

January 29, 2002

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

SUBJECT: BEAVER VALLEY POWER STATION, UNIT NOS. 1 AND 2 - ISSUANCE OF  
AMENDMENT RE: CHANGES TO TECHNICAL SPECIFICATION SECTION  
3.7.1.1, "TURBINE CYCLE - MAIN STEAM SAFETY VALVES (MSSVs)" (TAC  
NOS. MB2555 AND MB2556)

Dear Mr. Myers:

The Commission has issued the enclosed Amendment No. 248 to Facility Operating License No. DPR-66 and Amendment No. 127 to Facility Operating License No. NPF-73 for the Beaver Valley Power Station, Unit Nos. 1 and 2 (BVPS-1 and 2). These amendments consist of changes to the Technical Specifications (TSs) in response to your application dated January 18, 2001, as supplemented by letters dated February 20, June 9, June 26, June 29, October 31, and December 19, 2001.

By its letter dated January 18, 2001, FirstEnergy Nuclear Operating Company, the licensee for the BVPS-1 and 2, submitted information requesting license amendments to raise each plant's operating power level by 1.4 percent (from 2652 MWt to 2689 MWt). The Nuclear Regulatory Commission reviewed and approved the power uprate by letter dated September 24, 2001, in License Amendment Nos. 243 and 122 to Facility Operating License Nos. DPR-66 (BVPS-1) and NPF-73 (BVPS-2), respectively. The licensee also proposed changing TS 3/4.7.1, "Turbine Cycle - Main Steam Safety Valves (MSSVs)."

The proposed changes include modifying the maximum power levels permissible with inoperable MSSVs, changing the bases to be consistent with the TS revision, and clarifying the bases for the determination of the total relieving capacity of the MSSVs. The licensee proposed to create new actions to specifically account for inoperable MSSVs while the reactor is operating with either positive or negative moderator temperature coefficients. The licensee proposed to change the Power Range Neutron Flux-High reactor trip setpoint to be consistent with the Technical Specification Traveler Form-235 (TSTF-235), Revision 1. The licensee also proposed other changes to be consistent with the Improved Standard Technical Specifications and TSTF-235, Revision 1.

L. Myers

-2-

A copy of our safety evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

**/RA/**

Lawrence J. Burkhart, Project Manager, Section 1  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-334 and 50-412

Enclosures: 1. Amendment No. 248 to DPR-66  
2. Amendment No. 127 to NPF-73  
3. Safety Evaluation

cc w/encls: See next page

A copy of our safety evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

**/RA/**

Lawrence J. Burkhart, Project Manager, Section 1  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-334 and 50-412

Enclosures: 1. Amendment No. 248 to DPR-66  
2. Amendment No. 127 to NPF-73  
3. Safety Evaluation

cc w/encls: See next page

**DISTRIBUTION:**

PUBLIC	MO'Brien	ACRS	SPeters
PDI-1 R/F	LBurkhart	BPlatchek, RI	JWermeil
EAdensam	OGC	FAkstulewicz	
JMunday (A)SC	GHill (4)	WBeckner	

\*No major changes made to SE

ACCESSION NO. ML020090333

\*See previous concurrence

OFFICE	PDI-1/PM	SRXB/SC	PDI-1/LA	PDI-1/(A)SC	RTSB/BC	OGC
NAME	LBurkhart	FAkstulewicz*	MO'Brien	JMunday	RDennig for WBeckner*	MO'Neill*
DATE	1/25/02	SE DTD 12/18/01	1/25/02	1/28/02	1/18/02	1/24/02

OFFICIAL RECORD COPY

Beaver Valley Power Station,  
Unit Nos. 1 and 2

Mary O'Reilly, Attorney  
FirstEnergy Nuclear Operating Company  
FirstEnergy Corporation  
76 South Main Street  
Akron, OH 44308

