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June 15, 2005 L-05-096

U. S. Nuclear Regulatory Commission Attention: Document Control Desk Washington, DC 20555-0001

Subject: Beaver Valley Power Station, Unit Nos. 1 and 2 BV-1 Docket No. 50-334, License No. DPR-66 BV-2 Docket No. 50-412, License No. NPF-73 Response to Request for Additional Information in Support of License Amendment Request Nos. 306 and 176 Emergency Diesel Generator Allowed Outage Time Extension

This letter provides the FirstEnergy Nuclear Operating Company (FENOC) response to an NRC request for additional information (RAI) dated April 6, 2005, relating to FENOC letter L-04-072 dated May 26, 2004.

FirstEnergy Nuclear Operating Company letter L-04-072 submitted License Amendment Request (LAR) Nos. 306 and 176 for Beaver Valley Power Station (BVPS) Unit Nos. 1 and 2, respectively. These license amendment requests proposed changes to the BVPS Unit Nos. 1 and 2 Technical Specifications which would extend the current emergency diesel generator (EDG) allowed outage time to 14 days, remove the surveillance requirement for performing EDG maintenance inspections from the Technical Specifications, and revise the EDG Technical Specification requirements for restoring EDG fuel oil properties to within limits.

The FENOC response to the RAI information is provided in Attachment A of this letter. Attachment B provides a list of regulatory commitments made in this submittal.

This information does not change the evaluations or conclusions of the No Significant Hazards Consideration presented in FENOC letter L-04-072. If there are any questions concerning this matter, please contact Mr. Henry L. Hegrat, Supervisor - Licensing, at 330-315-6944.

 Beaver Valley Power Station, Unit Nos. 1 and 2 Response to RAI in Support of LAR Nos. 306 and 176 Emergency Diesel Generator Allowed Outage Time Extension L-05-096 Page 2

I declare under penalty of perjury that the foregoing is true and correct. Executed on June 15, 2005.

Sincerely,

Pearce

Attachments:

A. Response to Request for Additional Information Related to BVPS-1 and 2 EDG Allowed Outage Time

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- B. Commitment List
- Mr. T. G. Colburn, NRR Senior Project Manager Mr. P. C. Cataldo, NRC Sr. Resident Inspector Mr. S. J. Collins, NRC Region I Administrator Mr. D. A. Allard, Director BRP/DEP Mr. L. E. Ryan (BRP/DEP)

## Attachment A to Letter L-05-096

## RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION RELATED TO FIRSTENERGY NUCLEAR OPERATING COMPANY (FENOC) BEAVER VALLEY POWER STATION, UNIT NOS. 1 AND 2 (BVPS-1 AND 2) EMERGENCY DIESEL GENERATOR (EDG) ALLOWED OUTAGE TIME (AOT) DOCKET NOS. 50-334 AND 50-412

The NRC staff has requested the following additional information to complete its review of the FENOC license amendment application to extend the BVPS-1 and 2 EDG AOTs to 14 days:

By letter dated May 26, 2004, as supplemented October 29 and December 3, 2004, and January 18, 2005, FENOC (the licensee), proposed changes to the BVPS-1 and 2 Technical Specifications. The proposed changes would extend the AOT from 72 hours to 14 days to restore an inoperable EDG to operable status. In order for the Nuclear Regulatory Commission staff to proceed with its review of the proposed change, the following commitment is needed.

The present license amendment request proposes supplying the power needs of a blacked-out unit from the nonblacked-out unit. The proposal involves establishing this cross connection in 1 hour and providing power for both units for 4 hours. In light of the recent operating experience that indicates increased duration on loss of offsite power, the proposed approach does not seem to provide for defense in depth measures to deal with an extended outage for an EDG. The approach to supply power to the blacked-out unit by rescheduling the safety system operation in the unaffected unit (disconnecting loads for short term on the unaffected unit to allow for the affected unit to operate another load) is not acceptable because of the undue risk and operational complications imposed on the unaffected unit. NUMARC 87-00 Revision 1, addresses this concern in B-9 (page B-3) and in question 126 (pages I-25 and 26).

