FENOC
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February 6, 2001
L-01-015

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

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
Response to a Verbal Request for Additional Information
In Support of LAR Nos. 276 and 157

This letter provides the Beaver Valley Power Station (BVPS) response to a NRC verbal request for additional information in support of License Amendment Requests (LAR) 276 and 157. The LARs were submitted to the NRC by letter L-00-131 dated November 8, 2000. The proposed changes contained in the LARs delete Technical Specification 3/4.4.1.6, Reactor Coolant Pump Startup, from the BVPS Technical Specifications for both units. This is accomplished by deleting the pressurizer level requirement from Unit 1 Technical Specification 3/4.4.1.6. Unit 2 Technical Specification 3/4.4.1.6 does not contain the pressurizer level requirement. The remaining Reactor Coolant Pump (RCP) startup requirements contained in Technical Specification 3/4.4.1.6 are moved to other existing Technical Specifications. The other Technical Specifications affected by the LAR are Technical Specifications 3/4.4.1.2, Reactor Coolant System – Hot Standby (for Unit 2 only) and 3/4.4.1.3, Reactor Coolant System – Shutdown (both units). The Bases for each unit are also modified to incorporate requirements presently contained in Technical Specification 3/4.4.1.6.

On January 31, 2001, a telephone conference call was held between NRC and BVPS personnel concerning the LARs. The NRC requested that an assessment against 10 CFR 50.36, Technical Specifications, be conducted and documented justifying the deletion of Technical Specification 3/4.4.1.6, Reactor Coolant Pump Startup, from both BVPS Technical Specifications. The attachment documents the requested assessment.

If there are any questions concerning this matter, please contact Mr. Thomas S. Cosgrove, Manager Regulatory Affairs at 724-682-5203.

Sincerely,

Lew W. Myers

A001

Attachment

c: Mr. L. J. Burkhart, Project Manager
Mr. D. M. Kern, Sr. Resident Inspector
Mr. H. J. Miller, NRC Region I Administrator
Mr. D. A. Allard, Director BRP/DEP
Mr. L. E. Ryan (BRP/DEP)

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I, Marc P. Pearson, being duly sworn, state that I am Director Plant Services of FirstEnergy Nuclear Operating Company (FENOC), that I am authorized to sign and file this submittal with the Nuclear Regulatory Commission on behalf of FENOC, and that the statements made and the matters set forth herein pertaining to FENOC are true and correct to the best of my knowledge and belief.

FirstEnergy Nuclear Operating Company

Marc P. Pearson
Director Plant Services - FENOC

COMMONWEALTH OF PENNSYLVANIA

COUNTY OF BEAVER

Subscribed and sworn to me, a Notary Public, in and for the County and State above named, this 6 th day of February, 2001.

Tracey A. Baczek
My Commission Expires:

Notarial Seal
Tracey A. Baczek, Notary Public
Shippingport Boro, Beaver County
My Commission Expires Aug. 16, 2001
Member, Pennsylvania Association of Notaries

ATTACHMENT to Letter L-01-015

Response to a Verbal Request for Additional Information
In Support of LAR Nos. 1A-276 and 2A-157

The NRC requested that an assessment against 10 CFR 50.36, Technical Specifications, be conducted and documented justifying the deletion of Technical Specification 3/4.4.1.6, Reactor Coolant Pump Startup, from both Beaver Valley Power Station (BVPS) Technical Specifications. This request was made in support of License Amendment Requests (LAR) 276 and 157. The LARs were submitted to the NRC by letter L-00-131 dated November 8, 2000. The proposed changes contained in the LARs delete Technical Specification 3/4.4.1.6, Reactor Coolant Pump Startup, from the BVPS Technical Specifications for both units. This is accomplished by deleting the pressurizer level requirement from Unit 1 Technical Specification 3/4.4.1.6. Unit 2 Technical Specification 3/4.4.1.6 does not contain the pressurizer level requirement. The remaining Reactor Coolant Pump (RCP) startup requirements contained in Technical Specification 3/4.4.1.6 are moved to other existing Technical Specifications. Since the only requirement removed from Technical Specification 3/4.4.1.6 is the pressurizer level requirement for Unit 1, this is the only requirement addressed in the following assessment against 10 CFR 50.36.

It is stated in 10 CFR 50.36 that a Technical Specification limiting condition for operation of a nuclear reactor must be established for each item meeting one or more of the following four Criterion.