FirstEnergy Nuclear Operating Company  
Regulatory Affairs Section  
Thomas S. Cosgrove, Manager (2 Copies)  
Beaver Valley Power Station  
Post Office Box 4, BV-A  
Shippingport, PA 15077

Commissioner James R. Lewis  
West Virginia Division of Labor  
749-B, Building No. 6  
Capitol Complex  
Charleston, WV 25305

Director, Utilities Department  
Public Utilities Commission  
180 East Broad Street  
Columbus, OH 43266-0573

Director, Pennsylvania Emergency  
Management Agency  
2605 Interstate Dr.  
Harrisburg, PA 17110-9364

Ohio EPA-DERR  
ATTN: Zack A. Clayton  
Post Office Box 1049  
Columbus, OH 43266-0149

Dr. Judith Johnsrud  
National Energy Committee  
Sierra Club  
433 Orlando Avenue  
State College, PA 16803

L. W. Pearce, Plant Manager (BV-IPAB)  
FirstEnergy Nuclear Operating Company  
Beaver Valley Power Station  
Post Office Box 4  
Shippingport, PA 15077

Bureau of Radiation Protection  
ATTN: Larry Ryan  
P O Box 2063  
Harrisburg, PA 17120

Mayor of the Borough of  
Shippingport  
P O Box 3  
Shippingport, PA 15077

Regional Administrator, Region I  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406

Resident Inspector  
U.S. Nuclear Regulatory Commission  
Post Office Box 298  
Shippingport, PA 15077

FirstEnergy Nuclear Operating Company  
Beaver Valley Power Station  
ATTN: R. E. Donnellon, Director  
Projects and Scheduling (BV-IPAB)  
Post Office Box 4  
Shippingport, PA 15077

Mr. J. A. Hultz, Manager  
Projects & Support Services  
FirstEnergy Corporation  
76 South Main Street  
Akron, OH 44308

FirstEnergy Nuclear Operating Company  
Beaver Valley Power Station  
Mr. B. F. Sepelak  
Post Office Box 4, BV-A  
Shippingport, PA 15077

PENNSYLVANIA POWER COMPANY

OHIO EDISON COMPANY

FIRSTENERGY NUCLEAR OPERATING COMPANY

DOCKET NO. 50-334

BEAVER VALLEY POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 248  
License No. DPR-66

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by FirstEnergy Nuclear Operating Company, et al. (the licensee) dated January 18, 2001, as supplemented by letters dated February 20, June 9, June 26, June 29, October 31, and December 19, 2001, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-66 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 248, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION

**/RA/**

Joel T. Munday, Acting Chief, Section 1  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: January 29, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 248

FACILITY OPERATING LICENSE NO. DPR-66

DOCKET NO. 50-334

Replace the following pages of Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove

XVII

3/4 7-1

3/4 7-2

Insert

XVII

3/4 7-1

3/4 7-2

PENNSYLVANIA POWER COMPANY

OHIO EDISON COMPANY

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

THE TOLEDO EDISON COMPANY

FIRSTENERGY NUCLEAR OPERATING COMPANY

DOCKET NO. 50-412

BEAVER VALLEY POWER STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 127  
License No. NPF-73

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by FirstEnergy Nuclear Operating Company, et al. (the licensee) dated January 18, 2001, as supplemented by letters dated February 20, June 9, June 26, June 29, October 31, and December 19, 2001, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-73 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 127, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto are hereby incorporated in the license. FENOC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION

**/RA/**

Joel T. Munday, Acting Chief, Section 1  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: January 29, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 127

FACILITY OPERATING LICENSE NO. NPF-73

DOCKET NO. 50-412

Replace the following pages of Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove

3/4 7-1

3/4 7-2

Insert

3/4 7-1

3/4 7-2

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NOS. 248 AND 127 TO FACILITY OPERATING  
LICENSE NOS. DPR-66 AND NPF-73  
PENNSYLVANIA POWER COMPANY  
OHIO EDISON COMPANY  
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY  
THE TOLEDO EDISON COMPANY  
FIRSTENERGY NUCLEAR OPERATING COMPANY  
BEAVER VALLEY POWER STATION, UNIT NOS. 1 AND 2  
DOCKET NOS. 50-334 AND 50-412

