UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

January 14, 2015

Mr. George H. Gellrich, Vice President
Calvert Cliffs Nuclear Power Plant, LLC
Calvert Cliffs Nuclear Power Plant
1650 Calvert Cliffs Parkway
Lusby, MD 20657-4702

SUBJECT: CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2 – ISSUANCE OF AMENDMENT REGARDING THE ADOPTION OF TECHNICAL SPECIFICATION TASK FORCE (TSTF) -426-A, REVISION 5, "REVISE OR ADD ACTIONS TO PRECLUDE ENTRY INTO LCO [LIMITING CONDITION OF OPERATION 3.0.3 – RITSIF [RISK – INFORMED TSTF] INITIATIVES 6B AND 6C" (TAC NOS. MF3154 AND MF3155)

Dear Mr. Gellrich:

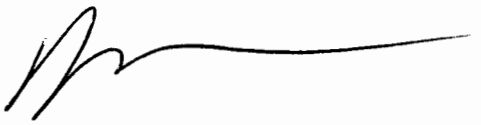
The Commission has issued the enclosed Amendment No. 309 to Renewed Facility Operating License No. DPR-53 and Amendment No. 287 to Renewed Facility Operating License No. DPR-69 for the Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2. These amendments consist of changes to the Technical Specifications (TSs) in response to your application dated November 13, 2013, as supplemented by letter dated June 13, 2014.

These amendments revise TS 3.4.9, "Pressurizer," TS 3.6.6, "Containment Spray and Cooling Systems," TS 3.6.8, "Iodine Removal System," TS 3.7.8, "Control Room Emergency Ventilation System," and TS 3.7.12, "Penetration Room Exhaust Ventilation System" to provide a short completion time to restore an inoperable system for conditions under which existing TSs require a plant shutdown.

The revisions are consistent with Commission-approved Technical Specifications Task Force Standard Technical Specifications Change Traveler 426 (TSTF-426), Revision 5, "Revise or Add Actions to Preclude Entry into LCO [limiting condition of operation] 3.0.3 – RITSTF [risk-informed TSTF] Initiatives 6b and 6c." Revision 5 of TSTF-426 was issued in the *Federal Register* (FR) on May 30, 2013 (78 FR 32476).

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular biweekly FR notice.

Sincerely,



Nadiyah S. Morgan, Project Manager
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-317 and 50-318

Enclosures:
1. Amendment No. 309 to DPR-53
2. Amendment No. 287 to DPR-69
3. Safety Evaluation

cc w/encls: Distribution via Listserv

DATED: January 14, 2015

AMENDMENT NO. 309 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-53
CALVERT CLIFFS UNIT 1

AMENDMENT NO. 287 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-69
CALVERT CLIFFS UNIT 2

DISTRIBUTION:
PUBLIC
LPLI-1 R/F
RidsNrrDorlDpr
RidsNrrDorlLpl1-1
RidsNrrPMCalvertCliffs
RidsNrrLAKGoldstein
RidsNrrDssStsb
RidsOgcMailCenter
RidsRgn1MailCenter
RidsAcrsAcnw_MailCTR
PSnyder, NRR

cc w/encls: Distribution via Listserv

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NO. 1

CALVERT CLIFFS NUCLEAR POWER PLANT, LLC

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-317

Amendment No. 309
License No. DPR-53

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Exelon Generation Company, LLC (Exelon, the licensee) dated November 13, 2013, as supplemented by letter dated June 13, 2014, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. DPR-53 is hereby amended to read as follows:

   2. Technical Specifications

      The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 309, are hereby incorporated into this license. Exelon Generation shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Benjamin G. Beasley, Chief
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the License and
Technical Specifications

Date of Issuance: January 14, 2015

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NO. 2

CALVERT CLIFFS NUCLEAR POWER PLANT, LLC

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-318

Amendment No. 287
License No. DPR-69

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Exelon Generation Company, LLC (Exelon, the licensee) dated November 13, 2013, as supplemented by letter dated June 13, 2014, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. DPR-69 is hereby amended to read as follows:

   2. Technical Specifications

      The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 287, are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Benjamin G. Beasley, Chief
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the License and
Technical Specifications

Date of Issuance: January 14, 2015

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 309 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-53

AMENDMENT NO. 287 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-69

DOCKET NOS. 50-317 AND 50-318

Replace the following page of the Renewed Facility Operating License with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

Remove Page	Insert Page
3	3

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages	Insert Pages
3.4.9-2	3.4.9-2
3.6.6-1	3.6.6-1
3.6.6-2	3.6.6-2
3.6.8-1	3.6.8-1
3.6.8-2	3.6.8-2
3.7.8-3	3.7.8-3
3.7.8-4	3.7.8-4
3.7.12-1	3.7.12-1
3.7.12-2	3.7.12-2

(4) Exelon Generation pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use, in amounts as required, any byproduct, source, and special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and

(5) Exelon Generation pursuant to the Act and 10 CFR Parts 30 and 70 to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This license is deemed to contain and is subject to the conditions set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act, and the rules, regulations, and orders of the Commission, now or hereafter applicable; and is subject to the additional conditions specified and incorporated below:

(1) Maximum Power Level

Exelon Generation is authorized to operate the facility at steady-state reactor core power levels not in excess of 2737 megawatts-thermal in accordance with the conditions specified herein.

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 309, are hereby incorporated into this license. Exelon Generation shall operate the facility in accordance with the Technical Specifications.

(a) For Surveillance Requirements (SRs) that are new, in Amendment 227 to Facility Operating License No. DPR-53, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 227. For SRs that existed prior to Amendment 227, including SRs with modified acceptance criteria and SRs whose frequency of performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the Surveillance was last performed prior to implementation of Amendment 227.

