FENOC
FirstEnergy Nuclear Operating Company

Beaver Valley Power Station
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Thomas S. Cosgrove
Director, Maintenance

724-682-5203

October 31, 2005
L-05-163

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

Subject: Beaver Valley Power Station, Unit Nos. 1 and 2
BV-1 Docket No. 50-334, License No. DPR-66
BV-2 Docket No. 50-412, License No. NPF-73
Supplement to License Amendment Request Nos.
327/197 (Unit No. 1 TAC No. MC4649/Unit No. 2 TAC No. MC4650),
317/190 (Unit No. 1 TAC No. MC3394/Unit No. 2 TAC No. MC3395) and
320 (Unit No. 1 TAC No. MC6725)

This letter transmits supplements to three License Amendment Requests (LARs) that were previously submitted to the NRC by FirstEnergy Nuclear Operating Company (FENOC). The LARs requested amendments to the above licenses in the form of changes to the Beaver Valley Power Station (BVPS) Unit Nos. 1 and 2 Technical Specifications (TSs). The LARs being supplemented are listed below.

327/197 - Steam Generator Level Allowable Value Setpoints (Reference 1)

317/190 - Containment Conversion (Reference 2)

320 - Replacement Steam Generators (Reference 3)

The proposed TS and TS Bases changes forwarded with this letter were requested by the NRC staff as described in the enclosure to this letter. The enclosure to this letter provides the LAR supplements (presenting proposed TS and TS Bases changes), an assessment of the proposed changes, and the sequence in which approval of each LAR is requested.

By way of this submittal, FENOC requests approval of the Steam Generator Level Allowable Value Setpoints LAR by December 1, 2005. Once approved, the amendment shall be implemented within 60 days.

By way of this submittal, FENOC requests approval of the Containment Conversion LAR by December 15, 2005.

A001

The changes proposed in the supplements have been reviewed by the Beaver Valley Power Station review committees. The changes were determined to be safe and do not negate or impact the no significant hazard considerations submitted in References 1, 2 or 3.

No new commitments are contained in this submittal. If you have questions or require additional information, please contact Mr. Gregory A. Dunn, Manager, Licensing, at 330-315-7243.

I declare under penalty of perjury that the foregoing is true and correct. Executed on October 31, 2005.

Sincerely,

Thomas S. Cosgrove

REFERENCES:

1. FENOC Letter L-04-127, License Amendment Requests 327 and 197, dated October 5, 2004.
2. FENOC Letter L-04-073, License Amendment Requests 317 and 190, dated June 2, 2004.
3. FENOC Letter L-05-069, License Amendment Request 320, dated April 13, 2005.

ENCLOSURE:

FENOC Evaluation of the Proposed Supplements

c: Mr. T. G. Colburn, NRR Senior Project Manager
Mr. P. C. Cataldo, NRC Senior Resident Inspector
Mr. S. J. Collins, NRC Region I Administrator
Mr. D. A. Allard, Director BRP/DEP
Mr. L. E. Ryan (BRP/DEP)

L-05-163 ENCLOSURE

FENOC Evaluation of the Proposed Supplements

BACKGROUND

In a September 7, 2005 letter (Reference 1-1) from the Nuclear Regulatory Commission (NRC) to the Nuclear Energy Institute (NEI), the NRC provided draft changes to plant technical specifications proposed to ensure compliance with Title 10 of the Code of Federal Regulations Section 50.36, "Technical Specifications." The enclosure to Reference 1-1 presents draft changes to plant technical specifications (TSs) that are acceptable to the NRC staff for implementing the concepts related to setpoint allowable values for safety related instrumentation. Reference 1-1 states that the staff intends to use these concepts in its review of plant-specific license amendment requests.

Part A of the enclosure to Reference 1-1 presents two notes that pertain to setpoint verification surveillances. Part B of the enclosure presents a list of items (including a discussion of the content for the related TS Bases) intended for the NRC staff review of plant-specific license amendment requests for changes to TS setpoint allowable values. Reference 1-1 states that the staff believes the TS Notes and the discussion of the content for the related TS Bases will satisfactorily address both the NRC staff's and industry's concerns with instrument settings, and ensure compliance with Title 10 of the Code of Federal Regulations (10 CFR) Section 50.36, "Technical Specifications."

During review of License Amendment Request (LAR) 327/197 - Steam Generator Level Allowable Value Setpoints (Reference 1-2), and associated requests for additional information, the NRC requested that FirstEnergy Nuclear Operating Company (FENOC) incorporate the suggested TS Notes and TS Bases content into LAR 327/197 and any other LARs under NRC review in which an allowable value setpoint is proposed to be changed.

The added notes in the Reactor Trip System (RTS) Instrumentation Surveillance Requirements and Engineered Safety Feature Actuation System (ESFAS) Instrumentation Surveillance Requirements tables will only apply to Surveillance Requirements for the specific Functional Units (Allowable Value Setpoint) being changed by a LAR under NRC review. The following Beaver Valley Power Station (BVPS) LARs were identified as potentially being impacted because these LARs propose changes to allowable value setpoints.

327/197 - Steam Generator Level Allowable Value Setpoints (Reference 1-2)

317/190 - Containment Conversion (Reference 1-3)

320 - Replacement Steam Generators (Reference 1-4)

302/173 - Extended Power Uprate (Reference 1-5)

AMENDMENT APPROVAL SEQUENCE

The TS and TS Bases page changes presented in the attachments assume the following sequence for LAR approval and amendment implementation: 327/197 - Steam Generator Level Allowable Value Setpoints, 317/190 - Containment Conversion, 320 - Replacement Steam Generators and 302/173, Extended Power Uprate.