## 1.0 INTRODUCTION

By letter dated January 18, 2001, as supplemented by letters dated February 20, June 9, June 26, June 29, October 31, and December 19, 2001 (References 1, 2, 3, 4, 5, 6, and 7, respectively), the FirstEnergy Nuclear Operating Company (FENOC; the licensee) submitted a request for changes to the Beaver Valley Power Station, Unit Nos. 1 and 2 (BVPS-1 and 2), Technical Specifications (TSs). The January 18, 2001, letter submitted information requesting license amendments to raise each plant's operating power level by 1.4 percent (from 2652 MegaWatts Thermal (MWt) to 2689 MWt). The Nuclear Regulatory Commission (NRC) reviewed and approved the power uprate by letter dated September 24, 2001 (Reference 8) in License Amendment Nos. 243 and 122 to Facility Operating License Nos. DPR-66 (BVPS-1) and NPF-73 (BVPS-2), respectively.

Included in the power uprate application, as amended by the letter dated October 31, 2001, the licensee proposed changing TS 3/4.7.1, "Turbine Cycle - Main Steam Safety Valves (MSSVs)." The requested changes would modify the maximum power levels permissible with inoperable MSSVs, change the TS 3/4.7.1 bases to be consistent with the TS revision, and clarify the bases for the determination of the total relieving capacity of the MSSVs. Also, new actions would be created to specifically account for inoperable MSSVs while the reactor is operating with either positive or negative moderator temperature coefficients. The Power Range Neutron Flux-High reactor trip setpoint would be changed to be consistent with the Technical Specification Traveler Form-235 (TSTF-235), Revision 1, and editorial changes would be made to be consistent with the Improved Standard Technical Specifications and TSTF-235, Revision 1.

The February 20, June 9, June 26, June 29, October 31, and December 19, 2001, letters provided clarifying information that did not change the initial proposed no significant hazards consideration determination or expand the amendment beyond the scope of the original notice.

## 2.0 EVALUATION

The primary purpose of the MSSVs is to provide overpressure protection for the secondary system. They also protect against overpressurizing the reactor coolant pressure boundary by providing a heat sink for the removal of energy from the reactor coolant system when the condenser is not available. The licensee's proposed changes to BVPS-1 and BVPS-2 TS 3/4.7.1 and its bases are discussed as follows.

In TS Table 3.7-1, "Operable Main Steam Safety Valves versus Maximum Allowable Power," FENOC inserted new values for the maximum permissible operating power with inoperable MSSVs, to be consistent with the power uprate. For BVPS-1, with 4, 3, and 2 MSSVs operable, the licensee changed the maximum allowable power levels from 57%, 39%, and 22% to 58%, 41%, and 24%, respectively. For BVPS-2, with 4, 3, and 2 MSSV's operable, the licensee kept the maximum allowable power levels at 58%, 41%, and 24%, respectively. FENOC stated that, "The maximum THERMAL POWER corresponding to the heat removal capacity of the remaining operable MSSVs is determined via a conservative heat balance calculation..., with an appropriate allowance for Nuclear Instrumentation System trip channel uncertainties." This calculation, described in TS Bases Section 3/4.7.1, is conservative in nature and agrees with the methodology described in TSTF-235, Revision 1. Therefore, we find the use of the conservative heat balance calculation described in the TS Bases section, with the appropriate allowance for Nuclear Instrumentation System trip channel uncertainties, for the determination of the maximum thermal power levels allowable with inoperable MSSVs to be acceptable. Furthermore, we have reviewed the licensee's calculations for these values and find them acceptable.

