Greg Gibson
Vice President, Regulatory Affairs

750 East Pratt Street, Suite 1600
Baltimore, Maryland 21202

UniStar
NUCLEAR ENERGY

10 CFR 50.4
10 CFR 52.79

November 19, 2010

UN#10-292

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: UniStar Nuclear Energy, NRC Docket No. 52-016
Response to Request for Additional Information for the
Calvert Cliffs Nuclear Power Plant, Unit 3,
RAI 260, Technical Specifications Setpoint Control Program

References:
1) Surinder Arora (NRC) to Robert Poche (UniStar Nuclear Energy), "FINAL RAI 260 CTSB 5000" email dated September 16, 2010

2) UniStar Nuclear Energy Letter UN#10-266, from Greg Gibson to Document Control Desk, U.S. NRC, Response to Request for Additional Information for the Calvert Cliffs Nuclear Power Plant, Unit 3, RAI 260, Technical Specifications Setpoint Control Program, dated October 18, 2010

The purpose of this letter is to respond to the request for additional information (RAI) identified in the NRC e-mail correspondence to UniStar Nuclear Energy, dated September 16, 2010 (Reference 1). This RAI addresses Technical Specifications Setpoint Control Program, as discussed in Section 16.0 of the Final Safety Analysis Report (FSAR), as submitted in Part 2 of the Calvert Cliffs Nuclear Power Plant (CCNPP) Unit 3 Combined License Application (COLA), Revision 6.

Reference 2 provided a November 19, 2010 schedule for the response date for RAI 260, Question 16-22. The enclosure provides our response to RAI 260, Question 16-22, and

D096
NRO

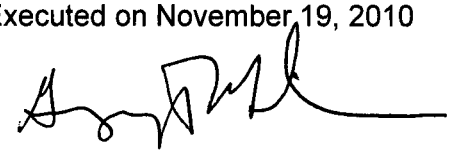
includes revised COLA content. A Licensing Basis Document Change Request has been initiated to incorporate these changes into a future revision of the COLA.

Our response does not include any new regulatory commitments. This letter does not contain any sensitive or proprietary information.

If there are any questions regarding this transmittal, please contact me at (410) 470-4205, or Mr. Wayne A. Massie at (410) 470-5503.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on November 19, 2010



Greg Gibson

Enclosure: Response to NRC Request for Additional Information RAI 260, Question 16-22, Technical Specification Setpoint Control Program, Calvert Cliffs Nuclear Power Plant, Unit 3

cc: Surinder Arora, NRC Project Manager, U.S. EPR Projects Branch
Laura Quinn, NRC Environmental Project Manager, U.S. EPR COL Application
Getachew Tesfaye, NRC Project Manager, U.S. EPR DC Application (w/o enclosure)
Loren Plisco, Deputy Regional Administrator, NRC Region II (w/o enclosure)
Silas Kennedy, U.S. NRC Resident Inspector, CCNPP, Units 1 and 2
U.S. NRC Region I Office

GTG/RDS/mdf

Enclosure

Response to NRC Request for Additional Information
RAI 260, Question 16-22, Technical Specification Setpoint Control Program,
Calvert Cliffs Nuclear Power Plant, Unit 3

RAI 260

Question 16-22

This RAI is in response to the applicant's response to follow-up RAI 190, Question 16-20 (RAI 190, Question 16-20 was a follow-up to RAI 95, Questions 16-1 and 16-2).

Part B

Section 1.8.2, DEPARTURES

1. The Setpoint Control Program (SCP) Administrative Technical Specification (TS) reference that was deleted under the list of departures table included in Section 1.8.2, "Departures," should be retained. The SCP is a Departure from the EPR GTS that will require staff approval via an exemption from the future Design Certification Rule (DCR). Note that although the SCP is a Departure, Tier 2 Departure Evaluation criteria do not apply.

Section 1.2, EXEMPTION REQUESTS (1.2.8, Generic Technical Specifications and Bases - Setpoint Control Program)

1. References to "Limiting Trip Setpoints and Design Limits" in the first, second, and final paragraphs of Section 1.2.8, "Generic Technical Specifications and Bases - Setpoint Control Program," may need to be revised to accurately reflect information in DCD Table 3.3.1-2 (Protection System LCO 3.3.1) which has not yet been finalized.

Part C

Section 14, TS 5.5.18, SETPOINT CONTROL PROGRAM (Plant Specific Technical Specifications)

1. Applicable steps of the SCP TS need to be revised to accurately reflect the surveillance testing strategy proposed for the digital U.S. EPR Protection System, the basis of which is the performance of calibrations limited solely to those analog components subject to drift. This surveillance testing strategy was described by AREVA during public meetings conducted on April 27, 2010 and April 28, 2010.

2. The SCP TS requires that there be an NRC approved instrumentation setpoint methodology for all automatic protection instrumentation setpoints related to variables having significant safety functions. This includes setpoints related to variables having significant safety functions on which a Safety Limit (SL) has been placed, and setpoints related to variables having significant safety functions but which do not protect Safety Limits in the EPR TS. This is necessary in order to ensure that the automatic protection instrumentation setpoints for all significant safety functions (SL and non-SL variables) specified in the Plant Specific Technical Specifications (PTS) will be subject to the requirements of the proposed SCP. NRC approved setpoint methodologies to be referenced in the SCP TS for automatic protection instrumentation setpoints not directly related to the protection of a Safety Limit, could be addressed by (1) revising ANP-10275P-A, "U.S. EPR Instrument Setpoint Methodology Topical Report," to include the methodologies, or (2) developing a dedicated report that would detail the methodologies.

Development of a dedicated setpoint methodology report would be the responsibility of either AREVA or UniStar.

