Bell Bend Nuclear Power Plant

Combined License Application

Part 4: Technical Specifications and Bases

Revision 4
2013

This COLA Part includes RCOLA generic text. Site Specific Text is enclosed in braces: {Site Specific Information}

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PART 4 TECHNICAL SPECIFICATIONS AND BASES

Introduction

The U.S. EPR Generic Technical Specifications (TS) and Bases, provided in Chapter 16 of the U.S. EPR FSAR, are incorporated by reference with the following departures and supplements.

Section C.III.1 of Regulatory Guide 1.206 states for Chapter 16 that:

> 10 CFR Part 52 requires that an applicant for a COL that wishes to reference an approved certified design listed in an appendix to 10 CFR Part 52, e.g., Appendix A to Part 52, Section IV.A.2.c, include as part of its application plant-specific TS, consisting of the generic and site-specific TS, that are required by 10 CFR 50.36 and 10 CFR 50.36a.

The U.S. EPR FSAR is not yet a certified design. As such, the Technical Specifications and Bases are undergoing NRC Staff review and are evolving as that review progresses. In addition, the U.S. EPR COL applicants continue to work with AREVA NP to ensure that the U.S. EPR Generic Technical Specifications are complete and accurate and encompass minor plant-specific differences.

To simplify review of this COL Application and reinforce the consistency of this facility with the U. S. EPR design, a complete set of Plant-Specific Technical Specifications will not be included in this COLA part until after the Advanced SER for the U.S. EPR is issued by the NRC Staff.

The differences from Revision 4 of the U.S. EPR Design Certification, either due to Reviewer's Notes and brackets called out within the body of the U.S. EPR Generic Technical Specifications and Bases, or as identified by this applicant, are described and justified in the discussion below:

GENERIC CHANGES

These changes are made for all UniStar fleet COLAs.

1 TS 1.1 DEFINITIONS

Generic Technical Specifications:

a. The RESPONSE TIME definition includes brackets around the following:

"In lieu of measurement, response time may be verified for selected components provided that the components and methodology for the verification have been previously reviewed and approved by the NRC."

b. A Reviewer's Note in the RESPONSE TIME definition states:

“The last sentence in the RESPONSE TIME definition applies to plants that have obtained NRC approval to utilize allocations for selected components based on NRC-approved U.S. EPR-applicable Topical Reports.”

Plant-Specific Technical Specifications:

a. The brackets and associated text in the RESPONSE TIME definition are deleted.

b. The Reviewer's Note in the RESPONSE TIME definition is deleted.

Justification:

a. The brackets and associated text are no longer required because there are no NRC approved Topical Reports which may be utilized to modify the requirements for response time surveillance testing.

b. The Reviewer's Note is no longer required because there are no NRC approved Topical Reports which may be utilized to modify the requirements for the response time surveillance testing.

2 LCO 3.3.1 DISTRIBUTED CONTROL SYSTEM (DCS)

Generic Technical Specifications:

a. Surveillance Requirement 3.3.1.4 states:

”Perform CALIBRATION.”

b. Surveillance Requirement 3.3.1.6 states:

”Perform CALIBRATION.”

c. Surveillance Requirement 3.3.1.9 states:

"Verify NTSPs properly loaded in APUs."

d. Surveillance Requirement 3.3.1.10 states:

“Verify NTSPs properly loaded in SAS Control Units.”

e. Table 3.3.1-2 contains a ”Nominal Trip Setpoint” column. Bracketed numerical values are provided for some reactor trips, Engineered Safety Features Actuation System signals, and Permissives.

f. Table 3.3.1-3 contains a “Nominal Trip Setpoint” column. Bracketed numerical values are provided in this column.

g. The “Applicable APU” column of Table 3.3.1-2 and the “Applicable” CU column of Table 3.3.1-3 contain bracketed information.

h. Table 3.3.1-2, Footnote x, states:

"As specified in the Core Operating Limits Report (COLR)."

i. Table 3.3.1-2, Footnote y, states:

"As specified in the Pressure Temperature Limits Report."

Plant-Specific Technical Specifications:

a. Surveillance Requirement 3.3.1.4 is revised to state:

”Perform CALIBRATION in accordance with Specification 5.5.19, ”Setpoint Control Program (SCP). ””

b. Surveillance Requirement 3.3.1.6 is revised to state:

”Perform CALIBRATION in accordance with Specification 5.5.19, ”Setpoint Control Program (SCP).””

c. Surveillance Requirement 3.3.1.9 is revised to state:

"Verify NTSPs are properly loaded in APUs in accordance with Specification 5.5.19, "Setpoint Control Program.""

d. Surveillance Requirement 3.3.1.10 is revised to state:

“Verify NTSPs are properly loaded in SAS Control Units in accordance with Specification 5.5.19, "Setpoint Control Program.”

e. Table 3.3.1-2 contains a "Nominal Trip Setpoint" column. This column is deleted.

f. Table 3.3.1-3 contains a “Nominal Trip Setpoint” column. The column is deleted.

g. The bracketed information in the “Applicable APU” column of Table 3.3.1-2 and the “Applicable CU” column of Table 3.3.1-1 is deleted and will be addressed by the “Setpoint Control Program.”

h. Table 3.3.1-2, Footnote x, is revised to state:

Deleted.

i. Table 3.3.1-2, Footnote y, is revised to state:

Deleted.

Justification:

a. The CALIBRATION of the Boron concentration sensors must be performed in accordance with the requirements of the Setpoint Control Program. The reference to the location of the Setpoint Control Program in the "Programs and Manuals" section of the Technical Specifications is provided to ensure compliance with the stated requirements.

b. The CALIBRATION of specified reactor trip and Engineered Safety Feature sensors must be performed in accordance with the requirements of the Setpoint Control Program. The reference to the location of the Setpoint Control Program in the "Programs and Manuals" section of the Technical Specifications is provided to ensure compliance with the stated requirements.

c. A Setpoint Control Program is being incorporated into the Plant-Specific Technical Specifications.

d. A Setpoint Control Program is being incorporated into the Plant-Specific Technical Specifications.

e. A Setpoint Control Program is being incorporated into the Plant-Specific Technical Specifications. Specific setpoints will no longer be included in Table 3.3.1-2.

f. The column is no longer required due to the use of a Setpoint Control Program.

g. The bracketed information is no longer required due to the use of a Setpoint Control Program.

h. The footnote is no longer required due to the use of a Setpoint Control Program.

i. The footnote is no longer required due to the use of a Setpoint Control Program.

3 LCO 3.7.10 CONTROL ROOM EMERGENCY FILTRATION (CREF)

Generic Technical Specifications:

TS LCO 3.7.10, "Control Room Emergency Filtration (CREF)," Required Action B.2 contains bracketed information on toxic gas.

