

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-412/84-04

Docket No. 50-412

License No. CPPR-105 Category B

Licensee: Duquesne Light Company
435 Sixth Avenue
Pittsburgh, Pennsylvania 15219

Facility Name: Beaver Valley Power Station, Unit 2

Inspection At: Shippingport, Pennsylvania

Inspection Conducted: April 2-5, 1984

Inspectors:

A. Finkel
A. Finkel, Lead Reactor Engineer

May 21, 1984
date

L. Cheung
L. Cheung, Reactor Engineer

May 21, 1984
date

J. Hodson
J. Hodson, Reactor Engineer

May 21, 1984
date

Approved by:

C. J. Anderson
C. J. Anderson, Chief, Plant
System Section, EPB

5/21/84
date

Inspection Summary: Inspection on April 2-5, 1984 (IE Report No. 50-412/84-04)

Areas Inspected: Routine unannounced inspection by three region-based inspectors of activities pertaining to the installation of safety-related electrical equipment and the status of the separation program discussed with the NRC in the December 20, 1983 meeting. The inspection involved 108 hours onsite by three region-based inspectors.

Results: No violations were indentified.

DETAILS

1.0 Persons Contacted

1.1 Duquesne Light Company

- *F. Curl, Director of Construction
- *R. Corpland, Director of Quality Control
- *C. Davis, Director of Quality Assurance
- *C. Ewing, Manager of Quality Assurance
- *E. Horwath, Senior Project Engineer
- *J. Konkus, Project Engineer
- *C. Majumdar, Assistant Director of Quality Control
- *J. Stabb, Compliance Engineer
- *R. Swiderski, Manager Nuclear Construction
- *R. Washabaugh, Project Manager

1.2 Stone and Webster Engineering Corporation

- *E. Andre, Superintendent of Engineering
- *P. Bienick, Assistant Superintendent of Engineering
- *C. Bishop, Construction Manager
- *E. Heneberry, Senior Electrical Engineer

1.3 Sargent Electric

D. Cribbs, Design Engineer

1.4 United States Nuclear Regulatory Commission

*G. Walton, Senior Resident Inspector

* denotes attendees present at exit meeting

2.0 Facility Tour

The inspector observed work activities in progress, completed work and plant status in several areas of the plant during a general inspection of Unit 2. The inspector examined work items for obvious defects or violations with NRC requirements or licensee commitments. Particular note was taken regarding the presence of quality control inspectors through visual evidence such as inspection records, material identifications, and non-conformance and acceptance tags. In addition, the inspector interviewed craft and supervisory personnel encountered in the work areas.

No violations were identified.

3.0 Program for Separation of Class IE Equipment and Circuits

On December 20, 1983 the licensee met with the NRC in Bethesda, Maryland, to discuss the resolution of electrical separation issues in complying

with the criteria of Regulatory Guide 1.75, Revision 2, and the Institute of Electrical and Electronics Engineers (IEEE) 384 Criteria for Separation of Class IE Equipment and Circuits.

3.1 On April 2, 1984 an inspection at the site was initiated to determine the status of the cable separation program particularly in regard to the commitments made by the licensee to the NRC during the December 20, 1983 meeting and the January 13, 1984 transmittal letter titled Additional Information on Cable Separation. During the course of this inspection, numerous meetings were held on this subject with the results summarized below.

3.1.1 An initial meeting was held with the licensee and Stone and Webster personnel on April 3, 1984 to discuss the current status of the cable separation program. The results from this meeting were:

3.1.1.1 The licensee identified the program manager and discussed the computerized tracking system that will be used on this program. The Field Construction Procedure (FCP) - 422 which is being used during the system walkdown phase of this program was issued for use on March 5, 1983. In reviewing the results of the initial walkdown listed in the computer run STS001, March 19, 1983, it appears that the new computerized tracking system provides less detail than the Cable Separation Status Report handed out at the December 20, 1983 meeting. This concern was discussed with the licensee. At that meeting the licensee stated that this new system was designed to facilitate identifying problems in a particular area which was more difficult under the previous system.

3.1.1.2 The program chart which was part of the December 20, 1983 meeting and the January 13, 1984 transmittal had several missing dates. The effectiveness of management evaluation and control of the program with missing dates was a concern of the NRC inspector. On April 5, 1984, prior to the exit meeting, the licensee provided program completion dates.

3.1.1.3 The program completion dates discussed on April 5, 1984 were updated during phone conversations with the licensee on May 7, 8, and 9, 1984. Based on those conversations, the following program dates were provided to the NRC by the licensee.

<u>Subject</u>	<u>Start Date</u>	<u>Completion Date</u>
- 2BVS-41		1-3-84
- 2BVS-931 Revised		4-3-84
- Computerize Tracking System	Mid January 1984	4-9-84
- Electrical Enclosure/Barrier	1-10-84	7-15-84
- Ampacity Review of Trays		7-15-84
- Hazard Analysis	1-3-84	4th quarter 1985
- Training Coordinator Assigned (TC)	4-3-84	As Required

- Training Program (1)
- Documentation

5-18-84
4th quarter 1985

(1) The revised quality control training program was reviewed by the Training Coordinator (TC) during this inspection period.

