

ATTACHMENT A-1

Revise the Beaver Valley Unit No. 1 Technical Specifications as follows:

Remove Pages

3/4 7-34

3/4 7-19

3/4 7-22

3/4 7-23

B3/4 9-3

Insert Pages

3/4 7-34

3/4 7-19

3/4 7-22

3/4 7-23

B3/4 9-3

PLANT SYSTEMS

3/4.7.13 AUXILIARY RIVER WATER SYSTEM

LIMITING CONDITION FOR OPERATION

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3.7.13.1 At least one auxiliary river water subsystem shall be OPERABLE.

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

ACTION:

With less than one ARWS subsystem OPERABLE, restore at least one subsystem to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following thirty hours.

SURVEILLANCE REQUIREMENTS

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4.7.13.1 At least one ARWS subsystem shall be demonstrated OPERABLE:

- a. At least once per 92 days, by verifying that each pump develops at least 60 psig discharge pressure, while pumping through its test flow line.
- b. At least once per 18 months during shutdown by starting an Auxiliary River Water System Pump, shutting down one Reactor Plant River Water System Pump, and verifying that the Auxiliary River Water Subsystem provides at least 8000 gpm cooling water to that portion of the Reactor Plant River Water System under test for at least 2 hours.

## PLANT SYSTEMS

### 3/4.7.8 SUPPLEMENTAL LEAK COLLECTION AND RELEASE SYSTEM (SLCRS)

#### LIMITING CONDITION FOR OPERATION

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3.7.8.1 Two SLCRS exhaust air filter trains shall be OPERABLE.

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

#### ACTION:

With one SLCRS exhaust air filter train inoperable, restore the inoperable train to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

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4.7.8.1 Each SLCRS exhaust air filter train shall be demonstrated OPERABLE:

- a. At least once per 31 days on a STAGGERED TEST BASIS by:
  1. Initiating, from the control room, flow through the HEPA filter and charcoal adsorber train and verifying that the train operates for at least 15 minutes.
- b. At least once per 12 months or after every 720 hours of system operation or (1) after each complete or partial replacement of a HEPA filter or charcoal adsorber bank, or (2) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (3) following painting, fire or chemical release in any ventilation zone communicating with the system by:
  1. Verifying that the charcoal adsorbers remove  $\geq 99\%$  of a halogenated hydrocarbon refrigerant test gas when they are testing in-place in accordance with ANSI N510-1975 while operating the ventilation system at a flow rate of 36,000 cfm  $\pm 10\%$ .

## PLANT SYSTEMS

### 3/4.7.9 SEALED SOURCE CONTAMINATION

#### LIMITING CONDITION FOR OPERATION

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3.7.9.1 Each sealed source containing radioactive material either in excess of 100 microcuries of beta and/or gamma emitting material or 5 microcuries of alpha emitting material shall be free of  $\geq 0.005$  microcuries of removable contamination.

APPLICABILITY: At all times.

#### ACTION:

- a. With a sealed source having removable contamination in excess of the above limit, immediately withdraw the sealed source from use and either:
  1. Decontaminate and repair the sealed source, or
  2. Dispose of the sealed source in accordance with Commission Regulations.
- b. The provisions of Specification 3.0.3 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.7.9.1.1 Test Requirements - Each sealed source shall be tested for leakage and/or contamination by:

- a. The licensee, or
- b. Other persons specifically authorized by the Commission or an Agreement State.

The test method shall have a detection sensitivity of at least 0.005 microcuries per test sample.

4.7.9.1.2 Test Frequencies - Each category of sealed sources (excluding startup sources and fission detectors previously subjected to core flux) shall be tested at the frequency described below.

## PLANT SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

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- a. Sources in use - At least once per six months for all sealed sources containing radioactive materials.
  1. With a half-life greater than 30 days (excluding Hydrogen 3) and
  2. In any form other than gas.
- b. Stored sources not in use - Each sealed source and fission detector shall be tested prior to use or transfer to another licensee unless tested within the previous six months. Sealed sources and fission detectors transferred without a certificate indicating the last test date shall be tested prior to being placed into use.
- c. Startup sources and fission detectors - Each sealed startup source and fission detector shall be tested within 31 days prior to being subjected to core flux or installed in the core and following repair or maintenance to the source.

4.7.9.1.3 Reports - A Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 on an annual basis if sealed source or fission detector leakage tests reveal the presence of  $\geq 0.005$  microcuries of removable contamination.

