

ATTACHMENT A-1

Beaver Valley Power Station, Unit No. 1
Proposed Technical Specification Change No. 197
MARKED UP PAGES

Revise the Technical Specification as follows:

Remove Pages

3/4 4-22
3/4 4-27

Insert Pages

3/4 4-22
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REACTOR COOLANT SYSTEM3/4.4.9 PRESSURE/TEMPERATURE LIMITSREACTOR COOLANT SYSTEMLIMITING CONDITION FOR OPERATION

3.4.9.1 The Reactor Coolant System (except the pressurizer) temperature and pressure shall be limited in accordance with the limit lines shown on Figure 3.4-2 and Figure 3.4-3 during heatup, cooldown, criticality, and inservice leak and hydrostatic testing with:

- a. A maximum heatup of 100°F in any one hour period,
- b. A maximum cooldown of 100°F in any one hour period, and
- c. A maximum temperature change of ^{less than or equal to} \leq 5°F in any one hour period, during hydrostatic testing operations above system design pressure.

APPLICABILITY: MODES 1, 2⁽¹⁾, 3, 4 and 5.

ACTION:

REPLACE WITH INSERT 1

~~With any of the above limits exceeded, restore the temperature and/or pressure to within the limit within 30 minutes; perform an analysis to determine the effects of the out-of-limit condition on the fracture toughness properties of the Reactor Coolant System; determine that the Reactor Coolant System remains acceptable for continued operations or be in at least HOT STANDBY within the next 6 hours and reduce the RCS Tavg and pressure to less than 200°F and 500 psig, respectively, within the following 30 hours.~~

(1)*See Special Test Exception 3.10.3.

INSERT 1

With any of the above limits exceeded:

- a. Restore the temperature and/or pressure to within the limit within 30 minutes, and
- b. Perform an engineering evaluation to determine the effects of the out-of-limit condition on the structural integrity of the Reactor Coolant System within 72 hours, and
- c. Determine, from Action b above, that the Reactor Coolant System remains acceptable for continued operation or be in at least HOT STANDBY within the next 6 hours and reduce the RCS T_{avg} and pressure to less than 200°F and 500 psig, respectively, within the following 30 hours.

REACTOR COOLANT SYSTEMPRESSURIZERLIMITING CONDITION FOR OPERATION

3.4.9.2 The pressurizer temperature shall be limited to:

- a. A maximum heatup of 100°F in any one hour period,
- b. A maximum cooldown of 200°F in any one hour period, and
- c. A maximum spray water temperature differential of 320°F.

APPLICABILITY: At all times.

ACTION:

REPLACE WITH INSERT 2

~~With the pressurizer temperature limits in excess of any of the above limits, restore the temperature to within the limits within 30 minutes; perform an analysis to determine the effects of the out-of-limit condition on the fracture toughness properties of the pressurizer; determine that the pressurizer remains acceptable for continued operation or be in at least HOT STANDBY within the next 6 hours and reduce the pressurizer pressure to less than 500 psig within the following 30 hours.~~

SURVEILLANCE REQUIREMENTS

4.4.9.2.1 The ^{normal} pressurizer temperatures shall be determined to be within the limits ~~at least once per 30 minutes during system heatup or cooldown.~~ The spray water temperature differential shall be determined to be within the limit at least once per ~~12 hours during~~ ^{30 minutes} ~~steady state operation.~~
system heatup or cooldown

4.4.9.2.2 ↓

4.4.9.2.3 The auxiliary spray water temperature differential shall be determined to be within the limit at least once per 30 minutes during auxiliary spray operation.

INSERT 2

With the pressurizer temperature limits in excess of any of the above limits:

- a. Restore the temperature to within the limits within 30 minutes, and
- b. Perform an engineering evaluation to determine the effects of the out-of-limit condition on the structural integrity of the pressurizer within 72 hours, and
- c. Determine, from Action b above, that the pressurizer remains acceptable for continued operation or be in at least HOT STANDBY within the next 6 hours and reduce the pressurizer pressure to less than 500 psig within the following 30 hours.

