

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

February 28, 2000

Template NRR-058

SUBJECT: BEAVER VALLEY 1 AND 2 - AMENDMENT RE: REVISION OF FREQUENCY  
FOR MANUAL ENGINEERED SAFETY FEATURE ACTUATION SYSTEM  
TESTING (TAC NOS. MA5623 AND MA5213)

Dear Mr. Myers:

The Commission has issued the enclosed Amendment No. 229 to Facility Operating License No. DPR-66 and Amendment No. 108 to Facility Operating License No. NPF-73 for the Beaver Valley Power Station, Unit Nos. 1 and 2. These amendments consist of changes to the Technical Specifications (TSs) in response to the application dated May 27, 1999, filed by Duquesne Light Company, as the then licensee for Beaver Valley, which submitted License Amendment Request Nos. 271 and 147.

These amendments (1) revise the frequency for performing the CHANNEL FUNCTIONAL TEST of the manual initiation functional units specified in the Beaver Valley Power Station, Unit Nos. 1 and 2, Engineered Safety Features Actuation System (ESFAS) Instrumentation Technical Specifications (TSs) from monthly, with an accompanying footnote which allows the manual initiation to be tested on a refueling interval, to each refueling interval; (2) revise footnotes associated with TS ESFAS tables; and (3) revise associated TS Bases.

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/

Daniel S. Collins, 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. 229 to DPR-66  
2. Amendment No. 108 to NPF-73  
3. Safety Evaluation

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

February 28, 2000

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Senior Vice President  
Beaver Valley Power Station  
Post Office Box 4  
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Daniel S. Collins, Project Manager, Section 1  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-334 and 50-412

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2. Amendment No.108 to NPF-73  
3. Safety Evaluation

cc w/encls: See next page

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

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. 229  
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 May 27, 1999, 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.

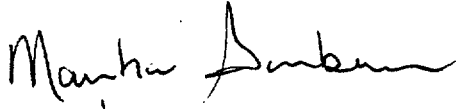
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-66 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 229 , 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 its issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Marsha Gamberoni, 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: February 28, 2000

ATTACHMENT TO LICENSE AMENDMENT NO. 229

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 Page

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TABLE 4.3-2

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION  
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
1. SAFETY INJECTION AND FEEDWATER ISOLATION				
a. Manual Initiation	N.A.	N.A.	R	1, 2, 3, 4
b. Automatic Actuation Logic	N.A.	N.A.	M <sup>(1)</sup>	1, 2, 3, 4
c. Containment Pressure-High	S	R	Q	1, 2, 3
d. Pressurizer Pressure--Low	S	R	Q	1, 2, 3
e. Steam Line Pressure--Low	S	R	Q	1, 2, 3

TABLE 4.3-2 (Continued)

DPR-66

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION  
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
1.1 SAFETY INJECTION-TRANSFER FROM INJECTION TO THE RECIRCULATION MODE				
a. Manual Initiation	N.A.	N.A.	R	1, 2, 3, 4
b. Automatic Actuation Logic Coincident with Safety Injection Signal	N.A.	N.A.	M <sup>(1)</sup>	1, 2, 3
c. Refueling Water Storage Tank Level-Low	S	R	M	1, 2, 3
d. Refueling Water Storage Tank Level - Auto QS Flow Reduction	S	R	M	1, 2, 3
2. CONTAINMENT SPRAY				
a. Manual Initiation	N.A.	N.A.	R	1, 2, 3, 4
b. Automatic Actuation Logic	N.A.	N.A.	M <sup>(1)</sup>	1, 2, 3, 4
c. Containment Pressure-High-High	S	R	Q	1, 2, 3



TABLE 4.3-2 (Continued)

DPR-66

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION  
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
3. CONTAINMENT ISOLATION				
a. Phase "A" Isolation				
1) Manual	N.A.	N.A.	R	1, 2, 3, 4
2) From Safety Injection Automatic Actuation Logic	N.A.	N.A.	M <sup>(1)</sup>	1, 2, 3, 4
b. Phase "B" Isolation				
1) Manual	N.A.	N.A.	R	1, 2, 3, 4
2) Automatic Actuation Logic	N.A.	N.A.	M <sup>(1)</sup>	1, 2, 3, 4
3) Containment Pressure-- High-High	S	R	Q	1, 2, 3

TABLE 4.3-2 (Continued)