## REFUELING OPERATIONS

### BASES

#### 3/4.9.10 AND 3/4.9.11 WATER LEVEL - REACTOR VESSEL AND STORAGE POOL

The restrictions on minimum water level ensure that sufficient water depth is available to remove 99% of the assumed 10% iodine gas activity released from the rupture of an irradiated fuel assembly. The minimum water depth is consistent with the assumptions of the accident analysis.

#### 3/4.9.12 and 3/4.9.13 FUEL BUILDING VENTILATION SYSTEM

The limitations on the storage pool ventilation system ensure that all radioactive material released from an irradiated fuel assembly will be filtered through the HEPA filters and charcoal adsorber prior to discharge to the atmosphere. The OPERABILITY of this system and the resulting iodine removal capacity are consistent with the assumptions of the accident analysis. The spent fuel pool area ventilation system is non-safety related and only recirculates air through the fuel building. The SLCRS portion of the ventilation system is safety related and maintains a negative pressure in the fuel building. The SLCRS flow is normally exhausted to the atmosphere without filtering, however, the flow is diverted through the main filter banks by manual actuation or on a high radiation signal.

#### 3/4.9.14 FUEL STORAGE - SPENT FUEL STORAGE POOL

The requirements for fuel storage in the spent fuel pool ensure that: (1) the spent fuel pool will remain subcritical during fuel storage; and (2) a uniform boron concentration is maintained in the water volume in the spent fuel pool to provide negative reactivity for postulated accident conditions under the guidelines of ANSI 16.1-1975. The value of 0.95 or less for  $k_{eff}$  which includes all uncertainties at the 95/95 probability/confidence level is the acceptance criteria for fuel storage in the spent fuel pool.

The Action Statement applicable to fuel storage in the spent fuel pool ensures that: (1) the spent fuel pool is protected from distortion in the fuel storage pattern that could result in a critical array during the movement of fuel; and (2) the boron concentration is maintained at  $\geq 1050$  ppm (this includes a 50 ppm conservative allowance for uncertainties) during all actions involving movement of fuel in the spent fuel pool.

The Surveillance Requirements applicable to fuel storage in the spent fuel pool ensure that: (1) the fuel assemblies satisfy the analyzed U-235 enrichment limits or an analysis has been performed and it was determined that  $K_{eff}$  is  $\leq 0.95$ ; and (2) the boron concentration meets the 1050 ppm limit.

The enrichment limitations for storage of fuel in a 3 of 4 array in the spent fuel pool is based on a nominal region average enrichment with individual fuel assembly tolerance of + or - 0.05 w/o U-235.

ATTACHMENT A-2

Revise the Beaver Valley Unit No. 2 Technical Specifications as follows:

Remove Pages

3/4 7-28

3/4 7-18

3/4 7-20

3/4 7-21

Insert Pages

3/4 7-28

3/4 7-18

3/4 7-20

3/4 7-21

PLANT SYSTEMS

3/4.7.13 STANDBY SERVICE WATER SYSTEM (SWE)

LIMITING CONDITION FOR OPERATION

3.7.13.1 At least one standby service water subsystem shall be OPERABLE.

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

ACTION:

With less than one SWE subsystem OPERABLE, restore at least one subsystem to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following thirty hours.

SURVEILLANCE REQUIREMENTS

4.7.13.1 At least one SWE subsystem shall be demonstrated OPERABLE:

- a. ~~By verifying that each pump develops at least 109 psid differential pressure while pumping through its test flow line when tested pursuant to Specification 4.0.5.~~
- b. At least once per 18 months during shutdown by starting a Standby Service Water System Pump, shutting down one Service Water System Pump, and verifying that the Standby Service Water Subsystem provides at least 8584 gpm cooling water to that portion of the Service Water System under test for at least 2 hours.

- a. At least once per 92 days, by verifying that each pump develops at least 109 psid differential pressure, while pumping through its test flow line.

## PLANT SYSTEMS

### 3/4.7.8 SUPPLEMENTAL LEAK COLLECTION AND RELEASE SYSTEM (SLCRS)

#### LIMITING CONDITION FOR OPERATION

3.7.8.1 Two SLCRS exhaust air filter trains shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

#### ACTION:

With one SLCRS exhaust air filter train inoperable, restore the inoperable train to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

