

Public Service
Electric and Gas
Company

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Vice President - Nuclear Operations

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

Gentlemen:

RESPONSE TO NOTICE OF VIOLATION
NRC COMBINED INSPECTION REPORT NO. 50-272/88-18
AND 50-311/88-18
SALEM GENERATING STATION - UNIT NOS. 1 AND 2
DOCKET NOS. 50-272 AND 50-311

Public Service Electric and Gas Company (PSE&G) has received the subject inspection report dated November 22, 1988, which included a Notice of violation regarding a number of examples of failure to implement radiation protection procedures. The inspection report also identified a number of weaknesses in the supervisory and management oversight of ongoing radiological work activities and weaknesses in the corrective action system for radiological controls deficiencies. Pursuant to the requirements of 10CFR2.201, our response is provided in the attachment to this letter.

Should you have any questions on this transmittal, do not hesitate to call.

Sincerely,



Attachment

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USNRC Licensing Project Manager

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ATTACHMENT

PUBLIC SERVICE ELECTRIC AND GAS
SALEM GENERATING STATION
UNIT NOS. 1 AND 2
RESPONSE TO NOTICE OF VIOLATION

Your letter of November 22, 1988, transmitted NRC Inspection Report Nos. 50-272/88-18 and 50-311/88-18 for Salem Units 1 and 2 which included a Notice of Violation. The specific items identified in the violation and our related responses are presented below.

ITEM A.

Technical Specification 6.11, Radiation Protection Program, requires in part, that procedures for personnel radiation protection shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.

Radiation Protection Procedure 1103, Radiological Control of Reactor Cavity and Spent Fuel Pool Operations, requires in part, that dose rates are to be monitored while equipment is being withdrawn from the pool.

Contrary to the above, on September 26, 1988, equipment, specifically a rolling tool, was withdrawn from the Reactor Cavity Pool with out required dose rate survey being performed.

RESPONSE

1. ROOT CAUSE

The root cause of this violation was failure to follow procedures due to personnel error.

2. CORRECTIVE ACTIONS IMPLEMENTED

The rolling tool was surveyed after it had been withdrawn from the cavity; no significant radiological hazards were identified. The incident was discussed with RP supervisors and technicians after it was identified by the inspector. Clarification of the requirements of procedure RP 1103, Section 7.2 was communicated to RP supervisors and technicians at that time. In addition, the Radiation Protection Engineer (RPE) issued memo RP88-186 on October 1, 1988, emphasizing the need for procedural compliance.

3. LONG TERM CORRECTIVE ACTIONS TO AVOID FURTHER VIOLATIONS

The requirements of RP 1103 will be evaluated for clarity and procedure revisions done as necessary prior to our next use of this procedure for a refueling outage (currently scheduled for April 15, 1989, Salem Unit 1).

4. DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance will be achieved by April 15, 1989.

ITEM B.

Administrative Procedure AP 24, Radiological Protection Program, requires in part, in section 5.4, that each individual shall comply with the requirements established in Radiation Work Permits (RWPs).

- a. RWP 789, Trash and PC Removal and Decon in High Radiation Areas (HRAs) and High Contamination Areas (HCAs), dated September 22, 1988 (actual date: September 2, 1988) specifies, in part, that entry is not permitted into the Seal Table Room.

Contrary to the above on September 26, 1988, (actual date: September 6, 1988) at approximately 11:30 p.m., a work crew, working under RWP 789, entered and performed work in the Seal Table Room.

- b. RWP 645, Resistance Temperature Detector (RTD) Demolition and Modification (Respirator), dated September 27, 1988 requires in part, that at least one member of the work party is to wear a MPC-hour meter.

Contrary to the above on September 27, 1988 at about 10:00 a.m., a work party, working under RWP 645 performed work on a RTD (#23 Loop) while no member of the work party was wearing a MPC-hour meter.

- c. RWP 724, Install Wear Reduction Inserts/New Flux Thimbles, dated September 20, 1988, requires in part, that plastics and faceshields be worn while handling equipment removed from the pool.

Contrary to the above, on September 26, 1988 at about 2:00 p.m., two workers, working under RWP 724 and who were not wearing the required plastics and faceshield, removed equipment from the Reactor Cavity Pool.

RESPONSE

1. ROOT CAUSE

The root cause of this violation was failure to follow procedures due to personnel error and inadequate training of new RP Procedures.

2. CORRECTIVE ACTIONS IMPLEMENTED

a. A review of the Seal Table Room surveys was performed immediately upon discovery of the incident; all dose rates were less than 5 mR/hr and there were no significant personnel exposures. It should be noted that although the Seal Table Room was being controlled as a High Radiation Area, there were no high radiation levels (>100 mR/hr) anywhere in the room. A survey of the room was performed prior to entry by the work party and all the detectors were in the storage position. A Radiological Occurrence Report (ROR) and the required associated paperwork were initiated upon discovery of the incident. A fact finder was held the next day and disciplinary action was administered to the supervisor and technicians involved. The incident was discussed with RP supervisors and technicians; strict adherence to procedural and RWP requirements was stressed. The Radiation Protection Engineer issued memo RF88-186 to reinforce management's position on procedure compliance.

b. In the second example cited, the RWP requirement for an MPC-hour meter on one member of the work party was implemented immediately for all work on that RWP. RP department personnel were re-instructed on the importance of RWP compliance (reference memo RP88-186, dated October 1, 1988). A review of the air sample results for the work area, MPC-hour meter results, and body counts indicate there were no significant airborne hazards on this job.

c. In the third example cited, workers on RWP 724 were not wearing plastics and faceshields as required by the RWP. The job was stopped immediately by the RP Senior Supervisor and the workers were frisked for hot particles and found to be clean. The workers and work supervisor were instructed to don the appropriate protective gear. Upon exiting the RCA, the individuals were checked with a high sensitivity personnel monitor and found to be clean. Compliance with RWP requirements was emphasized with the workers and work party supervisors in a counselling performed on the job by the Radiation Protection Senior Supervisor. Plastic suits and faceshields were taken to Unit 2 Containment 130' elevation to ensure adequate protective gear was available.

