

FEB 17 1994

Docket No. 50-461

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

Dear Mr. Perry:

SUBJECT: NOTICE OF VIOLATION (NRC INSPECTION REPORT NO. 50-461/93023(DRSS))

This will acknowledge receipt of your letter dated January 26, 1994, in response to our letter dated December 16, 1993, transmitting a Notice of Violation associated with an internal contamination incident, and unlabeled barrels used for radioactive waste at the Clinton Nuclear Power Station. We have reviewed your corrective actions and have no further questions at this time. These corrective actions will be examined during future inspections.

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Sincerely,
"Original signed by Cynthia D. Pederson"

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Cynthia D. Pederson, Chief
Reactor Support Programs Branch

- cc: J. Cook, Vice President & Manager,
Clinton Power Station
- R. Phares, Director - Licensing
OC/LFDCB
- Resident Inspector, Clinton,
Dresden, LaSalle, Quad Cities
- Project Manager, NRR
- J. McCaffrey, Chief, Public
Utilities Division
- K. K. Berry, Licensing Services Manager
General Electric Company
- Chairman, DeWitt County Board
- Robert Newmann, Office of Public
Counsel, State of Illinois Center
- State Liaison Officer
- Chairman, Illinois Commerce
Commission

bcc: PUBLIC IE06

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Pederson
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None

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J. Stephen Perry
Senior Vice President



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JSP-038-94
January 26, 1994
10CFR2.201

Docket No. 50-461

Document Control Desk
Nuclear Regulatory Commission
Washington, D. C. 20555

Subject: Response to Notices of Violation Documented in
Inspection Report No. 50-461/93023(DRSS)

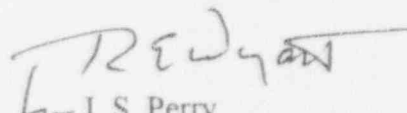
Dear Sir:

This letter provides the Illinois Power Company (IP) response to the Notices of Violation documented in Inspection Report No. 50-461/93023(DRSS). The Notices of Violation discuss a violation of 10CFR20.1501 related to work performed on Feedwater System Check Valve 1B21F032A on October 8, 1993, and a violation of Clinton Power Station (CPS) Technical Specifications in that guidance contained in a station procedure relevant to barrel control was not followed. The attachment to this letter provides the response to the Notices of Violation.

Per discussion between Mr. J. R. Creed of Region III staff and Mr. R. F. Phares, Clinton Power Station Director-Licensing, on December 27, 1993, the IP response to the subject Notices of Violation is due within 30 days of December 27, 1993. This extension was granted due to the delay in receiving the Notices of Violation at Clinton Power Station.

The cover letter to the inspection report discussed NRC concerns with these violations. IP Management shares these concerns and believes that the corrective actions taken in response to the noted performance shortcomings will address the concerns identified in the Notices of Violation.

Sincerely yours,


for J. S. Perry
Senior Vice President

MAR/csm

Attachment

cc: NRC Clinton Licensing Project Manager
NRC Regional Administrator, Region III
NRC Resident Office, V-690
Illinois Department of Nuclear Safety

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The Notice of Violation states:

- A. "10 CFR 20.1501 requires, in part, that the licensee make or cause to be made, surveys that are reasonable under the circumstances to evaluate the concentrations or quantities of radioactive material and the potential radiological hazards that could be present.

10 CFR 20.1003, defines "survey" as an evaluation of the radiological conditions and potential hazards incident to the production, use, transfer, release, disposal or presence of radioactive material or other sources of radiation.

Contrary to the above, on October 8, 1993, the licensee failed to make an adequate survey during removal of insulation from a feedwater check valve."

I. Background and Reason for the Violation

Maintenance Work Request (MWR) D26415 was initiated as a contingency MWR to rework the outboard feedwater check valve 1B21F032A if the local leak rate test (LLRT) performed on this valve during the fourth refueling outage (RF-4) failed its acceptance criteria. This MWR was originally reviewed by CPS ALARA personnel on November 23, 1992, in preparation for RF-4 activities. Based on work history, ALARA personnel determined that a tent with filtered ventilation would be necessary for contamination control during work performed in accordance with MWR D26415. This determination was documented in the remarks section of MWR D26415. The RF-4 Work Plan for Testable Check Valve Rework prepared by the task manager for this work also identified that a herculite containment would be established around valve 1B21F032A prior to commencing valve disassembly.

