

June 13, 2001

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 NO. 1 - ISSUANCE OF
AMENDMENT ASSOCIATED WITH DELETION OF TECHNICAL
SPECIFICATION (TS) 3/4.4.1.6, "REACTOR COOLANT PUMP-STARTUP"
(TAC NO. MB0460)

Dear Mr. Myers:

The Commission has issued the enclosed Amendment No. 238 to Facility Operating License No. DPR-66 for the Beaver Valley Power Station, Unit No. 1 (BVPS-1). This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated November 8, 2000, as supplemented by letters dated February 6, and May 7, 2001. The November 8, 2000, letter requested changes to the Beaver Valley Power Station, Unit Nos. 1 and 2 (BVPS-1 and 2) TSs. However, the Nuclear Regulatory Commission staff requires additional information to complete its review of the BVPS-2 changes. Your May 7, 2001, letter requested approval of the BVPS-1 amendment request and acknowledged the need for the additional information to resolve the outstanding issues surrounding the requested changes for BVPS-2. Therefore, the NRC has issued the enclosed amendment for BVPS-1 and has deferred its review of the BVPS-2 amendment request until the additional information is submitted.

The amendment includes changes associated with the deletion of TS 3/4.4.1.6, "Reactor Coolant Pump-Startup," from the BVPS-1 TSs.

L. Myers

-2-

June 13, 2001

A copy of the related 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 No. 50-334

Enclosures: 1. Amendment No. 238 to DPR-66
2. Safety Evaluation

cc w/encls: See next page

A copy of the related 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 No. 50-334

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2. Safety Evaluation

cc w/encls: See next page

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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. 238

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 November 8, 2000, as supplemented by letters dated February 6, and May 7, 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. 238 , 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 its date of issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION

T. Colburn for /RA/

Richard P. Corriea, 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: June 13, 2001

ATTACHMENT TO LICENSE AMENDMENT NO. 238

FACILITY OPERATING LICENSE NO. DPR-66

DOCKET NO. 50-334

Replace the following pages of the 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

V
3/4 4-2c
3/4 4-2d
3/4 4-4a
B 3/4 4-1
B 3/4 4-10e

Insert

V
3/4 4-2c
3/4 4-2d
-
B 3/4 4-1
B 3/4 4-10e

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 238 TO FACILITY OPERATING LICENSE NO. DPR-66
PENNSYLVANIA POWER COMPANY
OHIO EDISON COMPANY
FIRSTENERGY NUCLEAR OPERATING COMPANY
BEAVER VALLEY POWER STATION, UNIT NO. 1
DOCKET NO. 50-334

1.0 INTRODUCTION

By letter dated November 8, 2000 (Agencywide Documents Access and Management System [ADAMS] Accession No. ML003769388), as supplemented by letters dated February 6 (ADAMS Accession No. ML010440210) and May 7, 2001 (ADAMS Accession No. ML011340083), the FirstEnergy Nuclear Operating Company, et al. (the licensee), submitted an amendment request regarding changes to the Beaver Valley Power Station, Unit Nos. 1 and 2 (BVPS-1 and 2) Technical Specifications (TSs). The requested changes are associated with the deletion of TS 3/4.4.1.6, "Reactor Coolant Pump - Startup." The Nuclear Regulatory Commission (NRC) staff has completed its review of the proposed changes applicable to the BVPS-1 TSs. However, during its review the NRC staff determined that additional information was necessary to complete its review of the requested changes for BVPS-2. The May 7, 2001, letter acknowledged the need for the additional information for the proposed changes for BVPS-2 and requested approval of the BVPS-1 portion of the amendment request. Consequently, the NRC staff is issuing the amendment for BVPS-1 as justified by this safety evaluation and deferring its review of the BVPS-2 changes until the additional information is submitted.

The February 6, and May 7, 2001, letters provided clarifying information that did not change the initial proposed no significant hazards consideration determination or expand the scope of the original *Federal Register* notice.

2.0 BACKGROUND

The Commission's regulatory requirements related to the content of TSs are set forth in Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.36. This regulation requires that the TSs include items in five specific categories. These categories include 1) safety limits, limiting safety system settings and limiting control settings, 2) limiting conditions for operation (LCOs), 3) surveillance requirements (SRs), 4) design features, and 5) administrative controls. However, the regulation does not specify the particular TSs to be included in a plant's license.

Additionally, 10 CFR 50.36(c)(2)(ii) sets forth four criteria to be used in determining whether an LCO is required to be included in the TSs. These criteria are as follows:

1. Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.
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.
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.
4. A structure, system or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

Existing LCOs and related SRs included as TS requirements which satisfy any of the criteria stated above must be retained in the TSs. Those TS requirements which do not satisfy these criteria may be relocated to other, licensee-controlled documents.

The licensee requested BVPS-1 TS changes including 1) the deletion of LCO 3.4.1.6.1, 2) the relocation of LCO 3.4.1.6.2 and the APPLICABILITY statement to a NOTE in LCO 3.4.1.3, "Shutdown," 3) the relocation of information contained in SR 4.4.1.6.1 and LCO footnote to the TS Bases, and 4) the deletion of all references to TS 3/4.4.1.6.