SUPPLEMENT DETAILS

The proposed changes consist of the addition of the NRC requested TS Notes to Table 4.3-1, Reactor Trip System Instrumentation Surveillance Requirements, and Table 4.3-2, Engineered Safety Feature Actuation System (ESFAS) Instrumentation Surveillance Requirements. A reference to the TS Notes is added to either Table 4.3-1 or Table 4.3-2 when a setpoint is changed by a particular LAR. The Notes are applicable to the Channel Calibration and Channel Functional Test columns for those specific functions addressed in the subject LARs.

Each supplement's markup shows the preceding supplement's change as incorporated where appropriate. The sequence of markups resulted in LAR 302/173, Extended Power Uprate, not requiring a supplement because all the applicable TS Notes and references to the Notes will be in place before LAR 302/173 is approved. This approach has resulted in supplements to three of the LARs listed above (References 1-2, 1-3, and 1-4).

It is noted that the supplements reflect LAR 309/181, Extension of Selected RTS and ESFAS Surveillance Intervals (Reference 1-7) which was approved on September 19, 2005 as Amendments 267 (Unit No. 1) and 149 (Unit No. 2). The TS markups reflect the changes approved by Amendments 267 (Unit No. 1) and 149 (Unit No. 2); however, the amendments will not be implemented until November 2005.

The LAR supplements have been prepared electronically. Deleted text is shown with a line through the affected text characters. Added text is shown with a double underline or a text box indicates where text is to be inserted. To meet format requirements the Index, Technical Specifications, and Bases will be revised and repaginated as necessary to reflect the changes being proposed by these LAR supplements.

The proposed TS Bases changes do not require NRC approval. The Beaver Valley Power Station Technical Specification Bases Control Program controls the review, approval, and implementation of TS Bases changes in accordance with 10 CFR 50.59. The TS Bases changes are provided for information only.

ATTACHMENT DETAILS

Attachments A-1 and A-2 contain the proposed supplemental TS changes and Attachments B-1 and B-2 contain the proposed TS Bases changes for LAR 327/197, respectively. The changes proposed in these attachments consist of the addition of the TS notes to Tables 4.3-1 and 4.3-2 and the addition of the TS Bases information for both units related to the added TS notes. For Unit No. 1 references to the new table notes are added to the channel calibration and channel functional test frequency for certain Functional Units in Tables 4.3-1 and 4.3-2 because the setpoint for Steam Generator Water Level-Low-Low is changed by LAR 327. For Unit No. 2 references to the new table notes are added to the channel calibration and channel functional test frequency for certain Functional Units in Tables 4.3-1 and 4.3-2 because the setpoints for Steam Generator Water Level-High-High, Steam Generator Water Level-Low-Low, Start Turbine Drive Pump and Start Motor Drive Pump are changed by LAR 197.

Attachments C-1 and C-2 contain the proposed supplemental TS changes for LAR 317/190, respectively. In these attachments references to the new table notes are added to the channel calibration and channel functional test frequency for certain Functional Units in Table 4.3-2

because the setpoints for Containment Pressure-High, Containment Pressure-High-High, Containment Pressure-Intermediate-High-High and Refueling Water Storage Tank Level-Low are changed by LAR 317/190.

Attachment D-1 contains the proposed supplemental TS changes for LAR 320. In this attachment references to the new table notes are added to the channel calibration and channel functional test frequency for Functional Unit 5.a in Table 4.3-2 because the setpoints for Steam Generator Water Level-High-High for Unit No. 1 is changed by LAR 320. Although LAR 320 also changes the setpoint for Steam Generator Water Level-Low-Low, Start Turbine Drive Pump and Start Motor Drive Pump, references to the notes for these Functional Units are not needed in this supplement because they have been added by preceding supplements.

CONCLUSIONS

The changes being proposed by the supplements do not negate or negatively impact the no significant hazard considerations submitted in References 1-2, 1-3, 1-4 or 1-5 because the supplement changes do not propose any changes to setpoints. The evaluation of the proposed setpoint changes is documented in the applicable submittal. The supplement changes are being made to incorporate administrative controls into the TS which are meant to enhance compliance with 10 CFR 50.36. The changes being proposed by the supplements are consistent with changes approved by the NRC for the Callaway Plant, Unit No. 1 by letter dated September 29, 2005 (Reference: TAC No. MC4437).

L-05-163 ENCLOSURE REFERENCES

1-1 Letter from P. L. Hiland, Office of Nuclear Reactor Regulation, "TECHNICAL SPECIFICATION FOR ADDRESSING ISSUES RELATED TO SETPOINT ALLOWABLE VALUES," to M. A. Schoppman, Nuclear Energy Institute, dated September 7, 2005 (ADAMS Accession Number ML052500004).

1-2 FENOC Letter L-04-127, License Amendment Requests 327 and 197, dated October 5, 2004.

1-3 FENOC Letter L-04-073, License Amendment Requests 317 and 190, dated June 2, 2004.

1-4 FENOC Letter L-05-069, License Amendment Request 320, dated April 13, 2005.

1-5 FENOC Letter L-04-125, License Amendment Requests 302 and 173, dated October 4, 2004.

1-6 FENOC Letter L-05-027, License Amendment Requests 296 and 169, dated February 25, 2005.

1-7 FENOC Letter L-05-077, License Amendment Requests 309 and 181, dated June 2, 2004.