3. Specific references to the Core Operating Limits Report (COLR) and the Pressure and Temperature Limits Report (PTLR) Specifications in step 5.5.18.b of the SCP TS, do not adequately address the requirement to specify the NRC approved setpoint methodology used to determine the setpoint values for the automatic protection instrumentation functions in Table 3.3.1-2 of the U.S. EPR GTS delineated by footnotes stating (1) "As specified in the COLR," and (2) As specified in the Pressure-Temperature Limits Report." The COLR and PTLR setpoint methodologies associated with the setpoint values for these functions must be approved by the NRC and need to be identified and specified explicitly, not only in step 5.5.18.b of the SCP TS, but also, as applicable, in Core Operating Limits Report Section 5.6.3.b, and Reactor Coolant System Pressure and Temperature Limits Report Section 5.6.4.b, of Administrative TS Reporting Requirements Section 5.6.

4. The following statement added at the end of SCP TS step 5.5.18.b is confusing and the reason for its incorporation not understood: "The LTSP, NTSP, AV, PTAC, and ALT for other Technical Specification required automatic protection instrumentation functions shall be calculated in conformance with the instrumentation setpoint methodology documented and justified in the Setpoint Control Program."

5. Relocation of the term "required" in steps 5.5.18.c, 5.5.18.d, and 5.5.18.e of the SCP TS, to reflect the scope of functions that require trending and evaluation, and the scope of the setpoints specified in the document to be established by the SCP, is confusing on the basis that (1) inconsistencies exist between the referenced steps and step 5.5.18.b of the SCP TS which reads: "The Limiting Trip Setpoint (LTSP), Nominal Trip Setpoint (NTSP), Allowable Value (AV), Performance Testing Acceptance Criteria (PTAC), and As-Left Tolerance (ALT) for each applicable Technical Specification required automatic protection instrumentation function ...," and (2) the automatic protection instrumentation setpoints for all significant safety functions (SL and non-SL variables) specified in the PTS are subject to the requirements of the proposed SCP (i.e., NRC approved setpoint methodology, trending and evaluation).

6. Guidance associated with permissive settings needs to be incorporated into steps 5.5.18.b and 5.5.18.e of the SCP TS to reflect the fact that permissives are stated values.

7. The wording for Surveillance Requirement (SR) 3.3.1.9 in the Surveillance Requirements Section of LCO 3.3.1, Protection System, needs to be revised to include a reference to the SCP. The associated Bases discussion for SR 3.3.1.9 needs to be revised accordingly and the Bases reference to LTSP should be replaced by NTSP.

Section 17, BASES, PROTECTION SYSTEM (PS) (Plant Specific Technical Specifications)

1. Item g; the Bases discussion associated with SR 3.3.1.4 needs to be revised to include a reference to the permissive values.

2. Item h; the Bases discussion associated with SR 3.3.1.6 needs to be revised to include a reference to the permissive values.

Response

Part B

Section 1.8.2, DEPARTURES

The Setpoint Control Program (SCP) Administrative Technical Specification (TS) reference in COLA FSAR Section 1.8.2, "Departures," is being retained. The discussion of the SCP Departure is also being retained in COLA Part 7, Section 1.1. It is understood that the use of a Setpoint Control Program requires both a Departure and an Exemption from the U.S. EPR FSAR.

Section 1.2, EXEMPTION REQUESTS (1.2.8, Generic Technical Specifications and Bases - Setpoint Control Program)

The wording in COLA Part 7, "Departures and Exemption Requests," that refers to "Limiting Trip Setpoints and Design Limits" is being revised to more generically refer to "setpoints."

Part C

Section 14, TS 5.5.18, SETPOINT CONTROL PROGRAM (Plant Specific Technical Specifications)

Item 1

Plant-Specific Technical Specifications (PTS) 5.5.18.c.2 and PTS 5.5.18.c.3 are being re-written and PTS 5.5.18.d is being revised to explicitly apply to sensors instead of functions. These revisions address the U.S. EPR overall surveillance testing philosophy that CALIBRATION surveillances are only performed at the sensor level, as opposed to adjustments of other components in an analog system that would ensure the function actuated at the specified setpoint.

Item 2

The Reactor Trip and Engineered Safety Feature setpoints specified in the Protection System Technical Specifications will be subject to the requirements of the Setpoint Control Program identified in PTS 5.5.18 "Setpoint Control Program." No differentiation will be made between those setpoints that support Safety Limit Limiting Safety System Settings (SL-LSSS) and those setpoints that support Non-Safety Limit Limiting Safety System Settings (Non-SL LSSS). This includes determination of setpoint relationships, periodic testing, evaluation of as-found conditions, and as-left conditions.

The U.S. EPR FSAR contains requirements that there is an NRC approved instrumentation setpoint methodology for all automatic protection instrumentation setpoints related to variables having significant safety functions. Specifically, U.S. EPR FSAR Tier 2 Sections 7.1.2.2.4, GDC 10 – Reactor Design; 7.1.2.2.6, GDC 15 – Reactor Coolant System Design, 7.1.2.2.9, GDC 20 – Protection System Functions; and 7.1.2.2.16, GDC 29 – Protection against Anticipated Operational Occurrences, each state that Section 7.2 and Section 7.3 describe the protective actions credited in the accident analysis described in Chapter 15. Setpoints for these protective actions shall

be determined using the methodology described in U.S. EPR Instrument Setpoint Methodology (ANP-10275P).

COLA Part 4, PTS 5.5.18 is being revised to clarify that no differentiation will be made between those setpoints that support Safety Limit Limiting Safety System Settings (SL-LSSS) and those setpoints that support Non-Safety Limit Limiting Safety System Settings (Non-SL LSSS). This includes determination of setpoint relationships, periodic testing, evaluation of as-found conditions, and as-left conditions.

