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Fax: 724-643-8069March 18, 2011  
L-11-103

10 CFR 50.90

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

Beaver Valley Power Station, Unit No. 2  
Docket No. 50-412, License No. NPF-73  
Supplement to Beaver Valley Power Station Unit No. 2 Spent Fuel Pool Rerack  
Amendment Request (TAC No. ME1079)

Pursuant to 10 CFR 50.90, by letter dated April 9, 2009 (Accession No. ML091210251), as supplemented by letters dated June 15, 2009 (Accession No. ML091680614), January 18, 2010 (Accession No. ML100191805), March 18, 2010 (Accession No. ML100820165), May 3, 2010 (Accession No. ML101260059), May 21, 2010 (Accession No. ML101460057), June 1, 2010 (Accession No. ML101610118), August 9, 2010 (Accession No. ML102240256), October 7, 2010 (Accession No. ML102860124), October 18, 2010 (Accession No. ML102940454), January 5, 2011 (Accession No. ML110110217), February 18, 2011 (Accession No. ML110530463), and February 18, 2011 (Accession No. ML110540328), FirstEnergy Nuclear Operating Company (FENOC) submitted a request to amend the Beaver Valley Power Station Unit No. 2 (BVPS-2) operating license. The proposed amendment would revise the Technical Specifications (TS) to support installation of high density fuel storage racks in the BVPS-2 spent fuel pool.

On March 11, 2011, a teleconference was held between the Nuclear Regulatory Commission (NRC) and FENOC staff to discuss the unintended restriction relative to storage of Region 3 fuel cells. Based on this discussion, FENOC hereby submits a revised TS page to supplement the license amendment request. The revised TS page supercedes the page previously provided. The FENOC evaluation of the proposed change is provided in the enclosure. The information provided by this submittal does not invalidate the no significant hazards consideration submitted in the original amendment request dated April 9, 2009 (Accession No. ML091210251).

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There are no new regulatory commitments contained in this letter. If there are any questions or if additional information is required, please contact Mr. Thomas A. Lentz, Manager – Fleet Licensing, at 330-761-6071.

I declare under penalty of perjury that the foregoing is true and correct. Executed on March 18, 2011.

Sincerely,



Paul A. Harden

Enclosure:  
Evaluation of the Proposed Amendment

cc: NRC Region I Administrator  
NRC Resident Inspector  
NRR Project Manager  
Director BRP/DEP  
Site BRP/DEP Representative

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Attachments

- 1 Revised Proposed Technical Specification Change (Mark Up)
- 2 Revised Proposed Technical Specification Page (Re-typed – *For Information*)

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## 1.0 SUMMARY DESCRIPTION

This evaluation supplements the evaluation presented in the FirstEnergy Nuclear Operating Company (FENOC) request to amend Operating License NPF-73 for Beaver Valley Power Station Unit No. 2 (BVPS-2), submitted by letter dated October 18, 2010 (Accession No. ML102940454). The license amendment request proposes to expand the BVPS-2 fuel storage capacity through the use of high density fuel storage racks.

The proposed change presented in this enclosure supercedes the proposed BVPS-2 Technical Specification (TS) mark up page 4.0-2 and retyped page 4.0-3 provided in the October 18, 2010 submittal. The change is proposed in response to a teleconference held between FENOC and Nuclear Regulatory Commission (NRC) staff on March 11, 2011.

## 2.0 DETAILED DESCRIPTION

The proposed TS change is shown in Attachment 1. The retyped TS page is provided in Attachment 2. The retyped page is labeled as "Unofficial" because the license amendment has not been issued.

This supplement will revise proposed changes to TS 4.3.1, "Criticality." The proposed change will remove a parenthetical phrase. In the October 18, 2010 submittal, the Metamic Rack section of TS 4.3.1.1.e contained the following: "Region 3 cells are located on the interior of the rack (at least three rows in from the rack periphery) and are prohibited from being located in the outer two rows of the rack, . . ." The proposed change presented in this enclosure removes "(at least three rows in from the rack periphery)."

## 3.0 TECHNICAL EVALUATION

The revised license amendment request submitted by letter dated October 18, 2010 and the additional change proposed herein have been evaluated by FENOC. The license amendment request proposes to expand the BVPS-2 fuel storage capacity through the use of high density fuel storage racks. This supplemental response is not introducing or changing any requirements that were considered in the previous submittal. The removal of the parenthetical phrase clarifies the language for Region 3 cells and removes an unintended restriction. This proposed change is consistent with the previous evaluation submitted by letter dated October 18, 2010.