ATTACHMENTS

A-1 Supplement to LAR 327 Technical Specifications (Unit No. 1)

A-2 Supplement to LAR 197 Technical Specifications (Unit No. 2)

B-1 Supplement to LAR 327 Technical Specifications Bases (Unit No. 1)

B-2 Supplement to LAR 197 Technical Specifications Bases (Unit No. 2)

C-1 Supplement to LAR 317 Technical Specifications (Unit No. 1)

C-2 Supplement to LAR 190 Technical Specifications (Unit No. 2)

D-1 Supplement to LAR 320 Technical Specifications (Unit No. 1)

Attachment A-1

Beaver Valley Power Station, Unit No. 1
Proposed Technical Specification Changes

License Amendment Request No. 327 Supplement

The following pages have been marked to show changes associated with the proposed Technical Specification changes.

3/4 3-12
3/4 3-13a *
3/4 3-31a
3/4 3-32

* New Page

The page listed below is provided for information only. No changes have been proposed for this page.

3/4 3-13

TABLE 4.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

	Functional Unit	Channel Check	Channel Calibration	Channel Functional Test	Modes in Which Surveillance Required
12.	Loss of Flow - Single Loop	S	R	Q	1
13.	Loss of Flow - Two Loops	S	R	Q	1
14.	Steam/Generator Water Level-Low-Low	S	R[16][17]	Q[16][17]	1, 2
15.	DELETED				
16.	Undervoltage-Reactor Coolant Pumps	N.A.	R	Q	1
17.	Underfrequency-Reactor Coolant Pumps	N.A.	R	Q	1
18.	Turbine Trip				
	a. Auto Stop Oil Pressure	N.A.	N.A.	S/U[1]	1, 2
	b. Turbine Stop Valve Closure	N.A.	N.A.	S/U[1]	1, 2
19.	Safety Injection Input from ESF	N.A.	N.A.	R	1, 2
20.	Reactor Coolant Pump Breaker Position Trip	N.A.	N.A.	R	N.A.
21.	Reactor Trip Breaker	N.A.	N.A.	M[5,11] and S/U[1]	1, 2, 3[14], 4[14], 5[14]

This page is provided for information only.

TABLE 4.3-1 (Continued)

NOTATION

(1) - If not performed in previous 31 days.

(2) - Heat balance only, above 15 percent of RATED THERMAL POWER.

(3) - At least once every 31 Effective Full Power Days (EFPD) compare incore to excore axial imbalance above 15 percent of RATED THERMAL POWER. Recalibrate if absolute difference greater than or equal to 3 percent.

(4) - (Not Used)

(5) - Each train tested every other month.

(6) - Neutron detectors may be excluded from CHANNEL CALIBRATION.

(7) - Below P-10.

(8) - Below P-6, not required to be performed for source range instrumentation prior to entering MODE 3 from MODE 2 until 12 hours after entry into MODE 3.

(9) - (Not Used)

(10) - The CHANNEL FUNCTIONAL TEST shall independently verify the OPERABILITY of the undervoltage and shunt trip circuits for the Manual Reactor Trip Function. The test shall also verify the OPERABILITY of the Bypass Breaker trip circuit(s).

(11) - The CHANNEL FUNCTIONAL TEST shall independently verify the OPERABILITY of the undervoltage and shunt trip attachments of the Reactor Trip Breakers.

(12) - Local manual shunt trip prior to placing breaker in service.

(13) - Automatic undervoltage trip.

(14) - With the reactor trip system breakers closed and the control rod drive system capable of rod withdrawal.

(15) - Surveillance Requirements need not be performed on until connected and required for OPERABILITY.

TABLE 4.3-1 (Continued)

NOTATION (Continued)

(16) - If the as-found channel setpoint is conservative with respect to the Allowable Value but outside its predefined as-found acceptance criteria band, then the channel shall be evaluated to verify that it is functioning as required before returning the channel to service. If the as-found instrument channel setpoint is not conservative with respect to the Allowable Value, the channel shall be declared inoperable.

(17) - The instrument channel setpoint shall be reset to a value that is within the as-left tolerance of the Nominal Trip Setpoint, or a value that is more conservative than the Nominal Trip Setpoint; otherwise, the channel shall be declared inoperable. The Nominal Trip Setpoint and the methodology used to determine the Nominal Trip Setpoint, the predefined as-found acceptance criteria band, and the as-left setpoint tolerance band are specified in a document incorporated by reference into the Updated Final Safety Analysis Report.

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
7. AUXILIARY FEEDWATER				
a. Steam Generator Water Level-Low-Low	S	R(2)(3)	Q(2)(3)	1, 2, 3
b. Undervoltage-RCP	S	R	Q	1, 2
c. S.I.	See 1 above (all SI surveillance requirements)			
d. (Deleted)				
e. Trip of Main Feedwater Pumps	N.A.	N.A.	R	1, 2, 3
8. ESF INTERLOCKS				
a. P-4	N.A.	N.A.	R	1, 2, 3
b. P-11	N.A.	R	Q	1, 2, 3
c. 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.

(2) If the as-found channel setpoint is conservative with respect to the Allowable Value but outside its predefined as-found acceptance criteria band, then the channel shall be evaluated to verify that it is functioning as required before returning the channel to service. If the as-found instrument channel setpoint is not conservative with respect to the Allowable Value, the channel shall be declared inoperable.

(3) The instrument channel setpoint shall be reset to a value that is within the as-left tolerance of the Nominal Trip Setpoint, or a value that is more conservative than the Nominal Trip Setpoint; otherwise, the channel shall be declared inoperable. The Nominal Trip Setpoint and the methodology used to determine the Nominal Trip Setpoint, the predefined as-found acceptance criteria band, and the as-left setpoint tolerance band are specified in a document incorporated by reference into the Updated Final Safety Analysis Report.