TS 3.7.10 Required Actions B.2 and D.1 contain a Reviewer's Note that states "The need for toxic gas isolation state will be determined by the COL applicant." Requirements for CREF isolation to mitigate toxic gas events are placed in brackets indicating that they are not required for plants that do not credit the CREF for mitigation of toxic gas events.

TS 3.7.10 Required Action D.1 has a Note stating: "Place CREF train in toxic gas isolation state if automatic transfer to toxic gas isolation state is inoperable."

Plant-Specific Technical Specifications:

This section of the U. S. EPR Generic Technical Specifications is incorporated by reference with the following supplemental information:

The bracketed information regarding toxic gas is deleted from the Plant-Specific Technical Specifications and Bases.

The following references to toxic gas in TS 3.7.10 are deleted:

TS 3.7.10 Required Actions B.2 and D.1 Reviewer's Notes stating "The need for toxic gas isolation state will be determined by the COL applicant."

TS 3.7.10 Required Action D.1 Note stating "Place CREF train in toxic gas isolation state if automatic transfer to toxic gas isolation state is inoperable."

The bracketed information [toxic gas,] in TS 3.7.10 Required Action B.2.

Justification:

Toxic gas and hazardous chemical automatic protection for the Control Room Envelope is not required based on the site-specific evaluation provided in Part 2 of this COL Application (FSAR Sections 2.2.3, 6.4.1 and 6.4.3).

4 TS 5.1 RESPONSIBILITY

Generic Technical Specifications:

"TS 5.1, "Responsibility," includes two Reviewer's Notes:

1. "Titles for members of the unit staff shall be specified by use of an overall statement referencing an ANSI Standard acceptable to the NRC staff from which the titles were obtained, or an alternative title may be designated for this position. Generally, the first method is preferable; however, the second method is adoptable to those unit staffs requiring special titles because of unique organizational structures.

2. The ANSI Standard shall be the same ANSI Standard referenced in Section 5.3, Unit Staff Qualifications. If alternative titles are used, all requirements of these Technical Specifications apply to the position with the alternative title applied with the specified title. Unit staff titles shall be specified in the Final Safety Analysis Report or Quality Assurance Plan. Unit staff titles shall be maintained and revised using those procedures approved for modifying/revising the Final Safety Analysis Report or Quality Assurance Plan."

Plant-Specific Technical Specifications:

TS 5.1 is revised to remove the Reviewer's Notes and replace them with a note requiring that the organizational positions listed in the Administrative Controls section have corresponding site-specific titles specified in the Final Safety Analysis Report (FSAR).

Justification:

The use of generic titles in the Technical Specifications, and the inclusion of site-specific, corresponding titles in the FSAR, is consistent with Improved Standard Technical Specifications, Revision 3.1 of NUREG-1430 through NUREG-1434.

5 TS 5.2.2 UNIT STAFF

Generic Technical Specifications:

TS 5.2.2, "Unit Staff," contains a Reviewer's Note specifying the number of non-licensed operators required for two units when both units are shutdown or defueled.

Plant-Specific Technical Specifications:

TS 5.2.2, "Unit Staff," is revised to remove the Reviewer's Note.

Justification:

This is a single unit facility.

6 TS 5.3 UNIT STAFF QUALIFICATIONS

Generic Technical Specifications:

TS 5.3, "Unit Staff Qualifications," contains a Reviewer's Note on the specification of the minimum qualifications of the unit staff.

Plant-Specific Technical Specifications:

TS 5.3, "Unit Staff Qualifications," is revised to remove the Reviewer's Note.

Justification:

The unit staff qualifications standards are provided consistent with the FSAR, including FSAR Section 13.2.

7 TS 5.5.11 GASEOUS WASTE PROCESSING SYSTEM RADIOACTIVITY MONITORING PROGRAM

Generic Technical Specifications:

TS 5.5.11, "Gaseous Waste Processing System Radioactivity Monitoring Program," contains a Reviewer's Note for COL applicants incorporating outdoor liquid radioactive waste storage tanks in their design.

Plant-Specific Technical Specifications:

TS 5.5.11, "Gaseous Waste Processing System Radioactivity Monitoring Program," is revised to remove the Reviewer's Note.

Justification:

The site-specific design does not include outdoor liquid radioactive waste storage tanks.

8 TS 5.5.15 CONTAINMENT LEAKAGE RATE TESTING PROGRAM

Generic Technical Specifications:

TS 5.5.15, "Containment Leakage Rate Testing Program," contains a Reviewer's Note indicating that, as discussed in U. S. EPR FSAR Section 6.2.6, the U.S. EPR has no penetrations that are classified as bypass leakage paths.

Plant-Specific Technical Specifications:

TS 5.5.15, "Containment Leakage Rate Testing Program," is revised to remove the Reviewer's Note.

Justification:

The site-specific design has no penetrations that are classified as bypass leakage paths.

9 TS 5.5.17 CONTROL ROOM ENVELOPE HABITABILITY PROGRAM

Generic Technical Specifications:

TS 5.5.17, "Control Room Envelope Habitability Program," contains design information regarding hazardous chemical release.

Plant-Specific Technical Specifications:

This section of the U. S. EPR Generic Technical Specifications is incorporated by reference with the following supplemental information to TS 5.5.17.e:

The licensing basis analyses for hazardous chemicals does not assume automatic actuation of the CREF.

Justification:

Toxic gas and hazardous chemical automatic protection for the Control Room Envelope is not required based on the site-specific evaluation provided in Part 2 of this COL Application (FSAR Sections 2.2.3, 6.4.1 and 6.4.3).

10 TS 5.5.19 SETPOINT CONTROL PROGRAM

Generic Technical Specifications:

The Generic Technical Specifications do not describe a Setpoint Control Program.

Plant-Specific Technical Specifications:

The following program description represents an Exemption and Departure to the U.S. EPR FSAR. It is added to the Plant-Specific Technical Specifications.

5.5.19 Setpoint Control Program

a. The Setpoint Control Program (SCP) implements the regulatory requirement of 10 CFR 50.36 (c)(1)(ii)(A) that technical specifications will include items in the category of limiting safety system settings (LSSS), which are settings for automatic protective devices related to those variables having significant safety functions. The LSSS for both SL related and Non-SL related automatic protection instrumentation functions are included in the scope of the Setpoint Control Program.

b. The Limiting Trip Setpoint (LTSP), Nominal Trip Setpoint (NTSP), Allowable Value (AV), Performance Test Acceptance Criteria (PTAC) and As-Left Tolerance (ALT) for each Technical Specification required automatic protection instrumentation function, except for permissive functions, which only require the NTSP, AV, PTAC, and ALT, shall be calculated in conformance with the instrumentation setpoint methodology in the following documents:

1. ANP-10275P-A, "U.S. EPR Instrument Setpoint Methodology Topical Report," Revision 0, dated February 26, 2008 (ML080590482), and the conditions stated in the associated NRC safety evaluation.