(3) Additional Conditions

The Additional Conditions contained in Appendix C as revised through Amendment No. 305 are hereby incorporated into this license. Exelon Generation shall operate the facility in accordance with the Additional Conditions.

(4) Secondary Water Chemistry Monitoring Program

Exelon Generation shall implement a secondary water chemistry monitoring program to inhibit steam generator tube degradation. This program shall include:

(4) Exelon Generation pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use, in amounts as required, any byproduct, source, and special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and

(5) Exelon Generation pursuant to the Act and 10 CFR Parts 30 and 70 to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This license is deemed to contain and is subject to the conditions set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act, and the rules, regulations, and orders of the Commission, now and hereafter applicable; and is subject to the additional conditions specified and incorporated below:

(1) Maximum Power Level

Exelon Generation is authorized to operate the facility at reactor steady-state core power levels not in excess of 2737 megawatts-thermal in accordance with the conditions specified herein.

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 287 are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications.

(a) For Surveillance Requirements (SRs) that are new, in Amendment 201 to Facility Operating License No. DPR-69, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 201. For SRs that existed prior to Amendment 201, including SRs with modified acceptance criteria and SRs whose frequency of performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the Surveillance was last performed prior to implementation of Amendment 201.

(3) Less Than Four Pump Operation

The licensee shall not operate the reactor at power levels in excess of five (5) percent of rated thermal power with less than four (4) reactor coolant pumps in operation. This condition shall remain in effect until the licensee has submitted safety analyses for less than four pump operation, and approval for such operation has been granted by the Commission by amendment of this license.

(4) Environmental Monitoring Program

If harmful effects or evidence of irreversible damage are detected by the biological monitoring program, hydrological monitoring program, and the

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. -------- NOTE -------- Not applicable when second bank of pressurizer heaters intentionally made inoperable. ---------- Two required banks of pressurizer heaters inoperable.	C.1 Restore at least one bank of required pressurizer heaters to OPERABLE status.	24 hours
D. Required Action and associated Completion Time of Condition B or C not met.	D.1 Be in MODE 3. AND D.2 Be in Mode 4.	6 hours 12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.9.1	Verify pressurizer water level is $\geq$ 133 inches and $\leq$ 225 inches.	12 hours
SR 3.4.9.2	Verify capacity of each required bank of pressurizer heaters $\geq$ 150 kW.	24 months

3.6 CONTAINMENT SYSTEMS

3.6.6 Containment Spray and Cooling Systems

LCO 3.6.6 Two containment spray trains and two containment cooling trains shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.
MODE 3, except containment spray is not required to be OPERABLE when pressurizer pressure is < 1750 psia.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One containment spray train inoperable.	A.1 Restore containment spray train to OPERABLE status.	72 hours
B. One containment cooling train inoperable.	B.1 Restore containment cooling train to OPERABLE status.	7 days
C. -------- NOTE -------- Not applicable when second containment spray train intentionally made inoperable. ---------- Two containment spray trains inoperable.	C.1 Verify LCO 3.7.8, "CREVS," is met. AND C.2 Restore at least one containment spray train to OPERABLE status.	1 hour 24 hours

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Two containment cooling trains inoperable.	D.1 Restore one containment cooling train to OPERABLE status.	72 hours
E. Required Action and associated Completion Time not met.	E.1 Be in MODE 3. AND E.2 Be in MODE 4.	6 hours 12 hours
F. Any combination of three or more trains inoperable.	F.1 Enter LCO 3.0.3.	Immediately

3.6 CONTAINMENT SYSTEMS

3.6.8 Iodine Removal System (IRS)

LCO 3.6.8 Three IRS trains shall be OPERABLE.

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

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One IRS train inoperable.	A.1 Restore IRS train to OPERABLE status.	7 days
B. -------- NOTE -------- Not applicable when the second IRS train intentionally made inoperable. ---------- Two IRS trains inoperable.	B.1 Verify at least one train of containment spray is OPERABLE. AND B.2 Restore one IRS train to OPERABLE status.	1 hour 24 hours
C. Required Action and associated Completion Time not met.	C.1 Be in MODE 3. AND C.2 Be in MODE 5.	6 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.8.1	Operate each IRS train for ≥ 15 minutes.	31 days
SR 3.6.8.2	Perform required IRS filter testing in accordance with the Ventilation Filter Testing Program.	In accordance with the Ventilation Filter Testing Program
SR 3.6.8.3	Verify each IRS train actuates on an actual or simulated actuation signal.	24 months

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
F. -------- NOTE -------- Not applicable when second CREVS train intentionally made inoperable. ---------- Two CREVS trains inoperable in MODE 1, 2, 3, or 4 for reasons other than Condition D.	F.1 Initiate action to implement mitigating actions. AND F.2 Verify LCO 3.4.15, "RCS Specific Activity," is met. AND F.3 Restore at least one CREVS train to OPERABLE status.	Immediately 1 hour 24 hours
G. Required Action and associated Completion Time of Condition B not met during movement of irradiated fuel assemblies. OR One or more CREVS trains inoperable due to an inoperable CRE boundary during movement of irradiated fuel assemblies.	G.1 Suspend movement of irradiated fuel assemblies.	Immediately

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
H. Two CREVS trains inoperable for reasons other than Condition A, B, C, or D during movement of irradiated fuel assemblies. OR One or more ducts with two outside air intake isolation valves inoperable during movement of irradiated fuel assemblies. OR Two exhaust to atmosphere isolation valves inoperable during movement of irradiated fuel assemblies.	H.1 Suspend movement of irradiated fuel assemblies.	Immediately
I. Required Action and associated Completion Time of Condition A, B, C, D, E, or F not met in MODE 1, 2, 3, or 4.	I.1 Be in MODE 3. AND I.2 Be in MODE 5.	6 hours 36 hours