3.0 EVALUATION

The Overpressure Protection System (OPPS) at BVPS-1 protects the reactor coolant system (RCS) from overpressure at low temperatures. The OPPS prevents an RCS pressure increase associated with a heat injection or mass input transient from exceeding 10 CFR Part 50, Appendix G, "Fracture Toughness Requirements," limits. The design bases transients for the OPPS include the following:

1. The mass input transient caused by a normal charging/letdown flow mismatch after the termination of letdown flow and the flow control valve failing in the full open position, and
2. The heat input transient caused by the start of a reactor coolant pump (RCP) when a temperature difference between the secondary side of the steam generators and the RCS cold legs exists.

TS 3/4.4.9.3, "Overpressure Protection System," provides the LCO for the OPPS at BVPS-1. Specifically, TS 3/4.4.9.3 LCO states that an overpressure protection system shall be OPERABLE with a maximum of one charging pump capable of injecting into the RCS and the accumulators isolated and either a or b below:

- a. Two power-operated relief valves with nominal maximum lift setting less than or equal to 432 psig, or
- b. The RCS depressurized and an RCS vent of greater than or equal to 2.07 square inches.

TS 3/4.4.1.6, "Reactor Coolant Pump Startup," is only applicable when two OPPS Power Operated Relief Valves are not operable. Additionally, TS 3/4.4.1.6 LCO states that an idle RCP in a non-isolated loop shall not be started, unless 1) the actual pressurizer water level is less than 60 percent, and 2) the secondary water temperature of each steam generator is less than 25 degrees Fahrenheit (°F) above each of the in-service RCS cold leg temperatures.

LCO 3.4.1.6.1 states that an idle RCP in a non-isolated loop shall not be started, unless the actual pressurizer water level is less than 60 percent (840 cubic feet [ft³]). The pressurizer level requirement was imposed to ensure there was a bubble in the pressurizer to accommodate a heat input transient. However, the OPPS is designed to protect the RCS from an overpressure condition at low temperatures due to a heat input transient caused by the start of an RCP with the pressurizer water solid. In addition, the NRC staff evaluated LCO 3.4.1.6.1 against the four criteria set forth in 10 CFR 50.36(c)(2)(ii). The pressurizer level RCP startup requirement is not a form of instrumentation nor a structure, system or component, and therefore, does not meet Criteria 1, 3 or 4. The pressurizer level RCP startup requirement is a process variable. However, this process variable is not consistent with the assumptions of the OPPS analysis and is not an initial condition for a design-basis accident or transient analysis. Therefore, the pressurizer level RCP startup requirement does not meet Criterion 2 for inclusion in the TSs. Since the pressurizer level RCP startup requirement does not satisfy these criteria, LCO 3.4.1.6.1 may be deleted from the BVPS-1 TSs.

The licensee proposed to combine LCO 3.4.1.6.2 and the APPLICABILITY statement as follows: "No reactor coolant pump in a non-isolated loop shall be started with one or more non-isolated RCS cold leg temperatures less than or equal to the enable temperature set forth in Specification 3.4.9.3, unless the secondary side water temperature of each steam generator in a non-isolated loop is less than 25 °F above each of the non-isolated RCS cold leg temperatures." This requirement will be relocated as a Note to TS 3/4.4.1.3, "Shutdown." Retention of this requirement is appropriate as it meets Criteria 2 of 10 CFR 50.36(c)(2)(ii) and should remain in the TSs. Additionally, the wording and placement of this Note is consistent with NUREG-1431, Revision 1, regarding the standard TSs for Westinghouse Plants. Therefore, the NRC staff concludes that the relocation of the proposed Note to TS LCO 3/4.4.1.3 is acceptable. Furthermore, the Note added to TS 3/4.4.1.3 references TS 3/4.4.9.3 for RCP startup. TS 3/4.4.9.3 provides requirements for when the PORVs are operable and not operable. Therefore, the combination of the Note in TS 3/4.4.1.3 and TS 3/4.4.9.3 ensures that the RCP startup restrictions are applicable whether the PORVs are operable or not operable.

The deletion of LCO 3.4.1.6.1 coupled with the relocation of LCO 3.4.1.6.2, results in the effective deletion of TS 3/4.4.1.6. Consequently, SR 4.4.1.6.1 and the LCO footnote do not need to be retained in the TSs. However, the licensee is relocating the information contained in SR 4.4.1.6.1 and the LCO footnote to the TS Bases because they provide clarifying information on how to verify the secondary water temperature and the appropriate time intervals to perform the verification. The NRC staff concludes that the relocation of the clarifying information to TS Bases Section 3/4.4.1.1, 2, 3, "Reactor Coolant Loops," is acceptable.

The licensee has proposed to delete all references to TS 3/4.4.1.6. This includes references in the Index, Action b of TS 3/4.4.1.3, and TS 3/4.4.9 of the TS Bases. These changes provide clarity and consistency and are necessary to support the other changes discussed above. Therefore, these changes are acceptable.

The NRC staff has reviewed the licensee's submittals and supporting documentation. Based on its review, the NRC staff finds the TS changes associated with the deletion of TS 3/4.4.1.6, as described in the licensee's submittals and above, acceptable.

4.0 STATE CONSULTATION

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

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes 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 changes surveillance requirements. The NRC staff has determined that the amendment involves 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 amendment involves no significant hazards consideration, and there has been no public comment on such finding (65 FR 81917). Accordingly, the amendment meets 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 amendment.

6.0 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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: K. Kavanagh

Date: June 13, 2001