DPR-66

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION  
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
4. STEAM LINE ISOLATION				
a. Manual	N.A.	N.A.	R	1, 2, 3
b. Automatic Actuation Logic	N.A.	N.A.	M <sup>(1)</sup>	1, 2, 3
c. Containment Pressure-- Intermediate-High-High	S	R	Q	1, 2, 3
d. Steamline Pressure--Low	S	R	Q	1, 2, 3
e. Steamline Pressure Rate-High	S	R	Q	1, 2, 3
5. TURBINE TRIP & FEEDWATER ISOLATION				
a. Steam Generator Water Level-- High-High	S	R	Q	1, 2, 3
6. LOSS OF POWER				
a. 4.16kv Emergency Bus Under- voltage (Loss of Voltage) Trip Feed & Start Diesel	N.A.	R	M	1, 2, 3, 4
b. 4.16kv and 480v Emergency Bus Undervoltage (Degraded Voltage)	N.A.	R	M	1, 2, 3, 4

TABLE 4.3-2 (Continued)

TABLE NOTATION

- (1) Each train or logic channel shall be tested at least every other 31 days.

BASES

3/4.3.1 and 3/4.3.2 PROTECTIVE AND ENGINEERED SAFETY FEATURES (ESF)  
INSTRUMENTATION (Continued)

A CHANNEL FUNCTIONAL TEST is performed on each required channel to ensure the entire channel will perform the intended function. Setpoints must be within the Allowable Values. The frequency of 92 days is justified for certain channels in WCAP-10271-P-A, Supplement 2, Rev. 1, June 1990.

This surveillance is modified by a Note that specifies testing when below P-6 and is clarified to address the transition from MODE 2 to MODE 3. A transition into MODE 3 with the reactor trip breakers closed is often made for a short period of time during plant shutdown. During a normal shutdown, the reactor trip breakers are opened shortly after entering MODE 3. The transition time in MODE 3 from when the reactor trip breakers are closed to when they are opened is less than the time required to perform the CHANNEL FUNCTIONAL TEST prior to entering MODE 3. Therefore, an allowance to enter MODE 3 without first performing the source range CHANNEL FUNCTIONAL TEST is warranted.

When performing the CHANNEL FUNCTIONAL TEST for manual initiation functions, the injection of a simulated signal into the channel as close to the primary sensor as practicable is accomplished by manually operating the function's manual switch(es).

CHANNEL CALIBRATION

The alternate source range detectors are modified by a note to indicate they are not subject to the source range detector surveillance requirements until they have been connected to the applicable circuits and are required to be OPERABLE. This complies with the testing requirements for components that are required to be OPERABLE.

A CHANNEL CALIBRATION is performed every 18 months, or approximately at every refueling. The CHANNEL CALIBRATION for the source range neutron detectors consists of obtaining the detector plateau and preamp discriminator curves, evaluating those curves, and establishing detector operating conditions as directed by the detector manufacturer. The 18 month frequency is based on the need to perform this surveillance under the conditions that apply during a plant outage since performance at power is not possible. The protection and monitoring functions are also calibrated at an 18 month frequency as is normal for reactor protection instrument channels. Operating experience has shown these components usually pass the surveillance when performed on the 18 month frequency.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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. 108  
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 May 27, 1999, 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. 108 , 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 its issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Marsha Gamberoni, 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: February 28, 2000

ATTACHMENT TO LICENSE AMENDMENT NO. 108

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.

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B 3/4 3-11

TABLE 4.3-2

NPF-73

ENGINEERING SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION  
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
1. SAFETY INJECTION AND FEEDWATER ISOLATION				
a. Manual Initiation	N.A.	N.A.	R	1, 2, 3, 4
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	M <sup>(1)</sup>	1, 2, 3, 4
c. Containment Pressure-High	S	R	Q	1, 2, 3
d. Pressurizer Pressure--Low	S	R	Q	1, 2, 3
e. Steam Line Pressure--Low	S	R	Q	1, 2, 3
1.1 SAFETY INJECTION--TRANSFER FROM INJECTION TO THE RECIRCULATION MODE				
a. Automatic Actuation Logic Coincident with Safety Injection Signal	N.A.	N.A.	M <sup>(1)</sup>	1, 2, 3, 4
b. Refueling Water Storage Tank Level-Extreme Low	S	R	M	1, 2, 3, 4