Provide details on what alternate onsite power source will be available for powering a blacked-out unit (because of the extended outage for one EDG) for the duration of the extended outage. As discussed with your staff during February 3 and 10, 2005, conference calls, this should involve the submission of a formal commitment to provide an operable standby (capable of supplying load within 1 hour of entering the EDG 14-day AOT) alternate alternating current power supply of sufficient capacity that it can be substituted for the inoperable EDG. - Attachment A to L-05-096 Page 2

#### **Response:**

As a defense in depth measure, when the option of an extended outage for an emergency diesel generator is exercised, FENOC will provide alternate AC power (AAC) capable of supplying safe shutdown loads during a station blackout without the need for rescheduling of safety system operation in the unaffected unit. For unplanned EDG outages, capability to supply AAC will be available upon entering the extended allowed outage period (i.e. by 72 hours into the AOT). For outages planned to exceed the existing initial 72 hour AOT, AAC will be provided within one hour of entering the AOT. In any event, if AAC of the required capacity is not available after entering the extended AOT period (after 72 hours into the AOT), the existing technical specification requirement to be in at least hot standby within the next 6 hours and in cold shutdown within the following 30 hours would apply. Since FENOC has not explored potential design options related to alternate AC power, it is possible that the extended allowed outage period may never be exercised, obviating the need for AAC.

The following criteria would apply to any AAC source used as a defense in depth measure:

- 1. A source may be of a temporary or permanent nature and would not be required to satisfy Class 1E requirements.
- 2. Dynamic effects of source failure (GDC-4 events) would not adversely affect safety related plant equipment.
- 3. A source would not be required to be protected against natural phenomena (GDC-2 events) or abnormal environmental or dynamic effects (GDC-4 events).
- 4. A source would be capable of starting and carrying designated loads required for safe shutdown, including maintaining adequate voltage and frequency such that performance of powered equipment is acceptable. For scoping purposes, AAC capacity has been conservatively estimated based on power needed to operate desirable loss of offsite power (LOOP) loads, rather than just the required blackout loads. For the unit with greater demand (BVPS-2), loads assumed in the estimate include a service water pump (the largest motor currently connected to the EDGs), charging pump, and a motor driven auxiliary feedwater pump among other loads which are not currently assumed in the blackout scenario. Use of rated values for powered equipment rather than the expected power consumption yield a conservative value for AAC capacity of about 4500 kw with approximately 1200 kw margin.

# **ATTACHMENT B to Letter L-05-096**

### **Commitment List**

The following list identifies those actions committed to by FirstEnergy Nuclear Operating Company (FENOC) for Beaver Valley Power Station Unit Nos. 1 and 2 in this document. Any other actions discussed in the submittal represent intended or planned actions by FENOC. These other actions are described only as information and are not regulatory commitments. Please notify Mr. Henry L. Hegrat, Supervisor - Licensing, at 330-315-6944, of any questions regarding this document or associated regulatory commitments.

Commitment	Due Date
As a defense in depth measure, when the option of an extended outage for an emergency diesel generator is exercised, FENOC will provide alternate AC power (AAC) capable of supplying safe shutdown loads during a station blackout without the need for rescheduling of safety system operation in the unaffected unit. For unplanned EDG outages, capability to supply AAC will be available upon entering the extended allowed outage period (i.e. by 72 hours into the AOT). For outages planned to exceed the existing initial 72 hour AOT, AAC will be provided within one hour of entering the AOT. In any event, if AAC of the required capacity is not available after entering the extended AOT period (after 72 hours into the AOT), the existing technical specification requirement to be in at least hot standby within the next 6 hours and in cold shutdown within the following 30 hours would apply.	Prior to exercising an EDG AOT greater than 72 hours