



Duquesne Light Company

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July 3, 1996

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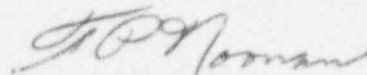
U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

Subject: Beaver Valley Power Station, Unit No. 1
Docket No. 50-334, License No. DPR-66
Integrated Inspection Report 50-334/96-04 and 50-412/96-04
Reply to Notice of Violation

In response to NRC correspondence dated June 6, 1996, and in accordance with 10 CFR 2.201, the attached reply addresses the Notice of Violation transmitted with the subject inspection report.

If there are any questions concerning this response, please contact Mr. Roy K. Brosi at (412) 393-5210.

Sincerely,


T. P. Noonan

cc: Mr. L. W. Rossbach, Sr. Resident Inspector
Mr. T. T. Martin, NRC Region I Administrator
Mr. D. S. Brinkman, Sr. Project Manager
Mr. P. W. Eselgroth, Chief, Projects Branch No. 7
Division of Reactor Projects, Region I

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DUQUESNE LIGHT COMPANY
Nuclear Power Division
Beaver Valley Power Station Unit No. 1

Reply to Notice of Violation

Integrated Inspection Report 50-334/96-04 and 50-412/96-04
Letter Dated June 6, 1996

VIOLATION (Severity Level IV, Supplement IV)

Description of Violation (50-334/96-04-01)

1. Technical Specification (TS) 6.11, "Radiation Protection Program," states that "Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving radiation exposure." This requirement is fulfilled in part by the licensee's Health Physics Manual (HPM).

HPM Chapter 1, Part 1, subpart C, "Responsibilities," step 3.a, requires that "Health Physics personnel are responsible for conducting the health physics program and assisting personnel in other departments in complying with the provisions of the program."

HPM Chapter 1, Part 1, subpart C, "Responsibilities," step 3.b, requires that "Station supervisors are responsible for ensuring that personnel under their supervision comply with the provisions of the health physics program and for planning work to minimize exposure."

HPM Chapter 2, Part 1, subpart C, "General Rules," step 1, requires radiation workers to "Obey posted, verbal, and written health physics instructions. Comply with conditions for access to posted areas. Read, understand, and comply with your Radiological Work Permit."

Contrary to the above, personnel radiation protection practices were not conducted in accordance with the above procedures as evidenced in the following examples:

- a. On March 27, 1996, an individual was assigned to install temporary lighting in the Fuel Building transfer canal, a radiologically controlled area. The individual did not contact radiation protection (RP) staff prior to beginning work as required by the appropriate radiation work permit (RWP) and HPM Chapter 2, Part 1, subpart C, "General Rules," step 1. The individual's supervisor failed to ensure that his subordinate contacted licensee RP staff as required by HPM Chapter 1, Part 1, subpart C, "Responsibilities," step 3.b.

- b. On March 29, 1996, an individual entered a posted high radiation area (HRA) on the 692 foot elevation of the Unit 1 reactor containment building (RCB) without obtaining the area pre-entry briefing required by the appropriate RWP and HPM Chapter 2, Part 1, subpart C, "General Rules," step 1.
- c. On April 19, 1996, during maintenance associated with the replacement of RC-9 (a reactor coolant drain valve), two workers were observed to be using a "flapper wheel" on the reactor coolant piping in preparation of welding. The two workers failed to contact RP staff prior to grinding despite being specifically directed during a job pre-brief to contact RP staff prior to any grinding work and as specifically required by the appropriate RWP. As such, these two workers failed to properly carry out their responsibilities required by HPM Chapter 2, Part 1, subpart C, "General Rules," step 1.
- d. On April 24, two safety engineers entered the reactor cavity HRA from the refueling floor without receiving a briefing on the radiological conditions. The radiation protection technician (RPT) assigned to cover this job failed to properly brief the engineers as they crossed into the designated HRA under his observation as required by HPM Chapter 1, Part 1, subpart C, "Responsibilities," step 3.a. The two safety engineers failed to request an RPT briefing of the radiological conditions in the reactor cavity, as required by the RWP. As such, the two engineers failed to properly carry out their responsibilities required by HPM Chapter 2, Part 1, subpart C, "General Rules," step 1.