4.7.8.1 Each SLCRS exhaust air filter train shall be demonstrated OPERABLE:

- a. At least once per 31 days by initiating, from the control room, flow through the "standby" HEPA filter and charcoal adsorber train and verifying that the train operates for at least 15 minutes with the heater controls operational.
- b. At least once per 18 months <sup>or</sup> ~~and~~ (1) after each complete or partial replacement of a HEPA filter or charcoal adsorber bank, or (2) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (3) following painting, fire or chemical release in any ventilation zone communicating with the system by:
  1. Verifying that the charcoal adsorbers remove  $\geq 99.95\%$  of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1980 while operating the ventilation system at a flow rate of  $59,000 \text{ cfm} \pm 10\%$ .
  2. Verifying that the HEPA filter banks remove  $\geq 99.95\%$  of the DOP when they are tested in-place in accordance with ANSI N510-1980 while operating the ventilation system at a flow rate of  $59,000 \text{ cfm} \pm 10\%$ .
  3. Subjecting the carbon contained in at least one test canister or at least two carbon samples removed from one of the charcoal adsorbers to a laboratory carbon sample analysis and verifying a removal efficiency of  $\geq 99\%$  for radioactive methyl iodide at an air flow velocity of  $0.7 \text{ ft/sec} \pm 20\%$  with an inlet methyl iodide concentration of  $1.5 \text{ to } 2.0 \text{ mg/m}^3$ ,  $\geq 70\%$  relative humidity, and  $30^\circ\text{C} \pm \frac{1}{2}^\circ\text{C}$ ; other test conditions shall be in accordance with ANSI N510-1980. The carbon samples not obtained from test canisters shall be taken with a slotted tube sampler in accordance with ANSI N509-1980.

PLANT SYSTEMS

3/4.7.9 SEALED SOURCE CONTAMINATION

LIMITING CONDITION FOR OPERATION

3.7.9.1 Each sealed source containing radioactive material either in excess of those quantities of byproduct material listed in 10 CFR 30.71 or  $> 0.1$  microcuries of any other material, including alpha emitters, shall be free of  $\geq 0.005$  microcuries of removable contamination.

APPLICABILITY: AT ALL TIMES.

*100 microcuries of beta and/or gamma emitting material or 5 microcuries of alpha emitting material*

ACTION:

- a. ~~Each~~ <sup>With a</sup> sealed source <sup>having</sup> ~~with~~ removable contamination in excess of the above limit, shall be immediately withdrawn from use and:
  - 1. ~~Either~~ <sup>the sealed source</sup> ~~decontaminated~~ and repaired, <sup>either</sup> or
  - 2. ~~Disposed~~ <sup>the sealed source</sup> of in accordance with Commission Regulations.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.9.1.1 Test Requirements - Each sealed source shall be tested for leakage and/or contamination by:

- a. The licensee, or
- b. Other persons specifically authorized by the Commission or an Agreement State.

The test method shall have a detection sensitivity of at least 0.005 microcuries per test sample.

4.7.9.1.2 Test Frequencies - Each category of sealed sources shall be tested at the frequency described below.

- a. ~~Sources in use (excluding startup sources previously subjected to core flux)~~ At least once per six months for all sealed sources containing radioactive materials.

- 1. With a half-life greater than 30 days (excluding Hydrogen 3) and
- 2. In any form other than gas.

*(excluding startup sources and fission detectors previously subjected to core flux)*

*remove underlines*

PLANT SYSTEMS

and fission detector

SURVEILLANCE REQUIREMENTS (CONTINUED)

b. Stored sources not in use - Each sealed source shall be tested prior to use or transfer to another licensee unless tested within the previous six months. Sealed sources transferred without a certificate indicating the last test date shall be tested prior to being placed into use.

and fission detectors

and fission detector

within 31 days

c. Startup sources - Each sealed startup source shall be tested prior to being subjected to core flux and following repair or maintenance to the source.

on an annual basis

4.7.9.1.3 Reports - A Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 ~~within 90 days~~ if source leakage tests reveal the presence of  $\geq 0.005$  microcuries of removable contamination.

remove underlines

or installed in the core

sealed

or fission detector

## ATTACHMENT B

**Safety Analysis  
Beaver Valley Power Station  
Proposed Technical Specification Change  
BV-1 Change No. 168  
BV-2 Change No. 30**

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**Description of amendment request:** The proposed amendment would update applicable BV-1 and BV-2 specifications.