Attachment A-2

Beaver Valley Power Station, Unit No. 2
Proposed Technical Specification Changes

License Amendment Request No. 197 Supplement

The following pages have been marked to show changes associated with the proposed Technical Specification changes.

3/4 3-11
3/4 3-13a *
3/4 3-35
3/4 3-36
3/4 3-38

*New Page

The page listed below is provided for information only. No changes have been proposed for this page.

3/4 3-13

TABLE 4.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

Functional Unit	Channel Check	Channel Calibration	Channel Functional Test	Modes in Which Surveillance Required
12. Loss of Flow - Single Loop (Above P-8)	S	R	Q	1
13. Loss of Flow - Two Loop (Above P-7 and Below P-8)	S	R	Q	1
14. Steam/Generator Water Level-Low-Low	S	R(16)(17)	Q(16)(17)	1, 2
15. DELETED.				
16. Undervoltage-Reactor Coolant Pumps (Above P-7)	N.A.	R	Q	1
17. Underfrequency-Reactor Coolant Pumps (Above P-7)	N.A.	R	Q	1
18. Turbine Trip (Above P-9)				
A. Emergency Trip Header Low Pressure	N.A.	R	S/U(1)	1, 2
B. Turbine Stop Valve Closure	N.A.	R	S/U(1)	1, 2
19. Safety Injection Input from ESF	N.A.	N.A.	R	1, 2
20. Reactor Coolant Pump Breaker Position Trip (Above P-7)	N.A.	N.A.	R	N.A.
21. Reactor Trip Breaker	N.A.	N.A.	M(5, 11) and S/U(1)	1, 2, 3(14), 4(14), 5(14)

This page is provided for information only.

TABLE 4.3-1 (Continued)

TABLE NOTATION

(1) - If not performed in previous 31 days.

(2) - Heat balance only, above 15 percent of RATED THERMAL POWER.

(3) - At least once every 31 Effective Full Power Days (EFPD) compare incore to excore axial imbalance above 15 percent of RATED THERMAL POWER. Recalibrate if absolute difference greater than or equal to 3 percent.

(4) - (Not Used).

(5) - Each train tested every other month on a STAGGERED TEST BASIS.

(6) - Neutron detectors may be excluded from CHANNEL CALIBRATION.

(7) - Below P-10.

(8) - Below P-6, not required to be performed for source range instrumentation prior to entering MODE 3 from MODE 2 until 12 hours after entry into MODE 3.

(9) - (Not Used)

(10) - The CHANNEL FUNCTIONAL TEST shall independently verify the OPERABILITY of the undervoltage and shunt trip circuits for the Manual Reactor Trip Function. The test shall also verify the OPERABILITY of the Bypass Breaker trip circuit(s).

(11) - The CHANNEL FUNCTIONAL TEST shall independently verify the OPERABILITY of the undervoltage and shunt trip attachments of the Reactor Trip Breakers.

(12) - Local manual shunt trip prior to placing breaker in service.

(13) - Automatic undervoltage trip.

(14) - With the reactor trip system breakers closed and the control rod drive system capable of rod withdrawal.

(15) - Surveillance Requirements need not be performed on alternate detectors until connected and required for OPERABILITY.

NOTATION (Continued)

(16) - If the as-found channel setpoint is conservative with respect to the Allowable Value but outside its predefined as-found acceptance criteria band, then the channel shall be evaluated to verify that it is functioning as required before returning the channel to service. If the as-found instrument channel setpoint is not conservative with respect to the Allowable Value, the channel shall be declared inoperable.

(17) - The instrument channel setpoint shall be reset to a value that is within the as-left tolerance of the Nominal Trip Setpoint, or a value that is more conservative than the Nominal Trip Setpoint; otherwise, the channel shall be declared inoperable. The Nominal Trip Setpoint and the methodology used to determine the Nominal Trip Setpoint, the predefined as-found acceptance criteria band, and the as-left setpoint tolerance band are specified in a document incorporated by reference into the Updated Final Safety Analysis Report.

TABLE 4.3-2 (Continued)

ENGINEERING SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
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(1)	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(1)	1, 2, 3
b. Steam Generator Water Level--High-High, P-14	S	R(2)(3)	Q(2)(3)	1, 2, 3
c. Safety Injection	See Functional Unit 1 above for all Safety Injection Surveillance Requirements.			

TABLE 4.3-2 (Continued)

ENGINEERING SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

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

(4) Manual initiation is included in Specification 3.7.1.2.

TABLE 4.3-2 (Continued)

TABLE NOTATION

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

(2) If the as-found channel setpoint is conservative with respect to the Allowable Value but outside its predefined as-found acceptance criteria band, then the channel shall be evaluated to verify that it is functioning as required before returning the channel to service. If the as-found instrument channel setpoint is not conservative with respect to the Allowable Value, the channel shall be declared inoperable.

(3) The instrument channel setpoint shall be reset to a value that is within the as-left tolerance of the Nominal Trip Setpoint, or a value that is more conservative than the Nominal Trip Setpoint; otherwise, the channel shall be declared inoperable. The Nominal Trip Setpoint and the methodology used to determine the Nominal Trip Setpoint, the predefined as-found acceptance criteria band, and the as-left setpoint tolerance band are specified in a document incorporated by reference into the Updated Final Safety Analysis Report.