ENGINEERING SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION  
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
2. CONTAINMENT SPRAY				
a. Manual Initiation	N.A.	N.A.	R	1, 2, 3, 4
b. Automatic Actuation Logic, and Actuation Relays	N.A.	N.A.	M <sup>(1)</sup>	1, 2, 3, 4
c. Containment Pressure-High-High	S	R	Q	1, 2, 3
3. CONTAINMENT ISOLATION				
a. Phase "A" Isolation				
1. Manual Initiation	N.A.	N.A.	R	1, 2, 3, 4
2. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	M <sup>(1)</sup>	1, 2, 3, 4
3. Safety Injection	See Functional Unit 1 above for all Safety Injection Surveillance Requirements.			
b. Phase "B" Isolation				
1. Manual Initiation	N.A.	N.A.	R	1, 2, 3, 4
2. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	M <sup>(1)</sup>	1, 2, 3, 4
3. Containment Pressure--High-High	S	R	Q	1, 2, 3, 4

ENGINEERING SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION  
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
4. STEAM LINE ISOLATION				
a. Manual Initiation				
1. Individual	N.A.	N.A.	R	1, 2, 3
2. System	N.A.	N.A.	R	1, 2, 3
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	M <sup>(1)</sup>	1, 2, 3
c. Containment Pressure--Intermediate-High-High	S	R	Q	1, 2, 3
d. Steamline Pressure--Low	S	R	Q	1, 2, 3
e. Steamline Pressure Rate-High Negative	S	R	Q	1, 2, 3
5. TURBINE TRIP AND FEEDWATER ISOLATION				
a. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	M <sup>(1)</sup>	1, 2, 3
b. Steam Generator Water Level--High-High, P-14	S	R	Q	1, 2, 3
c. Safety Injection	See Functional Unit 1 above all Safety Injection Surveillance Requirements.			

ENGINEERING SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION  
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
6. LOSS OF POWER				
a. 4.16kv Emergency Bus				
1. Undervoltage (Trip Feed)	N.A.	R	M	1, 2, 3, 4
2. Undervoltage (Start Diesel)	N.A.	R	M	1, 2, 3, 4
b. 4.16kv Emergency Bus (Degraded Voltage)	N.A.	R	M	1, 2, 3, 4
c. 480v Emergency Bus (Degraded Voltage)	N.A.	R	M	1, 2, 3, 4
7. AUXILIARY FEEDWATER <sup>(4)</sup>				
a. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	M <sup>(1)</sup>	1, 2, 3
b. Steam Generator Water Level-Low-Low				
1. Start Turbine Driven Pump	S	R	Q	1, 2, 3
2. Start Motor Driven Pumps	S	R	Q	1, 2, 3

(4) Manual initiation is included in Specification 3.7.1.2.

ENGINEERING SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION  
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
7. AUXILIARY FEEDWATER (continued)				
c. Undervoltage - RCP (Start Turbine-Driven Pump)	S	R	M	1, 2
d. Safety Injection (Start All Auxiliary Feedwater Pumps)	See 1 above (all SI surveillance requirements)			
e. Trip of Main Feedwater Pumps (Start Motor-Driven Pumps)	N.A.	N.A.	R	1, 2, 3
8. ENGINEERED SAFETY FEATURE INTERLOCKS				
a. Reactor Trip, P-4	N.A.	N.A.	R	1, 2, 3
b. Pressurizer Pressure, P-11	N.A.	R	Q	1, 2, 3
c. Low-Low T <sub>avg</sub> , P-12	N.A.	R	Q	1, 2, 3

TABLE 4.3-2 (Continued)

TABLE NOTATION

- (1) Each train or logic channel shall be tested at least every other 31 days.

BASES

3/4.3.1 and 3/4.3.2 REACTOR TRIP SYSTEM AND ENGINEERED SAFETY  
FEATURES ACTUATION SYSTEM INSTRUMENTATION (Continued)

The frequency is based on operating experience that demonstrates channel failure is rare. Thus, performance of the CHANNEL CHECK ensures that undetected overt channel failure is limited to 12 hours. The CHANNEL CHECK supplements less formal, but more frequent, checks of channels during normal operational use of the displays associated with the LCO required channels.

When the control rods are fully inserted and are not capable of withdrawal, inadvertent control rod withdrawal is not a concern and one source range detector can adequately monitor the core.