BV-1 surveillance requirement 4.7.13.1.a for the Auxiliary River Water System has been revised to reflect the quarterly testing requirements of the other pumps in the technical specifications. The auxiliary river water pumps are classified as Non-Nuclear Safety (NNS) and as such are not required to be tested in accordance with the IST program per ASME XI. This proposed change will eliminate the current requirement for testing these NNS pumps three times as often as the safety related pumps that are required to achieve safe plant shutdown. The test frequency for the safety related pumps was changed from monthly to quarterly in Amendment No. 117 in accordance with the 1983 ASME XI Code edition. The maintenance and operations history of the auxiliary river water pumps does not reflect the need to retain the monthly test frequency. Amendment No. 117 also removed the requirement to cycle power operated or automatic valves through one complete cycle of full travel. This was removed because the NRC position is that valve cycle surveillances do not need to be included in the technical specifications since all safety related valves are cycled as part of the IST program. The auxiliary river water pump motor operated discharge valves are cycled as part of the IST program. BV-1 surveillance requirement 4.7.13.1.a has therefore been revised to require demonstration of at least one auxiliary river water subsystem operable at least once per 92 days, by verifying that each pump develops at least 60 psig discharge pressure, while pumping through its test flow line. Therefore, this is an administrative change and does not affect the UFSAR or any regulatory basis.

Similar to the BV-1 Auxiliary River Water surveillance requirement, BV-2 surveillance requirement 4.7.13.1.a for the Standby Service Water System has been revised to reflect the quarterly testing requirements of the other pumps in the technical specifications. The standby service water pumps are required to be tested periodically during unit operation, shutdown and refueling periods in accordance with UFSAR Section 9.2.1.2.4. Nowhere in the UFSAR does it require these pumps to be tested in accordance with the requirements of ASME. The ASME XI Code only applies to Class 1, 2 or 3 components that are required to perform a specific function in shutting down a reactor or in mitigating the consequences of an accident and that are provided with an emergency power source. UFSAR Section 9.2.1.2.1 and 9.2.1.2.3 state, "A DBA is not considered coincident with requirements for the Standby Service Water System." These pumps are not Class 1, 2 or 3 components, therefore, these pumps are not required to be tested in accordance with the IST program per ASME XI. Hence, BV-2 surveillance requirement 4.7.13.1.a has been revised to require demonstration of at least one standby service water subsystem operable at least once per 92 days, by verifying that each pump develops at least 109 psid differential pressure, while pumping through its test flow line. Therefore, this is an administrative change and does not affect the UFSAR or any regulatory basis.

Both BV-1 and BV-2 surveillance requirement 4.7.8.1.b have been revised by replacing "and" with "or". The "and" implies that more than one condition must be satisfied before the required surveillance testing is performed. However, the intent of the surveillance requirement is to require testing after satisfying only one of the stated conditions. This is consistent with the use of "or" where only one condition must be satisfied before the required surveillance testing is performed. Therefore, this is an administrative change and does not affect the UFSAR or any regulatory basis.

BV-1 and BV-2 specification 3.7.9.1 have been updated to reflect the Standard Technical Specifications (STS) limitations on sealed source contamination with the exception of surveillance requirement 4.7.9.1.3 Reports. The STS require submittal of a "report" to the Commission. The current surveillance requirement requires submittal of a "Special Report" to the Commission. This Special Report is listed in Administrative Control 6.9.2 and the addressee (Document Control Desk) is the same for submittal of either an annual report in accordance with 6.9.1.4 or submittal of a Special Report in accordance with 6.9.2. Therefore, the requirement for submittal of a Special Report will be retained. The revised LCO changes the range of sources controlled by this specification to sealed sources in excess of 100 microcuries of beta and/or gamma emitting material or 5 microcuries of alpha emitting material. This will substantially reduce the requirements for testing and reporting inconsequential leakage from sealed sources of low activity materials. The Action and surveillance requirements have also been reworded to reflect the STS and clarify the requirements. Sealed sources are not considered in the safety analysis but are administratively controlled as a routine occupational exposure concern of the NRC approved radiological controls program in accordance with 10CFR20. Therefore, this is an administrative change and does not affect the UFSAR and is consistent with the STS.

BV-1 Bases 3/4.9.12 and 3/4.9.13 Fuel Building Ventilation System has been revised to correct an error in describing the Supplemental Leak Collection and Release System (SLCRS). The current bases state "The SLCRS portion of the ventilation system is safety related and continuously filters the fuel building exhaust air." This is incorrect, since although the SLCRS takes suction on the fuel building to maintain a negative pressure in this area, the normal exhaust air is not filtered through the main filter banks. However, upon a high radiation signal the exhaust air flow is diverted through the main filter banks prior to discharge to the atmosphere. Therefore, the bases have been revised to correctly describe the operation of the system as follows: "The SLCRS portion of the ventilation system is safety related and maintains a negative pressure in the fuel building. The SLCRS flow is normally exhausted to the atmosphere without filtering, however, the flow is diverted through the main filter banks by manual actuation or on a high radiation signal." Therefore, this is an administrative change and is consistent with UFSAR Section 6.6 which describes the operation of the SLCRS.