Item 3

A reference to the Protection System LCO was added to U.S. EPR FSAR, Tier 2 Chapter 16, TS 5.6.3 in U.S. EPR FSAR, Revision 2. The analytical methods used to determine the core operating limits, including the Low DNBR and High Linear Power Density Reactor Trip functions, are identified in Core Operating Limits Report (COLR) Section 5.6.3.b of the "Reporting Requirements." The COLR was developed to reduce the need for plant cycle-specific license amendments. Approval of the COLR approach was based on the cycle-specific values being determined using NRC approved methodologies. The calculation of channel uncertainties is not cycle-specific. Reference to the NRC approved topical report that is utilized to determine channel uncertainties in the Reporting Requirements section of the Technical Specifications that provides the requirements for the COLR is therefore unnecessary.

Similarly, a reference to the Protection System LCO was added to U.S. EPR FSAR, Tier 2 Chapter 16, TS 5.6.4 in U.S. EPR FSAR, Revision 2. The analytical methods used to determine the Reactor Coolant System pressure and temperature limits are identified in Pressure and Temperature Limits Report (PTLR) Section 5.6.4.a of the "Reporting Requirements." The PTLR was developed to reduce the need for plant cycle-specific license amendments. Approval of the PTLR approach was based on the cycle-specific values being determined using NRC approved methodologies. The calculation of channel uncertainties is not cycle-specific. Reference to the NRC approved topical report that is utilized to determine channel uncertainties in the Reporting Requirements section of the Technical Specifications that provides the requirements for the PTLR is therefore unnecessary.

PTS 5.5.18, "Setpoint Control Program," is being revised to clarify that the NRC approved methodologies for determining analytical limits and the NRC approved methodologies for determining channel uncertainty.

Item 4

The referenced statement at the end of SCP TS step 5.5.18.b is being deleted.

Item 5

As discussed in the response to RAI 260, Question 16-2, Part C, Item 2 (this enclosure), the Reactor Trip and Engineered Safety Feature setpoints specified in the Protection System Technical Specifications will be subject to the requirements of the proposed Setpoint Control Program. No differentiation will be made between those setpoints that support Safety Limit Limiting Safety System Settings (SL-LSSS) and those setpoints that support Non-Safety Limit Limiting Safety System Settings (Non-SL LSSS). This includes determination of setpoint relationships, periodic testing, evaluation of as-found conditions, and as-left conditions.

PTS 5.5.18 is being revised to clarify that no differentiation will be made between those setpoints that support Safety Limit Limiting Safety System Settings (SL-LSSS) and those setpoints that support Non-Safety Limit Limiting Safety System Settings (Non-SL LSSS). This includes determination of setpoint relationships, periodic testing, evaluation of as-found conditions, and as-left conditions.

Item 6

Guidance associated with permissive values is being incorporated into PTS 5.5.18.b and PTS 5.5.18.e. PTS 5.5.18 is being revised to read "Permissive values shall be as specified in U.S. EPR FSAR, Tier 2 Section 7.2.1.3."

Item 7

COLA Part 4, Surveillance Requirement (SR) 3.3.1.9 and Bases 3.3.1 are being revised to include appropriate "Plant-Specific Technical Specification" and "Justification" information that refers to the Setpoint Control Program, along with the other generic changes presented for LCO 3.3.1 and Bases 3.3.1.

Section 17, BASES, PROTECTION SYSTEM (PS) (Plant Specific Technical Specifications)

Item 1

Consistent with the response provided in RAI 260, Question 16-22: Part C Item 6 (this enclosure), guidance is being added to SR 3.3.1.4, 3.3.1.6, and 3.3.1.9 to reference permissive values.

The Bases discussion for SR 3.3.1.4 is being revised to add, "Permissive values shall be as specified in U.S. EPR FSAR, Tier 2 Section 7.2.1.3."

Item 2

Consistent with the response provided in RAI 260, Question 16-22: Part C Item 6 (this enclosure), guidance is being added to SR 3.3.1.4, 3.3.1.6, and 3.3.1.9 to reference permissive values.

The Bases discussion for SR 3.3.1.6 is being revised to add, "Permissive values shall be as specified in U.S. EPR FSAR, Tier 2 Section 7.2.1.3."

COLA Impact

COLA Part 4 is being revised as follows:

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 ~~site~~ 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 1 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 PROTECTION SYSTEM (PS) 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 verification have been previously reviewed and approved by the NRC."

b. A Reviewer's Note in the PROTECTION SYSTEM (PS) RESPONSE TIME definition states:

"Applicable portions of NRC approved Topical Reports may be utilized to modify the requirements for response time surveillance testing. These applicable portions of NRC approved Topical Reports should be referenced and discussed in the Bases description for the PS RESPONSE TIME surveillance requirement."

Plant-Specific Technical Specifications:

a. The brackets and associated text in the PROTECTION SYSTEM (PS) RESPONSE TIME definition are deleted.

b. The Reviewer's Note in the PROTECTION SYSTEM (PS) 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 response time surveillance testing.

2 LCO 3.3.1 PROTECTION SYSTEM (PS)

Generic Technical Specifications:

~~a. LCO 3.3.1, "Protection System," includes a Reviewer's Note in the ACTIONS that states:~~

~~"The COL Applicant may revise Condition C, Surveillance Requirements 3.3.1.4 and 3.3.1.6, and Table 3.3.1-2 to reflect the use of a Setpoint Control Program."~~

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 setpoints properly loaded in APUs."

d. A Reviewer's Note at the beginning of Table 3.3.1-2 states:

"[Reviewers Note: The values specified in brackets in the Limiting Trip Setpoint column are included for reviewer information only. A plant-specific setpoint study will be conducted. The values in Limiting Trip Setpoint column will then be replaced after the completion of this study.]"

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

f. Table 3.3.1-2, Footnote b, states:

"If the as-found setpoint is outside its predefined as-found tolerance, then the Trip/Actuation Function shall be evaluated to verify that it is functioning as required before returning the Trip/Actuation Function to service."

g. Table 3.3.1-2, Footnote c, states:

"The setpoint shall be reset to a value that is within the as-left tolerance around the ~~Limiting Trip Setpoint (LTSP)~~ Nominal Trip Setpoint (NTSP) at the completion of the surveillance; otherwise, the division shall be declared inoperable. Setpoints more conservative than the LTSP are acceptable provided that the as-found and as-left tolerances apply to the actual setpoint implemented in the Surveillance procedures to confirm Trip/Actuation Function performance. The methodologies used to determine the as-found and the as-left tolerances are specified in a document controlled under 10 CFR 50.59."

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

"As specified in the COLR"

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

"As specified in the Pressure Temperature Limits Report"

Plant-Specific Technical Specifications:

~~a. The Reviewer's Note in the Actions for LCO 3.3.1 is deleted.~~

a. Surveillance Requirement 3.3.1.4 is revised to state:

"Perform CALIBRATION in accordance with Specification 5.5.18, "Setpoint Control Program (SCP)."

b. Surveillance Requirement 3.3.1.6 is revised to state:

"Perform CALIBRATION in accordance with Specification 5.5.18, "Setpoint Control Program (SCP)."

c. Surveillance Requirement 3.3.1.9 is revised to state:

"Verify setpoints are properly loaded in APUs in accordance with TS 5.5.18, "Setpoint Control Program.""

d. The Reviewer's Note at the beginning of Table 3.3.1-2 is deleted.

e. Table 3.3.1-2 contains a ~~"Limiting Trip Setpoint/Design Limit"~~ setpoint column. This column is deleted.

f. Table 3.3.1-2, Footnote b, is revised to state:

Deleted.

g. Table 3.3.1-2, Footnote c, is revised to state:

Deleted.

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

Deleted.

i. Table 3.3.1-2, Footnote ~~v~~ w, is revised to state:

Deleted.

Justification:

~~a. A Setpoint Control Program is being incorporated into the plant-specific Technical Specifications. The Reviewer's Note is no longer necessary.~~

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. The Reviewer's Note is no longer necessary.

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

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

g. The footnote 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:

LCO 3.7.10, "Control Room Emergency Filtration (CREF)," Required Action B.2 and Required Action D.1, contain design information on toxic gas and hazardous chemicals.

Plant-Specific Technical Specifications:

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

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

Justification:

Toxic gas and hazardous chemical 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 and 6.4.4.).

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 ~~plant 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 ~~plant~~ 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 Generic Technical Specifications is incorporated by reference with the following departures:

The design information regarding hazardous chemical release is deleted from the Plant-Specific Technical Specifications.

Justification:

Toxic gas and hazardous chemical 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 and 6.4.4~~.~~).

10 TS 5.5.18 SETPOINT CONTROL PROGRAM

Generic Technical Specifications:

The Generic Technical Specifications do not describe a Setpoint Control Program. ~~At the end of Technical Specification Section 5.5, "Programs and Manuals," a Reviewer's Note states that:~~

> ~~"The COL Applicant may add an additional program description to reflect the use of a Setpoint Control Program".~~

Plant-Specific Technical Specifications:

~~a. TS 5.5 is revised to remove the Reviewer's Note.~~

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

5.5.18 Setpoint Control Program

a. The Setpoint Control Program 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. Both SL-LSSS and Non-SL LSSS automatic protective 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 Testing Acceptance Criteria (PTAC), and As-Left Tolerance (ALT) for each ~~applicable~~ Technical Specification required automatic protection instrumentation function shall be calculated in conformance with the instrumentation setpoint methodology previously reviewed and approved by the NRC, ~~as listed in Specification 5.6.3, CORE OPERATING LIMITS REPORT (COLR), 5.6.4, PRESSURE AND TEMPERATURE LIMITS REPORT (PTLR), or in the following documents:~~ The NRC approved methodologies used to determine the Analytical Limits shall be those described in:

1. Technical Specification 5.6.3, CORE OPERATING LIMITS REPORT (COLR).

2. Technical Specification 5.6.4, Reactor Coolant System (RCS) PRESSURE AND TEMPERATURE LIMITS REPORT (PTLR).

The NRC approved methodologies used to determine the channel uncertainty are as follows:

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)].

Permissive values shall be as specified in U.S. EPR FSAR, Tier 2 Section 7.2.1.3.
~~The LTSP, NTSP, AV, PTAC, and ALT for other Technical Specification required automatic protection instrumentation functions shall be calculated in conformance with the instrumentation setpoint methodology documented and justified in the Setpoint Control Program.~~

c. ~~For each required Technical Specification automatic protection instrumentation function, p~~Performance of CALIBRATION surveillances shall include the following:

1. If the as-found calibration setting values are inside the two-sided limits of the PTAC, then the division is OPERABLE.

2. If the as-found calibration setting value is outside the two-sided limits of the PTAC, then the division is inoperable, and corrective action is required, including those actions required by 10 CFR 50.36 when automatic protective devices do not function as required.

   As-found acceptance criteria will generally utilize no more than the square-root-sum-of-squares combination of the Reference Accuracy, M&TE, M&TE Readability, and Drift. The performance test verifies that the instruments are performing as expected. To prevent masking equipment degradation the acceptance criteria shall not include any margin. There are some applications in which a sensor or transmitter may be tested during abnormal conditions so that other uncertainty contributors such as temperature effects, radiation effects, vibration effects, apply. Site-specific procedures will establish trending requirements.

3. The sensor(s) shall be calibrated such that the as-left sensor calibration setting value(s) are within the specified ALT around the specified NTSP (a trip setting as or more conservative than the specified LTSP) for each required automatic protection instrumentation function at the completion of the surveillance; otherwise, the surveillance requirement is not met and the sensor shall be immediately declared inoperable.

~~1. The as-left value of the instrument division trip setting shall be the value at which the division was set at the completion of the surveillance with no additional adjustment of the instrument division. The as-found value of the instrument division trip setting shall be the trip setting value measured~~

~~during the subsequent performance of the surveillance before making any adjustment to the instrument division that could change the trip setting value.~~

~~2. The as-found value of the instrument division trip setting shall be compared with the previous as-left value or the specified NTSP. If the as-found value is compared with the specified NTSP to meet this requirement, the following conditions apply:~~

~~i. the setting tolerance band (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, and readability uncertainties;~~

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

~~iii. the pre-defined test acceptance criteria band (the specified PTAC) for the as-found value must include either the setting tolerance band (the specified ALT), but not both of these.~~

~~3. If the as-found value of the instrument division trip setting differs from the previous as-left value or the specified NTSP by more than the pre-defined test acceptance criteria band (the specified PTAC), when compared in accordance with paragraph c.2 above, then this condition shall be dispositioned by the plant's corrective action program, and the instrument division shall be evaluated to verify that it is functioning in accordance with its design basis before declaring the surveillance requirement met and returning the instrument division to service.~~

~~4. If the as-found value of the instrument division trip setting is less conservative than the specified AV, then the surveillance requirement is not met and the instrument division shall be immediately declared inoperable.~~

~~5. The instrument division trip setting shall be set to a value within the specified ALT around the specified NTSP (a trip setting as or more conservative than the specified LTSP) at the completion of the surveillance; otherwise, the surveillance requirement is not met and the instrument division shall be immediately declared inoperable.~~

d. The difference between the ~~instrument division trip~~ as-found calibration setting ~~as-found~~ values and ~~either~~ the previously recorded as-left values for each sensor ~~or the NTSP, for each required Technical Specification automatic protection instrumentation function~~ shall be trended and evaluated to verify that the ~~instrument division~~ 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 ~~required~~ Technical Specification required automatic protection instrumentation function, a record of changes to those values, and references to the calculation documentation. Permissive values shall be as specified in U.S. EPR FSAR, Tier 2 Section 7.2.1.3. Changes to this document shall be governed by the regulatory requirements of 10 CFR 50.59. In addition, changes to this document 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.

Justification:

~~a. A Setpoint Control Program is being incorporated into the plant-specific Technical Specifications. The Reviewer's Note is no longer necessary.~~

~~b.~~ 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 5.5, "Programs and Manuals," coupled with the addition of supporting changes to LCO 3.3.1, "Protection System (PS)," and Bases 3.3.1, "Protection System (PS)," 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 PROTECTION SYSTEM (PS)

Generic Technical Specifications:

~~a. TS Bases 3.3.1, "Protection System (PS)" includes a Reviewer's Note at the beginning of the Background section that states: "The COL Applicant may revise the Background, Applicable Safety Analyses, LCO, and Applicability, Actions, and Surveillance Requirements sections to reflect the use of a Setpoint Control Program".~~

a. TS Bases 3.3.1 includes a Reviewer's Note in the Background section that describes the term Limiting Trip Setpoint and plant-specific requirements when LTSPs are not included in Table 3.3.1-2.

b. 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."

c. TS Bases 3.3.1 includes a Reviewer's Note in the Surveillance Requirements section ~~that states "The Notes in Table 3.3.1-1 requiring reset of the division to a predefined as-left tolerance and the verification of the as-found tolerance are only associated with SL-LSSS values. Therefore, the Notes are placed at the top of the LTSP column in the Table and applied to all Functions with LTSPs in the table. The Notes may be applied to specific SRs for the associated functions in the SR column only. " This is followed by a second note~~ that describes exclusions that would preclude the notes from being applicable. This ~~third~~ Reviewers Note concludes with the statement "Each licensee proposing to fully adopt this TSTF must review the potential SL-LSSS Functions to identify which of the identified functions are SL-LSSS according to the definition of SL-LSSS and their plant specific safety analysis. The ~~two TSTF Notes are~~ Note is not required to be applied to any of the listed Functions which meet any of the exclusion criteria or are not SL-LSSS based on the plant specific design and analysis."

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

e. ~~The first paragraph in the Bases, Actions,~~ TS Bases, 3.3.1 Actions, begins with "~~T~~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."

f. 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."

g. TS Bases 3.3.1, Surveillance Requirements, 3.3.1.6, begins with "A CALIBRATION of each PS sensor (except neutron detectors) every 24 months ensures that each instrument division is reading accurately and within tolerance."

h. TS Bases 3.3.1, Surveillance Requirements, 3.3.1.9, states "SR 3.3.1.9 verifies that the Limiting Trip Setpoint, Design Limits, and Permissive values have been properly loaded into the applicable APU."

i. TS Bases 3.3.1 includes a Reviewer's Note in Surveillance Requirement 3.3.10 that states

"Applicable portions of NRC approved Topical Reports may be utilized to modify the requirements for response time surveillance testing. These applicable portions of NRC approved Topical Reports should be referenced and discussed."

Plant-Specific Technical Specifications:

~~a. TS Bases 3.3.1, "Protection System (PS)" is revised to remove the Reviewer's Note from the background section.~~

a. TS Bases 3.3.1, "Protection System (PS)" is revised to remove the Reviewer's Note from the Background section.