2. [ANP-10287P-A, "Incore Trip Setpoint and Transient Setpoint Methodology For U.S. EPR," Revision #, dated Month dd, yyyy, (MLxxxxxxxxx)], and the conditions stated in the associated NRC safety evaluation, [Letter to AREVA NP from NRC, Title, dated Month, dd, yyyy, (MLxxxxxxxxx)].

c. Performance of CALIBRATION surveillances shall include the following:

1. The as-left calibration setting values shall be the values at which the sensor was set at the completion of the surveillance with no additional adjustment of the sensor. The as-found calibration setting values shall be the values measured during subsequent performance of the surveillance before making any adjustment to the sensor that could change the calibration setting values.

2. The as-found calibration setting values shall be compared with the previous as-left values or the specified calibration settings (e.g., 0, 25, 50, 75, 100%). If the as-found calibration setting values are compared with the specified calibration settings to meet this requirement, then the following conditions apply:

i. the setting tolerance band (i.e., the specified ALT) must be less than or equal to the square root of the sum of the squares of reference accuracy, measurement and test equipment errors, and readability uncertainties;

ii. the setting tolerance band (i.e., the specified ALT) must be included in the total loop uncertainty; and

iii. the pre-defined test acceptance criteria band (i.e., the specified PTAC) for each as-found calibration setting value must include either the setting tolerance band (the specified ALT) or the uncertainties associated with the setting tolerance band (the specified ALT), but not both of these.

3. If any as-found calibration setting value is outside the limits of "previous as-left value ± PTAC" or "calibration setting ± PTAC," but conservative with respect to the AV, then the sensor shall be evaluated to verify that it is functioning in accordance with its design basis before declaring the surveillance requirement met and returning the sensor to service. This condition shall be dispositioned by the plant's corrective action program.

4. If any as-found calibration setting value is non-conservative with respect to the AV, then the surveillance requirement is not met and the sensor shall be immediately declared inoperable.

5. The sensor shall be calibrated such that the as-left calibration setting values are within the specified ALT around the specified calibration settings (e.g., 0, 25, 50, 75, 100%) at the completion of each CALIBRATION surveillance; otherwise, the surveillance requirement is not met and the sensor shall be immediately declared inoperable.

d. The difference between each as-found calibration setting value and either the previously recorded as-left value or the specified calibration setting (e.g., 0, 25, 50, 75, 100%) for each sensor, shall be trended and evaluated to verify that the sensor is functioning in accordance with its design basis.

e. The Setpoint Control Program shall establish a document containing the current value of the specified LTSP, NTSP, AV, PTAC, and ALT for each Technical Specification required automatic protection instrumentation function, except for permissive functions, which only require the NTSP, AV, PTAC, and ALT, a record of changes to those values, and references to the calculation documentation. Changes to this document shall be governed by the regulatory requirements of 10 CFR 50.59. In addition, changes to the specified LTSP, NTSP, AV, PTAC, and ALT values shall be governed by the approved setpoint methodology. This document, including any midcycle revisions or supplements, shall be provided to the NRC upon issuance for the initial cycle and each reload cycle.

f. The NTSP value for each Technical Specification required automatic protection instrumentation function shall be verified to be properly loaded into its assigned Acquisition and Processing Unit during the performance of Surveillance Requirement 3.3.1.9.

Justification:

In accordance with Interim Staff Guidance COL/DC-ISG-8, "Necessary Content of Plant-Specific Technical Specifications," present and future COL applicants shall propose Plant-Specific Technical Specifications containing all site-specific information necessary to ensure plant operation within its design basis. A COL applicant may propose to resolve this requirement by establishing an administrative control program. The changes to LCO 3.3.1, TS 5.5, ”Programs and Manuals,” coupled with the addition of supporting changes to "Distributed Control System (DCS),” and Bases 3.3.1, ”Distributed Control System (DCS),” will satisfy this requirement.

11 TS 5.6.1 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

Generic Technical Specifications:

TS 5.6.1, ”Annual Radiological Environmental Operating Report,” contains a Reviewer’s Note to allow a single report submittal for all units at a multi-unit site.

Plant-Specific Technical Specifications:

TS 5.6.1, ”Annual Radiological Environmental Operating Report,” is revised to remove the Reviewer’s Note.

Justification:

The allowance for submittal of single reports for multiple units is not being pursued at this time.

12 TS 5.6.2 RADIOACTIVE EFFLUENT RELEASE REPORT

Generic Technical Specifications:

TS 5.6.2, ”Radioactive Effluent Release Report,” contains a Reviewer’s Note to allow a single report submittal for all units at a multi-unit site.

Plant-Specific Technical Specifications:

TS 5.6.2, "Radioactive Effluent Release Report," is revised to remove the Reviewer's Note.

Justification:

The allowance for submittal of single reports for multiple units is not being pursued at this time.

13 BASES 3.3.1 DISTRIBUTED CONTROL SYSTEM (DCS)

Generic Technical Specifications:

a. TS Bases 3.3.1 includes a Reviewer's Note in the Surveillance Requirements section that states "In order for a plant to take credit for topical reports as the basis for justifying Frequencies, topical reports must be supported by an NRC staff SER that establishes the acceptability of each topical report for that unit."

b. TS Bases 3.3.1, Background, contains a paragraph that begins with "However, there is also some point beyond which the device would have not been able to perform its function due, for example, to greater than expected drift."

c. TS Bases, 3.3.1 Actions, begins with "The most common causes of division inoperability are outright failure or drift of the sensor sufficient to exceed the tolerance allowed by the plant specific setpoint analysis."

d. TS Bases 3.3.1, Surveillance Requirements, 3.3.1.4, begins with "The online boron meters are a half shell design and are not in contact with the reactor coolant."

e. TS Bases 3.3.1, Surveillance Requirements, 3.3.1.6, begins with "A CALIBRATION of each DCS sensor every 24 months ensures that each instrument division is reading accurately and within tolerance."

f. TS Bases 3.3.1, Surveillance Requirements, 3.3.1.9, states "SR 3.3.1.9 verifies that the NTSPs have been properly loaded into the applicable APUs."

g. TS Bases 3.3.1, Surveillance Requirements, SR 3.3.1.10 states:

   SR 3.3.1.10

   "SR 3.3.1.10 verifies that the NTSPs have been properly loaded into the applicable SAS CUs."

h. TS Bases 3.3.1 includes a Reviewer's Note and associated bracketed text and references 8 and 9 in Surveillance Requirement 3.3.11 that states

   "The following Bases apply to plants that have obtained NRC approval to utilize allocations for selected components based on NRC-approved U.S. EPR-applicable Topical Reports."

Plant-Specific Technical Specifications:

a. TS Bases 3.3.1 Surveillance Requirements section, is revised to remove the first Reviewer's Note regarding topical reports.

b. TS Bases 3.3.1, Background, the paragraph that begins with "However, there is also some point beyond which" is revised to include the following sentence at the end of the paragraph:

> "In accordance with Specification 5.5.19, the Setpoint Control Program shall establish a document that contains the current value of the specified LTSP, Nominal Trip Setpoint (NTSP), Allowable Value (AV), Performance Test Acceptance Criteria (PTAC), and As-Left Tolerance (ALT) for each Technical Specification required automatic protection instrumentation function."

c. TS Bases 3.3.1, Actions, the following sentence is added to the end of the first paragraph:

> "The Setpoint Control Program ensures that divisions are performing as expected by confirming that the drift and other related errors are consistent with the supporting setpoint methodologies and calculations."

d. TS Bases 3.3.1, Surveillance Requirements, SR 3.3.1.4, is revised to add the following paragraph at the end of the SR:

> "In accordance with Specification 5.5.19, the Setpoint Control Program shall establish a document containing the current value of the specified LTSP, NTSP, AV, PTAC, and ALT for each Technical Specification required automatic protection instrumentation function, except for permissive functions, which only require the NTSP, AV, PTAC, and ALT. The Setpoint Control Program also establishes requirements for the performance of CALIBRATION surveillances."

e. TS Bases 3.3.1, Surveillance Requirements, SR 3.3.1.6, is revised to add the following paragraph at the end of the SR:

> "In accordance with Specification 5.5.19, the Setpoint Control Program shall establish a document containing the current value of the specified LTSP, NTSP, AV, PTAC, and ALT for each Technical Specification required automatic protection instrumentation function, except for permissive functions, which only require the NTSP, AV, PTAC, and ALT . The Setpoint Control Program also establishes requirements for the performance of CALIBRATION surveillances."

f. TS Bases 3.3.1, Surveillance Requirements, SR 3.3.1.9, is revised to state:

"SR 3.3.1.9 verifies that the Nominal Trip Setpoints are properly loaded into the applicable APUs. In accordance with Specification 5.5.19, the Setpoint Control Program shall establish a document containing the current value of the specified LTSP, NTSP, AV, PTAC, and ALT for each Technical Specification required automatic protection instrumentation function, except for permissive functions, which only require the NTSP, AV, PTAC, and ALT "

g. TS Bases 3.3.1, Surveillance Requirements, SR 3.3.1.10 is revised to state:

> <u>SR 3.3.1.10</u>

"SR 3.3.1.10 verifies NTSPs are properly loaded into the applicable SAS Control Units in accordance with Specification 5.5.19, "Setpoint Control Program."

h. TS Bases 3.3.1 Surveillance Requirement 3.3.1.11 is revised to remove the Reviewer's Note and associated bracketed text regarding topical reports and references 8 and 9.

Justification:

a. The specified Frequencies in the Plant-Specific TS 3.3.1 are based on the Frequencies specified in the Generic TS 3.3.1. Topical reports are not credited as the basis for justifying Surveillance Frequencies.

b.-h.. In accordance with Interim Staff Guidance COL/DC-ISG-8, Necessary Content of Plant-Specific Technical Specifications, present and future COL applicants shall propose plant-specific Technical Specifications containing all site-specific information necessary to ensure plant operation within its design basis. A COL applicant may propose to resolve this requirement by establishing an administrative control program. The changes to TS Bases 3.3.1, coupled with the addition of a Setpoint Control Program to TS 5.5, "Programs and Manuals," and supporting changes to LCO 3.3.1, "Distributed Control System (DCS)," satisfy this requirement.

14 BASES 3.6.1 CONTAINMENT

Generic Technical Specifications:

TS Bases 3.6.1, "Containment," contains a Reviewer's Note, in the Bases for Surveillance Requirement 3.6.1.1 indicating that Regulatory Guide 1.163 and NEI 94-01 contain acceptance criteria for containment leakage which may be reflected in the Bases.

Plant-Specific Technical Specifications:

TS Bases 3.6.1, "Containment," is revised to remove the Reviewer's Note.

Justification:

The Containment Leakage Rate Testing Program is conducted as required by TS 5.5.15, "Containment Leakage Rate Testing Program," and U.S. EPR FSAR Section 6.2.6, "Containment Leakage Testing." U.S. EPR FSAR Section 6.2.6 is consistent with Regulatory Guide 1.163 and NEI 94-01. Therefore, the information reflected in the Reviewer's Note does not need to be included in the Bases.

15 BASES 3.7.10 CONTROL ROOM EMERGENCY FILTRATION (CREF)

Generic Technical Specifications:

TS Bases 3.7.10, "Control Room Emergency Filtration (CREF)," contains design information regarding hazardous chemicals, toxic gas detectors, and Control Room isolation for toxic gas.

TS Bases 3.7.10 Background Section, Applicable Safety Analysis and Required Actions contain a Reviewer's Note that states "The need for toxic gas isolation state will be determined by the COL applicant." Requirements for CREF isolation to mitigate toxic gas events are placed in brackets indicating that they are not required for plants that do not credit the CREF for mitigation of toxic gas events.

Plant-Specific Technical Specifications:

TS Bases 3.7.10 is incorporated by reference with the following supplemental information:

{"The detection of toxic gases and subsequent automatic isolation of the Control Room Envelope (CRE) is not required for BBNPP and is not a part of the design basis. The results of the toxic chemicals evaluation in BBNPP FSAR Section 2.2.3 did not identify any credible toxic chemical accidents that exceeded the Main Control Room IDLH limits within two minutes of detection. In accordance with Regulatory Guide 1.78 (NRC, 2001), human exposures to toxic chemicals can be tolerated for up to two minutes at IDLH without incapacitation. Thus, a two minute exposure to IDLH limits provides an adequate margin of safety for control room operators. It is expected that a control room operator will take protective measures within two minutes (adequate time to don a respirator and protective clothing) after the detection and, therefore, will not be subjected to prolonged exposure at the IDLH concentration levels. The only chemical hazards that result in exceeding the IDLH after two minutes from detection threshold in the control room are natural gas/methane and ammonia and are identified in FSAR Table 2.2-10. No specific detection and automatic actuation features are necessary to protect the control room operators from an event involving release of a toxic gas. Therefore, detection of toxic gases and subsequent automatic isolation of the Control Room Envelope is not required and is not part of the BBNPP site-specific design basis. As a result, toxic gas detectors and CRE isolation are not required. Therefore, TS 3.7.10 does not include any requirements corresponding to the Generic TS bracketed information related to toxic gas."}

The bracketed information related to toxic gas is deleted from TS Bases 3.7.10.