Attachment B-1

Beaver Valley Power Station, Unit No. 1
Proposed Technical Specification Bases Changes

License Amendment Request No. 327 Supplement

The following is a list of the affected pages:

B 3/4 3-1a
B 3/4 3-1b

Provided for Information Only.

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

The Nominal Trip Setpoint is based on the calculated total loop uncertainty per the plant specific methodology documented in the Licensing Requirements Manual. The setpoint methodology, used to derive the Nominal Trip Setpoints, is based upon combining all of the uncertainties in the channels. Inherent in the determination of the Nominal Trip Setpoints are the magnitudes of these channel uncertainties. Sensors and other instrumentation utilized in these channels should be capable of operating within the allowances of these uncertainty magnitudes. Occasional drift in excess of the allowance may be determined to be acceptable based on the other device performance characteristics. Device drift in excess of the allowance that is more than occasional, may be indicative of more serious problems and would warrant further investigation.

For certain Functional Units specified in Table 4.3-1 and Table 4.3-2 additional requirements are applied by Table Notes 16 and 2, respectively. If the "as found" value is found to be non-conservative with respect to the Allowable Value for the Functional Unit specified in Table 3.3-1 or 3.3-3, the channel is declared inoperable. If the "as found" value is found to be outside the two sided predefined acceptance criteria band, even if the "as found" setting is conservative with respect to the Allowable Value, Table 4.3-1 Note 16 or Table 4.3-2 Note 2 requires that an assessment of the channel performance is performed prior to returning the channel to service. The evaluation of channel performance will verify that the channel will continue to behave in accordance with design basis assumptions, and ensures confidence in the channel performance prior to returning the channel to service. If the "as found" trip setpoint value is non-conservative with respect to the Allowable Value or is found to be outside of the two sided predefined acceptance criteria band on either side of the Nominal Trip Setpoint, the affected channel is evaluated under the corrective action program.

For the Functional Units specified in Table 4.3-1 and Table 4.3-2 where Table Notes 17 and 3 respectively are applicable, Note 17 and Note 3 require the instrument channel setpoint to be reset to a value within the "as left" setpoint tolerance band on either side of the Nominal Trip Setpoint or to a value that is more conservative than the Nominal Trip Setpoint. The conservative direction is established by the direction of the inequality sign applied to the associated Allowable Value. Setpoint restoration and post-test verification assure that the assumptions in the plant setpoint methodology are satisfied in order to protect the safety analysis limits. If the channel can not be reset to a value within its "as left" setpoint tolerance band on either side of the Nominal Trip Setpoint, or to a value that is more conservative than the Nominal Trip Setpoint if required based on plant conditions, the channel is declared inoperable and the applicable ACTION is entered.

Table 4.3-1 Note 16 and Note 17, and Table 4.3-2 Note 2 and Note 3 are applicable to specific instrument functions since changes to Allowable Values associated with these instrument functions were already under review by the NRC at the time the revised NRC setpoint criteria were documented and made available to the industry in an NRC letter to the Nuclear Energy Institute. Changes to the remaining instrument functions may be pursued after guidance endorsed by both the NRC and NEI is issued.

The "as found" and "as left" setpoint data for these specific Functional Units obtained during CHANNEL FUNCTIONAL TESTS or CHANNEL CALIBRATIONS are programmatically trended to demonstrate that the rack drift assumptions used in the plant setpoint methodology are valid. If the trending evaluation determines that a channel is performing inconsistent with the uncertainty allowances applicable to the periodic surveillance test being performed, the channel is evaluated under the corrective action program. If the channel is not capable of performing its specified safety function, it is declared inoperable.

The Engineered Safety Features Actuation System and Reactor Trip System Nominal Trip Setpoints specified in the Licensing Requirements Manual (LRM) are the nominal values* at which the instrumentation is set for each functional unit. ~~A Setpoint~~An instrument setting is considered to be ~~consistent with the nominal value~~acceptable when the measured "as left" Setpoint is within the administratively controlled (±) calibration tolerance identified in plant procedures (which specifies the difference between the Allowable Value and Nominal Trip Setpoint). Additionally, a trip setpoint may be set more conservative than the Nominal Trip Setpoint as necessary in response to plant conditions provided that the ± calibration tolerance band remains the same and the allowable value is also adjusted accordingly in the conservative direction to meet the assumptions of the setpoint methodology. ~~The conservative direction is established by the direction of the inequality applied to the Allowable Value.~~

~~The setpoint methodology, used to derive the Nominal Trip Setpoints, is based upon combining all of the uncertainties in the channels. Inherent in the determination of the Nominal Trip Setpoints are the magnitudes of these channel uncertainties. Sensors and other instrumentation utilized in these channels should be capable of operating within the allowances of these uncertainty magnitudes. Occasional drift in excess of the allowance may be determined to be acceptable based on the other device performance characteristics. Device drift in excess of the allowance that is more than occasional, may be indicative of more serious problems and would warrant further investigation.~~

~~REACTOR TRIP SYSTEM INSTRUMENTATION SETPOINTS~~

Technical specifications are required by 10 CFR 50.36 to contain Limiting Safety System Settings (LSSS) defined by the regulation as "...settings for automatic protective devices...so chosen that automatic protective action will correct the abnormal situation before a Safety Limit (SL) is exceeded." The Analytic Limit is the limit of the process variable at which a safety action is initiated,

* With the exception of the Reactor Trip System Functional Unit number 17.B for the Turbine Stop Valve Position trip. The trip setpoint specified in the LRM for Functional Unit number 17.B is not a nominal value. The trip setpoint for this Functional Unit is adjusted to be consistent with the trip setpoint value specified in the LRM in lieu of adjusting the setpoint within an established calibration tolerance band.