## ATTACHMENT C

**No Significant Hazard Evaluation  
Beaver Valley Power Station  
Proposed Technical Specification Change  
BV-1 Change No. 168  
BV-2 Change No. 30**

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**Basis for proposed no significant hazards consideration determination:** The Commission has provided standards for determining whether a significant hazards consideration exists in accordance with 10CFR50.92(c). A proposed amendment to an operating license for a 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, (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 proposed changes do not involve a significant hazard consideration because:

- 1) The test frequency for the BV-1 Auxiliary River Water (ARW) pumps in surveillance requirement 4.7.13.1.a has been changed from monthly to quarterly. This is consistent with the test frequency for the plant safety related pumps. These pumps are classified as Non-Nuclear Safety (NNS) and as such are not required to be tested in accordance with the IST program per ASME XI. Since the ARW pumps are backups to the safety related River Water pumps operation on a quarterly basis is sufficient to provide the operator with the information required to evaluate the performance of these pumps. This is consistent with BV-1 UFSAR 9.16 which provides for periodic testing of the ARW system from the auxiliary river intake structure to the river water system connection.

The BV-2 Standby Service Water (SWE) pumps surveillance requirement 4.7.13.1.a has been changed to require testing quarterly in lieu of testing in accordance with specification 4.0.5. Similar to the BV-1 ARW pumps these pumps are also Non-Nuclear Safety and therefore are not required to be tested in accordance with the IST program. Since the SWE pumps are backups to the safety related Service Water pumps testing on a quarterly basis without the requirement to test in accordance with ASME XI will still provide the operator with sufficient information to evaluate the performance of these pumps. This is consistent with BV-2 UFSAR 9.2.1.2 which provides for periodic testing of the SWE system from the alternate intake structure to the service water system connection.

Both BV-1 and BV-2 surveillance requirement 4.7.8.1.b have been revised by replacing "and" with "or". The "and" implies that more than one condition must be satisfied before the required surveillance testing is performed. However, the intent of the surveillance requirement is to require testing after satisfying only one of the stated conditions. This is consistent with the use of "or" where only one condition must be satisfied before the required surveillance testing is performed.

Specification 3.7.9.1 has been updated for both units to reflect the Standard Technical Specifications (STS) limitations on sealed source contamination with the exception of surveillance requirement 4.7.9.1.3 Reports. The requirement for submittal of a Special Report in accordance with specification 6.9.2 will be retained. The LCO has been modified by changing the minimum range from sources controlled by this specification to sealed sources in excess of 100 microcuries of beta and/or gamma emitting material or 5 microcuries of alpha emitting material. The Action and surveillance requirements have also been reworded to reflect the STS and clarify the requirements. Sealed sources are not considered in the safety analysis but are administratively controlled as a routine occupational exposure concern of the NRC approved radiological controls program in accordance with 10CFR20.

The BV-1 Bases 3/4.9.12 and 3/4.9.13 Fuel Building Ventilation System has been revised to correct an error in describing the operation of the Supplemental Leak Collection and Release System (SLCRS). The current bases state "The SLCRS portion of the ventilation system is safety related and continuously filters the fuel building exhaust air." This is incorrect, since although the SLCRS takes suction on the fuel building to maintain a negative pressure in this area, the normal exhaust air is not filtered through the main filter banks. However, upon a high radiation signal the exhaust air flow is diverted through the main filter banks prior to discharge to the atmosphere. Therefore, the bases have been revised to correctly describe the operation of the system as follows: "The SLCRS portion of the ventilation system is safety related and maintains a negative pressure in the fuel building. The SLCRS flow is normally exhausted to the atmosphere without filtering, however, the flow is diverted through the main filter banks by manual actuation or on a high radiation signal."

These changes are consistent with the FSAR accident analysis assumptions and therefore will not increase the probability or consequences of any accident previously evaluated.

- 2) The proposed changes provide clarification and consistency between the two units for surveillance test requirements and frequency. These changes will not reduce the safety of the plant since they are consistent with the FSAR accident analysis and will not create the possibility of a new or different kind of accident from those described in the FSAR.
- 3) These changes are consistent with the accepted criteria for operating, testing and verification of system operability. The proposed change will not affect any of the plant setpoints or margin to the accident analysis limits and will not reduce the margin of safety as a result of these changes.

Therefore, based on the above considerations, implementation of the proposed changes will not involve a significant hazard.