ATTACHMENT A-2

Beaver Valley Power Station, Unit No. 2
Proposed Technical Specification Change No. 64
MARKED UP PAGES

Revise the Technical Specification as follows:

Remove Pages

3/4 4-30
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Insert Pages

3/4 4-30
3/4 4-34

REACTOR COOLANT SYSTEM3/4.4.9 PRESSURE/TEMPERATURE LIMITSREACTOR COOLANT SYSTEMLIMITING CONDITION FOR OPERATION

3.4.9.1 The Reactor Coolant System (except the pressurizer) temperature and pressure shall be limited in accordance with the limit lines shown on Figures 3.4-2 and 3.4-3 during heatup, cooldown, criticality, and inservice leak and hydrostatic testing with:

- a. A maximum heatup of 60°F in any 1-hour period,
- b. A maximum cooldown of 100°F in any 1-hour period, and
- c. A maximum temperature change of $\leq 5^\circ\text{F}$ ^{less than or equal to} in any 1-hour period | during hydrostatic testing operations above system design pressure.

APPLICABILITY: MODES 1, 2, 3, 4, and 5.

ACTION:

REPLACE WITH INSERT 1

~~With any of the above limits exceeded, restore the temperature and/or pressure to within the limit within 30 minutes; perform an analysis to determine the effects of the out-of-limit condition on the fracture toughness properties of the Reactor Coolant System; determine that the Reactor Coolant System remains acceptable for continued operations or be in at least HOT STANDBY within the next 6 hours and reduce the RCS T_{avg} and pressure to less than 200°F and 500 psig, respectively, within the following 30 hours.~~

SURVEILLANCE REQUIREMENTS

4.4.9.1

- a. The Reactor Coolant System temperature and pressure shall be determined to be within the limits at least once per 30 minutes during system heatup, cooldown, and inservice leak and hydrostatic testing operations.
- b. The Reactor Coolant System temperature and pressure conditions shall be determined to be to the right of the criticality limit line within 15 minutes prior to achieving reactor criticality.
- c. The reactor vessel material irradiation surveillance specimens shall be removed and examined in accordance with 10CFR50, Appendix H, to determine changes in material properties. The results of these examinations shall be used to update Figures 3.4-2 and 3.4-3.

INSERT 1

With any of the above limits exceeded:

- a. Restore the temperature and/or pressure to within the limit within 30 minutes, and
- b. Perform an engineering evaluation to determine the effects of the out-of-limit condition on the structural integrity of the Reactor Coolant System within 72 hours, and
- c. Determine, from Action b above, that the Reactor Coolant System remains acceptable for continued operation or be in at least HOT STANDBY within the next 6 hours and reduce the RCS T_{avg} and pressure to less than 200°F and 500 psig, respectively, within the following 30 hours.

REACTOR COOLANT SYSTEMPRESSURIZERLIMITING CONDITION FOR OPERATION

3.4.9.2 The pressurizer temperature shall be limited to:

a. A maximum heatup of 100°F in any 1-hour period,

b. A maximum cooldown of 200°F in any 1-hour period, ~~and~~

c. A maximum ^{normal} ~~auxiliary~~ spray water temperature differential of ³²⁰ ~~625~~°F, and

d. A maximum ~~auxiliary~~ spray water temperature differential of 380°F.

APPLICABILITY: At all times.

ACTION:

REPLACE WITH INSERT 2

~~With the pressurizer temperature limits in excess of any of the above limits, restore the temperature to within the limits within 30 minutes; perform an analysis to determine the effects of the out-of-limit condition on the fracture toughness properties of the pressurizer; determine that the pressurizer remains acceptable for continued operation or be in at least HOT STANDBY within the next 6 hours and reduce the pressurizer pressure to less than 500 psig within the following 30 hours.~~

SURVEILLANCE REQUIREMENTS

4.4.9.2.1 The pressurizer temperatures shall be determined to be within the limits at least once per 30 minutes during system heatup or cooldown. The spray water temperature differential shall be determined to be within the limit at least once per ~~12 hours~~ during ~~auxiliary spray operation~~.

30 minutes system heatup or cooldown

4.4.9.2.2

4.4.9.2.2 The auxiliary spray water temperature differential shall be determined to be within the limit at least once per 30 minutes during auxiliary spray operation.

