

June 18, 1997

Mr. J. H. Mueller  
Site Vice President  
Zion Generating Station  
Commonwealth Edison Company  
101 Shiloh Boulevard  
Zion, IL 60099

SUBJECT: NOTICE OF VIOLATION (NRC INSPECTION REPORT 50-295/97009(DRS);  
50-304/97009(DRS))

Dear Mr. Mueller:

This will acknowledge receipt of your letter dated June 5, 1997, in response to our letter dated May 6, 1997, transmitting a Notice of Violation associated with the failure to adequately implement radiation protection procedures concerning the control of contaminated area boundaries and the survey of contaminated laundry containers at the Zion Generating Station, Units 1 and 2. We have reviewed your corrective actions and have no further questions at this time. These corrective actions will be examined during future inspections.

Sincerely,

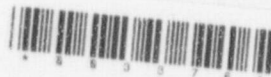
/s/ J. M. Jacobson (for)

John A. Grobe, Acting Director  
Division of Reactor Safety

Docket Nos. 50-295; 50-304  
Licenses No. DPR-39; DPR-38

Enclosure: Ltr 06/05/97, J. H. Mueller,  
ComEd, to US NRC w/encl

See Attached Distribution



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| NAME   | Orth/kjc |                                     | Shear    |                                     | Parker   |                                     | Jacobson/Grobe |
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June 18, 1997

cc w/o encl: T. J. Maiman, Senior Vice President,  
Nuclear Operations Division  
D. A. Sager, Vice President,  
Generation Support  
H. W. Keiser, Chief Nuclear  
Operating Officer  
R. Starkey, Plant General Manager  
R. Godley, Regulatory Assurance  
Supervisor  
I. Johnson, Acting Nuclear  
Regulatory Services Manager  
Document Control Desk - Licensing

cc w/encl: Richard Hubbard  
Nathan Schloss, Economist,  
Office of the Attorney General  
Mayor, City of Zion  
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ZRA97005  
June 5, 1997

U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Commonwealth Edison Reply to Notice of Violation in NRC Inspection Report  
Number 50-295/304-97009;  
Zion Nuclear Power Station Units 1 and 2;  
NRC Docket Numbers 50-295 and 50-304

Reference: Letter to J. H. Mueller (ComEd) from G. E. Grant (USNRC) dated May 6, 1997,  
NRC Inspection Report 50-295/97009, 50-304/97009 and Notice of Violation

Gentlemen:

By letter dated May 6, 1997, the NRC cited Commonwealth Edison (ComEd) as being in violation of regulatory requirements. This letter and its attachment constitutes ComEd's reply to the referenced Notice of Violation in accordance with applicable regulations.

ComEd acknowledges that problems concerning radiological work practices have not been effectively resolved at Zion Station. In that regard, efforts are being undertaken to increase oversight of radiation workers and intensify enforcement of accountability for poor radiological work practices. Other efforts being taken are further described in Attachment A to this letter which provides the reasons for the violation, the corrective actions taken, and the date when full compliance was achieved.

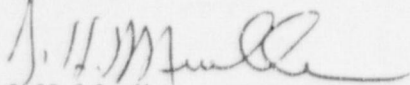
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Should you have any questions concerning this response, please contact Robert Godley of my staff at 847-746-2084 extension 2900.

Sincerely,

A handwritten signature in dark ink, appearing to read "J. H. Mueller", with a stylized flourish at the end.

J. H. Mueller

Site Vice President

Zion Nuclear Station

Attachments

cc: Regional Administrator, USNRC - Region III  
Senior Project Manager, USNRC - NRR Project Directorate III-2  
Senior Resident Inspector, Zion Nuclear Station  
Office of Nuclear Facility Safety - IDNS



**Reply To Notice Of Violation**

**VIOLATION: 50-295(304)/97009-01**

*Zion Technical Specification 6.2.2.A requires, in part, that radiation control procedures be prepared and implemented, which are consistent with the requirements of 10 CFR 20.*

1. *Procedure ZRP 5721-6, "Construction of Radiological Posted Contaminated Areas and Step Off Pad Areas," Revision 1, dated August 23, 1994, requires, in part, that cords and hoses crossing contamination boundaries be secured to prevent the spread of contamination.*

*Contrary to the above, on March 24 - 26, 1997, cords and hoses crossing contamination boundaries were not properly secured on the Auxiliary Building (AB) 617' elevation at the exit from the Fuel Building, the AB 592' elevation at the barrel compacting area and waste segregation area, the AB 579' elevation at the entrance to the crystallizer, the AB 560' elevation near the laundry drain tanks, the AB 542' elevation at the mechanical maintenance department cage, and the Turbine Building Unit 1 steam tunnel in the Unit 1 west valve house. (50-295/97009-01a; 50-304/97009-01a)*

2. *Procedure ZRP 5010-1, "Radiological Posting and Labeling Requirements," Revision 3, dated August 30, 1996, requires, in part, that the Tygon tubes associated with yellow containments have radiation tape or radioactive material markings to identify them as containing radioactively contaminated liquids.*

*Contrary to the above, on March 25, 1997, Tygon tubing associated with yellow containments did not have radiation tape or radioactive material markings in the AB 592' elevation near the penetration air receiver 1B; the AB 560' elevation near the evaporator monitor demineralizer OB, near the component cooling water pump OA, and outside of the instrument maintenance hot shop; and the AB 542' elevation near the blowdown monitor tank pump OB. (50-295/97009-01b; 50-304/97009-01b)*

3. *Temporary Change TA-96-489 (dated August 20, 1996) to procedure ZRP 5721-5, "Collecting, Laundering, Surveying, and Reissue Protective Clothing," Revision 1, dated January 12, 1994, requires that personnel removing protective clothing containers from a job site use a calibrated survey instrument to survey each bag of contaminated clothing.*

*Contrary to the above, on March 25, 1997, an individual removing protective clothing containers from the Fuel Building did not use a survey instrument to survey each bag of contaminated clothing. (50-295/97009-01c; 50-304/97009-01c)*

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

## **ADMISSION OR DENIAL TO THE VIOLATION**

ComEd admits the violation.