3.7 PLANT SYSTEMS

3.7.12 Penetration Room Exhaust Ventilation System (PREVS)

LCO 3.7.12 Two PREVS trains shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One PREVS train inoperable.	A.1 Restore PREVS train to OPERABLE status.	7 days
B. -------- NOTE -------- Not applicable when second PREVS train intentionally made inoperable. ---------- Two PREVS trains inoperable.	B.1 Verify at least one train of containment spray is OPERABLE. AND B.2 Restore at least one PREVS train to OPERABLE status.	1 hour 24 hours
C. Required Action and associated Completion Time not met.	C.1 Be in MODE 3. AND C.2 Be in MODE 4.	6 hours 12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.12.1	Operate each PREVS train for ≥ 15 minutes.	31 days
SR 3.7.12.2	Verify required PREVS filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.7.12.3	Verify each PREVS train actuates on an actual or simulated actuation signal.	24 months

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO

AMENDMENT NO. 309 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-53

AMENDMENT NO. 287 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-69

CALVERT CLIFFS NUCLEAR POWER PLANT, LLC.

EXELON GENERATION COMPANY, LLC

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2

DOCKET NOS. 50-317 AND 50-318

1.0 INTRODUCTION

By letter dated November 13, 2013 (Agencywide Documents Accession and Management System (ADAMS) Accession No. ML13318A892), as supplemented by letter dated June 13, 2014 (ADAMS Accession No. ML14169A032), Calvert Cliffs Nuclear Power Plant, LLC, the licensee, submitted a request to the U.S. Nuclear Regulatory Commission (NRC) for changes to the Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2 (Calvert Cliffs), Technical Specifications (TSs). The NRC staff published a no significant hazards consideration determination in the *Federal Register* (FR) on July 22, 2014 (79 FR 42548). The supplement dated June 13, 2014, provided additional information that clarified the application, but did not expand the scope of the application as originally noticed, and did not change the NRC staff's original proposed no significant hazards consideration determination.

The proposed change would provide a short completion time to restore an inoperable system for conditions under which existing TSs require a plant shutdown.

The revisions are consistent with Commission-approved TSs Task Force Standard Technical Specifications (STS) Change Traveler 426 (TSTF-426), Revision 5, "Revise or Add Actions to Preclude Entry into LCO [limiting condition of operation] 3.0.3 – RITSTF [risk-informed TSTF] Initiatives 6b and 6c," (Reference 1). Revision 5 of TSTF-426 was issued in the *Federal Register* (FR) on May 30, 2013 (78 FR 32476).

Traveler TSTF-426 incorporated the approved Topical Report (TR) WCAP-16125-NP-A, "Justification for Risk-Informed Modifications to Selected Technical Specifications for Conditions Leading to Exigent Plant Shutdown" (Reference 2), into NUREG-1432, "Standard Technical Specifications Combustion Engineering [CE] Plants." The TR WCAP-16125 provided the

justification for RITS Initiative 6 for nuclear plants with CE-designed nuclear steam supply systems. The RITS Initiative 6 modifies selected exigent shutdown actions to allow a risk-informed operating time prior to shutdown.

2.0 REGULATORY EVALUATION

2.1 Proposed TS Changes

The TR WCAP-16125 justified modifications to various TS to add a Condition for loss of redundant features representing a loss of safety function for a system or component included within the scope of the plant TS. It would replace Required Actions requiring either a default shutdown or explicit LCO 3.0.3 entry with a Required Action based on the risk significance for the system's degraded condition. The Condition being added is for redundant trains discovered to be inoperable. The Condition only applies to discovery of an emergent condition resulting in redundant trains being inoperable, not from the second train intentionally made inoperable. The completion times (CT) associated with the proposed actions are specified. The CTs are intentionally of short duration to allow for restoring the system to an operable condition, thereby avoiding the risk associated with an immediate controlled shutdown. In all the TS changes a 24-hour CT is justified. Table 1 summarizes the Calvert Cliffs TS changes.

	Table 1			
TS	SYSTEM/COMPONENT	CONDITION	CURRENT CT	PROPOSED CT
3.4.9	Pressurizer	Two banks of Class 1E heaters inoperable	None/ LCO 3.0.3	24 hours
3.6.6	Containment Spray and Cooling System (credit taken for iodine removal)	Two containment spray trains inoperable	Explicit LCO 3.0.3	24 hours †
3.6.8	Iodine Removal System (IRS)	Two trains inoperable	1 hour	24 hours *
3.7.8	Control Room Emergency Ventilation System (CREVS)	Two trains inoperable (Modes 1-4) for reasons other than an inoperable boundary	Explicit LCO 3.0.3	24 hours **
3.7.12	Penetration Room Exhaust Ventilation System (PREVS)	Two trains inoperable	None/ LCO 3.0.3	24 hours *

† Must include verification that the LCO for CREVS is met.
* Must include verification that at least one train of the containment spray (CS) system is inoperable.
** Must include verification that LCO 3.4.15, "RCS Specific Activity," is met.

2.2 Regulatory Requirements and Guidance

The Commission's regulatory requirements related to the content of the TS are contained in Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.36, "Technical Specifications." Pursuant to 10 CFR 50.36(c) the TS are required to include items in the following specific categories: (1) safety limits, limiting safety systems settings, and limiting control settings;

(2) LCOs; (3) surveillance requirements; (4) design features; and (5) administrative controls. The regulation at 10 CFR 50.36(c)(2) states: "When [an LCO] of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specifications until the condition can be met."