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

as established by the safety analysis, to ensure that a SL is not exceeded. Any automatic protection action that occurs on reaching the Analytic Limit therefore ensures that the SL is not exceeded.

For Functional Units in Tables 4.3-1 and 4.3-2 for which Table Note 16 and Table Note 2 respectively apply, the Nominal Trip Setpoints specified in the Licensing Requirements Manual are the LSSS. For Functional Units to which Table 4.3-1 Note 16 and Table 4.3-2 Table Note 2 are not applicable, the LSSS required by 10 CFR 50.36 are the Allowable Values specified in TS Tables 3.3-1 and 3.3-3. This definition of the LSSS is consistent with the guidance issued to the industry through correspondence with NEI (Reference NRC-NEI Letter dated September 7, 2005). The definition of LSSS values continues to be discussed between the industry and the NRC, and further modifications to these TS Bases will be implemented as guidance is provided. These values ~~The Allowable Values (Nominal Trip Setpoints ± the calibration tolerance) specified in Table 3.3-1 are the LSSS as identified in 10 CFR 50.36 and~~ have been selected to ensure that the core and Reactor Coolant System are prevented from exceeding their safety limits during normal operation and design basis anticipated operational occurrences and to assist the Engineered Safety Features Actuation System in mitigating the consequences of accidents.

REACTOR TRIP SYSTEM INSTRUMENTATION SETPOINTS

The various reactor trip circuits automatically open the reactor trip breakers whenever a condition monitored by the Reactor Trip System reaches a preset or calculated level. In addition to redundant channels and trains, the design approach provides Reactor Trip System functional diversity. The functional capability at the specified trip setting is required for those anticipatory or diverse reactor trips for which no direct credit was assumed in the safety analysis to enhance the overall reliability of the Reactor Trip System.

The Reactor Trip System initiates a turbine trip signal whenever reactor trip is initiated. This prevents the reactivity insertion that would otherwise result from excessive Reactor Coolant System cooldown and thus avoids unnecessary actuation of the Engineered Safety Features Actuation System.

The difference between T' (Overtemperature ΔT) or T" (Overpower ΔT) and the loop specific, indicated, full power T_{avg} shall be less than or equal to the T_{avg} allowances for such differences in the uncertainty calculations for these functions. In addition, T' and T" shall be less than or equal to the full power T_{avg} modeled in the safety analyses as an initial condition assumption; i.e., the numerical value specified in the COLR. In the event that the

difference between a T' or T" set to the numerical value specified in the COLR and a loop specific, indicated, full power T_{avg} is greater than the T_{avg} allowances for such differences in the uncertainty calculations, T' or T" shall be reduced until the difference allowances in the uncertainty calculations are satisfied; i.e., T' or T" are set to a loop specific, full power value less than the numerical value specified in the COLR. These reductions in the values of T' and T" are consistent with the recommendations of Westinghouse Technical Bulletin ESBU-TB-96-07-RO, "Temperature Related Functions," 11/5/96.

Attachment B-2

Beaver Valley Power Station, Unit No. 2
Proposed Technical Specification Bases Changes

License Amendment Request No. 197 Supplement

The following is a list of the affected pages:

B 3/4 3-1a
B 3/4 3-1b

Provided for Information Only.

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

The Nominal Trip Setpoint is based on the calculated total loop uncertainty per the plant specific methodology documented in the Licensing Requirements Manual. The setpoint methodology, used to derive the Nominal Trip Setpoints, is based upon combining all of the uncertainties in the channels. Inherent in the determination of the Nominal Trip Setpoints are the magnitudes of these channel uncertainties. Sensors and other instrumentation utilized in these channels should be capable of operating within the allowances of these uncertainty magnitudes. Occasional drift in excess of the allowance may be determined to be acceptable based on the other device performance characteristics. Device drift in excess of the allowance that is more than occasional, may be indicative of more serious problems and would warrant further investigation.

For certain Functional Units specified in Table 4.3-1 and Table 4.3-2 additional requirements are applied by Table Notes 16 and 2, respectively. If the "as found" value is found to be non-conservative with respect to the Allowable Value for the Functional Unit specified in Table 3.3-1 or 3.3-3, the channel is declared inoperable. If the "as found" value is found to be outside the two sided predefined acceptance criteria band, even if the "as found" setting is conservative with respect to the Allowable Value, Table 4.3-1 Note 16 or Table 4.3-2 Note 2 requires that an assessment of the channel performance is performed prior to returning the channel to service. The evaluation of channel performance will verify that the channel will continue to behave in accordance with design basis assumptions, and ensures confidence in the channel performance prior to returning the channel to service. If the "as found" trip setpoint value is non-conservative with respect to the Allowable Value or is found to be outside of the two sided predefined acceptance criteria band on either side of the Nominal Trip Setpoint, the affected channel is evaluated under the corrective action program.

For the Functional Units specified in Table 4.3-1 and Table 4.3-2 where Table Notes 17 and 3 respectively are applicable, Note 17 and Note 3 require the instrument channel setpoint to be reset to a value within the "as left" setpoint tolerance band on either side of the Nominal Trip Setpoint or to a value that is more conservative than the Nominal Trip Setpoint. The conservative direction is established by the direction of the inequality sign applied to the associated Allowable Value. Setpoint restoration and post-test verification assure that the assumptions in the plant setpoint methodology are satisfied in order to protect the safety analysis limits. If the channel can not be reset to a value within its "as left" setpoint tolerance band on either side of the Nominal Trip Setpoint, or to a value that is more conservative than the Nominal Trip Setpoint if required based on plant conditions, the channel is declared inoperable and the applicable ACTION is entered.