Reason For Violation:

Health Physics (HP) program elements that are designed to ensure safe radiological work practices include clearly written Radiological Work Permits (RWPs), and trained workers who read, understand and comply with the RWP requirements. These elements are reinforced in the Radiation Worker Training Program.

Despite these elements, workers failed to comply with HP procedures and with the RWP requirements in each of the specific examples. The reasons for the failure to follow procedures were determined to be as follows:

- a. Personnel error by the individuals involved.
- b. Personnel error by the individual involved.

- c. Insufficient communication in that the "grinding" precaution was meant to include other methods of metal removal (e.g., use of flapper wheel).
- d. Inadequate barricading of the HRA and personnel error by the individuals involved.

Corrective Steps Taken And Results Achieved:

The following corrective actions were taken for each listed example event:

- a.
 - A station Problem Report and an HP Deficiency Report were generated to determine appropriate corrective action.
 - The event was discussed with the contracted craft work force through "tool-box meetings" that were dedicated to discussions of radiation worker practice deficiencies.
 - The event was included in the next module of Radiological Operations Personnel Continuous Training (ROPCT).
 - The individuals involved were counseled.
- b.
 - A station Problem Report and an HP Deficiency Report were generated to determine appropriate corrective action.
 - Access requirements for HRAs were re-emphasized to utility and contracted craft work forces through discussions at safety and tool-box meetings.
 - The event was included in the next module of ROPCT.
 - The individual involved was counseled and disciplined.
- c.
 - The workers immediately complied with the Radiation Technician's (RT) instructions for wearing additional personnel protective equipment and application of engineering controls.
 - The general RWP instruction step for this type of work was revised to require HP notification prior to grinding or "flapping" operations.

- d. • The area was immediately properly barricaded and posted.
- The entry point for the reactor cavity HRA was moved and modified to include a self-restoring barrier.
- A station Problem Report was generated and a formal root cause evaluation was completed.
- The event was included in the next module of ROPCT.
- The RT and the safety engineers were disciplined and/or counseled.

Additionally, the following corrective actions were taken for all listed example events to reinforce expectations for radiation worker compliance with, and understanding of, HP standards and procedures:

- Each event was discussed by the Manager, Health Physics at the outage daily station manager's meeting.
- Each radiation worker practice concern was addressed via issue of a Radiation Protection Standard and management expectations station memorandum under the Standard of the Week Program.

Corrective Steps Taken To Avoid Further Violations:

The corrective actions listed above are adequate to prevent recurrence of the violation. However, the following additional corrective action enhancements have been developed to strengthen personnel performance and will be implemented for the 1996 refueling outage at Unit 2:

- HRA briefing requirements will be reemphasized in Radiation Worker Training and General Employee Refresher Training (GERT).
- Guidance will be developed for establishing appropriate controls for new HRAs to identify and address potentially confounding items that could affect human performance.
- The responsibility for radiation workers to ensure HRA integrity is maintained and that HP is informed of any change in work scope will be incorporated into Radiation Worker Training and GERT.

- HP Manual procedures will be changed to specifically prohibit the use of radiation warning rope as the primary means to barricade the entry point to an HRA unless the entry point is continuously monitored or specific approval is obtained from the Manager, Health Physics.
- The radiation worker practice concerns identified by these events will be addressed again via reissue of Radiation Protection Standards and management expectations under the Standard of the Week Program.
- The events will be reviewed in the contracted craft work force Problem Awareness Training.
- A summary of the events will be incorporated into Radiation Worker Training and GERT.
- The events will be incorporated into the Site Specific Radiation Technician Training Program for contracted radiation technicians.

Date When Full Compliance Will Be Achieved:

Duquesne Light is in full compliance at this time.