

ATTACHMENT A

Remove pages: 3/4 1-1, 3/4 3-57, 3/4 3-58, 3/4 6-14  
3/4 7-26, 3/4 7-28, 3/4 7-29, 3/4 7-30  
through 3/4 7-33a, 6-24, 3/4 10-1

Insert pages: 3/4 1-1, 3/4 3-57, 3/4 3-58, 3/4 6-14  
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3/4 10-1

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### 3/4.1 REACTIVITY CONTROL SYSTEMS

#### 3/4.1.1 BORATION CONTROL

SHUTDOWN MARGIN -  $T_{avg} > 200^{\circ}\text{F}$

#### LIMITING CONDITION FOR OPERATION

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3.1.1.1 The SHUTDOWN MARGIN shall be  $\geq 1.77\% \Delta k/k$ .

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

#### ACTION:

With the SHUTDOWN MARGIN  $< 1.77\% \Delta k/k$ , immediately initiate and continue boration at  $\geq 30$  gpm of 7000 ppm boric acid solution or equivalent until the required SHUTDOWN MARGIN is restored.

#### SURVEILLANCE REQUIREMENTS

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4.1.1.1.1 The SHUTDOWN MARGIN shall be determined to be  $\geq 1.77\% \Delta k/k$ :

- a. Within one hour after detection of an inoperable control rod(s) and at least once per 12 hours thereafter while the rod(s) is inoperable. If the inoperable control rod is immovable or untrippable, the above required SHUTDOWN MARGIN shall be increased by an amount at least equal to the withdrawn worth of the immovable or untrippable control rod(s).
- b. When in MODES 1 or 2, <sup>#</sup> at least once per 12 hours by verifying that control bank withdrawal is within the limits of Specification 3.1.3.6.
- c. When in MODE 2, <sup>##</sup> at least once during control rod withdrawal and at least once per hour thereafter until the reactor is critical.
- d. Prior to initial operation above 5% RATED THERMAL POWER after each fuel loading, by consideration of the factors of e below, with the control banks at the maximum insertion limit of Specification 3.1.3.6.

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\* See Special Test Exception 3.10.1

# With  $K_{eff} \geq 1.0$

## With  $K_{eff} < 1.0$

TABLE 4.3-1c

RADIOACTIVE LIQUID EFFLUENT MONITORING  
INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
1. Gross Beta or Gamma Radioactivity Monitors Providing Alarm and Automatic Termination of Release				
a. Liquid Radwaste Effluent Line (RM-LW-104)	D	P(5)	R(3)	Q(1)
b. Liquid Waste Contaminated Drain Line (RM-LW-116)	D	P(5)	R(3)	Q(1)
c. Auxiliary Feed Pump Bay Drain Monitor (RM-DA-100)	D	D	R(3)	Q(6)
2. Gross Beta or Gamma Radioactivity Monitors Providing Alarm but not providing Automatic Termination of Release				
a. Component Cooling - Recirculation Spray D Heat Exchangers River Water Monitor (RM-RW-100)		M(5)	R(3)	Q(2)
3. Flow Rate Monitors				
a. Liquid Radwaste Effluent Lines	D(4)	NA	R	Q
(1) FR-LW-103/RM-LW-116				
(2) FR-LW-104/RM-LW-104				
b. Cooling Tower Blowdown Line (FT-CW-101, 101-1)	D(4)	NA	R	Q

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

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- b. At least once per 18 months by verifying that on a Containment Pressure-High-High signal, the recirculation spray pumps start automatically as follows:
- |                     |                      |
|---------------------|----------------------|
| RS-P-1A and RS-P-2B | 210 ± 5 second delay |
| RS-P-2A and RS-P-1B | 225 ± 5 second delay |
- c. At least once per 18 months, during shutdown, by verifying, that on recirculation flow, each outside recirculation spray pump develops a discharge pressure of  $\geq 115$  psig at a flow of  $\geq 2000$  gpm.
- d. At least once per 18 months during shutdown, by:
1. Cycling each power operated (excluding automatic) valve in the flow path not testable during plant operation, through at least one complete cycle of full travel.
  2. Verifying that each automatic valve in the flow path actuates to its correct position on a test signal.
  3. Initiating River Water flow through each recirculation spray subsystem and verifying a flow rate of at least 8000 gpm.
- e. At least once per 5 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.

TABLE 4.3-12 (Continued)

TABLE NOTATION

- (1) - The CHANNEL FUNCTIONAL TEST shall also demonstrate that automatic isolation of this pathway and Control Room Alarm Annunciation occurs if any of the following conditions exist:
1. Instrument indicates measured levels above the alarm/trip setpoint.
  2. Downscale failure.
  3. Instrument controls not set in operate mode.
- (2) - The CHANNEL FUNCTIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exist:
1. Instrument indicates measured levels above the alarm/trip setpoint.
  2. Downscale failure.
  3. Instrument controls are not set in operate mode.
- (3) - The initial CHANNEL CALIBRATION for radioactivity measurement instrumentation shall be performed using one or more of the reference standards certified by the National Bureau of Standards or using standards that have been obtained from suppliers that participate in measurement assurance activities with NBS. These standards should permit calibrating the system over its intended range of energy and rate capabilities. For subsequent CHANNEL CALIBRATION, sources that have been related to the initial calibration should be used, at intervals of at least once per eighteen months. This can normally be accomplished during refueling outages. (Existing plants may substitute previously established calibration procedures for this requirement).
- (4) - CHANNEL CHECK shall consist of verifying indication of flow during periods of release. CHANNEL CHECK shall be made at least once daily on any day on which continuous, periodic, or batch releases are made.
- (5) - A source check may be performed utilizing the installed means or flashing the detector with a portable source to obtain an upscale increase in the existing count rate to verify channel response.
- (6) - The Channel Functional Test shall also demonstrate that automatic isolation of this pathway and Control Room Alarm Annunciation occurs if the following conditions exist:
1. Instrument indicates measured levels above the Alarm/Trip Setpoint.
- And shall also demonstrate that Control Room Alarm Annunciation occurs if the following condition exists:
2. Downscale Failure
  3. Instrument controls are not set in operate mode.

PLANT SYSTEMS

3/4.7.12 SNUBBERS

LIMITING CONDITION FOR OPERATION

3.7.12 All snubbers shall be OPERABLE. The only snubbers excluded from this requirement are those installed on non safety-related systems and then only if their failure or failure of the system on which they are installed, would have no adverse effect on any safety-related system.

APPLICABILITY: MODES 1, 2, 3 and 4. (MODES 5 and 6 for snubbers located on systems\*\* required OPERABLE in those MODES).

ACTION:

With one or more snubbers inoperable, within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation per Specification 4.7.12.c on the supported component or declare the supported system inoperable and follow the appropriate ACTION statement for that system.

SURVEILLANCE REQUIREMENTS

4.7.12 Each snubber shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program and the requirements of Specification 4.0.5.

a. Visual Inspections

The first inservice visual inspection of snubbers shall be performed after four months but within 10 months of commencing POWER OPERATION and shall include all snubbers. If less than two (2) snubbers are found inoperable during the first inservice visual inspection, the second inservice visual inspection shall be performed 12 months  $\pm 25\%$  from the date of the first inspection. Otherwise, subsequent visual inspections shall be performed in accordance with the following schedule:

<u>No. Inoperable Snubbers per Inspection Period</u>	<u>Subsequent Visual Inspection Period* #</u>
0	13 months $\pm 25\%$
1	12 months $\pm 25\%$
2	6 months $\pm 25\%$
3,4	124 days $\pm 25\%$
5,6,7	62 days $\pm 25\%$
8 or more	31 days $\pm 25\%$

The snubbers may be categorized into two groups: those accessible and those inaccessible during reactor operation. Each group may be inspected independently in accordance with the above schedule.

