licensee delivered to a carrier for transportation radioactive material in a package that arrived at its destination with a radiation level of 350 millirem per hour on the external surface of the package.

ComEd admits that this violation occurred.

**REASONS FOR THIS VIOLATION:**

This event resulted from problems in the implementation of the reactor water cleanup (RWCU) shipping program. This RWCU shipping program was established to remove from ComEd's Dresden Station radioactively contaminated piping and other materials. These materials were to be shipped from Dresden Station to SEG, a licensed volume reduction facility located in Oak Ridge, Tennessee. As part of this project, ComEd had retained various contractors as health physics (HP) supervisors, and radiation protection technicians (RPTs) to oversee radiological controls of the RWCU project which included the shipping process. ComEd also drafted a RWCU ALARA Plan to address the processing and packaging of waste from the RWCU project. As the RWCU project progressed, additional constraints, beyond those in the RWCU ALARA plan, were placed on materials that would be shipped to assure that the shipments would be made in conformance with NRC regulations. However, even though the program was in place to ship these radioactive materials in conformance with NRC regulations, responsibility for the steps necessary to properly complete this shipment was not clearly established.

Errors by several individuals and a lack of licensee management oversight combined to permit the shipment of radioactive material in excess of the applicable regulation and contrary to the guidelines established for the RWCU shipping program. Surveys were made using probes other than those designated by the ALARA plan. During surveys of this shipment the RPT found areas of high readings, in particular on a section of pipe, in excess of the limits permitted in the RWCU program. However, the RPT did not bring this out-of-tolerance result to the attention of HP supervisors. The supervisor who found the survey results for this shipment to be acceptable for off-site transportation reviewed an incomplete set of radiological surveys, thereby overlooking the out-of-tolerance reading documented by the RPT. Additionally, the pipe with the area of high readings was not cribbed or supported in a manner which would prevent it from shifting while in transit.

The responsibility for oversight of radioactive shipments from ComEd's Dresden Station lies with the Health Physics Department. In permitting this shipment which exceeded regulatory and procedural limits, the Health Physics Department did not properly oversee this shipping program. The post-event investigation revealed several shortcomings that contributed to this violation. These included: procedure adherence, training and qualifications of personnel, ownership and performance of involved workers, acceptance of low standards, and management oversight of contractor personnel, which are individually addressed in the corrective actions.

#### **CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED:**

Immediate corrective actions taken in response to the event were:

- Dresden HP Department personnel were dispatched to the SEG facility in Oak Ridge, Tennessee on August 15, 1995, to evaluate the shipment.
- A investigation of this event was promptly initiated.
- In late August, 1995, the HP Department was reorganized to more effectively control shipping, by assigning all shipping activities to the Technical Health Physics group.
- As part of this reorganization, the workload of the responsible HP shipping personnel was decreased by re-assigning unrelated tasks.
- The HP Department established specific standards, expectations and responsibilities for personnel involved in shipping radioactive materials and communicated them to the shippers.
- The HP Department required that a qualified member of the licensee's staff trained in DOT shipping regulations be present when each package is loaded. This oversight ensures compliance with station procedures for dose rate limitations and proper cribbing of materials in each shipment. Licensee supervisory oversight of all aspects of radioactive material shipments continued until management was confident in worker qualifications and worker ownership of the shipping program.
- A prioritized shipping schedule was implemented to ensure that the number of shipments during the outage demobilization did not exceed the capacity of available resources.

These immediate actions assured that shipments performed by contractors were in conformance with Dresden policies and the applicable regulations. This also reinforced shipping program requirements for Station personnel. These actions have resulted in over 90 event free shipments from Dresden Station since mid-September, 1995, all in compliance with Dresden policies and applicable NRC regulations.

Additional corrective measures were taken to improve the management oversight of the Radiation Protection (RP) Program; these included:

- In July, 1995, industry peers were brought in to assist with the implementation of the RP Program. These industry peers worked in parallel with the licensee's HP Shift Supervisors, and provided training to new supervisors. Peer-identified weaknesses were reviewed for safety significance by HP management. Corrective actions for significant peer-identified issues have been implemented.
- Assignment of a Radiological Assessor to the RP Manager to oversee and perform assessments of the station's implementation of the RP Program. The individual assigned to this post is a former HP supervisor with experience serving on industry committees and performing peer assessments, both resources he will rely on for the high standards to be applied at Dresden. The Assessor position will remain in the Dresden organization until senior station management is convinced that the Dresden RP Program meets their expectations and standards, and has therefore been successfully implemented.
- In August 1995, Station management made clear their requirement for supervisory accountability and maintenance of high standards for the radiation protection program by replacing several HP Shift Supervisors.
- To provide opportunities for additional management oversight and increase staff awareness, high radiological risk jobs are now discussed in the HP Department Meeting and included in the Station's Plan of the Day.

Actions taken to improve worker performance and accountability in RP Program included:

- A radiological work practices handbook was developed and distributed to station personnel.
- Workers identified as not following proper radiological work practices are restricted from the radiologically controlled area until they meet with RP Manager and they demonstrate their understanding of proper radiological work practices.
- RPTs were assigned to control points in the plant during D2R14 to provide better worker accessibility to RP personnel.
- RPTs have been assigned to maintain specific areas of the plant in a radiologically sound condition.
- Each RPT has been assigned to one HP Shift Supervisor who is responsible for performance evaluations, setting expectations and performance monitoring.

**ADDITIONAL CORRECTIVE ACTIONS TO BE TAKEN TO AVOID FUTURE VIOLATIONS:**

To prevent recurrence of this event, the following additional actions will be taken:

- A training matrix will be developed for contract technicians prior to the restart of D2R14 (the Dresden Unit 2 refueling outage scheduled to restart in January, 1996).
- Improvement in the training and qualifications of shipping personnel is being addressed by:
  - requiring that contract personnel who perform radioactive material shipments receive the same training on standards, expectations, and shipping as permanent Station staff;
  - documenting qualifications of contractor personnel on a radioactive material shipping qualification card; and
  - including this requirement in the shipping procedures during the review process.
- Current shipping procedures will be reviewed as a part of the HP procedure initiative, a process established for reviewing all HP procedures for areas for improvement. This review will investigate the requirement for an independent verification step in the procedures for proper contents of shipping containers, shipping documentation, and sufficient cribbing to ensure safe transportation of material. The shipping procedures will be reviewed and changes will be completed during the first quarter of 1996.
- A peer evaluation was performed of the radioactive material shipping program in December, 1995, to identify additional program weaknesses. Actions to address the weaknesses identified during this peer evaluation and the July, 1995, peer visit will be implemented by the end of the first quarter of 1996.

**DATE WHEN FULL COMPLIANCE WAS ACHIEVED AND DATE TO COMPLETE ADDITIONAL PLANNED ACTIONS:**

Full compliance with NRC regulations was achieved on August 14, 1995, when the non-conforming shipment was in control of another licensee. The remaining actions described in this response, to the extent not already completed, will be completed prior to April 1, 1996.