FENOC
FirstEnergy Nuclear Operating Company

Peter P. Sena III
Site Vice President

724-682-5234
Fax: 724-643-8069

June 26, 2008
L-08-210

10 CFR 54

ATTN: Document Control Desk
U. S. Nuclear Regulatory Commission
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
Supplement to Reply to Request for Additional Information Regarding Postulated Refurbishment Impacts for Beaver Valley Power Station, Units 1 and 2, License Renewal (TAC Nos. MD6595 and MD6596)

Reference 1 provided the FirstEnergy Nuclear Operating Company (FENOC) License Renewal Application for the Beaver Valley Power Station (BVPS). Reference 2 provided a summary of a conference call between the U.S. Nuclear Regulatory Commission (NRC) and FENOC on the topic of license renewal major refurbishment and the associated environmental impacts. Reference 3 requested additional information regarding refurbishment impacts described in Appendix E, "Environmental Report," of the BVPS License Renewal Application. Reference 4 provided the FENOC reply to the NRC request for additional information.

A telephone conference call was held between the NRC and FENOC on June 2, 2008, to discuss the FENOC reply in Reference 4. During the call, the NRC requested additional information related to air quality environmental impacts due to a postulated BVPS Unit 2 steam generator replacement. The Attachment provides the FENOC reply to the request.

There are no regulatory commitments contained in this letter. If there are any questions or if additional information is required, please contact Mr. Clifford I. Custer, Fleet License Renewal Project Manager, at 724-682-7139.

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NRR

I declare under penalty of perjury that the foregoing is true and correct. Executed on June 26, 2008.

Sincerely,

Peter P. Sena III

References:

1. FENOC Letter L-07-113, "License Renewal Application," August 27, 2007.
2. NRC Letter, "Summary of Telephone Conference Call Held on March 05, 2008, Between the U.S. Nuclear Regulatory Commission and FirstEnergy Nuclear Operating Company, Concerning the Request for Additional Information Pertaining to the Refurbishment Activities at the Beaver Valley Power Station, Units 1 and 2, License Renewal Application (TAC Nos. MD6595 and MD6596)," April 7, 2008.
3. NRC Letter, "Request for Additional Information Regarding Refurbishment Impacts for Beaver Valley Power Station Units 1 and 2 License Renewal (TAC Nos. MD6595 and MD6596)," March 13, 2008.
4. FENOC Letter L-08-125, "Reply to Request for Additional Information Regarding Postulated Refurbishment Impacts for Beaver Valley Power Station, Units 1 and 2, License Renewal (TAC Nos. MD6595 and MD6596)," April 25, 2008.

Attachment:

Supplement to Reply to Request for Additional Information Regarding Postulated Refurbishment Impacts for Beaver Valley Power Station, Units 1 and 2, License Renewal

cc: Mr. K. L. Howard, NRC DLR Project Manager
Mr. E. Sayoc, NRC DLR Project Manager
Mr. S. J. Collins, NRC Region I Administrator

cc: w/o Attachment
Dr. S. S. Lee, NRC DLR Acting Director
Mr. D. L. Werkheiser, NRC Senior Resident Inspector
Ms. N. S. Morgan, NRC DORL Project Manager
Mr. D. J. Allard, PA BRP/DEP Director
Mr. L. E. Ryan, PA BRP/DEP

Air Quality/Meteorology

Follow-up Question 1

In Response to Refurbishment RAI ENV 3.0-1, in attachment L-08-125, dated April 25, 2008, Page 8 of 14, under "Air quality during refurbishment (Non-attainment and maintenance areas)" it is stated that, "The small amount of disturbed area and implementation of best management practices (e.g., watering, silt fences, covering soil piles, etc.) would minimize the amount of fugitive dust generated during construction."

Please provide procedures for these best management practices for minimizing the amount of fugitive dust generated during Steam Generator (SG) Unit 2 replacement.

RESPONSE FOLLOW-UP QUESTION 1

BVPS does not currently have specific procedures for a postulated Unit 2 steam generator (SG) replacement that implement best management practices to minimize the amount of fugitive dust generated. However, the FENOC modification process requires that projects be reviewed to identify potential impacts and establish applicable and appropriate controls to minimize or eliminate the impacts. Also, National Pollutant Discharge Elimination System (NPDES) erosion and sedimentation permits are required for construction activities involving the disturbance of one acre or more, as well as earth disturbances of less than one acre that occur as part of a larger common plan of development. In Pennsylvania, these NPDES permits require the development and execution of an Erosion and Sediment Control Plan.

Follow-up Question 2a

In Response to Refurbishment RAI ENV 3.0-1, in attachment L-08-125, dated April 25, 2008, Page 9 of 14, the Pittsburgh-Beaver Valley ozone area VOC and NO_x emissions budgets for the year 2011 are provided. Does FENOC expect emissions from Unit 2 SG replacement to be below these limits based on previous SG replacement/similar projects?