3. LONG TERM CORRECTIVE ACTIONS TO AVOID FURTHER VIOLATIONS

The clarity of RP procedures associated with items a and c (RP 808, RP 1103, and RP 203) will be evaluated by January 15, 1989, and the appropriate procedure revisions will be complete by January 31, 1989.

Re-instruction on these procedure issues and the violation will be performed for all appropriate RP personnel prior to the Unit 1 Refueling Outage currently scheduled for April 15, 1989.

4. DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance will be achieved by April 15, 1989.

ITEM C.

Radiation Protection Procedure RP 808, Discrete Radioactive Particle Exposure and Contamination Control, requires in part, that as a minimum loose surface contamination surveys are to be performed, twice per shift in designated hot particle buffer zones.

Contrary to the above on September 26 and 27, 1988 the loose surface contamination surveys were not performed with the required frequencies in the designated hot particle buffer zone on the 130' elevation of containment. The surveys were performed once per shift.

RESPONSE

1. ROOT CAUSE

The root cause of this violation was failure to follow procedure due to personnel error and inadequate training.

2. IMMEDIATE CORRECTIVE ACTIONS

The correct survey frequencies were immediately implemented. RP supervisors and technicians on each shift were verbally briefed on the importance of the twice per shift hot particle buffer zone survey requirements over the next several days. The Radiation Protection Engineer issued memo RP88-186 (dated October 1, 1988) to emphasize the requirement for strict procedure compliance.

3. LONG TERM CORRECTIVE ACTIONS TO AVOID FURTHER VIOLATIONS

Evaluation of the clarity of RP 808 and the need to include further guidance will be evaluated by January 15, 1989. The appropriate procedure revisions will be completed by January 31, 1989.

Re-instruction on these procedure issues and the violation will be performed for all appropriate RP personnel prior to the Unit 1 Refueling Outage currently scheduled for April 15, 1989.

4. DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance will be achieved by April 15, 1989.

ITEM D.

Radiation Protection Procedure RP 808, Discrete Radioactive Particle Exposure and Contamination Control, requires in part, that upon exiting a hot particle zone, personnel are to be surveyed by a RP technician using an RO-2.

Contrary to the above, on September 27, 1988 at about 5:00 p.m., two individuals, specifically two radiation protection technicians, left a hot particle zone without performing the required survey.

RESPONSE

1. ROOT CAUSE

The root cause of this violation was failure to follow procedure due to untimely implementation of hot particle controls.

2. IMMEDIATE CORRECTIVE ACTIONS

The two radiation protection technicians were surveyed for hot particles and were found to be clean. Upon exiting the RCA through high sensitivity personnel monitors, they were also found to be clean. A Radiation Protection technician was established at the bioshield door to ensure proper controls were instituted. RWPs for the bioshield were revised to include hot particle controls. The enlargement of the hot particle zone (HPZ) to include the entire bioshield was reemphasized to all RP technicians at shift turnover. The requirements for bioshield work and RF 808 surveys was emphasized in the RP supervisors' log.

3. LONG TERM CORRECTIVE ACTIONS TO AVOID FURTHER VIOLATIONS

A formal supervisory night order log was established on October 1, 1988, to ensure timely communication and implementation of significant radiological control changes.

Evaluation of the clarity of RP 808 and the need to include further guidance will be completed by January 15, 1989. The appropriate procedure revisions will be completed by January 31, 1989.

Re-instruction on these procedure issues and the violation will be performed for all appropriate RP personnel prior to the Unit 1 Refueling Outage currently scheduled for April 15, 1989.

4. DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance will be achieved by April 15, 1989.

Supervisory and Management Oversight Concerns

In addition, the cover letter specifically requested that the issues of improved supervisory and management oversight of radiological work activities and improved corrective action process for identified deficiencies be addressed. Several areas of supervisory and management weakness were identified by the inspector.

Our assessment of our identified weaknesses in supervisory oversight of ongoing radiological work has resulted in an action plan to improve supervisory knowledge, communications, accountability, and attention to detail. Supervisory training of our new procedures which are critical to outage/job coverage, as well as review of the specific violations and RP program weaknesses identified in Inspection Report 88-18, will be completed prior to our next refueling outage (currently scheduled for Unit 1, April 15, 1989). Training will continue after the outage on procedures determined to be less critical to outage activities. This additional supervisory training will be completed by December 31, 1989. Mechanisms for implementing adequate supervisory oversight have been instituted including supervisory shift checklists and a management night order log. The supervisory shift checklists include requirements for supervisory job tours on each shift to ensure proper implementation of radiological controls. Additional mechanisms to be instituted include guidelines on shift turnover and daily and multi-day look-ahead planning sheets.

We have reviewed our program for radiological corrective action. This is contained in procedure RP 1001, Radiological Occurrence Investigation, and in AP-6, Incident Report/Licensee Event Report Program. We have verified that our program is adequate for specific occurrences but does not provide an adequate means for addressing root causes of recurring problems. PSE&G will revise our program to address this issue including training of appropriate personnel. This shall be completed prior to our next refueling outage scheduled for April 15, 1989.

Further discussion on the supervisory oversight and attention to detail issues will be contained in our response to NRC Inspection 50-272/88-19; and 50-311/88-20.