Reviewer's Notes stating "The need for toxic gas isolation state will be determined by the COL applicant." are deleted.

The bracketed information [toxic gas], [toxic gases], [and toxic gas], [toxic gas and], and similar references are deleted from:

Third paragraph in TS Bases 3.7.10 Applicable Safety Analyses section,
Sixth paragraph in TS Bases 3.7.10 LCO section,
First and second paragraphs in TS Bases 3.7.10 Required Actions B1, B2 and B3,

Second paragraph in TS Bases SR 3.7.10.4

In the fifth paragraph of the TS Bases 3.7.10 Background, the following bracketed information is deleted:

"[either of two separate states (emergency radiation state or toxic gas isolation state) of]"

"[, depending on the initiation signal]. "

"[the system to the emergency radiation state of] "

In the sixth paragraph of the TS Bases 3.7.10 Background, the following bracketed information is deleted:

"[The actions taken in the toxic gas isolation state are the same, except that the control room operator switches the CREF to a filtration alignment to minimize any outside air from entering the CRE through the CRE boundary.] "

In the seventh paragraph of the TS Bases 3.7.10 Background, the following bracketed information is deleted:

" [and toxic gas] "

"[, either the emergency radiation state or toxic gas isolation state, as required]. "

"[The actions of the toxic gas isolation state are more restrictive, and will override the actions of the emergency radiation state.]"

In the fourth paragraph in TS Bases 3.7.10 Required Action D.1 and D.2, the following bracketed information is deleted:

"[Required Action D.1 is modified by a Note indicating to place the system in the toxic gas isolation state.]"

Justification:

Toxic gas and hazardous chemical automatic protection for the CRE is not required based on the site-specific evaluation provided in Part 2 of this COL Application (FSAR Sections 2.2.3, 6.4.1 and 6.4.3).

16 BASES 3.7.12 SAFEGUARD BUILDING CONTROLLED AREA VENTILATION SYSTEM (SBVS)

Generic Technical Specifications:

TS Bases 3.7.12 contains a Reviewer's Note in the Actions section for Required Action B.1, that indicates that the adoption of Condition B is dependent on a commitment from the licensee to have guidance available describing compensatory measures to be taken in the event of intentional or unintentional entry into Condition B.

TS Bases 3.7.12 Required Action B.1 contains a Reviewer's Note that states "The need for toxic gas isolation state will be determined by the COL applicant." Requirements for SBVS isolation to mitigate toxic gas events are placed in brackets in Required Action B.1 indicating that they are not required for plants that do not credit the SBVS for mitigation of toxic gas events.

Plant-Specific Technical Specifications:

TS Bases 3.7.12 is incorporated by reference with the following supplemental information:

TS Bases 3.7.12 is revised to remove the Reviewer's Note and modify the discussion for Required Action B.1 to include the required commitment.

The Reviewer's Notes stating "The need for toxic gas isolation state will be determined by the COL applicant." is deleted from TS Bases 3.7.12 Required Action B.1.

The bracketed information [toxic gases] is deleted from the third paragraph in TS Bases 3.7.12 Required Action B.1.

The revised TS Bases text is:

B.1

If the safeguard buildings or fuel building boundary is inoperable in MODE 1, 2, 3, or 4, the SBVS trains may not be able to perform their intended functions. Actions must be taken to restore an OPERABLE safeguard buildings and fuel building boundaries within 24 hours. During the period that the safeguard buildings or fuel building boundary is inoperable, appropriate compensatory measures consistent with the intent, as applicable, of GDC 19 and 10 CFR Part 100 shall be utilized to protect plant personnel from potential hazards such as radioactive contamination, smoke, temperature and relative humidity, and physical security. Preplanned measures shall be available and implemented upon entry into the condition to address these concerns regardless of whether the entry is intentional or unintentional. The 24 hour Completion Time is reasonable based on the low probability of a postulated accident occurring during this time period, and the use of compensatory measures. The 24 hour Completion Time is a typically reasonable time to diagnose, plan and possibly repair, and test most problems with the safeguard buildings or fuel building boundary.

Justification:

The site-specific commitment provided is consistent with the requirements in the Reviewer's Note for adoption of the allowance provided in Condition B of TS 3.7.12, "Safeguard Building Controlled Area Ventilation System (SBVS)."

Toxic gas and hazardous chemical protection for the CREF is not required based on the site-specific evaluation provided in Part 2 of this COL application (FSAR Section 2.2.3 and 6.4.4).

SITE-SPECIFIC CHANGES

{The following supplements are unique to Bell Bend Nuclear Power Plant (BBNPP).

1 LCO 3.3.2 POST ACCIDENT MONITORING (PAM) INSTRUMENTATION

Generic Technical Specifications:

TS Table 3.3.2-1, "Post Accident Monitoring Instrumentation," provides the post accident monitoring (PAM) variables identified by the unit specific Regulatory Guide 1.97 analyses that meet the definition of Type A, B, and C variables. The last row of TS Table 3.3.2-1, "Post Accident Monitoring Instrumentation," includes brackets around the following:

[19. Site-specific Variables]

Plant Specific Technical Specifications:

The BBNPP TS Table 3.3.2-1, "Post Accident Monitoring Instrumentation," is revised to provide plant specific information. The bracketed text is deleted and replaced with the following text:

FUNCTION		REQUIRED CHANNELS	CONDITION REFERENCED FROM REQUIRED ACTION D.1
19	Essential Service Water System Cooling Tower Basin Level	2	E

Justification:

Adding the PAM variable, "Essential Service Water System Cooling Tower Basin Level," to TS Table 3.3.2-1, "Post Accident Monitoring Instrumentation," ensures proper instrument calibration frequency.

2 LCO 3.7.19 ULTIMATE HEAT SINK (UHS)

Generic Technical Specifications:

TS 3.7.19, "Ultimate Heat Sink (UHS)," contains no LCOs or bracketed requirements and one SR for the Emergency Makeup Water source. Additionally, the TS Bases 3.7.19, "Ultimate Heat Sink (UHS)," contains a bracketed requirement in the background section:

> "The Seismic Category I makeup necessary to support 30 days of post accident mitigation is site specific and details are to be provided by the COL applicant."

And a related bracketed requirement in the LCO section:

> "COL applicant to provide definition of OPERABLE makeup source."

And the following reviewer's note and bracketed requirement in the SR section:

> "A surveillance to verify the ability to supply emergency makeup water to each UHS cooling tower basin at ≥ 300 gpm will be provided by the COL applicant."