Table 4.3-1 Note 16 and Note 17, and Table 4.3-2 Note 2 and Note 3 are applicable to specific instrument functions since changes to Allowable Values associated with these instrument functions were already under review by the NRC at the time the revised NRC setpoint criteria were documented and made available to the industry in an NRC letter to the Nuclear Energy Institute. Changes to the remaining instrument functions may be pursued after guidance endorsed by both the NRC and NEI is issued.

The "as found" and "as left" setpoint data for these specific Functional Units obtained during CHANNEL FUNCTIONAL TESTS or CHANNEL CALIBRATIONS are programmatically trended to demonstrate that the rack drift assumptions used in the plant setpoint methodology are valid. If the trending evaluation determines that a channel is performing inconsistent with the uncertainty allowances applicable to the periodic surveillance test being performed, the channel is evaluated under the corrective action program. If the channel is not capable of performing its specified safety function, it is declared inoperable.

The Engineered Safety Features Actuation System and Reactor Trip System Nominal Trip Setpoints specified in the Licensing Requirements Manual (LRM) are the nominal values* at which the instrumentation is set for each functional unit. ~~A setpoint~~An instrument setting is considered to be ~~consistent with the nominal value~~acceptable when the measured "as left" setpoint is within the administratively controlled (±) calibration tolerance identified in plant procedures (which specifies the difference between the Allowable Value and Nominal Trip Setpoint). Additionally, a trip setpoint may be set more conservative than the Nominal Trip Setpoint as necessary in response to plant conditions provided that the ± calibration tolerance band remain the same and the Allowable Value is also adjusted accordingly in the conservative direction to meet the assumptions of the setpoint methodology. ~~The conservative direction is established by the direction of the inequality applied to the Allowable Value.~~

~~The setpoint methodology, used to derive the Nominal Trip Setpoints, is based upon combining all of the uncertainties in the channels. Inherent in the determination of the Nominal Trip Setpoints are the magnitudes of these channel uncertainties. Sensors and other instrumentation utilized in these channels should be capable of operating within the allowances of these uncertainty magnitudes. Occasional drift in excess of the allowance may be determined to be acceptable based on the other device performance characteristics. Device drift in excess of the allowance that is more than occasional, may be indicative of more serious problems and would warrant further investigation.~~

~~REACTOR TRIP SYSTEM INSTRUMENTATION SETPOINTS~~

Technical specifications are required by 10 CFR 50.36 to contain Limiting Safety System Settings (LSSS) defined by the regulation as "...settings for automatic protective devices...so chosen that automatic protective action will correct the abnormal situation before a Safety Limit (SL) is exceeded." The Analytic Limit is the

* With the exception of the Reactor Trip System Functional Unit number 17.b for the Turbine Stop Valve Position trip. The trip setpoint specified in the LRM for Functional Unit 17.b is not a nominal value. The trip setpoint for this Functional Unit is adjusted to be consistent with the trip setpoint value specified in the LRM in lieu of adjusting the setpoint within an established calibration tolerance band.

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BASES

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

REACTOR TRIP SYSTEM INSTRUMENTATION SETPOINTS (Continued)

limit of the process variable at which a safety action is initiated, as established by the safety analysis, to ensure that a SL is not exceeded. Any automatic protection action that occurs on reaching the Analytic Limit therefore ensures that the SL is not exceeded.

For Functional Units in Tables 4.3-1 and 4.3-2 for which Table Note 16 and Table Note 2 respectively apply, the Nominal Trip Setpoints specified in the Licensing Requirements Manual are the LSSS. For Functional Units to which Table 4.3-1 Note 16 and Table 4.3-2 Table Note 2 are not applicable, the LSSS required by 10 CFR 50.36 are the Allowable Values specified in TS Tables 3.3-1 and 3.3-3. This definition of the LSSS is consistent with the guidance issued to the industry through correspondence with NEI (Reference NRC-NEI Letter dated September 7, 2005). The definition of LSSS values continues to be discussed between the industry and the NRC, and further modifications to these TS Bases will be implemented as guidance is provided. These values ~~The Allowable Values (Nominal Trip Setpoints ± the calibration tolerance) specified in Table 3.3-1 are the LSSS as identified in 10 CFR 50.36 and~~ have been selected to ensure that the core and Reactor Coolant System are prevented from exceeding their safety limits during normal operation and design basis anticipated operational occurrences and to assist the Engineered Safety Features Actuation System in mitigating the consequences of accidents.

REACTOR TRIP SYSTEM INSTRUMENTATION SETPOINTS

The various reactor trip circuits automatically open the reactor trip breakers whenever a condition monitored by the Reactor Trip System reaches a preset or calculated level. In addition to redundant channels and trains, the design approach provides Reactor Trip System functional diversity. The functional capability at the specified trip setting is required for those anticipatory or diverse reactor trips for which no direct credit was assumed in the safety analysis to enhance the overall reliability of the Reactor Trip System.

The Reactor Trip System initiates a turbine trip signal whenever reactor trip is initiated. This prevents the reactivity insertion that would otherwise result from excessive Reactor Coolant System cooldown and thus avoids unnecessary actuation of the Engineered Safety Features Actuation System.