INSERT 2

With the pressurizer temperature limits in excess of any of the above limits:

- a. Restore the temperature to within the limits within 30 minutes, and
- b. Perform an engineering evaluation to determine the effects of the out-of-limit condition on the structural integrity of the pressurizer within 72 hours, and
- c. Determine, from Action b above, that the pressurizer remains acceptable for continued operation or be in at least HOT STANDBY within the next 6 hours and reduce the pressurizer pressure to less than 500 psig within the following 30 hours.

ATTACHMENT B

Beaver Valley Power Station, Unit Nos. 1 and 2 Proposed Technical Specification Change No. 197/64 REVISION OF SPECIFICATION 3.4.9.1 AND 3.4.9.2

A. DESCRIPTION OF AMENDMENT REQUEST

The proposed amendment would modify Specifications 3.4.9.1 and 3.4.9.2 to incorporate NUREG-0452 Standard Technical Specification (STS) action requirements in addition to clarification of the limiting condition for operation (LCO) and surveillance requirements.

B. BACKGROUND

Investigation of the BV-2 pressurizer surge line thermal stratification issue and the leak-before-break analysis associated with the large bore snubber removal resulted in the conclusion that the Westinghouse design analysis bounds the RCS to a normal pressurizer spray temperature differential at 320°F. Therefore, it was concluded that the technical specification limit should be changed to 320°F. In addition, the design analysis was reviewed and has been verified to account for auxiliary spray operation with a differential temperature limit of 380°F. Normal pressurizer spray uses the differential pressure between the surge line connection in the "C" reactor coolant system (RCS) hot leg and the spray line connection in the "A" and "C" cold leg loops as the driving force. Spray line inlet scoops extend into the cold leg piping so that the velocity head of the RCS loop flow adds to the spray driving force. Auxiliary spray is supplied from the chemical and volume control system and is used during plant heatup or cooldown evolutions when the "A" and "C" reactor coolant pumps are not operating.

Specifications 3.4.9.1 and 3.4.9.2 for both units were reviewed and compared to the STS where the action statements replace "analysis" with "engineering evaluation" and "fracture toughness properties" with "structural integrity." In addition, the action requirements have been separated into items "a", "b" and "c".

Surveillance requirement 4.4.9.2 for both units has been modified by separating the requirements into 4.4.9.2.1 and 4.4.9.2.2. In addition, surveillance requirement 4.4.9.2.3 has been added to verify the auxiliary spray limits when auxiliary spray is used.

C. JUSTIFICATION

The current BV-2 auxiliary spray differential temperature limit was incorporated in Specification 3.4.9.2 to provide the maximum value consistent with the pressurizer equipment specification. The limiting design value is 625°F, however, this assumes a limited number of cycles. The fatigue analysis for the pressurizer surge line provides for a limited number of cycles above 320°F, however, the design analysis has been verified to

account for auxiliary spray operation with a differential temperature limit of 380°F. To ensure the equipment meets the acceptance criteria for the design life of the plant, the normal spray differential temperature limit has been reduced to 320°F and an auxiliary spray differential temperature limit of 380°F has been added.

The action statement changes reflect the STS requirements, however, they have been reformatted to separate each of the individual actions and to incorporate a 72 hour action time to perform the engineering evaluation. The 72 hours provides the typical action time allowed to perform an action function prior to taking the additional action of plant shutdown.

The requirements of surveillance requirement 4.4.9.2 have been separated into individual surveillances since the requirements apply to different parameters. Verification of the normal spray water temperature differential has been changed to once per 30 minutes during system heatup and cooldown. The 30 minutes is consistent with verification of pressurizer temperature. Changing the conditions to during heatup and cooldowns is consistent with the operation of the system since the normal spray water temperature differential does not have the potential to exceed the limit during steady state operation. Normal spray is used during plant operation with intervals of auxiliary spray operation limited to transient conditions when normal spray is not available. Surveillance requirement 4.4.9.2.3 has been added since operation of auxiliary spray has the potential to exceed the limit and must only be verified when using auxiliary spray. Performing this surveillance once per 30 minutes is consistent with the other surveillances and ensures adequate surveillance during those conditions when the temperature differential could exceed the limit.

D. SAFETY ANALYSIS

Pressurizer surge line stratification transients were evaluated in WCAP-12093 "Evaluation of Thermal Stratification for the Beaver Valley Unit 2 Pressurizer Surge Line." Supplements 1, 2 and 3 were also developed to document additional information in response to NRC concerns. The WCAP stated an expected maximum temperature difference between the pressurizer and the hot leg of less than 320°F, however, a system temperature difference greater than this value occurred and was subsequently evaluated in Supplement 3. To provide additional assurance that transients of this type do not occur, operating procedure changes were incorporated as an administrative control to alert the plant

operators to this differential temperature limitation during plant heatup and cooldown evolutions. Based on the WCAP results, it was concluded that thermal stratification has very limited impact on the integrity of the pressurizer surge line for the design life of the plant. NRC final acceptance of the analyses and the compensatory actions taken were documented in their letter dated April 8, 1991.

Reducing the spray differential temperature limit from 625°F to 320°F is consistent with the STS and the limiting value analyzed in the WCAP. Reducing the differential temperature limit also provides additional awareness to the plant operators so that thermal cycling of the pressurizer surge line is limited to ensure effective usage during the design life of the plant. Adding a 380°F differential limit for auxiliary spray is consistent with the design analysis since auxiliary spray operation is accounted for in the analysis. This additional flexibility cannot be applied to BV-1 since the BV-2 piping adjacent to the pressurizer spray nozzle is equipped with a thermal sleeve, whereas, the BV-1 piping is not. This change does not affect the UFSAR Section 5.4 system description or the accident analysis of Section 15, therefore, based on the above, this change has been determined to be safe and will not reduce the safety of the plant.

The changes to the action statements for these specifications reflect the STS requirements in intent, but have been reformatted to separate each of the individual actions and to incorporate a 72 hour action time to perform the engineering evaluation. The current action statements for Specifications 3.4.9.1 and 3.4.9.2 reflect that specified in the original version of the STS. Later versions of the STS changed the wording to that proposed here to more clearly define the type of review required (engineering evaluation) and to ensure the correct subject is evaluated (structural integrity). Reformatting the action statements was done to more clearly present the required actions and to provide a time period in which to perform the engineering evaluation since none is specified in the STS. The 72 hours was selected based on typical technical specification action times for performing certain actions prior to beginning a plant shutdown. Therefore, based on the above, these are administrative changes that are reasonable and safe and will not reduce the safety of the plant.

Surveillance Requirement 4.4.9.2 has been reformatted for both units into individual surveillances 4.4.9.2.1 and 4.4.9.2.2 to more clearly present the verification requirements and to add a specific surveillance 4.4.9.2.3 to verify auxiliary spray water differential temperature. Normal pressurizer spray is supplied from the RCS and is not expected to exceed the maximum spray water differential temperature limit during power operation, but during heatup and cooldown evolutions the differential temperature may approach the limit at low RCS temperatures.

Therefore, the surveillance has been modified by application to normal spray and increasing the frequency from "12 hours" during steady state operation to "30 minutes" during system heatup or cooldown operations. This frequency is consistent with verification of the pressurizer temperature which is also required during heatup and cooldown operations. Surveillance Requirement 4.4.9.2.3 has been added to require verification of the differential temperature at least once per 30 minutes during auxiliary spray operation. Auxiliary spray has been separated from normal spray since auxiliary spray may be used to maintain an equilibrium pressurizer pressure and may not be used only during heatup or cooldown operations. These changes are consistent with the analysis assumptions and the operation of the pressurizer sprays in accordance with the UFSAR, therefore, these changes have been determined to be safe and will not reduce the safety of the plant.

E. NO SIGNIFICANT HAZARDS EVALUATION

The no significant hazard considerations involved with the proposed amendment have been evaluated, focusing on the three standards set forth in 10 CFR 50.92(c) as quoted below:

The Commission may make a final determination, pursuant to the procedures in paragraph 50.91, that a proposed amendment to an operating license for a facility licensed under paragraph 50.21(b) or paragraph 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) Involve a significant reduction in a margin of safety.

The following evaluation is provided for the no significant hazards consideration standards.

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

The proposed amendment modifies Specifications 3.4.9.1 and 3.4.9.2 by incorporating the STS action requirements in addition to clarification of the limiting condition for operation and surveillance requirements. This change was first initiated to revise the BV-2 pressurizer spray differential temperature limit by replacing the 625°F limit with the 320°F limit. The pressurizer spray differential temperature limit was identified as a concern during

investigation into the BV-2 pressurizer surge line thermal stratification issue and the leak-before-break analysis associated with the large bore snubber removal. Additional changes were also included following review of the STS for clarification of the action statements for Specifications 3.4.9.1 and 3.4.9.2.