> "[SR 3.7.19.6: Verify the ability to supply emergency makeup water to each UHS cooling tower at ≥ 300 gpm.] [In accordance with the Inservice Testing Program.]"

The following Generic Technical Specification Surveillance Requirement is replaced by Plant Specific Technical Specifications Surveillance Requirement SR 3.7.19.6:

SR 3.7.19.6	Verify the ability to supply emergency makeup water to each UHS basin at ≥ 300 gpm.	In accordance with the Inservice Testing Program

Plant-Specific Technical Specifications:

Bell Bend Nuclear Power Plant has modified one Generic Technical Specification Surveillance Requirement, added a Required Action, modified one Surveillance Requirement and added seven Surveillance Requirements for the ESW Emergency Makeup System (ESWEMS) and Retention Pond.

The new Condition and Required Action is:

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. ESW Emergency Makeup System Retention Pond level or temperature not within limit.	C.1. Restore ESW Emergency Makeup System Retention Pond level or temperature, as applicable.	72 hours

The previous Condition C has been renumbered to Condition D. In addition, one modified and seven new Surveillance Requirements have been added:

SURVEILLANCE		FREQUENCY
SR 3.7.19.6	Verify the ability to supply makeup water to each UHS basin at ≥ 200 gpm.	In accordance with the Inservice Testing Program
SR 3.7.19.7	Verify average water temperature of the ESW Emergency Makeup System Retention Pond is < 95°F.	24 hours
SR 3.7.19.8	Verify water level of the ESW Emergency Makeup System Retention Pond is ≥ 689.5 feet North American Vertical Datum 1988 (NAVD 88).	24 hours
SR 3.7.1 9.9	Verify each ESWEMS manual, power operated, and automatic valve in the flow path servicing safety-related equipment that is not locked, sealed, or otherwise secured in position, is in the correct position.	31 days
SR 3.7.19.10	Verify each automatic valve in the ESWEMS flow path that is not locked, sealed or otherwise secured, actuates to the correct position on an actual or simulated actuation signal.	24 months
SR 3.7.1 9.11	Verify operation of ESWEMS self cleaning strainers on an actual or simulated actuation signal.	24 months
SR 3.7.1 9.12	Verify by visual inspection, each ESWEMS train pump suction inlet from the retention pond is not restricted by debris and/or excessive silt.	24 months
SR 3.7.19.13	Verify the ability to recirculate makeup water to the ESWEMS Retention Pond at ≥ 200 gpm.	92 days (per IST Program)

Justification:

The additional Condition, Required Action, and Surveillance Requirements regarding the ESWEMS valve position, automatic valve operation, strainer operation, pump suction flow path, makeup water flow testing and Retention Pond water level and average water temperature are necessary to ensure that the ESWEMS and Retention Pond remain OPERABLE. The modified Generic Technical Specification Surveillance Requirement verifies BBNPP site-specific design requirements.

3 LCO 3.9.3 DECAY TIME

Generic Technical Specifications:

TS 3.9, “Refueling Operations,” contains LCO 3.9.3 requiring the reactor to be subcritical for > 34 hours prior to movement of irradiated fuel in the reactor vessel.

Plant-Specific Technical Specifications:

BBNPP has increased the required decay time prior to fuel movement to 72 hours.

Justification:

The additional decay time is consistent with Bell Bend Nuclear Power Plant FSAR Section 15.0.3 and is necessary to ensure that the radiological doses associated with a postulated fuel handling accident remain within regulatory limits.

4 TS 4.1 SITE LOCATION

Generic Technical Specifications:

TS 4.1, ”Site Location,” contains a bracketed requirement for the COL applicant to provide site-specific information for Section 4.1, ”Site Location.”

Plant-Specific Technical Specifications:

The bracketed information is replaced with the following site-specific information:

"The BBNPP site is located within Salem Township, in the southwestern quadrant of Luzerne County, Pennsylvania. The BBNPP site is situated on the west bank of the North Branch of the Susquehanna River. The BBNPP site is found approximately 5 mi northeast of the Borough of Berwick, Pennsylvania and 1.5 mi to the north and west of the North Branch of the Susquehanna River. The Exclusion Area Boundary (EAB) for the BBNPP site is a circle with a radius of 2,272 ft or approximately 0.43 mi measured at the centerpoint of the Reactor Containment Building, except on the west side boundary, where the minimum distance has been calculated to be 0.33 mi (0.53 km). The Low Population Zone (LPZ) is a circle with a radius of 1.5 miles measured at the centerpoint of the Reactor Containment Building."

Justification:

The site location information provided is consistent with the Bell Bend Nuclear Power Plant FSAR description of site location.

5 BASES 3.3.2 POST ACCIDENT MONITORING (PAM) INSTRUMENTATION

Generic Technical Specifications:

TS Bases 3.3.2, "Post Accident Monitoring Instrumentation," provides the post accident monitoring (PAM) variables identified by the unit specific Regulatory Guide 1.97 analyses that meet the definition of Type A, B, and C variables.

TS Bases 3.3.2, "Post Accident Monitoring Instrumentation," contains the following bracketed information in the LCO section:

"[19. Site-specific Variables]"

And the following Reviewer's Note in the LCO section:

"Site-specific PAM variables will be provided by the COL applicant for site-specific Type A, B, and C parameters that meet the selection criteria in IEEE 497-2002."

Plant Specific Technical Specifications:

a. The BBNPP Bases 3.3.2, "Post Accident Monitoring Instrumentation," is revised, in the LCO section, to provide plant specific information. To address the bracketed text and Reviewer's Note in the LCO section, the bracketed text and Reviewer's Note are deleted and replaced with the following:

"19. Essential Service Water System (ESWS) Cooling Tower Basin Level

The ESW System is vital for all phases of plant operation and is designed to provide cooling water during normal operation and under accident conditions to ensure safe operation and maintain orderly shutdown of the plant. ESWS Cooling Tower Basin Level is a key parameter used to indicate proper level of cooling water du

There are four ESWS Cooling Tower Basin Levels (1 per UHS train during operation of the UHS Makeup Water System) provided with a range that envelopes 9' to 26'."

b. TS Bases 3.3.2, "Post Accident Monitoring Instrumentation," is revised to remove the Reviewer's Note from the Background section.

Justification:

ESWS Cooling Tower Basin Level is a key parameter used to indicate proper level of cooling water during operation of the Ultimate Heat Sink Makeup Water System after a DBA event. Adding this PAM variable ensures proper instrument calibration frequency.

6 BASES 3.4.12 RCS OPERATIONAL LEAKAGE

Generic Technical Specifications:

TS Bases 3.4.12, "RCS Operational Leakage," provides the bases for the following four RCS leakage pathways:

a. Pressure boundary leakage (none)

b. Unidentified leakage (1 gpm)

c. Identified leakage (10 gpm), and

d. Primary-to-secondary leakage (150 gallons per day, or 0.104 gpm, through any one steam generator).