For BVPS-1 and 2, the licensee modified TS 3/4.7.1, "Turbine Cycle, Main Steam Safety Valves (MSSVs)," Table 3.7-1, "OPERABLE Main Steam Safety Valves versus Maximum Allowable Power," and TS Bases Section 3/4.7.1.1 "Main Steam Safety Valves (MSSVs)." The licensee made editorial changes, which were consistent with TSTF-235, Revision 1, and the Improved Standard Technical Specifications. These changes do not have an effect on plant safety. Similarly, the licensee modified the TS Bases to be consistent with the TS revision and to clarify the determination of the total relieving capacity of the MSSVs. The changes to the bases section are also editorial in nature and have no effect on plant safety. Therefore, we find the changes acceptable.

Also, for BVPS-1 and 2, in TS 3/4.7.1, the licensee proposed a new action in modes 1, 2, and 3 to deal with one or more steam generators with two or more MSSV's inoperable. The action also governs one or more steam generators with one MSSV inoperable and a positive moderator temperature coefficient at any power level. This action requires that (1) the power be reduced to the allowable values per TS Table 3.7-1 within 4 hours, and (2) the Neutron Flux-High reactor trip setpoint be reduced to less than or equal to the allowable values of TS Table 3.7-1 within the following 32 hours. Otherwise, the reactor would have to be placed in Hot Standby within the next 6 hours, and in Hot Shutdown within the following 6 hours. This new action is more conservative than the original requirement, since the original TS 3/4.7.1 did not require that the Neutron Flux-High reactor trip setpoint be reduced to less than or equal to the allowable values of TS Table 3.7-1 for these conditions. This change would effectively trip the

reactor earlier in case of a power excursion and, hence, is more conservative. This change also corresponds to the recommendations of TSTF-235, Revision 1. Therefore, we find this change acceptable.

### 3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Pennsylvania State official was notified of the proposed issuance of the amendments. The State official had no comments.

### 4.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change surveillance requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (66 FR 39211). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

### 5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

### 6.0 REFERENCES

1. Letter from Lew W. Myers, FENOC to USNRC, "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 License Amendment Request Nos. 289 and 161," January 18, 2001 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML010230096).
2. Letter from Lew W. Myers, FENOC to USNRC, "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 Request for Additional Information In Support of LAR Nos. 289 and 161," February 20, 2001 (ADAMS Accession No. ML010540305).
3. Letter from Lew W. Myers, FENOC to USNRC, "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 Request for Additional Information In Support of LAR Nos. 289 and 161," June 9, 2001 (ADAMS Accession No. ML011640192).

4. Letter from Lew W. Myers, FENOC to USNRC, "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 License Amendment Request Nos. 289 and 161 Supplemental No Significant Hazards Evaluation for LARs 289 and 161," June 26, 2001 (ADAMS Accession No. ML011840215).
5. Letter from Marc P. Pearson for Lew W. Myers, FENOC to USNRC, "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 Request for Additional Information In Support of LAR Nos. 289 and 161," June 29, 2001 (ADAMS Accession No. ML011870434).
6. Letter from Lew W. Myers, FENOC to USNRC, "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 Request for Additional Information Pertaining to Proposed MSSV Changes in Support of LAR Nos. 289 and 161," October 31, 2001 (ADAMS Accession No. ML020030244).
7. Letter from Lew W. Myers, FENOC to USNRC, "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 Correction to a Request for Additional Information Pertaining to Proposed MSSV Changes in Support of LAR Nos. 289 and 161," December 19, 2001 (ADAMS Accession No. ML020180279).
8. Letter from Lawrence J. Burkhart to Lew W. Myers, "Beaver Valley Power Station, Unit Nos. 1 and 2 (BVPS-1 and 2) - Issuance of Amendment RE: 1.4-Percent Power Uprate and Revised BVPS-2 Heatup and Cooldown Curves (TAC Nos. MB0996, MB0997, and MB2557)," September 24, 2001 (ADAMS Accession No. ML012490569).

Principal Contributor: S. Peters

Date: