ATTACHMENT A

Beaver Valley Power Station, Unit No. 2
License Amendment Request No. 136

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PLANT SYSTEMS

PRIMARY PLANT DEMINERALIZED WATER (PPDW)

LIMITING CONDITION FOR OPERATION

3.7.1.3 The primary plant demineralized water storage tank shall be OPERABLE with a minimum ~~contained~~ volume of ~~127,000~~ gallons. (1)

usable

127,500

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

With ~~less than 127,000 gallons of water in~~ the PPDW storage tank, within 4 hours either:

DELETE

water volume not within the limit

a. Restore the water volume to within the limit or be in HOT SHUTDOWN within the next 12 hours, or

b. Demonstrate the OPERABILITY of the service water system as a backup supply to the auxiliary feedwater pumps and restore the PPDW storage tank water volume to within its limit within 7 days or be in HOT SHUTDOWN within the next 12 hours.

SURVEILLANCE REQUIREMENTS

4.7.1.3 The PPDW storage tank shall be demonstrated OPERABLE at least once per 12 hours by verifying the water level.

ADD

(1) The required volume is an analysis value. This value shall be appropriately increased to account for measurement uncertainties.

(Proposed Wording)

BASES

3/4.7.1.3 PRIMARY PLANT DEMINERALIZED WATER (PPDW)

The OPERABILITY of the PPDW storage tank with the minimum water volume ensures that sufficient water is available to maintain the RCS at HOT STANDBY conditions for 9 hours with steam discharge to atmosphere with no reactor coolant pumps in operation.

3/4.7.1.4 ACTIVITY

Tne limitations on secondary system specific activity ensure that the resultant offsite radiation dose will be limited to a small fraction of 10 CFR Part 100 limits in the event of a steam line rupture. This dose also includes the effects of a coincident 0.35 gpm primary-to-secondary tube leak in the steam generator of the affected steam line. These values are consistent with the assumptions used in the accident analyses.

(Proposed Wording)

ATTACHMENT B

Beaver Valley Power Station, Unit No. 2
License Amendment Request No. 136
REVISION OF PRIMARY PLANT DEMINERALIZED WATER
SPECIFICATION 3.7.1.3

A. DESCRIPTION OF AMENDMENT REQUEST

Currently Limiting Condition for Operation (LCO) 3.7.1.3 requires the Primary Plant Demineralized Water (PPDW) Storage Tank at Beaver Valley Power Station (BVPS) Unit No. 2 to have a minimum "contained" water volume of 127,000 gallons. This proposed amendment will change the BVPS Unit No. 2 requirement to a minimum "usable" volume of 127,500 gallons. A new Footnote (1) would be added to LCO 3.7.1.3. This footnote specifies that the usable volume is an analysis value and requires that this value be appropriately increased to account for measurement uncertainties. The Action statements would be modified by deleting the words "less than 127,000 gallons of water in." The words "water volume not within the limit" would be added, as appropriate, to the Action statements. The Bases section for Specification 3/4.7.1.3 would be modified by adding the words "with no reactor coolant pumps in operation." An editorial change which consists of the addition of the plant operating license number is included in this proposed amendment.

B. DESIGN BASES

The PPDW storage tank provides a safety grade source of water to the steam generators for removing decay and sensible heat from the reactor coolant system (RCS). The PPDW storage tank provides a passive flow of water, by gravity, to the Auxiliary Feedwater (AFW) System. The volume specified in LCO 3.7.1.3 ensures that sufficient water is available to maintain the RCS at Hot Standby conditions for 9 hours with steam discharge to atmosphere with no reactor coolant pumps (RCPs) in operation.

C. JUSTIFICATION

The proposed amendment will replace the term "contained" with the term "usable." The term "contained" can be interpreted as either total or usable. Therefore, by specifying the volume as usable, the potential for a non-conservative interpretation of the LCO requirements is minimized. The term "usable" is utilized in the bases section of Specification 3.7.6 titled "Condensate Storage Tank (CST)" in NUREG 1431 Revision 1 titled "Standard Technical Specifications Westinghouse Plants."

The proposed specified volume of 127,500 gallons corrects the non-conservative volume of 127,000 gallons currently specified in LCO 3.7.1.3. Administrative controls currently exist to ensure that the minimum contained usable volume in the PPDW storage tank is 127,500 gallons. The current value of 127,000 gallons is inconsistent with Updated Final Safety Analysis Report (UFSAR)

and supporting calculations. Specifically, the most limiting calculation derives the minimum tank volume needed in Mode 3 when utilizing only the PPDW storage tank to supply the AFW pumps for 9 hours during a main feedwater line break accident scenario with no RCPs in operation. This calculation, the UFSAR descriptions, and the related setpoint calculations use the value of 127,500 gallons as the required minimum volume. Additionally, this volume is identified in these design basis documents as a minimum delivered (usable) PPDW storage tank volume. The unusable volume of approximately 10,575 gallons is due to the portion of the tank that lies below the top of the AFW pump(s) suction line which is approximately 24 inches above the tank bottom. A total contained volume of approximately 138,075 gallons (127,500 + 10,575) is required to meet analysis assumptions. The 138,075 value does not include an allowance for measurement uncertainties.

The proposed addition of Footnote (1) will ensure that plant operators recognize that the water volume specified in LCO 3.7.1.3 is an analysis value and that this value does not include measurement uncertainties. This footnote will require plant procedures to specify an increased required volume in the PPDW storage tank to account for measurement uncertainties. Stating the required volume as an analysis value, which does not include measurement uncertainties, allows additional flexibility to use other instruments to measure this parameter if the need should arise without requiring a change to the plant's technical specifications.

The proposed changes to the Action statements will eliminate the need to restate the value for PPDW storage tank minimum water volume. The proposed wording is consistent with the terminology utilized in Action statements "a" and "b" in reference to the PPDW storage tank volume. The LCO clearly states the minimum value for the required volume in the PPDW storage tank. Therefore, the proposed modification to the Action statements is administrative in nature and does not affect plant safety.

The proposed addition of the wording to the Bases section, pertaining to reactor coolant pump operation, will provide clarification on an analysis assumption. An initial condition in the analysis is that no reactor coolant pumps are in operation.

The editorial change, which consists of the addition of plant operating license number, does not affect plant safety.

D. SAFETY ANALYSIS

The proposed addition of the term "usable" and the information contained in proposed Footnote (1) will provide clarification on the volume of water that is required to be maintained in the PPDW storage tank. The proposed usable volume in the PPDW storage tank has been slightly increased to reflect the analysis assumptions. A sufficient volume of water will continue to be

maintained in the PPDW storage tank to satisfy the Safe Shutdown evaluation. The PPDW storage tank will continue to provide a sufficient source of water to the AFW pumps. Maintaining a sufficient source of water will ensure that the AFW System is capable of mitigating the consequences of Design Basis Accidents (DBAs) that could result in overpressurization of the RCS pressure boundary. The AFW system will continue to be capable of providing an emergency source of feedwater to the steam generators to act as heat sinks for sensible and decay heat removal from the reactor core. The remaining changes are administrative or editorial in nature and do not affect plant safety.

Therefore, this change is considered safe based on the fact that the PPDW storage tank will continue to provide a sufficient source of water to the AFW pumps. This will ensure that the AFW System is capable of mitigating the consequences of DBAs that could result in overpressurization of the RCS pressure boundary. The AFW system will continue to be capable of providing an emergency source of feedwater to the steam generators to act as heat sinks for sensible and decay heat removal from the reactor core.

E. NO SIGNIFICANT HAZARDS EVALUATION

The no significant hazard considerations involved with the proposed amendment have been evaluated. The evaluation focusing on the three standards set forth in 10 CFR 50.92(c) are 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 failure of the primary plant demineralized water (PPDW) storage tank to provide a sufficient source of water to the Auxiliary Feedwater (AFW) System is not an accident initiating event. Therefore, the probability of an accident previously evaluated is not increased by this proposed amendment.

Limiting Condition for Operation (LCO) 3.7.1.3 titled "Primary Plant Demineralized Water (PPDW)" will be revised to specify the required value for PPDW storage tank volume as a usable volume. To reflect the value currently assumed in the analysis, the value stated in the LCO, for minimum required PPDW storage tank volume, would be slightly increased. The addition of proposed Footnote (1) to LCO 3.7.1.3 will ensure that plant operators recognize that the specified volume is an analysis value and that the value does not include measurement uncertainties. This footnote will require plant procedures to specify an increased required volume in the PPDW storage tank to account for measurement uncertainties. The proposed revisions to LCO 3.7.1.3 will assure that the PPDW storage tank minimum usable volume is maintained consistent with the design basis for the PPDW storage tank. The PPDW storage tank will continue to provide a sufficient source of water to the AFW pumps. Maintaining a sufficient source of water will ensure that the AFW System is capable of mitigating the consequences of Design Basis Accidents (DBAs) that could result in overpressurization of the RCS pressure boundary. The AFW system will continue to be capable of providing an emergency source of feedwater to the steam generators to act as heat sinks for sensible and decay heat removal from the reactor core. A sufficient volume of water will continue to be maintained in the PPDW storage tank to satisfy the Safe Shutdown evaluation.

The proposed changes to the Action statements will remove the required water volume value and add wording pertaining to the water volume not being within the limit. The LCO clearly states the value for the minimum required volume in the PPDW storage tank. Therefore, the proposed modification to the Action statements is administrative in nature and does not affect plant safety. The additional Bases wording pertaining to reactor coolant pump operation is administrative in nature and does not affect plant safety. The remaining change, which consists of the addition of plant operating license number, is editorial in nature and does not affect plant safety.

Therefore, operation of the facility in accordance with the proposed amendment does not involve a significant increase in the probability or consequence 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 proposed amendment will not change the physical plant or the modes of plant operation defined in the operating license. This change does not involve the addition or modification of plant equipment nor does it alter the design or operation of plant systems. The proposed amendment will require that the minimum volume in the PPDW storage tank be maintained consistent with analysis assumptions.

   Therefore, operation of the facility in accordance with the proposed amendment 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 minimum required volume in the PPDW storage tank would be slightly increased over the currently required value. This increase in the required volume will ensure that an adequate volume of water is maintained in the PPDW storage tank. The proposed addition of the term "usable," along with the addition of Footnote (1), will ensure that the water volume specified in LCO 3.7.1.3 is appropriately increased in plant procedures to account for unusable volume in the tank and for measurement uncertainties. A sufficient volume of water will continue to be maintained in the PPDW storage tank to satisfy the Safe Shutdown evaluation.

   The PPDW storage tank will continue to provide a sufficient source of water to the AFW pumps to ensure that the AFW System is capable of mitigating the consequences of DBAs that could result in overpressurization of the RCS pressure boundary. The AFW system will continue to be capable of providing an emergency source of feedwater to the steam generators to act as heat sinks for sensible and decay heat removal from the reactor core.

   The proposed changes to the Action statements will remove the required water volume value and add wording pertaining to the water volume not being within the limit. The LCO clearly states the value for the minimum required volume in the PPDW storage tank. Therefore, the proposed modification to the Action statements is administrative in nature and does not affect plant safety. The additional Bases wording pertaining to reactor coolant pump operation is administrative in nature and does not affect plant safety. The remaining change, which consists of the addition of plant operating license number, is editorial in nature and does not affect plant safety.

Therefore, the proposed amendment does not involve a significant reduction in a margin of safety.

F. NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

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

G. ENVIRONMENTAL CONSIDERATION

This license amendment request changes a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. It has been determined that this license amendment request involves no significant increase in the amounts, and no significant change in the types of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. This license amendment request may change requirements with respect to installation or use of a facility component located within the restricted area or change an inspection or surveillance requirement; however, the category of this licensing action does not individually or cumulatively have a significant effect on the human environment. Accordingly, this license amendment request meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this license amendment request.

H. UFSAR CHANGES

No UFSAR changes have been determined to be necessary as a result of this proposed amendment.