Regulatory Guide (RG) 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis" (Reference 3), describes a risk-informed approach, acceptable to the NRC, for assessing the nature and impact of proposed permanent licensing-basis changes by considering engineering issues and applying risk insights. The RG 1.174 also provides risk acceptance guidelines for evaluating the results of such evaluations.

General guidance for evaluating the technical basis for proposed risk-informed changes is provided in Section 19.2, "Review of Risk Information Used to Support Permanent Plant-Specific Changes to the Licensing Basis: General Guidance," of the NRC Standard Review Plan (SRP), NUREG-0800 (Reference 4). Section 19.2 of the SRP states that a risk-informed application should be evaluated to ensure that the proposed change meets the following key principles:

1. The proposed change meets the current regulations, unless it explicitly relates to a requested exemption.

2. The proposed change is consistent with the defense-in-depth philosophy.

3. The proposed change maintains sufficient safety margins.

4. When proposed changes increase core damage frequency or risk, the increase(s) should be small and consistent with the intent of the Commission's Safety Goal Policy Statement.

5. The impact of the proposed change should be monitored using performance measurement strategies.

The NRC staff reviewed the licensee's proposed change against (1) the requirements of 10 CFR 50.36, (2) the STS changes approved for adoption in the Notice of Availability of TSTF-426 issued in the FR on May 30, 2013 (78 FR 32476), and (3) the methodology approved in TR WCAP-16125, as documented in a safety evaluation dated May 24, 2010 (Reference 5). The TR WCAP-16125 was reviewed against RG 1.174 and SRP Section 19.2.

3.0 TECHNICAL EVALUATION

3.1 Conformance with the Five Key Principles of SRP Section 19.2 as Summarized in The Safety Evaluation of TR WCAP-16125

The changes proposed in TSTF-426 are consistent with Commission-approved TR WCAP-16125. In Reference 5, the NRC staff evaluated TR WCAP-16125 for conformance with the five key principles of SRP Section 19.2.

3.1.1 Compliance with Current Regulations

The regulations at 10 CFR 50.36 permit either a plant shutdown or other remedial actions specified by TS when an LCO is not met. The proposed change provides new action requirements for conditions of equipment inoperability which currently require an immediate plant shutdown. Since such remedial actions are permitted per 10 CFR 50.36, the proposed change continues to comply with current regulations, and therefore, satisfy this key principle.

3.1.2 Defense-in-Depth

The proposed change addresses conditions where both trains of a system are inoperable, resulting in a loss of that system's function and a temporary reduction in the defense-in-depth capabilities of the plant. Each proposed change addresses the remaining available alternative system(s) capable of providing mitigation of events, and, where applicable, includes requirements to assure these required backup systems are operable. The reduced level of defense-in-depth is retained by verification that both trains (if applicable) of the backup system are operable. Therefore, this key principle is satisfied by the unique requirements identified for each proposed TS change.

3.1.3 Safety Margins

The proposed change does not have any impact on the use of NRC-approved codes and standards, nor do the changes impact any acceptance criteria used in a plant's licensing basis. Under the current TS, if an accident occurs during the 6-hour controlled shutdown time of LCO 3.0.3 caused by two trains of these systems being unavailable, it could potentially result in offsite dose limits that do not meet NRC regulatory limits. Since the proposed changes do not modify the design basis of the systems evaluated, extending the allowed outage time to 24 hours would have no quantitative effect on the dose consequence as compared to the existing condition. As such, the proposed changes would not significantly reduce the plant's available safety margin, and therefore, this key principle is satisfied.

3.1.4 Performance Monitoring

The proposed change would permit continued plant operation for short periods to address emergent equipment failures. Degradation of equipment performance could lead to excessive use of the new action requirements. This is adequately addressed by equipment performance monitoring required by 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," and therefore, this key principle is satisfied.

3.1.5 Risk Assessment

The risk of each of the TS LCOs for which action requirements are proposed is evaluated in TR WCAP-16125 by three methods, as described below.

Method 1:

> For calculations of ΔCDF [core damage frequency], a bounding approach was applied to evaluate loss of function of a system by identifying the initiating events

for which the system provides mitigation, and assuming that the event goes directly to core damage. No credit was taken for alternate mitigation strategies, and the baseline CDF was effectively assumed to be zero. The initiating event frequencies were taken from NUREG/CR-5750, "Rates of Initiating Events at U. S. Nuclear Power Plants: 1987 – 1995" (Reference 6).

The licensee verified that initiating frequencies in NUREG/CR-5750 are bounding for Calvert Cliffs.

For ΔLERF [large early release frequency], a simplified approach using an event tree was developed to calculate the fraction of core damage events, which result in large early releases. The event tree assessed containment isolation status, reactor coolant system (RCS) pressure, secondary side depressurization via the steam generators, thermally-induced steam generator tube rupture (SGTR), and reactor pressure vessel (RPV) lower head failure. Assumptions related to the potential impact on LERF for each of these events, and the associated basis for probabilities used in the analysis, are discussed below:

Containment Isolated – This event defines containment integrity prior to the core damage event. If containment is not isolated, then a large early release will result concurrent with core damage. A probability of 3.0E-3 was applied for an unisolated containment, which is identified as the upper end of the range used in the CE Probabilistic Risk Assessment (PRA) models in TR WCAP-16125.

RCS Pressure – High – This event defines the RCS pressure at the time of core damage. If the pressure is low, then large early releases are assumed not to occur (except via an unisolated containment); otherwise, thermally-induced SGTR and high pressure melt ejection events are further evaluated. All core damage events involving loss-of-coolant accidents (LOCAs) are assumed to result in low or intermediate RCS pressure, and all other events result in high RCS pressure.

Steam Generator Depressurization – This event defines the status of the secondary side, and affects the next event, which is the potential for induced SGTR. Depressurization of the secondary side occurs either due to prior operator response or due to failure of a safety relief valve. Based on NUREG-1570, "Risk Assessment of Severe Accident Induced Steam Generator Tube Rupture" (Reference 7), a probability of 0.9 is assigned for secondary depressurization.

Thermally-induced SGTR Occurs – This event represents a loss of steam generator tube integrity due to thermal stresses during a severe accident, which is assumed to result in a large early release. Two values are used, based on the status of the prior event, for steam generator depressurization. A probability of 0.5 is assigned when the steam generators are depressurized, and 0.01 otherwise. These values are conservative, based on the assumptions regarding tube age and integrity and based on neglecting operator actions to depressurize the RCS after core damage.

RPV Lower Head Failure Results in Containment Failure – This event represents a high pressure failure of the lower head, with an energetic discharge of the molten fuel and direct containment heating, leading to failure of containment. Based on NUREG/CR-6338, "Resolution of Direct Containment Heating Issue for all Westinghouse Plants with Large Dry Containments or Subatmospheric Containments" (Reference 8), the conditional containment failure probability given the event for CE-designed plants is 0.01, which is considered to be a bounding value.

None of the assessed initiating events include either SGTRs or other containment bypass events because the systems being evaluated do not mitigate these events. The NRC staff concludes that the simplified LERF event tree is reasonable and acceptable to support the evaluation of LERF for the scope of TR WCAP-16125.

Method 2:

For TS 3.4.9, Pressurizer Heaters, an evaluation of the increased likelihood of a plant trip due to degraded pressure control is made in order to calculate ΔCDF. The ΔLERF calculation for this TS is the same simplified approach described above for [Method] 1.

Method 3:

The remaining systems (and associated TS) associated with mitigation of radiological releases with magnitudes less than those associated with LERF are IRS (TS 3.6.8); PREVS (TS 3.7.12); and CREVS (TS 3.7.11). There is no impact to either CDF or LERF, as the systems are provided to meet design basis dose limits. As described in TR WCAP-16125, an evaluation of the frequency of events, which challenge the systems was made and compared to the acceptance guidelines of RG 1.174 applicable to ΔLERF in order to characterize the risk of these lesser releases. The TR WCAP-16125 provided additional justification based on the availability of other systems, which provide a degree of defense-in-depth for prevention of these releases.

To assess the impact of the unavailability of these systems, TR WCAP-16125 examined the expected iodine releases for three categories of events:

- Beyond design basis scenarios that lead to large early releases,
- Maximum Hypothetical Accident (MHA), and
- LOCA and Non-LOCA Design-Basis Accidents (DBA).

The purpose of this assessment was to show that, using worst case assumptions, the potential accident releases anticipated under the short-term operational conditions proposed by the increased CT for the IRS and PREVS will be well below and bounded by a large early release. For clarity, the TR WCAP-16125 evaluation was limited to the release of iodine. For each category, iodine releases were estimated assuming various combinations of system availability.

The results of this assessment are shown in Table 4.3-1 of TR WCAP-16125, supplemented by RAI responses (Reference 9). The NRC staff reviewed the assumptions and methodology used to determine the bounding iodine release quantities and resulting dose consequences and found that in all cases appropriately conservative assumptions were used.

To reduce the impact of an increased CT for the CREVS, TR WCAP-16125 added conditions to verify that RCS specific activity is within limits and to verify that dose mitigating actions are available in the CR. For limited durations, such as the short-term operational conditions proposed by the increased CT for the CREVS, the NRC staff has accepted credit for the use of respirators and potassium iodide on an interim basis to demonstrate that control room dose limits can be met.

Based on an evaluation of the methods and assumptions used, the NRC staff has reasonable assurance that the postulated accident releases calculated for the short-term operational conditions proposed by the increased CT for the IRS and PREVS will be well below the LERF releases. In addition, the NRC staff has reviewed the bases for the increased CT for the CREVS and has determined that the proposed conditions and compensatory measures provide reasonable assurance that control room habitability will be adequately maintained during the proposed 24-hour CT.

External events, including internal fires and floods, were not evaluated in TR WCAP-16125. None of the systems being evaluated provide a primary mitigating function for external events, and therefore these events are not significant to the risk-informed decision.

TR WCAP-16125 also evaluated sensitivity studies for key areas of uncertainty in the analyses. Specifically, TR WCAP-16125 considered uncertainties in the initiating event frequencies, which are the input to the CDF calculations and showed that even assuming a 95 percent upper bound frequency would not result in excessive risk. These were also propagated into the LERF calculations with similar results. TR WCAP-16125 also addressed uncertainties in the thermally-induced SGTR assumptions and SG depressurization assumptions, and demonstrated that the LERF results are not significantly impacted. These sensitivity studies performed to evaluate the key sources of uncertainty in the risk analyses adequately demonstrate the robustness of the results to support the proposed TS changes.

3.2 NRC Staff Evaluation of Proposed TS Changes

3.2.1 TS 3.4.9

The pressurizer and the Class 1E electrical heaters maintain a liquid-to-vapor interface to permit RCS pressure control during normal operations and in response to anticipated design basis transients. The Class 1E heaters, with their power provided by emergency alternating current power busses, are used to maintain RCS subcooling during a natural circulation cooldown, and

the unavailability of the heaters will extend the time to reach entry conditions for the shutdown cooling system. The unavailability of the Class 1E heaters may complicate steady-state RCS pressure control and may increase the potential of an unplanned reactor trip. However, the availability of additional heaters beyond the two groups required by this TS LCO permit continued RCS pressure control.