### **EXAMPLES 1 and 2**

## **REASON FOR THE VIOLATION**

The reason for these violation examples was the historical practice of Radiation Protection Department (RP) personnel correcting radiological work practice problems in a manner that would not prevent recurrence. For example, Radiation Protection personnel would secure cords and hoses crossing contaminated areas boundaries that were found unsecured without contacting the applicable work group to correct the deficiency or establish accountability. As a result, radiation workers were not held accountable regarding strict adherence to the established radiation worker procedure requirements that they were trained on during Enhanced Radiation Worker Training prior to the Z2R14 refueling outage.

A contributing cause to these violation examples was insufficient RP personnel oversight of radiation workers in the field. In addition, there was a failure to establish clear standards and expectations for proper set-up of catch containments.

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

The unsecured hoses and cords of concern were secured according to station procedures.

The unlabeled catch containment drain tubing of concern was labeled according to the requirements of ZRP 5010-01.

Walkdowns of the RPA were performed by multiple RP personnel. Radiological problems or discrepancies identified during these walkdowns were corrected.

RP personnel were informed of a new Zion Station Policy Statement 1-30 "Radiation Worker Accountability" and RP Department expectations for implementing the policy. Expectations were communicated to make an effort to identify violators of significant station radiation worker expectations, correct the problem, and restrict RPA access for the violators.

The Radiation Protection Department has implemented a program in which RP personnel are radiologically responsible for "zones" within the Auxiliary Building. The RP personnel are know a continuous point of contact and oversight and are directly responsible for work occurring in their zone. Written expectations of their responsibilities have been provided by RP management to the RP personnel monitoring the zones. The RP personnel monitoring the Auxiliary Building zones are responsible for the overall condition of their zone and expected to maintain "ownership" of the zone. Problem Identification Forms are expected to be generated for problems which are identified.

**CORRECTIVE ACTIONS TO BE TAKEN TO AVOID FURTHER VIOLATIONS**

Radiation Protection Department will establish a program to set-up and control catch containments and enhance tracking and trending of catch containments. The establishment of this program will be completed by June 29, 1997.

The Radiation Protection Department will perform an assessment of the effectiveness of the "zone" coverage process described above for future enhancements and to determine if the process needs to remain in effect. This assessment will be completed by December 31, 1997.

**DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED**

Zion Station is currently in full compliance.

**EXAMPLE 3****REASON FOR THE VIOLATION**

The reason for this violation example was inadequate training for the Decontamination Technicians (DTs) with respect to the requirements of procedure ZRP 5721-5, "Collecting, Laundering, Surveying, and Reissue Protective Clothing." Specifically, on-the-job training provided for Decon Techs did not adequately include the radiological requirements of surveying each bag of laundry at the job site prior to transfer when performing laundry collection tasks.

As a result, a DT inappropriately transferred a bag of laundry from the Auxiliary Building (AB) elevation 617' to the transfer cart on AB 592' prior to performing a dose-rate survey. However, upon reaching the transfer cart on AB 592', the DT did perform a dose-rate survey of the laundry bag away from the job site within a few minutes of collecting the bag. The DTs were also using electronic dosimetry with audible dose-rate alarms to warn them of unexpected dose rates.

**CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED**

Tailgate meetings were held with all shifts of Decon Techs. The meetings reviewed the circumstances surrounding this violation and the expectation for properly removing laundry from a contaminated area per the requirements of ZRP 5721-5.

An RP Technician performed a review of the laundry collection process and procedure with Decon Techs in the field and revised procedure ZRP 5721-5 to enhance the process.

Radiation Protection Department revised the Radiation Work Permit (RWP) used by Decon Techs for laundry collection to include appropriate written expectations for laundry duties. The expectations were reviewed by Decon Supervisors in meetings with Decon Techs. Decon Techs are also required to read and acknowledge the RWP revision prior to using the revised RWP.



**CORRECTIVE ACTIONS TO BE TAKEN TO AVOID FURTHER VIOLATIONS**

To enhance the current on-the-job training process for Decon Techs, a structured task specific training program for Decon Techs will be developed. This task specific training program will be developed and implemented by July 15, 1997.

**DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED**

Zion Station is currently in full compliance.



**List of Commitments Identified in this Violation Response**

The following table identifies those actions committed to by ComEd in this document. Any other actions discussed in this submittal represent intended or planned actions by ComEd. They are described to the NRC for the NRC's information and are not regulatory commitments. Please notify Mr. Robert Godley, Zion Station Regulatory Assurance Manager, of any questions regarding this document or any associated regulatory commitments.

| <b>Commitment</b>   | <b>Committed Date<br/>or Outage</b> |
|---|-------------------------------------|
| Radiation Protection Department will establish a program to set-up and control catch containments and enhance tracking and trending of catch containments.  | June 29, 1997                       |
| The Radiation Protection Department will perform an assessment of the effectiveness of the "zone" coverage process described in the corrective actions taken section of violation examples 1 and 2 for future enhancements and to determine if the process needs to remain in effect. | December 31, 1997                   |
| To enhance the current on-the-job training process for Decon Techs, a structured task specific training program for Decon Techs will be developed and implemented.  | July 15, 1997                       |