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#### 4.0 REGULATORY EVALUATION

The license amendment request submitted by letter dated October 18, 2010 and the additional change proposed herein have been evaluated by FENOC to determine if the additional change to the TS will impact the no significant hazards consideration determination. The proposed change to the TS is bounded by the analysis submitted in the original amendment request dated April 9, 2009. Based on the initial no significant hazards consideration determination bounding the TS revision in this supplement, it is concluded that the proposed license amendment request presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

#### 5.0 ENVIRONMENTAL CONSIDERATION

Section 10 CFR 51.22(c)(9) provides criteria for and identification of licensing and regulatory actions eligible for categorical exclusion from performing an environmental assessment or environmental impact statement. A proposed amendment to a facility operating license does not require an environmental assessment or environmental impact statement if operation of the facility in accordance with the proposed amendment would not: (i) involve a significant hazards consideration, (ii) result in a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) result in a significant increase in individual or cumulative occupational radiation exposure.

FENOC has reviewed this license amendment application supplement and has determined that it meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment needs to be prepared in connection with the proposed amendment.

Attachment 1

Revised Proposed Technical Specification Page (Mark Up) for  
Beaver Valley Power Station Unit No. 2 Fuel Storage Pool Rerack Amendment

(One Page Follows)

Contained in this attachment is a replacement page for the amendment application previously submitted to the NRC dated October 18, 2010 (Accession No. ML102940454). The page replaces the specific page from the previous submittal.

2. Region 2 cells are located on the rack periphery (outer row) interspaced with (separating) Region 1 cells and are also located in the second row of cells (from the outside of the rack) separating the Region 1 cells from the Region 3 cells,
3. Region 3 cells are located on the interior of the rack and are prohibited from being located in the outer two rows of the rack, and
4. Two empty rows of storage locations shall exist between the fuel assemblies in a Boraflex rack and the fuel assemblies in an adjacent Metamic rack in the fuel storage pool.

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Attachment 2

Revised Proposed Technical Specification Page (Retyped) for  
Beaver Valley Power Station Unit No. 2 Fuel Storage Pool Rerack Amendment

(One Page Follows)

Contained in this attachment is a replacement page for the amendment application previously submitted to the NRC dated October 18, 2010 (Accession No. ML102940454). The page replaces the specific page from the previous submittal.

## 4.0 DESIGN FEATURES

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### 4.3 Fuel Storage (continued)

cells (including a Region 2 cell in the diagonal direction). Since Region 1 cells are qualified for the storage of fresh fuel, any fuel assembly (fresh or burned) meeting the maximum enrichment requirement may be stored in a Region 1 location,

2. Region 2 cells are located on the rack periphery (outer row) interspaced with (separating) Region 1 cells and are also located in the second row of cells (from the outside of the rack) separating the Region 1 cells from the Region 3 cells,
3. Region 3 cells are located on the interior of the rack and are prohibited from being located in the outer two rows of the rack, and
4. Two empty rows of storage locations shall exist between the fuel assemblies in a Boraflex rack and the fuel assemblies in the adjacent Metamic rack in the fuel storage pool.

4.3.1.2 The new fuel storage racks are designed and shall be maintained with:

- a. Fuel assemblies having a maximum U-235 enrichment of 5.00 weight percent with a tolerance of + 0.05 weight percent,
- b.  $K_{\text{eff}} \leq 0.95$  if fully flooded with unborated water, which includes an allowance for uncertainties as described in Section 9.12 of the Unit 1 UFSAR and Section 9.1 of the Unit 2 UFSAR,
- c. Unit 1  
 $K_{\text{eff}} \leq 0.98$  if moderated by aqueous foam, which includes an allowance for uncertainties as described in Section 9.12 of the UFSAR,  
  
Unit 2  
 $K_{\text{eff}} \leq 0.95$  if moderated by aqueous foam, which includes an allowance for uncertainties as described in Section 9.1 of the UFSAR, and
- d. A nominal 21 inch center to center distance between fuel assemblies placed in the storage racks.

#### 4.3.2 Drainage

##### Unit 1

The spent fuel storage pool is designed and shall be maintained to prevent inadvertent draining of the pool below elevation 750 feet - 10 inches.