The current TS 3.4.9 does not provide any action requirements for two inoperable pressurizer heater groups, and therefore TS 3.0.3 applies, which requires an immediate plant shutdown. The proposed change provides for a 24-hour CT to restore at least one bank of pressurizer heaters to operable status, to permit continued operation under an existing action requirement. The unavailability of the Class 1E pressurizer heaters would not have any significant impact on plant transient response, and so there is no quantifiable impact to CDF or LERF. While mitigation of a SGTR is enhanced by the availability of pressurizer heaters, the non-Class 1E heaters can also function if offsite power is available, and plant procedures provide for mitigation of a SGTR without pressurizer heaters, if necessary.

Conservatively, the risk result due to increased likelihood of a reactor trip was calculated by assuming an order-of-magnitude increase in the reactor trip frequency when both Class 1E heaters are inoperable. The risk result is then calculated based on the conditional core damage probability given a reactor trip with no other complications:

ΔCDF	RG 1.174 Guidance	ΔLERF	RG 1.174 Guidance
1.0E-7/yr	<1.0E-6/yr	3.8E-9/yr	<1.0E-7/yr

The ΔCDF and ΔLERF were assessed based on a bounding once per three year entry into the proposed action requirement from TR WCAP-16125 and assumed that the entire 24-hour duration of the CT is used. The risk results are well below the acceptance guidelines of RG 1.174 as noted in the table.

Minimum pressurizer heater capability is supplemented by the normal availability of non-Class 1E heaters for normal plant pressure control, and the availability of plant procedures which provide plant shutdown and cooldown guidance with or without pressurizer heaters. If the available heaters are sufficient to maintain RCS pressure control, normal plant operations can continue. Because unavailability of Class 1E and non-Class 1E heaters would physically result in plant shutdown, the NRC staff does not consider it necessary to specify additional TS or administrative requirements for the non-Class 1E heater availability.

The TS 3.4.9 does not contain a Condition for two required banks of pressurizer heaters inoperable. As a result, this condition would require immediate entry into LCO 3.0.3. A new Condition is being added for two required banks of pressurizer heaters inoperable, which requires restoration of at least one bank of required pressurizer heaters to operable status within 24 hours. The Condition is modified by a note stating it is not applicable when the second bank of required pressurizer heaters is intentionally made inoperable.

The conservatively-calculated risk result is within the acceptance guidelines of RG 1.174, and there is limited impact of plant shutdown and cooldown without pressurizer heaters. Therefore, the NRC staff finds the proposed new action requirement and 24-hour CT acceptable.

3.2.2 TS 3.6.6

The CS system and the containment coolers provide containment heat removal following accidents which release high energy steam to the containment. In addition to the heat removal function, the CS system enhances post-accident fission product removal. Each train of the CS system provides a nominal 50 percent of the cooling function, and similarly each train of the containment coolers provides 50 percent of the cooling function; thus the combined capacity of both systems is 200 percent.

TS 3.6.6 provides for an explicit LCO 3.0.3 entry when less than 100 percent containment cooling capacity is available (i.e., any combination of three or more trains inoperable).

For TS 3.6.6, when both CS trains are inoperable, and therefore the fission product removal function is not available, an explicit LCO 3.0.3 entry is required. The RAI responses (Reference 11) proposed a 24-hour CT for TS 3.6.6 consistent with the other iodine removal TS changes. The RAI responses also identified that the TS-required operability of the containment coolers would provide a similar iodine removal function such that additional TS requirements for operability of other iodine removal systems would not be required. A TS action for operability of both trains of the CREVS was proposed to assure additional defense-in-depth for control room functionality when both CS trains are inoperable during the 24-hour CT.

Based on the information in TR WCAP-16125, the challenge frequency of the CS system for fission product removal is identical to the challenge frequency described for the IRS and PREVS. As noted above, these systems do not provide any core damage or large early release mitigation. Therefore, the risk results are zero for these systems. Similar to those analyses, it may be conservatively assumed that if both CS trains are unavailable following a postulated core damage event, then some radioactive release above design limits, but well below the large early release level, would occur. A bounding estimate for CDF of CE plants was identified as 1E-4/year, so that over a 24-hour period the probability of a significant core damage event, which would require the unavailable system would be:

(1E-4/year) x (24 hours) x (year/8760 hours) = 2.7E-7

Assuming a once per three year entry into the new TS would result in a frequency of a "less than LERF" release of about 9.0E-8/year. This frequency is within the acceptance guidance of RG 1.174 applicable to large early releases, and therefore, provides a context for consideration of the risk result for smaller releases.

When the function of the CS for fission product removal is unavailable, then the operability of the CREVS, which provides for filtration to protect control room habitability, will be verified as a defense-in-depth measure.

TS 3.6.6 contains Condition F which applies when two containment spray trains are inoperable or any combinations of three or more trains are inoperable. Condition F requires entering LCO 3.0.3 immediately. The proposed change modifies Condition F to no longer apply when two containment spray trains are inoperable. A new Condition C is added for two containment spray trains inoperable with Required Actions to verify within 1 hour that at least one train of CREVS is

operable and to restore at least one train within 24 hours. Condition C is modified by a note stating it is not applicable when the second containment spray train is intentionally made inoperable.

TR WCAP-16125 states that Condition C is applicable when two containment spray trains are inoperable provided that at least one containment air cooler is operable. This restriction is also imposed by revised Condition F, which addresses any combination of three or more trains inoperable with a Required Action to enter LCO 3.0.3 immediately. Condition B provided a shutdown track for Condition A. Condition B is eliminated and Condition E is revised to provide a shutdown track for all Conditions. Existing Condition C is renamed Condition B.

The zero risk result for severe accidents is well below the acceptance guidelines of RG 1.174, and there is verification of operability of the CREVS. Therefore, the NRC staff finds a new action requirement with a 24-hour CT would be acceptable for the case of both CS trains inoperable.

3.2.3 TS 3.6.8 and TS 3.7.12

The IRS and PREVS function to assure radioactive material released from containment leakage following a DBA is filtered prior to being exhausted to the environment. Each system includes two redundant trains with high efficiency particulate air filters, moisture absorbers, and charcoal adsorbers in the flowpath. The PREVS filters leakage from containment into the penetration room between the containment and the auxiliary building. The IRS removes elemental iodine directly from the containment atmosphere. The design basis for these systems is a postulated MHA involving a LOCA with a short duration uncovery of fuel, resulting from a temporary interruption, or significant degradation, of the ECCS flow. The event is assumed to result in significant iodine releases (40 – 50 percent of core inventory) from the fuel into the containment. The containment remains intact with no more than the design basis leakage permitted by TS. Releases associated with the MHA are significantly below the release, which would occur for a postulated large early release (at least two orders of magnitude lower). Neither of these systems provides any mitigation capability for preventing either core damage or large early releases.

The current TS for PREVS does not address the condition of two inoperable trains; therefore, a default LCO 3.0.3 entry is required, resulting in an immediate plant shutdown. The current TS for IRS addresses two inoperable trains with a completion time of 1 hour. Following that hour, an explicit plant shutdown is required, if one IRS train is not restored to operable status. The proposed change would provide a 24-hour CT to restore at least one train of the affected system to operable status, to permit continued operation under an existing action requirement.

As noted above, these systems do not provide any core damage or large early release mitigation. Therefore, the risk results are zero for these systems. However, it may be conservatively assumed that if either of these systems is unavailable following a postulated core damage event, then some radioactive release above design limits, but well below the large early release level, would occur. A bounding estimate for CDF of CE plants was identified as 1E-4/year, so that over a 24-hour period, the probability of a significant core damage event, which would require the unavailable system, would be:

(1E-4/year) x (24 hours) x (year/8760 hours) = 2.7E-7

Assuming a once per three year entry into the new TS would result in a frequency of a "less than LERF" release of about 9.0E-8/year. This frequency is within the acceptance guidance of RG 1.174 applicable to large early releases, and therefore provides a context for consideration of the risk result for smaller releases.

As noted in TR WCAP-16125, there are also higher frequency DBAs (e.g., rod ejection and reactor coolant pump locked rotor), which are assumed to result in fuel damage, and therefore, rely upon these systems to filter any containment leakage. These accidents are associated with releases from the fuel into containment two or more orders of magnitude below those associated with the MHA described above, and four or more orders of magnitude below large early releases.

Containment spray can effectively scrub the post-accident containment atmosphere of fission products and therefore reduce reliance upon the downstream air cleanup systems. In order to assure additional defense-in-depth protection for the spectrum of accidents for which these systems provide mitigation, the TS action will include a verification of operability of at least one train of the CS system.

TS 3.6.8 contains Condition B for both IRS trains inoperable with a completion time of 1 hour. If that action and associated completion time is not met Condition C would require an explicit plant shutdown. Condition B is revised to allow 24 hours to restore at least one IRS train to operable status and requires verification within 1 hour that at least one train of containment spray is operable. Additionally, Condition B is modified by a note stating it is not applicable when the second IRS train is intentionally made inoperable.

TS 3.7.12 does not contain a Condition for both PREVS trains inoperable. As a result, this condition would require immediate entry into LCO 3.0.3. A new Condition B is added which applies when two PREVS trains are inoperable and allows 24 hours to restore at least one PREVS train to operable status and requires verification within 1 hour that at least one train of containment spray is operable. The subsequent Actions are renumbered such that existing Condition B is renamed Condition C. The proposed Condition B is modified by a note stating it is not applicable when the second PREVS train is intentionally made inoperable.

The zero risk result for severe accidents is well below the acceptance guidelines of RG 1.174, and there is an additional restriction on operability of at least one CS train in the TS. Therefore, the NRC staff finds the proposed new action requirements and the 24-hour CTs are acceptable.

3.2.4 TS 3.7.8

The CREVS provides for filtration of outside air delivered to the control room by the ventilation system in the event of radioactive releases of particulates or iodine from containment following an accident involving fuel failures. This is to assure that control room personnel are protected from potential radiation exposures in excess of regulatory limits. The system may also provide protection of control room personnel from chemical or toxic gas releases by isolating the control room air intakes.

The current TS 3.7.8, Condition H, provides for an explicit LCO 3.0.3 entry when two trains of this system are inoperable. The proposed change would provide a 24-hour CT to restore at least one train of the CREVS to operable status, to permit continued operation. The current TS already provide a 24-hour CT when both trains are inoperable due specifically to control room pressure boundary inoperability.

In the event of an accident involving radioactive releases without the availability of the CREVS, there would be no direct impact on the capability of the control room staff to perform any actions required to mitigate severe core damage or large early releases, because alternative protective measures would be implemented to reduce the dose impacts. If the accident did not involve severe core damage, control room doses even without the CREVS would be minimal, and therefore the CREVS has no direct role in preventing core damage (i.e., ΔCDF = 0). If a core damage accident did occur with CREVS unavailable, then the bounding impact would be to simply assume the event proceeded to a large early release based on the unavailability of the control room personnel to perform any mitigating actions. This assumption would be very conservative, since large releases occur primarily due to containment bypass accidents, and control room actions following core damage do not prevent the release from occurring.