\* The inspection interval shall not be lengthened more than one step at a time.

# The provisions of Specification 4.0.2 are not applicable.

\*\* These systems are defined as those portions or subsystems required to prevent releases in excess of 10 CFR 100 limits.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

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Snubbers that are especially difficult to remove or in high radiation zones during shutdown shall also be included in the representative sample\*

If a spare snubber has been installed in place of a failed snubber, the spare snubber shall be retested. Test results of this snubber may not be included for the re-sampling.

If any snubber selected for functional testing either fails to lockup or fails to move, i.e., frozen in place, the cause will be evaluated and if caused by manufacturer or design deficiency all snubbers of the same design subject to the same defect shall be functionally tested. This testing requirement shall be independent of the requirements stated above for snubbers not meeting the functional test acceptance criteria.

For the snubber(s) found inoperable, an engineering evaluation shall be performed on the components which are supported by the snubber(s). The purpose of this engineering evaluation shall be to determine if the components supported by the snubber(s) were adversely affected by the inoperability of the snubber(s) in order to ensure that the supported component remains capable of meeting the designed service.

d. Hydraulic Snubbers Functional Test Acceptance Criteria

The hydraulic snubber functional test shall verify that:

1. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.
2. Snubber bleed, or release rate, where required, is within the specified range in compression or tension. For snubbers specifically required to not displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

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\* Permanent or other exemptions from functional testing for individual snubbers in these categories may be granted by the Commission only if a justifiable basis for exemption is presented and/or snubber life destructive testing was performed to qualify snubber operability for all design conditions at either the completion of their fabrication or at a subsequent date.

PLANT SYSTEMS

CURVEILLANCE REQUIREMENTS (Continued)

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e. Mechanical Snubbers Functional Test Acceptance Criteria

The mechanical snubber functional test shall verify that:

1. The force that initiates free movement of the snubber rod in either tension or compression is less than the specified maximum drag force.
2. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.
3. Snubber release rate, where required, is within the specified range in compression or tension. For snubbers specifically required not to displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

f. Snubber Service Life Monitoring\*

A record of the service life of each snubber, the date at which the designated service life commences and the installation and maintenance records on which the designated service life is based shall be maintained as required by Specification 6.10.2.m.

Concurrent with the first in-service visual inspection and at least once per 18 months thereafter, the installation and maintenance records for each snubber shall be reviewed to verify that the indicated service life has not been exceeded or will not be exceeded prior to the next scheduled snubber service life review. If the indicated service life will be exceeded prior to the next scheduled snubber service life review, the snubber service shall be reevaluated or the snubber shall be replaced or reconditioned so as to extend its service life beyond the date of the next scheduled service life review. This reevaluation, replacement or reconditioning shall be indicated in the records.

- \* For purposes of establishing a baseline for the determination of service life monitoring, this program will be implemented over 3 successive refueling periods.



## ADMINISTRATIVE CONTROLS

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6.10.2 The following records shall be retained for the duration of the Facility Operating License:

- a. Records and drawing changes reflecting facility design modifications made to systems and equipment described in the Final Safety Analysis Report.
- b. Records of new irradiated fuel inventory, fuel transfers and assembly burnup histories.
- c. Records of facility radiation and contamination surveys.
- d. Records of radiation exposure for all individuals entering radiation control areas.
- e. Records of gaseous and liquid radioactive material released to the environs.
- f. Records of transient or operational cycles for those facility components designed for a limited number of transients or cycles.
- g. Records of training and qualification for current members of the plant staff.
- h. Records of in-service inspections performed pursuant to these Technical Specifications.
- i. Records of Quality Assurance activities required by the QA Manual.
- j. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59.
- k. Records of meetings of the OSC and the ORC.
- l. Records for Environmental Qualification which are covered under the provisions of paragraph 6.13.
- m. Records of the service lives of all hydraulic and mechanical snubbers including the date at which the service life commences and associated installation and maintenance records.
- n. Records of analyses required by the Radiological Environmental Monitoring Program.

### 3/4.10 SPECIAL TEST EXCEPTIONS

#### SHUTDOWN MARGIN

#### LIMITING CONDITION FOR OPERATION

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3.10.1 The SHUTDOWN MARGIN requirement of Specification 3.1.1.1 may be suspended for measurement of control rod worth and shutdown margin provided the reactivity equivalent to at least the highest estimated control rod worth is available for trip insertion from OPERABLE control rod(s).

APPLICABILITY: MODE 2

#### ACTION:

- a. With the reactor critical ( $K_{\text{eff}} \geq 1.0$ ) and with less than the above reactivity equivalent available for trip insertion, immediately initiate and continue boration at  $\geq 30$  gpm of 7000 ppm boric acid solution or its equivalent until the SHUTDOWN MARGIN required by Specification 3.1.1.1 is restored.
- b. With the reactor subcritical ( $K_{\text{eff}} < 1.0$ ) by less than the above reactivity equivalent, immediately initiate and continue boration at  $\geq 30$  gpm of 7000 ppm boric acid solution or its equivalent until the SHUTDOWN MARGIN required by Specification 3.1.1.1 is restored.

#### SURVEILLANCE REQUIREMENTS

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4.10.1.1 The position of each full length rod either partially or fully withdrawn shall be determined at least once per 2 hours.

4.10.1.2 Each full length rod not fully inserted shall be demonstrated capable of full insertion when tripped from at least the 50% withdrawn position within 24 hours prior to reducing the SHUTDOWN MARGIN to less than the limits of Specification 3.1.1.1.

ATTACHMENT B  
Safety Evaluation

Proposed Change Request No. 99 amends the Beaver Valley Power Station, Unit No. 1 Technical Specifications, Appendix A to incorporate various administrative changes for clarification of existing specifications.

Description and Purpose of Change

1. Page 3/4 1-1, Section 3.1.1.1, Shutdown Margin, surveillance requirement 4.1.1.1.1.b and d have been revised to correct the referenced specification from 3.1.3.5 to 3.1.3.6.
2. Page 3/4 3-57, Table 4.3-12, Radioactive Liquid Effluent Monitoring Instrumentation Surveillance Requirements, has been revised to specify a new note (6), applicable to item 1.c. Auxiliary Feed Pump Bay Drain Monitor (RM-DA-100).

Page 3/4 3-58, Table 4.3-12, Table Notation, has been revised to add note (6), since automatic isolation and control room alarm annunciation occurs when RM-DA-100 indicates measured levels above the alarm/trip setpoint. Control room alarm annunciation only, occurs for downscale failure and when the instrument controls are not set in the operate mode.

3. Page 3/4 6-14, Section 3.6.2.2, Containment Recirculation Spray System, surveillance requirement 4.6.2.2.d.3 has been added to require verification of the minimum river water flow rate through each recirculation spray subsystem, at least once per 18 months during plant shutdown. This has been added because new flow instruments have been installed and would have removed the need for flow thru these heat exchangers.
4. Page 3/4 7-26, Section 3.7.12, Snubbers, has been revised in accordance with Generic Letter 84-13, to require the operability of all snubbers on safety-related systems and those that in the event of failure could adversely affect safety-related systems. As a result of this change, pages 3/4 7-30 through 3/4 7-32i, Table 3.7-4a Safety Related Hydraulic Snubbers and pages 3/4 7-33 and 3/4 7-33a Table 3.7-4b, Safety Related Mechanical Snubbers can be deleted. The snubber surveillance requirements have also been revised to delete the reference to the above tables on pages 3/4 7-26, 3/4 7-28 and 3/4 7-29. The Bases, Section 3/4.7.12, page B3/4 7-6 does not reference the tables, therefore, no change is required. The Administrative Controls, Section 6.10.2.m, Record Retention, has been revised to delete the reference to the above tables.

5. Page 3/4 10-1, Section 3.10.1, Shutdown Margin-Special Test Exception, has been revised by ending the sentence with a period and deleting "and".

Basis For Proposed No Significant  
Hazards Consideration Determination

The proposed administrative changes provide specification clarification and to correct errors.

The Commission has provided guidance concerning the application of these standards by providing certain examples (48 FR 14870). One of these, Example (i), involving no significant hazards consideration is "A purely administrative change to technical specifications, for example, correction of an error." The proposed changes identified above as items 1, 2, and 5 match this example, therefore, it is proposed that these changes be characterized as involving no significant hazards consideration. Another of these, Example (ii), involving no significant hazards consideration is "A change that constitutes an additional limitation, restriction, or control not presently included in the technical specifications, for example, a more stringent surveillance requirement". The proposed changes identified above as items 3 and 4 match this example; therefore, it is proposed that these changes be characterized as involving no significant hazards consideration.

Basis

1. Is the probability of an occurrence of the consequence of an accident or malfunction of equipment important to safety as previously evaluated in the UFSAR increased? No

Reason

1. Changing the specification referenced by Section 4.1.1.1.1.b and d from 3.1.3.5 to 3.1.3.6 is an editorial change, is not a safety concern and does not affect the UFSAR.
2. Revision of the notation applicable to the RM-DA-100 Channel Functional Test surveillance requirement has been made to specify the actual automatic isolation and control room annunciation functions performed by this monitor. The UFSAR presently does not provide a description of this monitor but will be updated in a forthcoming revision to include this monitor which was added under DCP-268.

3. The River Water System is described in UFSAR Section 9.9 and Table 9.9-3 specifies a minimum river water flow of 8000 gpm through the recirculation spray heat exchangers, 4000 gpm each, for a DBA. The river water sides of the recirculation spray heat exchangers can be flow tested in pairs, either when the unit is shutdown for maintenance or when only one river water pump is required for plant operation. This additional surveillance requirement will provide assurance that the minimum river water flow rate requirements are met and is consistent with UFSAR Section 9.9.4, river water system testing requirements. Therefore, the probability of an occurrence or the consequence of an accident or malfunction of equipment important to safety as previously evaluated in the UFSAR will not be increased.
  4. The NRC has reassessed the inclusion of snubber listings within the technical specifications and concludes that such listings are not necessary, since the snubber specification has been modified to specify which snubbers are required to be operable. Any changes in snubbers quantities, types, or locations will be a change to the plant, therefore, such changes will be subject to the provisions of 10CFR50.59 and these changes will be reflected in the records in accordance with specification 4.7.12.f. Therefore, since the snubber requirements are unchanged, only the technical specification listing is deleted. This change is not a safety concern and does not affect the UFSAR.
  5. The revision to Section 3.10.1 is an editorial change only, to complete the sentence, therefore, this change is not a safety concern and does not affect the UFSAR.
2. Is the probability for an accident or malfunction of a different type than previously evaluated in the UFSAR created? No

Reason

The proposed changes are administrative in nature and do not physically change any plant safety related systems, components or structures, therefore, the changes will not create the possibility for a new type of accident or malfunction of a different type than any previously evaluated in the UFSAR Section 14.

3. Is the margin of safety as defined in the basis for any technical specification reduced? No

Reason

The Technical Specification BASES for the sections addressed above will not be affected by the proposed changes since none of the systems or components will be physically changed or their function altered in any way. Therefore, the margin of safety inherent in the applicable bases will not be reduced.

4. Based on the above, is an unreviewed safety question involved? No

Conclusion

The proposed changes are administrative in nature and do not involve physical change to plant safety related systems, components or structures, will not increase the likelihood of a malfunction of safety related equipment, increase the consequence of an accident previously analyzed, nor create the possibility of a malfunction different than previously evaluated in the UFSAR.

Based on the considerations addressed above, the proposed revisions have been determined to be safe and do not involve an unreviewed safety question.