The current BV-2 auxiliary spray differential temperature limit was incorporated in Specification 3.4.9.2 to provide the maximum value consistent with the pressurizer equipment specification. The fatigue analysis for the pressurizer surge line provides for a limited number of cycles above 320°F, however, the design analysis has been verified to account for auxiliary spray operation with a differential temperature limit of 380°F. Therefore, to ensure the equipment meets the acceptance criteria for the design life of the plant, the normal spray differential temperature limit has been reduced to 320°F and an auxiliary spray differential temperature limit of 380°F has been added. The BV-2 piping adjacent to the pressurizer spray nozzle is equipped with a thermal sleeve which allows the higher limit. BV-1 doesn't have this design, therefore, the 380°F differential temperature doesn't apply for BV-1. The proposed change establishes a more conservative limit and does not affect the UFSAR, therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The action statements for these specifications have been revised to incorporate the STS requirements in intent, but the format has been changed to separate each of the individual actions and to incorporate a 72 hour action time to perform the engineering evaluation. The current action statements are consistent with the original STS.

Later revisions to the STS modified the wording to more clearly define the type of review required (engineering evaluation) and to ensure the correct subject is evaluated (structural integrity). Reformatting the action statements was done to more clearly present the action requirements and to provide a time period in which to perform the engineering evaluation since none is specified in the STS. The 72 hours is based on typical technical specification action times for performing certain actions prior to beginning a plant shutdown. These are administrative changes that are reasonable, safe and do not affect the UFSAR, therefore, these changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

The format of Surveillance Requirement 4.4.9.2 has been revised for both units into separate surveillances 4.4.9.2.1 and 4.4.9.2.2 to provide the surveillances in a clear format and add surveillance 4.4.9.2.3 for auxiliary spray water

differential temperature. Normal pressurizer spray is supplied from the RCS and is not expected to exceed the maximum spray water differential temperature limit during power operation, but during heatup and cooldown operations the differential temperature may approach the limit at low RCS temperatures. Therefore, Surveillance Requirement 4.4.9.2.2 is applied to normal spray and requires verifying the differential temperature is within the limit at least once per 30 minutes during heatup and cooldown operations. This frequency is consistent with 4.4.9.2.1 for verification of the pressurizer temperature also required during heatup and cooldown operations. Surveillance Requirement 4.4.9.2.3 is applied to auxiliary spray operation with verification of the differential temperature at least once per 30 minutes when auxiliary spray is used. Since auxiliary spray may be used at times other than during heatup and cooldown operations, it has been separated from normal spray. These changes reflect the analysis assumptions and are consistent with the operation of the pressurizer sprays, therefore, these changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

The requirements of BV-2 Specification 3.4.9.2 will continue to govern the operability of the pressurizer and incorporates more conservative spray water differential temperature limits that are consistent with the analysis. The proposed change does not introduce any new mode of plant operation or require any physical modification to the plant, therefore, this change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

The revised action statement for Specifications 3.4.9.1 and 3.4.9.2 is consistent with the intent of the STS and will ensure an engineering evaluation is performed when required to ensure the structural integrity of the RCS and the pressurizer is acceptable for continued plant operation. Changing the format separates the individual action requirements into individual actions. Adding the 72 hour action time to perform the engineering evaluation is consistent with other action requirements which provide a typical action time to perform an action function prior to plant shutdown. These changes do not reduce the limiting condition for operation or action requirements, therefore, these changes will not create the possibility of a new or different kind of accident from any accident previously evaluated in the UFSAR.