With respect to the primary-to-secondary leakage, the TS Bases states the following:

Section: Applicable Safety Analyses

"The safety analysis for an event resulting in steam discharge to the atmosphere assumes that primary to secondary LEAKAGE is 0.125 gallon per minute (gpm) per steam generator (SG) or increases to 0.125 gpm per SG as a result of accident induced conditions. The LCO requirement to limit primary to secondary LEAKAGE through any one SG to less than or equal

to 150 gallons per day is lower than the primary to secondary leakage value used in the safety analysis."

Plant-Specific Technical Specifications:

BBNPP has taken a departure from the analytical primary-to-secondary leakage value of 0.125 gpm per SG for the radiological evaluation of the RCP locked rotor/broken shaft design-basis accident, using instead the LCO limit of 150 gallons per day per SG. The modified basis for BBNPP is as follows:

Section: Applicable Safety Analyses

The safety analysis for an event, other than an RCP locked rotor/broken shaft accident, resulting in steam discharge to the atmosphere assumes that primary to secondary LEAKAGE is 0.125 gallon per minute (gpm) per steam generator (SG) or increases to 0.125 gpm per SG as a result of accident induced conditions. The LCO requirement to limit primary to secondary LEAKAGE through any one SG to less than or equal to 150 gallons per day is lower than the primary to secondary leakage value of 0.125 gpm per SG used in the safety analysis, with the exception of the RCP locked rotor/broken shaft accident which was based on the LCO limit.

Justification:

The primary-to-secondary RCS leakage at the LCO limit of 150 gallons per day per SG for the RCP locked rotor/broken shaft design-basis accident is consistent with BBNPP FSAR Section 15.0.3 and is necessary to ensure that the radiological doses associated with this postulated accident remain within regulatory limits.

7 BASES 3.4.16 STEAM GENERATOR INTEGRITY

Generic Technical Specifications:

The SG integrity bases state the following:

Section: Applicable Safety Analyses

"The analysis for design basis accidents and the transients other then an SGTR assume the SG tubes retain their structural integrity (i.e., they are assumed not to rupture.) In these analysis, the steam discharge to the atmosphere is based on the total primary to secondary LEAKAGE from all SGs of 0.5 gallon per minute or is assumed to increase to 0.5 gallon per minute as a result of accident induced conditions."

Section: LCO

"The accident induced leakage performance criterion ensures that the primary to secondary LEAKAGE caused by a design basis accident, other than an SGTR, is within the accident analysis assumptions. The accident analysis assumes that accident induced leakage does not exceed 0.125 gpm per SG. The accident induced leakage rate includes any primary to secondary LEAKAGE existing prior to the accident in addition to primary to secondary LEAKAGE induced during the accident."

Plant-Specific Technical Specifications:

BBNPP has taken a departure from the analytical primary-to-secondary leakage value of 0.125 gpm per SG for the radiological evaluation of the RCP locked rotor/broken shaft design-basis

accident, using instead the LCO limit of 150 gallons per day per SG. The modified bases for BBNPP are as follows:

Section: Applicable Safety Analyses

The analysis for design basis accidents and transients other than an SGTR assume the SG tubes retain their structural integrity (i.e., they are assumed not to rupture.) In these analyses, with the exception of the RCP locked rotor/broken shaft accident, the steam discharge to the atmosphere is based on the total primary to secondary LEAKAGE from all SGs of 0.5 gallon per minute or is assumed to increase to 0.5 gallon per minute as a result of accident induced conditions. For the RCP locked rotor/broken shaft accident, the primary-to-secondary leakage was set at the limit of 150 gallons per day per SG, as specified in LCO 3.4.12, "Operational Leakage."

Section: LCO

The accident induced leakage performance criterion ensures that the primary to secondary LEAKAGE caused by a design basis accident, other than an SGTR, is within the accident analysis assumptions. The accident analysis assumes that accident induced leakage does not exceed 0.125 gpm per SG, except for the RCP locked rotor/broken shaft accident where the analysis was based on the leakage rate of 150 gallons per day per SG, as specified in LCO 3.4.12, "Operational Leakage."

Justification

The primary-to-secondary RCS leakage at the LCO limit of 150 gallons per day per SG for the RCP locked rotor/broken shaft design-basis accident is consistent with BBNPP FSAR Section 15.0.3 and is necessary to ensure that the radiological doses associated with this postulated accident remain within regulatory limits.

8 BASES 3.7.19 ULTIMATE HEAT SINK (UHS)

Generic Technical Specifications:

The BACKGROUND section includes the following information regarding the makeup source:

The train associated safety-related make-up source delivers water to each basin at ≥ 300 gpm to maintain the NPSH for the ESW pump for up to 30 days following a LOCA.

TS Bases 3.7.19, ”Ultimate Heat Sink (UHS),” also contains a bracketed requirement in the Background section:

"The Seismic Category I makeup necessary to support 30 days of post accident mitigation is site specific and details are to be provided by the COL applicant."

A related requirement is contained in the LCO discussion:

"COL applicant to provide definition of OPERABLE makeup source."

Plant-Specific Technical Specifications:

TS Bases 3.7.19, ”Ultimate Heat Sink (UHS),” is revised, in the Background section, to revise the makeup water source flow rate, remove the bracketed requirement and provide site-specific information. The following text is revised:

"The train associated safety-related makeup source delivers water to each basin at ≥ 200 gpm to maintain the NPSH for the ESW pump for up to 30 days following a LOCA."

"The Seismic Category I emergency makeup water supply to the UHS cooling tower basins, necessary to support 30 days of post accident mitigation is provided by the safety-related Essential Service Water Emergency Makeup System (ESWEMS) that draws water from the ESWEMS Retention Pond. Water is drawn from the ESWEMS Retention Pond by four independent ESWEMS pumps, one for each ESW division. Each ESWEMS pump has its own suction supply from the ESWEMS Retention Pond; there is no shared suction line for any of the ESWEMS pumps. Each ESWEMS train has one pump, a discharge check valve, a strainer, a pump discharge manual isolation valve, instrumentation, controls and piping, and recirculation valves all housed in the ESWEMS Pumphouse. In each ESW building, a motor operated valve is provided to allow makeup to the associated UHS cooling tower basin. Each ESWEMS pump is rated at 400 gpm."

Additional supporting information is added to the Applicable Safety Analysis section. Specifically, the following sentences are added to the end of the third and fourth paragraphs (respectively) in this section.