CHANNEL FUNCTIONAL TEST

The alternate source range detectors are modified by a note to indicate they are not subject to the source range detector surveillance requirements until they have been connected to the applicable circuits and are required to be OPERABLE. This complies with the testing requirements for components that are required to be OPERABLE.

A CHANNEL FUNCTIONAL TEST is performed on each required channel to ensure the entire channel will perform the intended function. Setpoints must be within the Allowable Values. The frequency of 92 days is justified for certain channels in WCAP-10271-P-A, Supplement 2, Rev. 1, June 1990.

This surveillance is modified by a Note that specifies testing when below P-6 and is clarified to address the transition from MODE 2 to MODE 3. A transition into MODE 3 with the reactor trip breakers closed is often made for a short period of time during plant shutdown. During a normal shutdown, the reactor trip breakers are opened shortly after entering MODE 3. The transition time in MODE 3 from when the reactor trip breakers are closed to when they are opened is less than the time required to perform the CHANNEL FUNCTIONAL TEST prior to entering MODE 3. Therefore, an allowance to enter MODE 3 without first performing the source range CHANNEL FUNCTIONAL TEST is warranted.

When performing the CHANNEL FUNCTIONAL TEST for manual initiation functions, the injection of a simulated signal into the channel as close to the primary sensor as practicable is accomplished by manually operating the function's manual switch(es).

BASES

3/4.3.1 and 3/4.3.2 REACTOR TRIP SYSTEM AND ENGINEERED SAFETY  
FEATURES ACTUATION SYSTEM INSTRUMENTATION (Continued)

CHANNEL CALIBRATION

The alternate source range detectors are modified by a note to indicate they are not subject to the source range detector surveillance requirements until they have been connected to the applicable circuits and are required to be OPERABLE. This complies with the testing requirements for components that are required to be OPERABLE.

A CHANNEL CALIBRATION is performed every 18 months, or approximately at every refueling. The CHANNEL CALIBRATION for the source range neutron detectors consists of obtaining the detector plateau and preamp discriminator curves, evaluating those curves, and establishing detector operating conditions as directed by the detector manufacturer. The 18 month frequency is based on the need to perform this surveillance under the conditions that apply during a plant outage since performance at power is not possible. The protection and monitoring functions are also calibrated at an 18 month frequency as is normal for reactor protection instrument channels. Operating experience has shown these components usually pass the surveillance when performed on the 18 month frequency.

3/4.3.3 MONITORING INSTRUMENTATION

3/4.3.3.1 RADIATION MONITORING INSTRUMENTATION

The OPERABILITY of the radiation monitoring channels ensures that: 1) the radiation levels are continually measured in the areas served by the individual channels; 2) the alarm or automatic action is initiated when the radiation level trip setpoint is exceeded; and 3) sufficient information is available on selected plant parameters to monitor and assess these variables following an accident. This capability is consistent with the recommendations of NUREG-0737, "Clarification of TMI Action Plan Requirements," October, 1980.

3/4.3.3.2 MOVABLE INCORE DETECTORS

The OPERABILITY of the movable incore detectors with the specified minimum complement of equipment ensures that the measurements obtained from use of this system accurately represent the spatial neutron flux distribution of the reactor core. The OPERABILITY of this system is demonstrated by irradiating each detector used and determining the acceptability of its voltage curve.

BASES3/4.3.3.2 MOVABLE INCORE DETECTORS (Continued)

For the purpose of measuring  $F_0(Z)$  or  $F_{\Delta H}^N$ , a full incore flux map is used. Quarter-core flux maps, as defined in WCAP-8648, June 1976, may be used in re-calibration of the excore neutron flux detection system, and full incore flux maps or symmetric incore thimbles may be used for monitoring the Quadrant Power Tilt Ratio when one Power Range Channel is inoperable.

3/4.3.3.3 (This Specification number is not used.)

3/4.3.3.4 (This Specification number is not used.)

3/4.3.3.5 REMOTE SHUTDOWN INSTRUMENTATION

The OPERABILITY of the remote shutdown instrumentation ensures that sufficient capability is available to permit shutdown and maintenance of HOT STANDBY of the facility from locations outside of the control room. This capability is required in the event control room habitability is lost and is consistent with General Design Criteria 19 of 10 CFR 50.

3/4.3.3.6 (This Specification number is not used).

