

April 18, 2000

Mr. L. W. Myers
Senior Vice President
Beaver Valley Power Station
Post Office Box 4
Shippingport, PA 15077

SUBJECT: BEAVER VALLEY 1 AND 2 - CORRECTION TO SAFETY EVALUATION FOR
AMENDMENT NOS. 227 AND 105 TO FACILITY OPERATING LICENSE NOS.
DPR-66 AND NPF-73 (TAC NOS. MA4438 AND MA4439)

Dear Mr. Myers:

On February 11, 2000, the Nuclear Regulatory Commission (NRC) issued Amendment Nos. 227 and 105 to Facility Operating License Nos. DPR-66 and NPF-73 for the Beaver Valley Power Station, Unit Nos. 1 and 2 (BVPS-1 and BVPS-2). These amendments revised the Technical Specification requirements for emergency diesel generators (EDGs), as requested by Duquesne Light Company's (DLC) application dated December 24, 1998, and supplemented January 6, 1999.

On the date of the December 24, 1998, letter, DLC was the licensed operator for BVPS-1 and BVPS-2. On December 3, 1999, DLC's ownership interests in BVPS-1 and BVPS-2 were transferred to the Pennsylvania Power Company, and DLC's operating authority for BVPS-1 and BVPS-2 was transferred to FirstEnergy Nuclear Operating Company (FENOC). By letter dated December 13, 1999, FENOC requested that the NRC continue to review and act upon all requests before the Commission which had been submitted by DLC. Accordingly, the NRC staff completed its review of the requested changes and issued them as Amendment Nos. 227 and 105.

Subsequent to the issuance of the amendment, an error was identified in Section 2.1 of the Safety Evaluation (SE) which was issued with the amendments. This section of the SE discussed changes to TS 3.8.1.1 and 3.8.1.2 to clarify that the minimum contained volume of fuel in the EDG day, engine-mounted, and fuel storage tanks specified in these TSs must be useable volumes. The SE incorrectly identified TS 3.8.1.2 as applying to Unit 1 only and TS 3.8.1.1 as applying to Unit 2 only when, in fact, both TSs apply to both units. Notwithstanding this error, the conclusion of the SE regarding the proposed changes to TS 3.8.1.1 and 3.8.1.2 is unaffected. Accordingly, a revised page 2 of the SE to correct this error is enclosed with this letter.

Sincerely,

/RA/

Daniel S. Collins, Project Manager, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-334 and 50-412

Enclosure: Safety Evaluation, Page 2

cc w/encl: See next page

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Sincerely,

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Daniel S. Collins, Project Manager, Section 1
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2.0 EVALUATION

2.1 EDG Fuel Oil Storage Volume

The BVPS-1 and BVPS-2 design and safety analyses for diesel fuel storage capacity are based upon having sufficient volume for 7 days of continuous operation of the EDGs under maximum load conditions. TS 3.8.1.1 and 3.8.1.2 specify the minimum contained volume of fuel in the EDG day, engine-mounted, and fuel storage tanks. However, due to the configuration of the storage tanks and the fuel oil system piping, they also contain a volume of unusable fuel. The licensee has implemented interim administrative controls to ensure the volume of usable fuel within the tanks will support continuous operation of the EDGs for 7 days. The licensee has now proposed to revise TS 3.8.1.1 and 3.8.1.2 to clarify that the fuel volumes specified in these TSs must be useable volumes. The NRC staff has reviewed the licensee's proposed changes to TS 3.8.1.1 and 3.8.1.2 and has concluded that the proposed changes clarify that the required volumes of fuel in the EDG day, engine-mounted, and fuel storage tanks are useable volumes. These changes are consistent with the BVPS-1 and BVPS-2 design and safety analyses and will ensure the tanks will support continuous operation of the EDGs for 7 days. Therefore, the proposed changes to TS 3.8.1.1 and 3.8.1.2 are acceptable.

In addition to the proposed changes to TS 3.8.1.1 and 3.8.1.2, the licensee proposed changes to the associated TS Bases to provide additional information regarding the amount of diesel fuel required for each unit. The NRC staff has no objection to these proposed TS Bases changes.

2.2 EDG Single Largest Load Rejection and Overspeed Verification During Surveillance Testing

Each EDG is provided with an engine overspeed trip to prevent damage to the engine which might result from operation at excessive speeds. A transient caused by the loss of a large load could cause the EDG speed to increase to the overspeed trip setpoint and trip the engine.

SR 4.8.1.1.2.b.2 demonstrates the ability of the EDG to reject the largest single load without tripping. Regulatory Guide (RG) 1.9, dated December 1979, provides guidance that during recovery from transients resulting from "the disconnection of the largest single load, the speed of the diesel generator unit should not exceed the nominal speed plus 75 percent of the difference between nominal speed and the overspeed trip setpoint or 115 percent of nominal, whichever is lower." The licensee identified that, for BVPS-1, the 450 kW specified in SR 4.8.1.1.2.b.2 for the load to be rejected is non-conservative. An engineering evaluation was performed which determined that the single largest load for BVPS-1 would be the brake horsepower value of 612 kW for the high head safety injection (HHSI) pump operating at a frequency of 61 Hz. The licensee has now proposed to revise SR 4.8.1.1.2.b.2 to verify the BVPS-1 EDG capability to reject a 615 kW load without tripping. The licensee stated that they have performed field verification tests that demonstrated the BVPS-1 EDGs are capable of rejecting ≥ 700 kW without tripping.