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December 17, 1991

Docket No. 50-249
License No. DPR-25
EA 91-152

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

Gentlemen:

SUBJECT: DRESDEN STATION, UNIT 3 NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $25,000
(NRC INSPECTION REPORT NO. 50-249/91033)

This refers to the inspection conducted on October 15-25, 1991, of the circumstances surrounding the October 11, 1991, unplanned exposures of two personnel during inservice inspection (ISI) of a recirculation pump discharge valve at the Dresden Unit 3 facility. The report documenting this inspection was sent to you by letter dated November 8, 1991. During this inspection violations of NRC requirements were identified. Although not reportable, you voluntarily reported the unplanned exposures to the NRC Senior Resident Inspector on October 12, 1991. An Enforcement Conference was held on November 21, 1991, to discuss the violations, their causes, and your corrective actions. The report summarizing the conference was sent to you by letter dated December 9, 1991.

The unplanned exposures occurred when two workers, an ISI engineer and a maintenance foreman, inspected the seating surfaces of the "B" recirculation pump discharge valve located in the Unit 3 drywell. The valve discs and stem had been removed to repair the stem. Survey data indicated that dose rates at the plane of the valve body flange were 1 to 2 rem/hour and as high as 10 rem/hour in the valve body; dose rates near the outer disc faces were as high as 5 rem/hour. Contamination levels on the valve components were very high. The survey of the work area and components was not documented until after the work was complete. Based on the erroneous assumption that the workers would stand on the flange to inspect the seating surfaces in the valve bowl, and would stand to inspect the discs, radiation protection personnel prescribed dosimeters to be placed on the workers' lower right legs. During the ISI the workers frequently positioned themselves such that portions of their whole body were exposed to significantly higher dose rates than their legs. Your subsequent dose assessment calculation determined that the workers exceeded their administrative dose limits by a wide margin, although no regulatory limits were exceeded.

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The NRC has several concerns regarding this event. The first concern is that planning for the ISI was inadequate. The ISI was not considered at two formal meetings, an ALARA Committee meeting and a pre-job ALARA briefing, held to discuss the entire valve repair. The emphasis at those meetings was on the actual removal, repair, and reinstallation of the components, not the ISI. In addition, one of the two radiation protection technicians assigned to monitor the ISI and a representative of the ISI work group did not attend the pre-job ALARA briefing as required by your procedure. Finally, miscommunication during the briefings at the drywell access control point, between the radiation protection technician who prescribed the placement of dosimeters and the two workers, resulted in a failure of the technician to understand how the workers would be positioned during the ISI.

The second concern is that two experienced radiation workers (the ISI engineer and the maintenance foreman) did not follow the guidance of the technician, did not follow good ALARA principles, and did not recognize that their personal dosimeters were inappropriately placed. They frequently positioned unmonitored parts of their bodies in high dose fields and touched and stepped on the highly contaminated discs.

The third concern is that job coverage was inadequate. When the ISI was monitored by radiation protection personnel they did not observe and correct the inappropriate actions of the workers or their inappropriate dosimeter placement. This appears to have resulted from failure to recognize the need for special diligence and attentiveness by the technician when remote video camera observation was substituted for direct coverage. Reliance on an alarming dosimeter to signal any problems may have also contributed to this issue.

Violations were identified regarding the unplanned exposures as described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice). Violations I.A and I.B involve failure to follow procedures in that a representative of the ISI group and a radiation protection technician did not attend the pre-job ALARA briefing, and the survey of the discharge valve and work area was not documented until after the job was complete. Violations II.A through II.D involve inadequate surveys prior to and during the work. Violation III involves failure to supply appropriate monitoring equipment to the two workers.

For this event there was a programmatic breakdown of radiological controls. Although regulatory limits were not exceeded for this case, the programmatic deficiencies, if left uncorrected, could result in regulatory limits being exceeded in the future. The events described above involve a significant lack of attention or carelessness toward licensed activities. Therefore, in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy) 10 CFR Part 2, Appendix C (1991), the violations are classified in aggregate as a Severity Level III problem.

We recognize that upon discovery, you immediately stopped further work on the job, informed station upper management and Corporate Radiation Protection of the problem, and initiated a formal investigation involving both station and

corporate personnel. In addition, you briefed all radiation protection personnel on the event including proper placement of dosimeters, issued a Lessons Learned Initial Notification, reviewed similar ongoing jobs for like problems, and met with station supervisors and employees. Your long term corrective actions include a review by the Dresden Situational Review Team, procedure revisions, training enhancements, preparation of a Lessons Learned Report, and communication of senior management's expectations to all personnel regarding their responsibilities for radiological safety, minimization of exposure and performance of work in a radiologically conservative manner.

To emphasize the need for adequate planning and communications for work performed in high dose rate areas, the need for radiation protection technicians and ALARA Coordinators to promptly identify and correct radiologically nonconservative practices, and the need for radiation workers to recognize and question nonconservative radiological practices, 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 the Severity Level III problem. The base value of a civil penalty for a Severity Level III problem is $50,000.

The escalation and mitigation factors in the Enforcement Policy were considered. Full 50% mitigation of the base civil penalty was warranted for identification and reporting in that you identified the problem, took prompt corrective action, and reported the problem to the NRC Senior Resident Inspector. Full 50% mitigation of the base civil penalty was warranted for your extensive corrective actions as discussed above. The base civil penalty was escalated 50% based on past performance. While only one violation issued within the last two years (Inspection Report No. 50-237/90026; 50-249/90025) relates directly to the events under discussion, the corrective actions for that violation as well as the corrective actions for both a December 1990 radioactive contamination event and three exposures in excess of administrative limits (Inspection Report No. 50-237/90012; 50-249/90011) should have prevented many of the errors documented in the enclosed Notice, thereby justifying partial escalation of the base civil penalty for past performance. Therefore, on balance, an overall 50% reduction of the base civil penalty has been deemed 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, its enclosure, and your responses 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,

Carl J. Paperiello for

A. Bert Davis
Regional Administrator

Enclosure: Notice of Violation and Proposed Imposition of Civil Penalty

cc w/enclosure:
D. Galle, Vice President - BWR Operations
T. Kovach, Nuclear Licensing Manager
C. Schroeder, Station Manager
DCD/DCB (RIDS)
OC/LFDCB
Resident Inspectors LaSalle, Dresden, Quad Cities
Richard Hubbard
J. W. McCaffrey, Chief, Public Utilities Division
Robert Newmann, Office of Public Counsel, State of Illinois Center
Licensing Project Manager, NRR
James Lieberman, Director, Office of Enforcement

D:OE	DEDR
(Concurrence	rece'd via FAX)
Lieberman	Sniezek
12/9/91	12/12/91

RIII	RIII	RIII	RIII	RIII	RIII	RIII
Pelke/db	Nanelius	Greenman	Berson	Troskoski	Paperiello	Davis
12/16/91	12/13/91	12/13/91	12/ /91	12/13/91	12/13/91 after minor grammar changes	12/13/91

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