Surveillance Requirement 4.4.9.2 for both units has been separated into individual surveillances 4.4.9.2.1 and 4.4.9.2.2. Surveillance Requirement 4.4.9.2.1 requires verification of the pressurizer temperatures at least once per 30 minutes during system heatup and cooldown operations. This is consistent with the current surveillance requirement. Surveillance Requirement 4.4.9.2.2 requires verification of the normal spray water temperature differential at least once per 30 minutes during system heatup and cooldown operations. This includes changing the surveillance requirement to apply to normal spray, replaces the 12 hour frequency with 30 minutes, and changes the application of this surveillance requirement to system heatup or cooldown operations. Surveillance Requirement 4.4.9.2.3 has been added for verification of the auxiliary spray water temperature differential at least once per 30 minutes during auxiliary spray operation. These changes specify frequency and application requirements similar to Specification 4.4.9.2.1 where a parameter is verified under the conditions when that parameter may approach the limit. These changes provide for reasonable verification of the required parameters at a consistent frequency and are applied when required to verify system operability, therefore, these changes will not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the change involve a significant reduction in a margin of safety?

The BV-2 625°F auxiliary spray differential temperature limit was incorporated in Specification 3.4.9.2 to provide the maximum value consistent with the pressurizer equipment specification, however, this only provided for a limited number of cycles. By incorporating a conservative reduction in the limit to 320°F for normal spray and 380°F for auxiliary spray the analysis assumptions are satisfied and the equipment meets the acceptance criteria for the design life of the plant. Therefore, overall plant safety is enhanced and the margin of safety is not reduced.

Changing the action statements to specify an engineering evaluation in lieu of an analysis is acceptable since the engineering evaluation can be performed in a reasonable period of time to ensure those parameters that may be affected are consistent with the analysis assumptions. The engineering evaluation provides adequate assurance that the structural integrity of the RCS and pressurizer are acceptable for continued operation and is consistent with the STS, therefore, these changes will not reduce the margin of safety.

Normal pressurizer spray during heatup and cooldown operations and auxiliary spray operation when using auxiliary spray are the limiting conditions for the use of these systems, therefore, the changes to Surveillance Requirement 4.4.9.2 emphasize verification of the differential temperature when these conditions apply. Reducing the frequency to once per 30 minutes provides additional assurance that the differential temperature is adequately monitored and maintained within the specified limits. These changes ensure the required parameters are verified during the applicable conditions and on a consistent frequency, therefore, these changes will not reduce the margin of safety.

F. NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the above safety analysis, it is concluded that the activities associated with this license amendment request satisfies the no significant hazards consideration standards of 10 CFR 50.92(c) and, accordingly, a no significant hazards consideration finding is justified.

ATTACHMENT C-1

Beaver Valley Power Station, Unit No. 1
Proposed Technical Specification Change No. 197
TYPED PAGES

Typed Pages:

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DPR-66
REACTOR COOLANT SYSTEM

3/4.4.9 PRESSURE/TEMPERATURE LIMITS

REACTOR COOLANT SYSTEM

LIMITING CONDITION FOR OPERATION

3.4.9.1 The Reactor Coolant System (except the pressurizer) temperature and pressure shall be limited in accordance with the limit lines shown on Figure 3.4-2 and Figure 3.4-3 during heatup, cooldown, criticality, and inservice leak and hydrostatic testing with:

- a. A maximum heatup of 100°F in any one hour period,
- b. A maximum cooldown of 100°F in any one hour period, and
- c. A maximum temperature change of less than or equal to 5°F in any one hour period, during hydrostatic testing operations above system design pressure.

APPLICABILITY: MODES 1, 2⁽¹⁾, 3, 4 and 5.

ACTION:

With any of the above limits exceeded:

- a. Restore the temperature and/or pressure to within the limit within 30 minutes, and
- b. Perform an engineering evaluation to determine the effects of the out-of-limit condition on the structural integrity of the Reactor Coolant System within 72 hours, and
- c. Determine, from Action b above, that the Reactor Coolant System remains acceptable for continued operation or be in at least HOT STANDBY within the next 6 hours and reduce the RCS T_{avg} and pressure to less than 200°F and 500 psig, respectively, within the following 30 hours.

(1) See Special Test Exception 3.10.3.

DPR-66
REACTOR COOLANT SYSTEM

PRESSURIZER

LIMITING CONDITION FOR OPERATION

3.4.9.2 The pressurizer temperature shall be limited to:

- a. A maximum heatup of 100°F in any one hour period,
- b. A maximum cooldown of 200°F in any one hour period, and
- c. A maximum spray water temperature differential of 320°F.

APPLICABILITY: At all times.

