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JOHN D. SIEBER
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September 12, 1988

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Reference: Beaver Valley Power Station, Unit No. 1 and No. 2
BV-1 Docket No. 50-334, License No. DPR-66
BV-2 Docket No. 50-412, License No. NPF-73
Combined Inspection Report 50-334/88-22 and 50-412/88-16

Gentlemen:

In response to NRC correspondence dated August 12, 1988 and in accordance with 10 CFR 2.201, the attached reply addresses the Notice of Violation included with the referenced inspection report.

Your letter also asked that we describe our evaluation, including root causes and final corrective actions of a licensee identified violation involving the failure to verify diesel generator operability. This item is also addressed in our reply.

If there are any questions concerning this response, please contact my office.

Very truly yours,

J. D. Sieber
Vice President
Nuclear Group

Attachment

cc: Mr. J. Beall, Sr. Resident Inspector
Mr. W. T. Russell, NRC Region I Administrator
Mr. J. T. Wiggins, Chief Reactor Projects Branch No. 3,
Division of Reactor Projects, Region I
Director, Safety Evaluation & Control (VEPCO)

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DUQUESNE LIGHT COMPANY
Nuclear Group
Beaver Valley Power Station, Units No. 1 and No. 2

REPLY TO NOTICE OF VIOLATION
Combined Inspection No. 50-334/88-22 and 50-412/88-16
Letter dated August 12, 1988

VIOLATION (Severity Level IV, Supplement I)

Description of Violation (50-334/88-22-03; 50-412/88-16-02)

Title 10 CFR Part 50, Appendix B, requires that activities affecting quality shall be prescribed by documented instructions, procedures or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures or drawings.

Unit 1 specification document BVS-3001 and Unit 2 specification document 2BV-931 implement the applicable cable installation and separation requirements.

The following examples of inadequate cable separation were identified:

A. Unit 1

1. BVS-3001, Section 1 (General), requires that where exposed cables of redundant circuits leave trays to enter sleeves, they shall be grouped by each color and each group shall have at least six inches minimum between outer periphery of the group of exposed cables.

   Contrary to the above, the outer periphery of the cable group in tray 1TC545 was not separated by at least six inches minimum from the outer periphery of the redundant cable group in tray 1TC306B where the exposed cables entered cable sleeves.

2. BVS-3001, Section 1 (General), requires that all horizontal cable trays shall have solid covers.

   Contrary to the above, in several locations, horizontal cable tray covers were not maintained or were missing such that the required separation was not maintained.

B. Unit 2

2BV-931, Appendix M (Electrical Color Separation of Cables and Raceways) requires that the minimum separation distance between redundant Class 1E cables/raceways and non-Class 1E cables/raceways in the Cable Spreading Areas be three feet vertically.

Description of Violation (cont.)

Contrary to the above, redundant Class 1E cables in conduit line 2CC94000M and tray 2TC403P did not meet the three feet minimum separation distance from non-Class 1E cable 2NNSANC457.

Corrective Action Taken

Walkdowns were conducted by Engineering and Construction personnel of those areas identified by the Inspector as having examples of inadequate cable separation. As a result of these walkdowns, various tray covers and conduit fitting covers were observed to have been removed, thereby reducing the cable separation criteria to below minimums as established within the BVS-3000 and 2BV-931 installation specifications. These covers were immediately replaced to restore an acceptable separation.

An action plan was established to walkdown all raceways in accessible safety related areas in both Unit 1 and Unit 2 to identify and correct any similar situations. Presently, this action plan is still in progress due to the magnitude of effort involved.

Action Taken To Prevent Recurrence

As an interim measure, the Construction Department has revised their procedure NCAP 5.6 "Identification of Temporary Installation and Temporary Removals" to specifically address the removal and reinstallation of tray covers for modification work.

Engineering will establish a practice to use fire blankets, which will permit tray covers to remain off during cable installation, and still maintain the separation criteria during unattended periods of work on cable trays.

Date of Full Compliance

The expected completion date for the action plan described above is December 16, 1988. Following internal review of the results of these walkdowns, a supplemental report will be issued to address the actions to prevent recurrence.

Licensee Identified Violation Involving Failure to Verify Diesel Generator Operability

At 1156 hours on 7/7/88, with Unit 1 at 100% reactor power, Emergency Diesel Generator Number 1 (EE-DG-1) was removed from service for air line cleaning. In accordance with ACTION Statement A of Technical Specification (TS) 3.8.1.1, the operability of the other emergency AC power supplies should be verified within one hour by starting EE-DG-2 from ambient and performing an offsite to onsite breaker alignment check. However, these actions were not performed within the required time frame, as was discovered at 1438 hours after questioning by the relieving shifts foreman. Upon recognition of the omission, EE-DG-2 was immediately started while the breaker verification was performed by 1450 hours 7/7/88. No safety implications resulted from the event since the redundant emergency AC power sources were always physically available to supply any required loads. This event was caused by a cognitive error on the part of Senior Reactor Operators, who did not properly recall or verify all required Technical Specification actions associated with removing an Emergency Diesel Generator from service.

Corrective Actions

- LER 88-013 was issued.
- Disciplinary action was taken for those licensed Control Room personnel involved in this event.
- This event will be reviewed by all licensed operating personnel.
- The Emergency Safety Features (ESF) Checklist will be revised to explicitly mention that, if an Emergency Diesel Generator is removed form service, the redundant train diesel is started and the appropriate offsite-to-onsite breaker alignment verification (either OST 1.36.7 or 1.36.8) is performed within the diesel generator one-hour time limit of TS 3.8.1.1.a.
- The procedure for removing a Diesel Generator from service has been revised in order to require verification of the other DG's operability as an initial condition.
- The ESF Checklist will be revised to require a verification of the actions necessary for compliance to the Technical Specifications. This will provide a more positive assurance that supervision is not making errant assumptions regarding compliance to the Technical Specifications.