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

c. TS Bases 3.3.1, Surveillance Requirements section, is revised to remove the ~~two~~ second Reviewer's Note regarding Notes (b) and (c) in Table 3.3.1-2.

d. 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 5.5.18, 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."

e. 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."

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

"In accordance with Specification 5.5.18, the Setpoint Control Program shall establish a document containing the current value of the specified LTSP, NTSP, AV, PTAC, and ALT for each ~~required~~ Technical Specification required automatic protection instrumentation function. The Setpoint Control Program also establishes requirements for the performance of CALIBRATION surveillances. Permissive values shall be as specified in U.S. EPR FSAR, Tier 2 Section 7.2.1.3."

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

"In accordance with Specification 5.5.18, the Setpoint Control Program shall establish a document containing the current value of the specified LTSP, NTSP, AV, PTAC, and ALT for each ~~required~~ Technical Specification required automatic protection instrumentation function. The Setpoint Control Program also establishes requirements for the performance of CALIBRATION surveillances. Permissive values shall be as specified in U.S. EPR FSAR, Tier 2 Section 7.2.1.3."

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

"SR 3.3.1.9 verifies that the setpoints are properly loaded into the applicable APUs. In accordance with Specification 5.5.18, 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. Permissive values shall be as specified in U.S. EPR FSAR, Tier 2 Section 7.2.1.3."

i. TS Bases 3.3.1 Surveillance Requirements is revised to remove the Reviewer's Note and bracketed text regarding topical reports.

Justification:

~~a. A Setpoint Control Program is being incorporated into the plant-specific Technical Specifications. The Reviewer's Note is no longer necessary.~~

a. A Setpoint Control Program is being incorporated into the ~~plant specific~~ Plant-Specific Technical Specifications. The Reviewer's Note is no longer necessary.

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

c. The application of the actions required by notes (b) and (c) are applied ~~only to the required~~ to all PS (SL-LSSS and non SL-LSSS) required automatic protection instrumentation functions. The Reviewer's Note is no longer necessary.

d-i. 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~~ 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, "Protection System (PS)," 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 SR 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 ~~was developed to be~~ 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.

Plant-Specific Technical Specifications:

~~This Section of the Generic Technical Specifications~~ TS Bases 3.7.10 is incorporated by reference with the following departures:

"The detection of toxic gases and subsequent isolation of the Control Room Envelope (CRE) is not required and is not a part of the design basis. The results of the toxic chemicals evaluation in Section 2.2.3 did not identify any credible toxic chemical accidents that exceed the limits established in Regulatory Guide 1.78. As a result, toxic gas detectors and CRE isolation are not required. Therefore, all the associated design information is deleted."

In addition, there are several statements within ~~the bases~~ TS Bases 3.7.10 that relate to the toxic gas and hazardous chemicals design information. These are described below:

The first sentence in the sixth paragraph of the Background:

> "Actuation of the CREF places the system in either of two separate states (emergency radiation state or toxic gas isolation state) of the emergency mode of operation, depending on the initiation signal."

is deleted.

The last sentence in the seventh paragraph:

> "The actions taken in the toxic gas isolation state are the same, except that the signal switches the CREF to an isolation alignment to minimize any outside air from entering the CRE through the CRE boundary."

is deleted.

The last sentence in the eighth paragraph:

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

is deleted.

Within the TS Bases 3.7.10, Actions the last (third) paragraph in the discussion of Actions D.1 and D.2:

> "Required Action D.1 is modified by a Note indicating to place the system in the toxic gas isolation state with outside air isolated."

is deleted.

Justification:

Toxic gas and hazardous chemical 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 and 6.4.4.).

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. The discussion also includes design information regarding toxic gas and hazardous chemicals.

Plant-Specific Technical Specifications:

TS Bases 3.7.12 ~~This Section of the Generic Technical Specifications~~ is incorporated by reference with the following departures:

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 revision also deletes the design information regarding toxic gas and hazardous chemicals. The revised 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

{These changes are unique to Calvert Cliffs Nuclear Power Plant (CCNPP) Unit 3.

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.

Plant-Specific Technical Specifications:

The CCNPP Unit 3 TS Table 3.3.2-1, "Post Accident Monitoring Instrumentation," is revised to provide site-specific information. The following text is inserted:

FUNCTION	REQUIRED DIVISIONS	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 TS 4.1 SITE LOCATION

Generic Technical Specifications:

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

Plant-Specific Technical Specifications:

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

"The site for the Calvert Cliffs Nuclear Power Plant (CCNPP) Unit 3 is located on the western shore of the Chesapeake Bay in Calvert County, Maryland, about 10.5 miles southeast of Prince Frederick, Maryland. The site is approximately 45 miles southeast of Washington, DC, and 60 miles south of Baltimore, Maryland. The exclusion area boundary for CCNPP Unit 3 is a circle with a radius of 3324 feet. The exclusion area boundary establishes a radius of at least 2640 feet from potential CCNPP Unit 3 release points."

Justification:

The site location information provided is consistent with the CCNPP Unit 3 FSAR description of site location.

3 BASES 3.3.2 POST ACCIDENT MONITORING (PAM) INSTRUMENTATION

Generic Technical Specifications:

a. TS Bases 3.3.2 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.

b. TS Bases 3.3.2 includes a Reviewer's Note in the Background section that states, "Table 3.3.2-1 provides a list of variables identified by the unit specific Regulatory Guide 1.97 analyses. Table 3.3.2-1 in unit specific Technical Specifications (TS) shall list all Type A, B and C variables identified by the unit specific Regulatory Guide 1.97 analyses, as amended by the NRC's Safety Evaluation Report (SER)."

Plant-Specific Technical Specifications:

a. The CCNPP Unit 3, TS Bases 3.3.2, "Post Accident Monitoring Instrumentation," is revised, in the LCO section, to provide site-specific information. The following text is inserted:

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

The ESWS 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 during operation of the Ultimate Heat Sink Makeup Water System after a DBA event. 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 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.

4 BASES 3.7.19 ULTIMATE HEAT SINK (UHS)

Generic Technical Specifications:

TS Bases 3.7.19 contains a bracketed requirement in the Background section:

> "[The seismic Category 1 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:

The CCNPP Unit 3 Bases 3.7.19 is revised, in the Background section, to remove the bracketed requirement and provide ~~plant~~ site-specific information. The following text is inserted:

> "The seismic Category 1 emergency makeup water supply to the ESWS cooling tower basins, necessary to support 30 days of post accident mitigation, is provided by the safety related Ultimate Heat Sink (UHS) Makeup Water System that draws water from the Chesapeake Bay. Chesapeake Bay water enters the UHS Makeup Water Intake Structure through an intake channel shared with the Circulating Water System Makeup Intake Structure. The UHS Makeup Water Intake Structure houses four independent UHS Makeup Water System trains, one for each ESWS division. Each train has one pump, a discharge check valve, and a pump discharge isolation motor operated valve, all housed in the UHS Makeup Water Intake Structure, plus the buried piping running up to and into the ESWS pumphouse at the ESWS cooling tower basin. Each UHS Makeup Water System pump is rated at 750 gpm."

To address the bracketed text in the LCO section, the bracketed text and the end of the preceeding sentence "...with capability from makeup from an ~~Operable~~ 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 UHS Makeup Water System capable of providing makeup water to its associated ESWS cooling tower basin. Each UHS Makeup Water System train includes a pump, valves, piping, instruments and controls to ensure the transfer of the required supply of water from the Chesapeake Bay to its associated ESWS cooling tower basin."

Justification:

The site specific information provided is consistent with the CCNPP Unit 3 FSAR Section 9.2 description of Seismic Category 1 UHS ~~makeup source~~ Makeup Water System.}

COLA Part 7 is being updated as follows (The markups reflect changes previously provided to the NRC staff in response to other RAIs):

1.1 DEPARTURES

This Departure Report includes deviations in the CCNPP Unit 3 COL application FSAR from the information in the U.S. EPR FSAR, pursuant to 10 CFR Part 52. The U.S. EPR Design Certification Application is currently under review with the NRC. However, for the purposes of evaluating these deviations from the information in the U.S. EPR FSAR, the guidance provided in Regulatory Guide 1.206, Section C.IV.3.3, has been utilized.

The following Departures are described and evaluated in detail in this report:

1. Maximum Differential Settlement (across the basemat)
2. Maximum Annual Average Atmospheric Dispersion Factor (0.5 mile – limiting sector)
3. Accident Atmospheric Dispersion Factor (0-2 hour, Low Population Zone, 1.5 miles)
4. Toxic Gas Detection and Isolation
5. Shear Wave Velocity
6. In-Structure Response Spectra
7. Normal Power Supply System
8. Coefficient of Static Friction
9. Generic Technical Specifications and Bases – Setpoint Control Program

. . .

1.1.9 GENERIC TECHNICAL SPECIFICATIONS AND BASES – SETPOINT CONTROL PROGRAM

Affected U.S. EPR FSAR Sections: Tier 2, Section 16 - Technical Specifications (TS) 3.3.1 and 5.5, and Bases 3.3.1

Summary of Departure:

A Setpoint Control Program is adopted in the CCNPP Unit 3 Technical Specifications (TS). TS 3.3.1 is revised to delete the associated Reviewer's Notes and bracketed information. Applicable Surveillance Requirements and footnotes are revised to reference the Setpoint Control Program. Numerical setpoints are removed and replaced with a reference to the Setpoint Control Program. TS 5.5 is revised to add a Setpoint Control Program description to the Administrative Controls – Programs and Manuals Section (5.5). The Setpoint Control Program description references the NRC approved setpoint methodology documents that shall be used for the development of required numerical setpoints. The TS Bases 3.3.1 are revised to incorporate additional

background information and clarify the applicability of the program to specific functions.

Scope/Extent of Departure:

This Departure is identified in the Generic Changes section of Part 4 of the CCNPP Unit 3 COL Application, Generic Change Items 2, 10 and 13.

Departure Justification:

Certain plant specific setpoints cannot be determined until after the selection of instrumentation and require as-built system design information, which may not occur until after the approval of the COL application is granted. SECY-08-0142, "*Change in Staff Position Concerning Information in Plant-Specific Technical Specifications that Combined License Applicants Must Provide to Support Issuance of Combined Licenses*," states that "*the plant-specific Technical Specifications issued with a combined license must be complete, implementable, and provide a basis for the Commission to conclude that the plant will operate in accordance with the relevant requirements.*" An option to satisfy this requirement is to relocate numerical values out of the TS and replace them with an administrative program that references NRC approved methodologies for determining these values. The methodologies cited in the Setpoint Control Program for determining these numerical values have been submitted to NRC. Referencing these NRC approved methodologies in the TS provide reasonable assurance that the facility will be operated in conformity with the license, the provisions of the Act, and the Commission's rules and regulations.

