Duquesne Light Company
Beaver Valley Power Station
P.O. Box 4
Shippingport, PA 15077-0004

JOHN D. SIEBER
Senior Vice President and
Chief Nuclear Officer
Nuclear Power Division

(412) 393-5255
Fax (412) 643-8069

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

Subject: 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 50-334/91-80 and 50-412/91-80
Electrical Distribution System Functional Inspection

Attached is the status of the remaining unresolved items from the above referenced inspection report and the Duquesne Light Company (DLC) current schedule for resolution of these items.

Information on these unresolved items was previously provided by DLC in correspondence dated June 12, 1992 and July 20, 1992.

If there are any questions concerning the information in this letter, please contact Mr. H. M. Siegel at (412) 393-5600.

Sincerely,

J. D. Sieber

Attachment

cc: Mr. L. W. Rossbach, Sr. Resident Inspector
Mr. T. T. Martin, NRC Region I Administrator
Mr. G. E. Edison, Project Manager

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ELECTRIC UTILITY of THE YEAR

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DUQUESNE LIGHT COMPANY
Nuclear Power Division
Beaver Valley Power Station Units 1 and 2

Combined NRC Inspection 50-334/91-80 and 50-412/91-80
Electrical Distribution System Functional Inspection
Unresolved Item Status

Several of the original unresolved items from the above referenced inspection report were closed by the NRC in Combined NRC Inspection Report Nos. 50-334/93-23 and 50-412/93-27, dated January 24, 1994. As stated in the EDSFI Report and reiterated in our June 12, 1992 correspondence, several of the EDSFI unresolved items represented potential design weaknesses and areas of concern, but not plant equipment operability issues. As stated in our previous correspondence, as issues of safety significance develop during the effort to address these unresolved items, appropriate corrective measures have been and will continue to be taken to resolve the issues. The status of the remaining unresolved items and Duquesne Light Company's (DLC) current schedule for resolution of the items follows.

Setting of Degraded Grid Relays (50-334/91-80-04 and 50-412/91-80-04)

The degraded grid relay setpoints were conservatively adjusted at both units during their most recent refueling outages (the ninth refueling outage for Unit 1 and the fourth refueling outage for Unit 2).

Issues regarding the starting voltage available at some safety related equipment and the ampacity of some safety related cables were identified during the evaluation of the Unit 1 degraded grid relay setpoints. Problem Report [illegible]-93-45 was written to document these potential conditions and to address their resolution. The issues determined to potentially prevent equipment from performing its safety function during an accident were resolved prior to restart from the ninth refueling outage. The remaining potential problems are being resolved through further evaluation and appropriate corrective action will be taken as necessary.

The 120 VAC calculations need to be completed at both units prior to determining whether these present setpoints will become the final setpoints. Final setpoints will be determined by the end of the Unit 1 eleventh refueling outage and the Unit 2 fifth refueling outage, respectively. These dates are tentatively scheduled as May, 1996 for Unit 1 and June, 1995 for Unit 2.

This schedule remains unchanged from that contained in our previous correspondence.

4KV Breaker Interrupting Rating (50-334/91-80-05)

The station short circuit calculation, which is required to address this item, is approximately 50 percent complete. The expected completion date for the short circuit analysis is August 15, 1994. The originally anticipated completion date was April 1, 1994.

125 VDC Short Circuit Calculation (50-334/91-80-06 and 50-412/91-80-06)

The Unit 1 safety related short circuit calculation was completed on December 29, 1992. Breaker interrupting capacity, breaker coordination and cable withstand issues were identified. These issues have been resolved except for some of the breaker coordination issues. Modifications have been proposed for the Unit 1 tenth refueling outage, which is presently scheduled to begin October 7, 1994 to resolve these remaining breaker coordination issues. Measures have been taken to minimize the possibility of breaker coordination problems in the interim.

A short circuit calculation for the Unit 1 non-1E 125VDC system was completed on December 29, 1993. Some breaker interrupting capacity and breaker coordination issues were identified. As a result, a Problem Report was initiated and appropriate administrative controls were implemented. No specific schedule for resolution of these non-safety related issues has been established at this time.

As stated in our June 12, 1992 correspondence, no additional actions were needed regarding the Unit 2 125 VDC short circuit calculation. Combined NRC Inspection Report 50-334/93-23 and 50-412/93-27 provided an update on this item and concurred that no additional actions were needed, but left the item open pending completion of the Unit 1 item as well.

Dynamic Loading of the EDG (50-334/91-80-08 and 50-412/91-80-08)

The transient analysis for the Unit 1 emergency diesel generators (EDGs) has been completed and concluded that both Unit 1 EDGs would successfully perform their safety function. This was noted in Combined NRC Inspection Report 50-334/93-23 and 50-412/93-27, but remains open pending further NRC review. Modifications to improve the EDGs' overall voltage response during the sequencer loading are being considered as a design enhancement.