3.1.1.3.1 The inspector reviewed the revised quality control training film TCO-100 dealing with the latest Color Separation Criteria. TCO-100 had been up-dated to the latest separation criteria identified in Specification 2BVS-931.

3.1.1.3.2 The licensee stated that Stone and Webster Boston engineering personnel have been trained to the new criteria in 2BVS-931. The training of the construction and quality control personnel at the site will be accomplished within the time span listed in paragraph 3.1.1.3.

3.1.2 The present status of the color separation program was discussed with the licensee on April 4, 1984.

3.1.2.1 Stone and Webster has initiated a design review task which is approximately 80% complete. The licensee has issued an E & DCR stop work order in containment on color separation installation work.

3.1.2.2 The licensee plans to continue issuing new drawings by Sargent Electric which presently reflects the old requirements of 2BVS-931. Sargent's procedure FCP 413 will be changed to reflect the revised criteria of 2BVS-931. The licensee stated that Sargent issues SECO-5-D series drawings that provide instructions to the crafts. All SECO-5-D drawings will be reviewed by Stone and Webster for compliance to the revised requirements of 2BVS-931 until Sargent personnel have been retrained to the revised criteria.

3.1.3 The licensee documented their understanding of the December 20, 1983 meeting in their Notes of Conference dated February 2, 1984. The verification of separation percent problems will be verified during the walkdown phase of the program using procedure FCP-422.

3.1.4 The licensee was informed by the inspector that an NRC inspection would be performed during the month of May to assure that the criteria defined in paragraph 3.1.1.3 was being complied with. The inspector requested that a detailed management tracking system be provided to the NRC. The chart that was part of the January 13, 1984 transmittal to the NRC did not have sufficient details to effectively evaluate this program.

No violations were identified.

4.0 Audits - Electrical

4.1 The inspector reviewed the licensee's audit program in the electrical and instrumentation area for compliance with the Final Safety Analysis Report (FSAR) and site documentation. The licensee in Chapter 17 of the FSAR stated

that audits will be performed biannually for the 18 criteria of 10CFR50, Appendix B.

4.1.1 The following audit reports in the electrical area were selected for review and compliance with the program requirements.

<u>Report No.</u>	<u>Scheduled Date</u>	<u>Status</u>
DC-2-28-16	04/83	Complete
DC-2-28-32	10/83	Complete
DC-2-83-33	10/83	Complete
DC-2-84-04	01/84	Open
DC-2-84-06	02/84	Open

The audit computer listing identifies the subject audit description, findings, status, and, if required, the verification finding dates.

4.1.2 The inspector verified that the data in the audit folder verified the status that was listed in the computer listings of April 4, 1984. The licensee appears to have closed findings from their audit reports in a timely manner.

No violations were identified.

5.0 Diesel Generator System

5.1 The inspector verified that the diesel generator control panels were installed in the diesel generator rooms in accordance with the installation drawings and the equipment was protected from the area environment.

5.1.1 During the inspection of the diesel generator fuel oil storage and transfer system, the inspector identified an inconsistency in the FSAR. This item was also discussed in FSAR Questions and Answers dated September 19, 1983. The FSAR indicates that the accumulator tank is approximately 0.9 gallons, however, Figure 9.5.4.2 of the FSAR Emergency Diesel Generator Fuel Oil Storage and Transfer System, indicates the accumulator tank to be a 3-gallon tank. The licensee indicated that the FSAR will be corrected in Amendment No. 6, which is to be issued April 30, 1984.

No violations were identified.

6.0 Electrical Penetrations

6.1 During an inspection of the cable vault area, the inspector found cable ends from penetrations 11A and 11B, elevation 760, not protected. These cables were in junction boxes, covers not sealed and conduit penetration open to the construction environment. Licensee specification 2BVS-317 requires level B storage per ANSI N45.2.2 during in phase storage.

6.1.1 The Westinghouse instructions requires the cable ends of these penetrations to be protected until landed in the junction box. The licensee's design of this box is open to the environment and all cable inputs are not

sealed. The necessity to have these junction boxes sealed is being reviewed by the licensee, since Westinghouse did not specifically address this design configuration.

This item is unresolved pending NRC review of the licensee's position on this subject. (50-412/84-04-01)

7.0 Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, or violations. An unresolved item identified during this inspection is discussed in Details, paragraph 6.

8.0 Exit Meeting

The inspector met with licensee and contractor representatives (denoted in paragraph 1) at the conclusion of the inspection on April 5, 1984. The inspector summarized the scope and findings of the inspection as described in this report. The inspector reviewed the dates with the licensee when the various tasks would start and stop in reference to the color separation program chart of the January 13, 1984 transmittal to the NRC.

At no time during the inspection was written material provided to the licensee by the inspector.