ACTION:

With the pressurizer temperature limits in excess of any of the above limits:

- a. Restore the temperature to within the limits within 30 minutes, and
- b. Perform an engineering evaluation to determine the effects of the out-of-limit condition on the structural integrity of the pressurizer within 72 hours, and
- c. Determine, from Action b above, that the pressurizer remains acceptable for continued operation or be in at least HOT STANDBY within the next 6 hours and reduce the pressurizer pressure to less than 500 psig within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.4.9.2.1 The pressurizer temperatures shall be determined to be within the limits at least once per 30 minutes during system heatup or cooldown.

4.4.9.2.2 The normal spray water temperature differential shall be determined to be within the limit at least once per 30 minutes during system heatup or cooldown.

4.4.9.2.3 The auxiliary spray water temperature differential shall be determined to be within the limit at least once per 30 minutes during auxiliary spray operation.

ATTACHMENT C-2

Beaver Valley Power Station, Unit No. 2
Proposed Technical Specification Change No. 64
TYPED PAGES

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NPF-73
REACTOR COOLANT SYSTEM

3/4.4.9 PRESSURE/TEMPERATURE LIMITS

REACTOR COOLANT SYSTEM

LIMITING CONDITION FOR OPERATION

3.4.9.1 The Reactor Coolant System (except the pressurizer) temperature and pressure shall be limited in accordance with the limit lines shown on Figures 3.4-2 and 3.4-3 during heatup, cooldown, criticality, and inservice leak and hydrostatic testing with:

- a. A maximum heatup of 60°F in any one hour period,
- b. A maximum cooldown of 100°F in any one hour period, and
- c. A maximum temperature change of less than or equal to 5°F in any one hour period during hydrostatic testing operations above system design pressure.

APPLICABILITY: MODES 1, 2, 3, 4, and 5.

ACTION:

With any of the above limits exceeded:

- a. Restore the temperature and/or pressure to within the limit within 30 minutes, and
- b. Perform an engineering evaluation to determine the effects of the out-of-limit condition on the structural integrity of the Reactor Coolant System within 72 hours, and
- c. Determine, from Action b above, that the Reactor Coolant System remains acceptable for continued operation or be in at least HOT STANDBY within the next 6 hours and reduce the RCS T_{avg} and pressure to less than 200°F and 500 psig, respectively, within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.4.9.1

- a. The Reactor Coolant System temperature and pressure shall be determined to be within the limits at least once per 30 minutes during system heatup, cooldown, and inservice leak and hydrostatic testing operations.
- b. The Reactor Coolant System temperature and pressure conditions shall be determined to be to the right of the criticality limit line within 15 minutes prior to achieving reactor criticality.

SURVEILLANCE REQUIREMENTS (Continued)

4.4.9.1 (Continued)

- c. The reactor vessel material irradiation surveillance specimens shall be removed and examined in accordance with 10 CFR 50, Appendix H, to determine changes in material properties. The results of these examinations shall be used to update Figures 3.4-2 and 3.4-3.

NPF-73
REACTOR COOLANT SYSTEM

PRESSURIZER

LIMITING CONDITION FOR OPERATION

3.4.9.2 The pressurizer temperature shall be limited to:

- a. A maximum heatup of 100°F in any one hour period,
- b. A maximum cooldown of 200°F in any one hour period,
- c. A maximum normal spray water temperature differential of 320°F, and
- d. A maximum auxiliary spray water temperature differential of 380°F.

APPLICABILITY: At all times.

ACTION:

With the pressurizer temperature limits in excess of any of the above limits:

- a. Restore the temperature to within the limits within 30 minutes, and
- b. Perform an engineering evaluation to determine the effects of the out-of-limit condition on the structural integrity of the pressurizer within 72 hours, and
- c. Determine, from Action b above, that the pressurizer remains acceptable for continued operation or be in at least HOT STANDBY within the next 6 hours and reduce the pressurizer pressure to less than 500 psig within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.4.9.2.1 The pressurizer temperatures shall be determined to be within the limits at least once per 30 minutes during system heatup or cooldown.

4.4.9.2.2 The normal spray water temperature differential shall be determined to be within the limit at least once per 30 minutes during system heatup or cooldown.

4.4.9.2.3 The auxiliary spray water temperature differential shall be determined to be within the limit at least once per 30 minutes during auxiliary spray operation.