On September 26, 1993, ALARA personnel performed an ALARA Job Review for Radiation Work Permit (RWP) 93001188.001, which was written for the work prescribed in MWRs D26415 and D35357. (MWR D35357 was initiated to implement a modification on valve 1B21F032A.) When the ALARA Job Review was completed, it was the intention of ALARA personnel that a tent would not be used for work performed in accordance with MWRs D26415 and D35357. Contamination control was to be accomplished using filtered ventilation at the work area in lieu of a tent. However, localized filtered ventilation was not required for job step one of RWP 93001188.001, which was to remove insulation prior to valve disassembly. The ALARA decision to not utilize a tent was not reflected in MWR D26415 and a tent was subsequently partially constructed around valve 1B21F032A in preparation for valve work.

On October 7, 1993, a Radiation Protection (RP) technician performed a pre-job survey for RWP 93001188.001 on and in the area surrounding valve 1B21F032A. Results of the survey did not indicate to the RP technician that contamination levels present would require engineering controls to control the spread of contamination during subsequent scaffold

construction in the area of valve 1B21F032A. At the time of this survey, the technician performing the pre-job survey was not aware that a tent would be constructed around valve 1B21F032A to support valve work.

On October 8, 1993, ALARA personnel became aware that a tent had been partially constructed around valve 1B21F032A in preparation for work in accordance with MWR D26415. This information was provided to the day-shift Radiation Protection Shift Supervisor (RPSS) and subsequently provided to the night-shift RPSS during shift turnover activities. However, due to other ongoing outage activities, the night-shift RPSS failed to suspend RWP 93001188.001 pending resolution of engineering controls to be used for contamination control when removing insulation from valve 1B21F032A. Later that shift, four insulators and one RP technician entered the partially constructed tent surrounding valve 1B21F032A to remove insulation from the valve. Respiratory protection was not worn by these workers nor was filtered ventilation used for contamination control. During the insulation removal process (approximately 20 minutes), a portable air sample was taken by the RP technician. Analysis of the air sample indicated accumulated radioactivity of 30 derived air concentrations (DACs). Following insulation removal and upon exit from the area, all five individuals were found to be externally contaminated and had positive nasal smears.

The requirements of 10CFR20.1501 were violated because RP personnel allowed the removal of highly contaminated insulation blankets from valve 1B21F032A without evaluating respiratory protection or engineering controls requirements prior to insulation removal. As referred to above, several communication breakdowns occurred during this evolution and contributed to the failure to conduct an adequate survey. The consequences of this violation were compounded by the presence of the partially constructed tent surrounding valve 1B21F032A, which was not specified by RWP 93001188.001. This tent acted as a negative engineering control by limiting the ventilation to the work area and containing the particulate contamination that was dispersed as the insulation blanket was removed.

II. Immediate Corrective Action Taken

Tent construction was completed and filtered ventilation established prior to allowing additional work under RWP 93001188.001. Subsequent work on the valve was accomplished without additional radioactive contamination control problems.

Follow-up dose evaluations by bioassay were done for the five individuals who were present for insulation removal from valve 1B21F032A. Following the completion of the dose evaluations,

Committed Effective Dose Equivalents (CEDE) of 62, 31, and 13 mRem were assigned to three workers. A shallow skin dose of 10 mRem was also assigned to the individual who received the 62 mRem CEDE. Dose evaluations for the other two workers did not result in internal dose being assigned.

To stress the importance of realizing the relationship between contamination levels and ingestion potential, the CPS Assistant Director-Plant Radiation Protection (the acting CPS Radiation Protection Manager [RPM]) and the Supervisor-Radiological Operations (S-RO) met with all RPSSs to discuss respiratory evaluations and respirator use. This meeting assured that the RPSSs understood the guidance available for determining the need for respiratory protection and/or engineering controls for work involving high radioactive contamination potential, and emphasized that communicating these requirements was extremely important.

To ensure that ALARA and Radiological Operations personnel understand the guidance concerning respiratory protection evaluations, the RPM conducted job-specific respiratory evaluation discussions with these personnel.

RPSSs, RP technicians and RP lead technicians were briefed regarding guidance on respiratory protection evaluations and contamination levels associated with various types of work activity. Emphasis was placed on the negative impact of a non-ventilated tent and other poorly ventilated areas as an engineering control issue.

