U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-412/84-17

Docket No. 50-412

License No. CPPR-105 Priority -- 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: October 29 - November 1, 1984

Inspectors: A. Finkel
A. Finkel, Lead Reactor Engineer — 11/16/84 date

Peter H. Phelan
P. Phelan, Reactor Engineer — 11/16/84 date

Approved by: C. J. Anderson
C. J. Anderson, Chief
Plant System Section, EPB — 11/25/84 date

Inspection Summary:

Inspection on October 29 - November 1, 1984 (I.E. Report No. 50-412/84-17)

Areas Inspected: Routine unannounced inspection by two region based inspectors of activities pertaining to the installation of safety-related electrical equipment and the status of the color separation program and the vendor wiring inspection program. The inspection involved 62 hours onsite by two region-based inspectors.

Results: No violations were identified.

DETAILS

1. Persons Contacted

1.1 Duquesne Light Company

*R. Coupland, Director Quality Control
*C. Davis, Director Quality Assurance
*C. Ewing, Manager Quality Assurance
*H. Good, Director Quality Control Welding
*E. Horvath, Senior Project Engineer
*J. Konkus, Project Engineer
*C. Majumdar, Assistant Director Quality Control
*H. Siegel, Engineering Manager
*R. Swiderski, Start-up Manager
*R. Wallauer, Compliance Engineer

1.2 Stone and Webster Engineering Corporation

*C. Bishop, Construction Manager
*A. McIntyre, Superintendent of Engineering
*R. Wittschen, Licensing Engineer

1.3 United States Nuclear Regulatory Commission

*G. Walton, Senior Resident Inspector
*L. Prividy, Resident Inspector

*Denotes attendees present at exit meeting.

2. 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 nonconformance and acceptance tags. In addition, the inspector interviewed craft and supervisory personnel encountered in the work areas.

No violations were identified.

3. 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.

Subject	Start Date	Completion Date
-2BVS-41		1-3-84
-2BVS-931 Revised		4-3-84
-Computerize Tracking System	Mid January 1984	4-9-84
-Electrical Enclosure/Barrier		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

3.2 The procedures associated with the separation program have been issued and the site organizations are performing in accordance with their direction. The program deals with two basic approaches.

3.2.1 Backfit Program - The backfit program is described in Field Construction Procedure 422 and Inspection Plan 10.2.2. This program deals with the method of resolving old problems that were identified by the licensee's inspection program to be corrected at a latter date, and

3.2.2 New Installations - The new installation program is described in procedures 2BVS 931, Field Construction Procedure - 431 and Inspection Procedures 8.3.3, 8.3.4, 8.4.1 and 8.5.2. This program requires new installations to be corrected if they deviate from the inspection criteria, before work can proceed on the installation.

3.2.3 Review of these documents and inspection by the inspector of the installation work being performed by the licensee indicates that the work and inspections are being carried out as defined in the above documentation.

No violations were identified.

3.3 Siltemp Blanket Testing

3.3.1 To support their calculations dealing with the various methods being used at this site for color separation, the licensee has started a test program to demonstrate that their material configurations will meet the separation criteria of BVPS-2.

3.3.2 The testing methods for the Siltemp material used in the color separation program is defined in specification 2BVS-843, titled "Test Plan for Cable Separation Methods", dated October 5, 1984. The results of the test are due during the 1st quarter of 1985.

3.3.3 The results of this test program will be reviewed by the NRC and the applicabilities of the data to the site criteria.

No violations were identified.

4. Vendor Workmanship Inspection Program

4.1 The licensee is reworking the wiring of their safety-related low voltage instrumentation and control equipment as authorized in 2BVS-931, addendum 3, September 25, 1984. The inspection attributes are listed in Appendix N of 2BVS-931.

4.2 The results of this task effort are listed in the DLC-SQC Vendor Wiring Inspection Status Report (VWISR). The inspector reviewed the 30th of October, 1984 Vendor Wiring Inspection Status Report and verified through inspection that, on selected items, the status report reflected the condition of the equipment inspected by the licensee.

4.3 The 13 code items listed by the licensee in their (VWIS) report reflects the condition of the equipment and highlights the workmanship concerns.

4.4 The procurement of replacement equipment and parts to assure that the problems identified in NRC inspection reports and the licensee (VWIR) does not occur again is still to be addressed by the licensee. The method that is selected by the licensee will be reviewed by the NRC.

This item is unresolved pending NRC review of the licensee's action on this subject. (50-412/84-17-01)

5. Quality Assurance Audits - Electrical

5.1 The licensee performs audits of the 18 criteria on a yearly basis as outlined in their audit procedure DC-18, Revision 4 of their quality assurance procedure manual. These are the preplanned and scheduled audits that are part of their overall quality assurance program for this site. The licensee also schedules random or unscheduled audits when one or more of the six criteria of procedure DC-18 are met. Applying the six criteria of DC-18 for random or unscheduled audits of the Color Separation and Vendor Wiring Programs should have been conducted by the Quality Assurance Audit function.

5.2 The application of the six criteria that determine when a random or unscheduled audit is to take place did not get applied on the Color Separation or Vendor Wiring Programs by the quality assurance audit function. The licensee is reviewing this procedure to determine if a problem exists in the method used to determine when the six criteria are used.

This item is unresolved pending NRC review of the licensee's action on this subject. (50-412/84-17-02)

6. Quality Documentation Files

6.1 The inspector, on a random basis selected documentation files on various electrical components for compliance with site documentation. The documentation for the Rosemount Model 1153 B D.P. Transmitter indicated that the qualification test report did not meet the 2BV-648A specification in the areas of Margin and Radiation Testing. The Supplier's Document Data Form released the

hardware to the field for installation with no indication that the data did not meet the specification requirements.

6.2 The review status section of the Supplier's Document Data Form was approved without any indication that the test data package did not meet the criteria of the licensee's specification. The data to support that the Rosemount 1153B is in compliance with the specification is located, per the licensee, at the S&W office in Boston, Massachusetts.

6.3 The licensee is evaluating the present data system to determine if this is a generic problem with their data system or an isolated condition associated with this specific data package.

This item is unresolved pending NRC review of the licensee's action on this subject. (50-412/84-17-03)

7. Generic Electrical Problems - Agastat Timing Relays

7.1 Agastat timing relays requires that to assure that the relays time-out within specification tolerances, they are to be calibrated in the position they are to operate in. If the timing relays are calibrated in positions other than they are used in, a dial calibration error of as much as 32% will result.

7.2 The calibration procedures for this site require that this type of device be calibrated in the circuit position it is required to operate in. The inspector witnessed the calibration of Agastat timing relays by the Instrumentation and Controls (I&C) organization. The calibration was performed in accordance with the vendors data sheet for the Agastat 7000 series timing relays.

No violations were identified.

8. Unresolved Items

8.1 Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, or violations. Unresolved items identified during this inspection area discussed in Details, paragraph 4.0, 5.0 and 6.0.

9. Exit Meeting

9.1 The inspector met with licensee and contractor representatives (denoted in paragraph 1) at the conclusion of the inspection on November 1, 1984. The inspector summarized the scope and findings of the inspection as described in this report.

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