3/4.3.3.7 CHLORINE DETECTION SYSTEMS

The OPERABILITY of the chlorine detection systems ensures that sufficient capability is available to promptly detect and initiate protective action in the event of an accidental chlorine release. This capability is required to protect control room personnel and is consistent with the recommendations of Regulatory Guide 1.95, "Protection of Nuclear Power Plant Control Room Operators Against an Accidental Chlorine Release," January 1977.





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 229 AND 108 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 May 27, 1999, the Duquesne Light Company (DLC) submitted a request to amend the Facility Operating Licenses DPR-66 and NPF-73 for Beaver Valley Power Station, Unit Nos. 1 and 2 (BVPS-1 and BVPS-2). The proposed amendments would revise the current Technical Specifications (TSs) Table 4.3-2 surveillance requirement for the manual initiation functions specified for the engineered safety features actuation system (ESFAS) to specify that testing be performed on a refueling basis. Such a change would make the BVPS-1 and BVPS-2 TSs more consistent with the Standard Technical Specifications for Westinghouse plants. The current surveillance requirement specified for these functions requires that a channel functional test (CFT) be performed monthly. Accordingly, current Footnote 1 for the manual initiation of the functions specified in Table 4.3-2 would be deleted by the proposed change and the existing Footnote 2 for the monthly surveillance frequency associated with the automatic actuation logic of these functions will be redesignated as Footnote 1. The manual initiation of these functions serves as a backup for the automatic operation of these functions. The automatic operation of these functions is described in the Updated Final Safety Analysis Report (UFSAR) and is assumed in the safety analyses.

On the date of the May 27, 1999, letter, DLC was the licensed operator for BVPS-1 and BVPS-2. On December 3, 1999, DLC's ownership interests in both BVPS-1 and BVPS-2 were transferred to the Pennsylvania Power Company, and DLC's operating authority for BVPS-1 and BVPS-2 was transferred to FirstEnergy Nuclear Operating Company (FENOC). By letter dated December 13, 1999, FENOC requested that the Nuclear Regulatory Commission (NRC) continue to review and act upon all requests before the commission which had been submitted by DLC.

## 2.0 EVALUATION

The ESFAS instrumentation initiates (automatically and manually) necessary safety functions in Table 4.3-2 to ensure design limits are not exceeded and to mitigate accidents. The automatic operation of these functions is described in the UFSAR and assumed in the safety analyses. The manual initiation of these functions serves as a backup for the automatic operation of these functions. The ESFAS TS surveillance requirements for the manual initiation functions are specified on a refueling-based frequency in NUREG-0452, "Standard Technical Specifications for Westinghouse Pressurized Water Reactors." In addition, NUREG-1431, Rev.1, "Improved Standard Technical Specifications for Westinghouse Plants," specifies an 18-month frequency for testing manual initiation functions. The Standard TSs clearly recognize that the test of manual initiation circuitry actuates the end component and should be performed when the plant is in a condition in which the potential for causing a plant transient does not exist.

The proposed change updates the frequency requirements of the Beaver Valley TSs for surveillance testing of the manual initiation functions to be more consistent with NUREG-0452. The specification of a refueling-based frequency for these surveillances is appropriate, as online testing of the manual initiation functions would actuate the end components and result in significant plant transients. Therefore, the manual initiation functions cannot be tested at power without causing plant transients. The BVPS-1 UFSAR, Section 7.3.2.1.5, "Capability for Sensor Checks and Equipment Test and Calibration," specifically excludes testing equipment at power that would cause a plant transient. Also, the BVPS-2 UFSAR, Section 7.1.2.4, "Requirements for Periodic Testing," contains explicit justification for not testing manual actuation instrumentation at power. Thus, the proposed change clarifies the intent of the TS consistent with the UFSAR descriptions and with the frequency for testing manual initiation functions specified in NUREG-0452. This revision of the testing frequency for all the manual initiation functions to a refueling basis would result in deletion of Footnote 1 of Table 4.3-2. The proposed additions and modifications made to the TS Bases serve only as a clarification of the CFT requirements for the manual initiation functions and do not result in a change in the method or frequency used to verify equipment operability.

## 3.0 SUMMARY

Based on the preceding review and justifications, the NRC staff concludes that the proposed TS changes are acceptable. The staff does not object to the proposed TS Bases revisions.

## 4.0 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.

## 5.0 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 (64 FR 35205). 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.

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

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