III. Corrective Steps Taken to Avoid Further Violation

To provide better guidance for the respiratory protection evaluation process, CPS procedure 7500.10, "ALARA Respiratory Protection Evaluation," will be revised. This activity will be completed by April 30, 1994.

The respiratory protection evaluation process and guidance, as well as the engineering control process, will be incorporated into the RP Technician Training Program. This activity will be completed by May 31, 1994.

To aid personnel in preparing RWP for work which may require engineering controls, an RWP Special Instruction cross-reference guide has been developed. This guide will provide typical engineering controls, warnings, and/or requirements for various types of radiological work.

In addition to the programmatic corrective actions noted above and to stress the importance of good communication in daily activities, Radiation Protection supervision has discussed this event and its consequences with appropriate Radiation Protection personnel.

IV. Date When Full Compliance Will be Achieved

IP is now in full compliance with the requirements of 10CFR20.1501.

- B. "Clinton Power Station Technical Specification 6.11 states, in part, that procedures for personnel radiation protection shall be adhered to.

Administrative Procedure 1019.06, dated April 7, 1993, "Dry Active Waste and Laundry Handling Program" Section 8.1.2.2 states, in part, that receptacles used to collect and hold radioactive waste shall be clearly identified.

Contrary to the above, during tours in the auxiliary, turbine and radioactive waste buildings on October 25, 26 and 28, 1993, containers were found holding radioactive waste that were not clearly identified."

I. Background and Reason for the Violation

During tours of the Clinton Power Station (CPS) radiologically controlled area (RCA) conducted the week of October 25, 1993, the following instances of unlabeled waste receptacles were observed:

- ° A yellow-colored waste receptacle was observed in a general area walkway of the 720' elevation of the Radwaste Building. This receptacle contained radioactive contaminated waste and was not labeled.
- ° A yellow barrel with the barrel lid installed and locked was found unattended and unlabeled in the 737' elevation Radwaste Building shipping bay. This barrel contained used, radioactively contaminated respirator filters. The barrel was being processed for shipment off-site to have the respirator filters recertified for use.
- ° Yellow-colored trash receptacles were staged outside of a trailer used for snubber testing during the fourth refueling outage (RF-4). These receptacles were staged in this area to support the establishment of a contamination area and were intended for collection of used protective clothing. However, at the time they were observed, this area had not been posted as a contamination area. The barrels were observed to contain yellow, potentially contaminated materials.

CPS Administrative Procedure 1019.06, "Dry Active Waste and Laundry Handling Procedure," requires that "Radioactive Waste Only" receptacles normally be colored yellow and be clearly identified that they are to be used for potentially radioactive waste. Administrative Procedure 1019.06 also requires that "Used Protective Clothing" receptacles normally be colored white and be clearly identified as to their purpose.

The requirements of CPS Administrative Procedure 1019.06 were violated because of the lack of a formal barrel control program at Clinton Power Station. Without a formal barrel control program, it is possible for barrels to be brought into the CPS RCA without accountability. This lack of accountability can lead to barrels not being used or labeled in accordance with CPS procedures.

II. Immediate Corrective Actions Taken

Following the identification of discrepancies concerning the use of barrels as discussed above, Radiation Protection (RP) technicians toured the RCA to identify and correct any instances where barrels were not being used in accordance with CPS procedures. In addition, a barrel inventory inside the RCA was conducted. Barrels which were not needed were removed from the RCA.

As an interim measure, the Radiation Protection Shift Supervisor (RPSS) Radiological Job Observation checklist has been revised to ensure the correct use and labeling of barrels has been evaluated when RPSSs observe radiological work in progress inside the CPS RCA. In addition, RP technicians have been instructed to be cognizant of barrels, and barrel use and labeling while performing assigned duties in the CPS RCA. Observed discrepancies are to be corrected in an expeditious manner.

III. Corrective Steps Taken to Avoid Further Violation

A formal barrel control program will be implemented at CPS by April 30, 1994. This program will provide accountability for the use of barrels in the CPS RCA. This accountability will include unique identification for each barrel, tracking of barrel use in the RCA, and assignment of responsibility for the proper use of barrels. This program will also provide a means to monitor the correct use of barrels.

IV. Date When Full Compliance Will be Achieved

IP is now in full compliance with CPS procedures regarding the use of barrels in the CPS RCA.