The difference between T' (Overtemperature ΔT) or T" (Overpower ΔT) and the loop specific, indicated, full power T_{avg} shall be less than or equal to the T_{avg} allowances for such differences in the uncertainty calculations for these functions. In addition, T' and T" shall be less than or equal to the full power T_{avg} modeled in the safety analyses as an initial condition assumption; i.e., the

numerical value specified in the COLR. In the event that the difference between a T' or T" set to the numerical value specified in the COLR and a loop specific, indicated, full power T_{avg} is greater than the T_{avg} allowances for such differences in the uncertainty calculations, T' or T" shall be reduced until the difference allowances in the uncertainty calculations are satisfied; i.e., T' or T" are set to a loop specific, full power value less than the numerical value specified in the COLR. These reductions in the values of T' and T" are consistent with the recommendations of Westinghouse Technical Bulletin ESBU-TB-96-07-RO, "Temperature Related Functions," 11/5/96.

Attachment C-1

Beaver Valley Power Station, Unit No. 1
Proposed Technical Specification Changes

License Amendment Request No. 317 Supplement

The following is a list of the affected pages:

3/4 3-29
3/4 3-29a
3/4 3-30
3/4 3-31

TABLE 4.3-2

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
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(1)	1, 2, 3, 4
c. Containment Pressure-High	S	R(2)(3)	Q(2)(3)	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)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
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(1)	1, 2, 3
c. Refueling Water Storage Tank Level-Low	S	R(2)(3)	Q(2)(3)	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(1)	1, 2, 3, 4
c. Containment Pressure-High-High	S	R(2)(3)	Q(2)(3)	1, 2, 3

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
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(1)	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(1)	1, 2, 3, 4
3) Containment Pressure--High-High	S	R(2)(3)	Q(2)(3)	1, 2, 3

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

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

Attachment C-2

Beaver Valley Power Station, Unit No. 2
Proposed Technical Specification Changes

License Amendment Request No. 190 Supplement

The following is a list of the affected pages:

3/4 3-33
3/4 3-34
3/4 3-35

TABLE 4.3-2

ENGINEERING SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
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(1)	1, 2, 3, 4
c. Containment Pressure-High	S	R(2)(3)	Q(2)(3)	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(1)	1, 2, 3, 4
b. Refueling Water Storage Tank Level-Extreme Low	S	R(2)(3)	Q(2)(3)	1, 2, 3, 4

TABLE 4.3-2 (Continued)

ENGINEERING SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
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(1)	1, 2, 3, 4
c. Containment Pressure-High-High	S	R(2)(3)	Q(2)(3)	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(1)	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(1)	1, 2, 3, 4
3. Containment Pressure--High-High	S	R(2)(3)	Q(2)(3)	1, 2, 3, 4

This page shows changes proposed by the LAR 197 Supplement.

TABLE 4.3-2 (Continued)

ENGINEERING SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
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(1)	1, 2, 3
c. Containment Pressure--Intermediate-High-High	S	R(2)(3)	Q(2)(3)	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(1)	1, 2, 3
b. Steam Generator Water Level--High-High, P-14	S	R(2)(3)	Q(2)(3)	1, 2, 3
c. Safety Injection	See Functional Unit 1 above for all Safety Injection Surveillance Requirements.			

Attachment D-1

Beaver Valley Power Station, Unit No. 1
Proposed Technical Specification Changes

License Amendment Request No. 320 Supplement

The following page has been marked to show changes associated with the proposed Technical Specification change.

3/4 3-31

The following pages are provided for information only. The pages show changes proposed by the LAR No. 327 Supplement that affect the same functional units as LAR No. 320.

3/4 3-12
3/4 3-31a

This page contains changes proposed by the LAR 317 Supplement.

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

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

This page is provided for information only. This page shows changes proposed by the LAR 327 supplement.

TABLE 4.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

	Functional Unit	Channel Check	Channel Calibration	Channel Functional Test	Modes in Which Surveillance Required
12.	Loss of Flow - Single Loop	S	R	Q	1
13.	Loss of Flow - Two Loops	S	R	Q	1
14.	Steam/Generator Water Level-Low-Low	S	R(16)(17)	Q(16)(17)	1, 2
15.	DELETED				
16.	Undervoltage-Reactor Coolant Pumps	N.A.	R	Q	1
17.	Underfrequency-Reactor Coolant Pumps	N.A.	R	Q	1
18.	Turbine Trip				
	a. Auto Stop Oil Pressure	N.A.	N.A.	S/U(1)	1, 2
	b. Turbine Stop Valve Closure	N.A.	N.A.	S/U(1)	1, 2
19.	Safety Injection Input from ESF	N.A.	N.A.	R	1, 2
20.	Reactor Coolant Pump Breaker Position Trip	N.A.	N.A.	R	N.A.
21.	Reactor Trip Breaker	N.A.	N.A.	M(5,11) and S/U(1)	1, 2, 3(14), 4(14), 5(14)

This page is provided for information only. This page shows changes proposed by the LAR 327 supplement.

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
7. AUXILIARY FEEDWATER				
a. Steam Generator Water Level-Low-Low	S	R(2)(3)	Q(2)(3)	1, 2, 3
b. Undervoltage-RCP	S	R	Q	1, 2
c. S.I.	See 1 above (all SI surveillance requirements)			
d. (Deleted)				
e. Trip of Main Feedwater Pumps	N.A.	N.A.	R	1, 2, 3
8. ESF INTERLOCKS				
a. P-4	N.A.	N.A.	R	1, 2, 3
b. P-11	N.A.	R	Q	1, 2, 3
c. P-12	N.A.	R	Q	1, 2, 3