"The volume of water in the ESWEMS Retention Pond is assumed to be at less than or equal to 95°F during normal plant operation to prevent exceeding the maximum ESW temperature during a LOCA."

and

"This make-up is provided by the ESWEMS."

To address the bracketed text in the LCO section, the bracketed text and the end of the preceding sentence ". . .with capability from makeup from an OPERABLE source." is replaced with the following:

". . .with capability for makeup from an OPERABLE source. An OPERABLE emergency makeup water source consists of one OPERABLE train of the ESWEMS capable of providing makeup water to its associated UHS cooling tower basin. Each ESWEMS train includes a pump, strainer, valves, piping, instruments and controls to ensure the transfer of the required supply of water from the ESWEMS Retention Pond to its associated UHS cooling tower basin.

In order for the ESWEMS Retention Pond to be OPERABLE, the level must be greater than or equal to 689.5 feet North American Vertical Datum 1988 (NAVD 88) with an average water temperature less than or equal to 95°F."

As described previously, a new Condition and Required Action was created for LCO 3.7.19. A discussion of the Required Action is added to the Action section of the Bases:

"C.1

If the ESWEMS Retention Pond level or average temperature is not within limits, action must be taken to restore the ESWEMS Retention Pond average temperature or level, as applicable, within limits within 72 hours. In this condition, there is either an insufficient pond volume to ensure a 27 day emergency makeup source to the UHS cooling tower basin(s) or the average emergency makeup water temperature is not bounded by initial conditions assumed in

accident analysis for long term heat removal post-LOCA. The 72 hour Completion Time is based on the requirements to maintain a minimum of 3 days water inventory in each UHS cooling tower basin in order for the train to be considered OPERABLE, and the low probability of a postulated accident occurring during this time period."

and the title for the existing C.1 and C.2 is revised to D.1 and D.2.

The following text is inserted:

"A discussion of the one modified Generic Technical Specification Surveillance Requirement and seven new surveillances are added at the end of the Surveillance Requirements section. The modified Surveillance Requirement provided below replaces the Surveillance Requirement basis in the Generic Technical Specifications and the new Surveillance Requirements are provided below:"

"SR 3.7.19.6

This SR verifies that adequate long term (30 day) cooling can be maintained based on BBNPP site-specific meteorological conditions. The specified makeup flowrate ensures that sufficient NPSH can be maintained to operate the ESW pumps following the first 3 days post LOCA. The surveillance test frequency is in accordance with the Inservice Testing Program and ASME OM Code, and is based on the need to perform this Surveillance under the conditions that apply during a unit outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass the Surveillance when performed at the 24 month Frequency. Therefore, the Frequency is acceptable from a reliability standpoint. This SR verifies that the UHS makeup flowrate to the UHS cooling tower basins is ≥ 200 gpm."

"SR 3.7.19.7

This SR verifies that the ESW System is available to cool the CCW System and EDG heat exchangers to at least its maximum design temperature with the maximum accident or normal design heat loads for 30 days following a postulated accident. With the average ESWEMS Retention Pond temperature less than or equal to 95°F, the design basis assumption associated with initial ESW temperature is bounded and long term cooling capability of the Emergency Core Cooling System (ECCS) loads and EDGs is assured. The 24 hour Frequency is based on operating experience related to trending of the parameter variations during the applicable MODES."

"SR 3.7.19.8

This SR verifies that adequate long term UHS cooling tower basin makeup (i.e., 27 days) is available. The 24 hour Frequency is based on operating experience related to trending of the parameter variations during the applicable MODES. This SR verifies that the ESWEMS Retention Pond elevation is greater than or equal to 689.5 feet NAVD 88, which ensures the necessary pond volume is available to support 30 days of UHS operation."

"SR 3.7.19.9

Verifying the correct alignment for manual, power operated, and automatic valves in the ESWEMS flow path provides assurance that the proper flow paths exist for ESWEMS operation.

This SR does not apply to valves that are locked, sealed, or otherwise secured in position, since they are verified to be in the correct position prior to being locked, sealed, or secured. This SR does not require any testing or valve manipulation; rather, it involves verification that those valves capable of being mis-positioned are in the correct position. This SR does not apply to valves that cannot be inadvertently misaligned, such as check valves.

The 31 day Frequency is based on engineering judgment, is consistent with the procedural controls governing valve operation, and ensures correct valve positions."

"SR 3.7.19.10

This SR verifies proper automatic operation of the ESWEMS valves on an actual or simulated actuation signal. The ESWEMS System is not a normally operating system and cannot be fully actuated as part of normal testing. This Surveillance is not required for valves that are locked, sealed, or otherwise secured in the required position under administrative controls.

The 24 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a unit outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass the Surveillance when performed at the 24 month Frequency. Therefore, the Frequency is acceptable from a reliability standpoint."

"SR 3.7.19.11

This SR verifies proper automatic operation of the ESWEMS self cleaning strainer on an actual or simulated actuation signal. The ESWEMS System is not a normally operating system and cannot be fully actuated as part of normal testing.

The 24 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a unit outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power."

"SR 3.7.19.12

This SR verifies that excess debris and silt have not built up to a level that can affect the operability of the ESWEMS pump. The flow velocity through the ESWEMS intake is less than one foot per minute at rated flow. The low flow condtion minimizes the accumulation of silt and debris at the intake.

The 24 month is based on the ESWEMS system normally being in standby and the low flow velocity when the system is operated for surveillance testing."

"SR 3.7.19.13

This SR verifies that adequate long term (30 day) cooling can be maintained based on BBNPP site-specific meterological conditions. The specified markup flowrate ensures that sufficient NPSH can be maintained to operate the ESW pumps following the first 3 days post LOCA. The 92 day Frequency is based on the Inservice Test Program requirements, which are derived from ASME recommendations. Operating experience has shown that these components usually pass the Surveillance when performed at the 92 day Frequency. Therefore, the Frequency is acceptable from a reliability standpoint.

This SR verifies that the UHS makeup pumps have a capacity flowrate of ≥ 200 gpm."

Justification:

The site specific information provided is consistent with the Bell Bend Nuclear Power Plant FSAR Section 9.2 description of Seismic Category I ESW System Emergency Makeup System.

9 BASES 3.9.3 DECAY TIME

Generic Technical Specifications:

TS Bases 3.9.3, “Decay Time,” provides the basis for the minimum decay time of 34 hours prior to movement of irradiated fuel assemblies in the reactor vessel.

Plant-Specific Technical Specifications:

BBNPP has increased the required decay time prior to fuel assemblies movement to 72 hours. All Bases sections are impacted except "APPLICABILITY."

Justification:

The additional decay time is consistent with Bell Bend Nuclear Power Plant FSAR Section 15.0.3 and is necessary to ensure that the radiological doses associated with a postulated fuel handling accident remain within regulatory limits.}