RESPONSE FOLLOW-UP QUESTION 2a

Based on FENOC experience during the Unit 1 SG replacement in 2006, emissions from a postulated Unit 2 SG replacement would be expected to be below volatile organic compounds (VOC) and nitrogen oxides ($NO_{x)}$ emissions budgets for the year 2011.

As described in the response to Follow-up Question 3, anticipated emissions during a postulated Unit 2 SG replacement outage would be approximately 230.23 kilograms per day (Kg/day) and 130.61 Kg/day for NO_x and VOC, respectively. For the Pittsburgh-Beaver Valley ozone area, NO_x and VOC emissions budgets for the year 2011 and beyond are 69,932 Kg/day and 41,444 Kg/day, respectively (FENOC Letter L-08-125, "Reply to Request for Additional Information Regarding Postulated Refurbishment Impacts for Beaver Valley Power Station, Units 1 and 2, License Renewal (TAC Nos. MD6595 and MD6596)," dated April 25, 2008, Ref. 4, Table 17). If the Unit 2 SG replacement outage occurred during the ozone season, anticipated project-related emissions would represent approximately 0.33 percent of the NO_x emission budget and 0.032 percent of the VOC emission budget. Cumulative emissions for the region would represent approximately 91.8 percent and 87.9 percent of the NO_x and VOC emissions budgets, respectively.

Follow-up Question 2b

In Response to Refurbishment RAI ENV 3.0-1, in attachment L-08-125, dated April 25, 2008, Page 9 of 14, it is stated that the State Implementation Plan (SIP) for PM2.5 is due for submittal to EPA soon (April, 2008). So the conformity was based on 2002 levels.

Did EPA approve new emission budgets for PM2.5? Are they available? If not, when they will be available?

RESPONSE FOLLOW-UP QUESTION 2b

Although the official deadline for submittal was April 4, 2008, the Pennsylvania Department of Environmental Protection (PADEP) has not submitted the State Implementation Plan (SIP) for the Pittsburgh-Beaver Valley nonattainment area. The submittal date for the Pittsburgh-Beaver Valley SIP is unknown. PADEP has seven PM2.5 SIPs to submit, and plans to develop and submit each plan sequentially. Each SIP will have its own public comment period, which will further extend the time line for formal submittal to the Environmental Protection Agency (EPA).

Follow-up Question 3

In Response to Refurbishment RAI ENV 3.0-1, in attachment L-08-125, dated April 25, 2008, Page 10 of 14, it is stated that a screening analysis of ground-level ozone and PM2.5 impacts from 2,300 workers was performed. What are the total direct and indirect anticipated emissions during Unit 2 SG replacement? Where does the number 0.36 percent of the projected daily VMT during the 2011 ozone season derive from?

RESPONSE FOLLOW-UP QUESTION 3

The FENOC screening analysis was based on the Air Quality Conformity Determination Pittsburgh Transportation Management Area (Letter L-08-125, Ref. 4). Emissions estimates in the conformity determination are based on the projected vehicle miles traveled (VMT). As stated in the response to refurbishment RAI ENV 3.0-1 (Attachment to FENOC Letter L-08-125, page 10 of 14), the total VMT during the postulated 70-day Unit 2 SG replacement outage would be 16,100,000 miles, which is approximately 0.08 percent of the projected annual VMT of 19,069,143,321 miles (Letter L-08-125, Ref. 4, Table 13) in the Pittsburgh-Beaver Valley area in the year 2011. In the Pittsburgh-Beaver Valley area, direct PM-2.5 emissions in 2011 are estimated at 444.30 tons per year (tpy) and indirect PM-2.5 (NO_x) emissions are estimated at 22,849.30 tpy (Letter L-08-125, Ref. 4, Table 13). Based on these regional emissions estimates, anticipated direct and indirect PM-2.5 emissions during the postulated 70-day Unit 2 SG replacement outage would be 0.36 tpy PM-2.5 and 18.28 tpy NO_x.

As stated in the Response to Refurbishment RAI ENV 3.0-1, the daily VMT during the 70-day Unit 2 SG replacement outage would be approximately 0.36 percent of the projected daily VMT in the Pittsburgh-Beaver Valley area during the 2011 ozone season. Ozone is formed when NO_x and VOC combine in the presence of heat and sunlight, so there would be no direct ozone emissions. NO_x emissions are estimated at 63,952 Kg/day and VOC emissions are estimated at 36,280 Kg/day (Letter L-08-125, Ref. 4, Table 17). Based on these emissions estimates, anticipated emissions during the Unit 2 SG replacement outage would be 230.23 Kg/day NO_x and 130.61 Kg/day VOC.

According to the Air Quality Conformity Determination Pittsburgh Transportation Management Area (Letter L-08-125, Ref. 4, Table 17), the projected daily VMT for the Pittsburgh-Beaver Valley area during the 2011 ozone season is 63,241,699 miles. Based on the conservative assumption that each worker would commute 50 miles each way, the VMT each day would be 230,000 miles, approximately 0.36 percent of the projected daily VMT during the 2011 ozone season. The calculation is as follows:

[(2,300*50*2)/63,241,699]*100% = 0.36%