The transient analysis for the Unit 2 EDGs is approximately 50 percent complete. Field measurements have been taken for the EDG and a majority of the 4KV and 480 VAC motors. Several motors have been modeled in the computer program being used to perform the analysis. The anticipated completion date for the analysis is June 30, 1994. The originally anticipated completion date was March 7, 1994.

EDG Mode Change (50-334/91-80-09 and 50-412/91-80-09)

An analysis to evaluate this item for Unit 1 was completed and concluded that the EDGs will successfully perform their safety function under the postulated scenario. Combined NRC Inspection Report 50-334/93-23 and 50-412/93-27 noted the completion of the analysis for Unit 1 and its conclusions, but left the item open pending further NRC review of this analysis and NRC review of this item for Unit 2.

EDG Mode Change (50-334/91-80-09 and 50-412/91-80-09), Continued

The Unit 2 analysis cannot be performed until the Unit 2 EDG transient analysis has been completed, which is expected to occur by June 30, 1994. The anticipated completion date for the mode change analysis is August 31, 1994. The original estimate for completing this analysis was March 31, 1994.

Penetration Heat Loads (50-334/91-80-10)

In correspondence dated June 12, 1992, DLC stated an action plan would be developed by October 31, 1992 to address this issue. This resulted in a schedule to evaluate the penetration heat load capabilities by October 30, 1994. This information was provided to the NRC during combined NRC Inspection 50-334/93-23 and 50-412/93-27.

Presently, the evaluation of the containment 4KV electrical penetrations and those 480 volt electrical penetrations not containing 125 VDC circuits is scheduled to be completed by October 30, 1994. The evaluation of the other containment electrical penetrations will be completed by March 31, 1995.

Unit 1 Design Documents (50-334/91-80-12)

This unresolved item involved the four following separate issues:

(1) Sizing of MCC Cables for Power and Control Circuits

An evaluation of the Unit 1 safety related motor control center (MCC) power cable sizing was completed on March 31, 1993. Issues regarding the voltage available at some safety related equipment and the ampacity of some safety related cables were identified. Problem Report 1-93-45 was written to document these potential conditions and to address their resolution. Conditions associated with equipment performing safety-related functions were analytically resolved prior to restart from the ninth refueling outage. The remaining potential problems are being resolved through further evaluation and appropriate corrective action will be taken as necessary.

An evaluation of the MCC control cable sizing is approximately 25 percent complete. Data needed to complete this evaluation is still being gathered. Due to the lack of a suitable commercially available computer program to complete this evaluation, a program is being developed on site. The expected completion date for this evaluation is November 30, 1994. DLC originally anticipated completing this effort by June 30, 1994.

(2) Acceptability of Fast Bus Transfer Scheme

The updated Unit 1 fast bus transfer study has been initiated. The completion date for the study is still expected to be September 30, 1994 as stated in our June 12, 1992 correspondence.

(3) 120 VAC Short Circuit Analysis

The station short circuit analysis, which is a prerequisite to perform this analysis, is scheduled for completion by August 15, 1994. Completion of the 120 VAC short circuit analysis would then be expected by November 30, 1994. The original anticipated completion date was June 30, 1994 as stated in our June 12, 1992 correspondence.

(4) Coordination of DC Protective Devices

The safety related DC system studies were completed December 29, 1992. Some breaker coordination concerns were identified. Further analysis resolved some of these and modifications have been proposed for the Unit 1 tenth refueling outage to address the remaining coordination issues. Measures have been taken to minimize the possibility of breaker coordination problems in the interim. The tenth refueling outage is presently scheduled to begin October 7, 1994.

Switchgear Seismic Qualification (50-334/91-80-14 and 50-412/91-80-14)

A preliminary seismic analysis of the Unit 1 480 volt switchgear with breakers in the racked out configuration was completed on December 2, 1993. The analysis was then independently verified and approved by March 3, 1994. The conclusion was that no seismic problems exist with breakers in the racked out configuration.

The seismic evaluation of the Unit 2 480 volt switchgear with breakers in the racked out configuration is continuing. In-situ data was collected during the Unit 2 fourth refueling outage. The Unit 2 switchgear cabinet structure and its amplified response spectra is similar to that for the Unit 1 switchgear cabinet, but its breaker rack out position is less severe than that at Unit 1. Therefore, DLC expects the results of the seismic evaluation to be favorable.

A preliminary seismic analysis of the Unit 2 480 volt switchgear will be completed by July 7, 1994. The analysis is then scheduled to be independently verified and approved by September 7, 1994. The evaluation was originally anticipated to be completed by June 7, 1994.

Rating of Diesel Generator Potential Transformers (50-334/91-80-15)

Name plate data for the EDGs' voltage regulator and static exciter potential transformers were obtained during the ninth refueling outage. We have reviewed this and further information obtained from the vendor, MKW Power Systems, Inc. Both the vendor and DLC have concluded that the potential transformers have adequate insulation to operate with the postulated grounded phase. DLC believes this item has been adequately addressed.