Criterion 1: Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.

Criterion 2: A process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

Criterion 3: A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

Criterion 4: A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

The subject of this assessment is the requirement proposed to be removed from the Technical Specifications that stipulates that the pressurizer level must be less than 60 percent before an idle RCP can be started in a non-isolated loop. The proposed requirement removal applies only to Unit 1 because Unit 2 Technical Specification

3/4.4.1.6 does not contain the pressurizer level requirement. The pressurizer level requirement of less than 60 percent was imposed to assure there is a bubble in the pressurizer to accommodate a heat input transient; i.e., starting an RCP, without lifting a Power Operated Relief valve (PORV). However, the BVPS overpressure protection analysis assumes the pressurizer is water solid. The analysis credits only one of two PORVs to accommodate the potential pressure increase.

Technical Specification 3/4.4.1.6 also contains a RCP startup temperature difference requirement. This requirement stipulates that an idle RCP cannot be started in a non-isolated loop unless the secondary side water temperature of each steam generator in a non-isolated loop is less than a specific value above each of the non-isolated RCS cold leg temperatures. The overpressure analysis demonstrates that the retained RCP startup temperature difference requirement is sufficient to limit the RCS pressure transient caused by starting an RCP, provided a single PORV is operable. This analysis assumption assures that 10 CFR 50 Appendix G limits are not exceeded when an idle RCP is started. Therefore, the pressurizer level limit is not required to ensure that the 10 CFR 50 Appendix G limits are not exceeded, provided a PORV is operable.

The pressurizer level RCP startup requirement does not meet Criterion 1 because it is not used to detect, or indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary. Pressurizer level indication is provided in the control room for control and protection but requiring a level of less than 60 percent before RCP is started is not an indication of degradation of the reactor coolant pressure boundary.

The pressurizer level RCP startup requirement does not meet Criterion 2 because it is not an initial condition of a design basis accident or transient analysis. The pressurizer is assumed to be water solid in the overpressure protection analysis. Operability of the PORVs, which are part of the overpressure protection system, and the retained temperature difference requirement are an initial condition of the overpressure protection analysis. These requirements are retained in the Technical Specifications.

The pressurizer level RCP startup requirement does not meet Criterion 3 because it is not a component that is part of the primary success path or which functions or actuates to mitigate a design basis accident or transient. The PORVs are the components that meet this criterion. A bubble in the pressurizer was at one time required for Unit 1 to accommodate a heat input transient; i.e., starting an RCP, without lifting a PORV. However, the overpressure protection analysis of record assumes a water solid pressurizer and the availability of a single PORV. The operability requirements imposed on the PORVs are retained in the Technical Specifications.

The pressurizer level RCP startup requirement does not meet Criterion 4 because this requirement is not a component which operating experience or probabilistic risk

assessment has shown to be significant to public health and safety. As stated previously, overpressure protection is provided by the operability of the PORVs and the temperature difference startup requirement, both of which are retained in the Technical Specifications.

Based on this assessment, the pressurizer level RCP startup requirement does not meet any of the four 10 CFR 50.36 criterion and thus can be removed from the Unit 1 Technical Specification 3/4.4.1.6, Reactor Coolant Pump Startup. Once this requirement is removed from Unit 1 Technical Specification 3/4.4.1.6, the Technical Specification becomes the same as Unit 2 Technical Specification 3/4.4.1.6. The other changes proposed to Technical Specification 3/4.4.1.6 consist of moving the temperature difference requirement to other existing Technical Specifications. This includes stipulating how and when the secondary to primary temperature difference is determined. How and when the secondary to primary temperature difference is determined is moved to the Bases. As discussed in the LAR, the Bases provides adequate control over this type of requirement.

In conclusion, the pressurizer level RCP startup requirement does meet any of the 10 CFR 50.36 criterion and thus does not require a Technical Specification limiting condition for operation. It is also shown in the LAR that the remaining requirements of Technical Specification 3/4.4.1.6, Reactor Coolant Pump Startup, are moved to other existing Technical Specifications. Moving these requirements to existing Technical Specifications and deleting the pressurizer level requirement permits the deletion of Technical Specification 3/4.4.1.6 from both BVPS units. Moving these RCP startup requirements to existing Technical Specifications retains all the necessary RCP startup restrictions within the Technical Specifications.