Departure Evaluation:

This Departure, the inclusion of a Setpoint Control Program and the associated changes in the TS and Bases, provides adequate assurance the required Limiting Trip Setpoint (LTSP), Nominal Trip Setpoint (NTSP), Allowable Value (AV), Performance Testing Acceptance Criteria (PTAC), As-Left Tolerance (ALT), and Permissive values are developed and maintained such that safety functions will actuate at the point assumed in the applicable safety analysis. Accordingly, the Departure does not:

1. Result in more than a minimal increase in the frequency of occurrence of an accident previously evaluated in the plant-specific FSAR;

2. Result in more than a minimal increase in the likelihood of occurrence of a malfunction of a structure, system, or component (SSC) important to safety and previously evaluated in the plant-specific FSAR;

3. Result in more than a minimal increase in the consequences of an accident previously evaluated in the plant-specific FSAR;

4. Result in more than a minimal increase in the consequences of a malfunction of an SSC important to safety previously evaluated in the plant-specific FSAR;

5. Create a possibility for an accident of a different type than any evaluated previously in the plant-specific FSAR;

6. Create a possibility for a malfunction of an SSC important to safety with a different result than any evaluated previously in the plant-specific FSAR;

7. Result in a design basis limit for a fission product barrier as described in the plant specific FSAR being exceeded or altered; or

8. Result in a departure from a method of evaluation described in the plant-specific FSAR used in establishing the design bases or in the safety analyses.

This Departure does not affect resolution of a severe accident issue identified in the plant specific FSAR.

Therefore, this Departure has no safety significance.

This change is both a Departure and an Exemption (as discussed in COLA Part 7, Section 1.2) requiring NRC approval.

1.2 EXEMPTION REQUESTS

These exemption requests have been developed assuming approval and issuance of a design certification for the U.S. EPR and are based on the current version of the U.S. EPR FSAR.

Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services request the following exemptions related to:

1. Maximum Differential Settlement (across the basemat),
2. Maximum Annual Average Atmospheric Dispersion Factor (0.5 mile – limiting sector),
3. Accident Atmospheric Dispersion Factor (0-2 hour, Low Population Zone, 1.5 miles),
4. Fitness For Duty Program
5. Use of M5™ Advanced Zirconium Alloy Fuel Rod Cladding, and
6. Toxic Gas Detection and Isolation.
7. Shear Wave Velocity
8. Generic Technical Specifications and Bases – Setpoint Control Program

. . .

1.2.8 GENERIC TECHNICAL SPECIFICATIONS AND BASES - SETPOINT CONTROL PROGRAM

Applicable Regulation: 10 CFR Part 52

The U.S. EPR FSAR Tier 2, Chapter 16.0, Technical Specifications and Bases specify ~~and discuss Limiting Trip Setpoints and Design Limits~~ setpoints for reactor trip, Engineered Safety Features functions, and Permissives.

Pursuant to 10 CFR 52.7 and 10 CFR 52.93, Calvert Cliffs 3 Nuclear Project, LLC, and UniStar Nuclear Operating Services, LLC, request an exemption from compliance with the U.S. EPR FSAR Technical Specification requirements associated with the ~~Limiting Trip Setpoints and Design Limits~~ setpoints for reactor trip, Engineered Safety Features functions, and Permissives.

Discussion:

Certain plant specific setpoints cannot be determined until after the selection of instrumentation and require as-built system design information, which may not occur until after the approval of the COL application is granted. SECY-08-0142, *"Change in Staff Position Concerning Information in Plant-Specific Technical Specifications that Combined License Applicants Must Provide to Support Issuance of Combined*

Licenses," states that *"the plant-specific Technical Specifications issued with a combined license must be complete, implementable, and provide a basis for the Commission to conclude that the plant will operate in accordance with the relevant requirements."* An option to satisfy this requirement is to relocate numerical values out of the Technical Specifications and replace them with an administrative program that references NRC approved methodologies for determining these values. Appropriate Technical Specifications will reference the Setpoint Control Program and a Setpoint Control Program description will be added to the Administrative Controls – Programs and Manuals Section 5.5. The Setpoint Control Program ~~will either describe and justify the methodologies for determining these numerical values or~~ references the methodologies for determining setpoints that have previously been ~~submitted to~~ reviewed and approved by the NRC. Bases descriptions will be revised, as necessary.

The exemption is not inconsistent with the Atomic Energy Act or any other statute. As such, the requested exemption is authorized by law.

As discussed in COLA Part 7, Section 1.1, t~~T~~his change ~~does not~~ results in a departure from the design as described in the U.S. EPR FSAR. ~~In addition, t~~The change has been evaluated and determined to not adversely affect the safety function of the associated structures, systems, components, reactor trip or Engineered Safety Features functions. Therefore, the requested departure and exemption will not present an undue risk to the public health and safety.

The change does not relate to security and does not otherwise pertain to the common defense and security. Therefore, the requested exemption will not endanger the common defense and security.

The special circumstance necessitating the departure and request for exemption is that the plant specific setpoints cannot be determined until after the selection of instrumentation and require as-built system design information, which may not occur until after the approval of the COL application is granted. The use of NRC approved methodologies~~, where applicable,~~ will ensure the setpoints contained in, and controlled by, the Setpoint Control Program will not adversely affect the safety functions. As such, application of the regulation for this particular circumstance would not serve the underlying purpose of the rule and is not required to achieve the underlying purpose of the rule.

This requested departure and exemption relates to an administrative controlled program and does not require a physical change in the design described in the U.S. EPR FSAR. Therefore, this departure and exemption will not result in any loss of standardization.

For these reasons, Calvert Cliffs 3 Nuclear Project, LLC, and UniStar Nuclear Operating Services, LLC, request approval of the requested exemption from compliance with the U.S. EPR FSAR Tier 2, Chapter 16.0, Technical Specifications and Bases, which specify ~~Limiting Trip Setpoints and Design Limits~~ setpoints for reactor trip, Engineered Safety Features functions, and Permissives.