A bounding estimate for CDF of CE plants was identified as 1E-4/year, so that over a 24-hour period the probability of a significant core damage event, which with the CREVS unavailable is assumed to proceed to a large early release, would be:

(1E-4/year) x (24 hours) x (year/8760 hours) = 2.7E-7

Assuming a once per three year entry into the new TS, and assuming the entire 24-hour duration of the CT is used, the conservatively calculated ΔLERF is about 9.0E-8/year. This ΔLERF, and the zero ΔCDF, are below the acceptance guidelines of RG 1.174.

A significant contributor to control room radiological hazards was identified in TR WCAP-16125 from the release of radioactive RCS fluid from a SGTR event. A required TS action to verify LCO 3.4.15, "RCS Specific Activity," is met will be included in the new proposed action to provide additional defense-in-depth.

The TR WCAP-16125 also addressed a TS action to require initiation of mitigating actions to lessen the effects of potential hazards of smoke, chemical, radiological, or toxic gas releases. The NRC staff considers the specific hazards and compensatory measures to be plant-specific, and did not find sufficient information to conclude that the proposed changes are acceptable for these events without a plant-specific evaluation. The RAI response (Reference 11) identifies that these mitigating actions were previously reviewed and approved by the NRC staff for Traveler TSTF-448 (Reference 10). TSTF-448 authorizes a generic TS change to permit a 24-hour CT when the control room boundary is inoperable, and includes the same mitigating actions to assure protection of the control room staff from non-radiological hazards.

Condition H of TS 3.7.8 applies when two CREVS trains are inoperable due to any reason other than in inoperable control room boundary in Modes 1, 2, 3, or 4 or during movement of irradiated fuel assemblies and requires entering LCO 3.0.3 immediately and suspending movement of irradiated fuel assemblies. The TR WCAP-161254 justifies a 24-hour CT for two CREVS trains inoperable for any reason provided that mitigating actions are implemented

immediately and it is verified that LCO 3.4.15, "RCS Specific Activity," is met within 1 hour. New Condition F requires immediate initiation of action to implement mitigating actions, allows one hour to verify LCO 3.4.15, "RCS Specific Activity" is met, and requires restoring at least one CREVS train to operable status within 24 hours. New Condition F is modified by a note stating it is not applicable when the second CREVS train is intentionally made inoperable. Additionally, existing Condition H is revised to apply only during movement of irradiated fuel assemblies, and requires immediate suspension of the movement of irradiated fuel assemblies. Furthermore, existing Condition F requires entering Mode 3 in 6 hours and Mode 5 in 36 hours. Existing Condition F is moved to Condition I and is modified to apply to the new Condition F.

The requirement to immediately "initiate action to implement mitigating actions" in Required Action F.1 is the same as in existing Action D.1. Action D.1 was added by approved TSTF-448, (Reference 10) and Calvert Cliff's license amendment dated July 29, 2009 (ADAMS Accession Nos. ML082030173 and ML082110465). Condition F is equivalent to the action to take mitigating actions in Condition D.

Based on the risk result being below the acceptance guidelines of RG 1.174 and the additional restriction on meeting RCS specific activity limits in the TS, the NRC staff finds the proposed new action requirement and 24-hour CT acceptable.

3.3 TS Bases Changes

TSTF-426 included and the licensee submitted the following TS Bases changes.

- A reference to the NRC-approved TR WCAP-16125 has been added to the reference section of the TS Bases for each TS affected in TSTF-426.

- Revisions to reflect the changes to the TS.

- For TS Bases 3.6.6, TS Bases 3.7.8, TS Bases 3.7.12, and TS Bases 3.6.8, the order of two references is revised so that the references are numbered in order of appearance.

- For all affected TS, a Note on each applicable condition was added that states: "Not applicable when second [system or component name] intentionally made inoperable." The TS Bases are revised to provide additional explanation of the Note: "The Condition is modified by a Note stating it is not applicable if the second [system or component name] is intentionally declared inoperable. The Condition does not apply to voluntary removal of redundant systems or components from service. The Condition is only applicable if one [system or component name] is inoperable for any reason and the second [system or component name] is discovered to be inoperable, or if both [system or component name] are discovered to be inoperable at the same time."

The NRC staff determined that TS Bases changes are consistent with the proposed TS changes and provide the purpose for each requirement in the specification consistent with the Commission's Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors, dated July 22, 1993 (58 FR 39132).

3.4 NRC Staff Findings

The NRC staff has reviewed the proposed changes against approved Traveler TSTF-426, which was based on approved TR WCAP-16125 (using the five key principles of risk-informed decision making) and finds that the proposed changes are acceptable. Additionally, appropriate TS notes are provided which assure that the loss of safety function action requirements are not applicable for operational convenience and that voluntary entry into these action requirements in lieu of other alternatives that would not result in redundant systems or components being inoperable are prohibited.

The NRC staff further notes that the proposed change does not alter the regulations for notifications and reports required by 10 CFR Part 50 involving the loss of safety function, and that any plant-specific license amendment which provides a condition to address a loss of safety function would not obviate the requirement for a licensee to provide such notifications and reports.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Maryland State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding published in the *Federal Register* on July 22, 2014 (79 FR 42547). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

7.0 REFERENCES

1. TSTF-426, Revision 5, "Revise or Add Actions to Preclude Entry into LCO 3.0.3 – RITSTF Initiatives 6b & 6c," dated November 22, 2011. (ADAMS Accession Number ML113260461)

2. TR WCAP-16125-NP-A, Revision 2, "Justification for Risk-Informed Modifications to Selected Technical Specifications for Conditions Leading to Exigent Plant Shutdown," dated August 2010. (ADAMS Package Accession Number ML110070498)

3. Regulatory Guide 1.174, Revision 2, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis," USNRC, dated May 2011. (ADAMS Accession Number ML100910006)

4. NUREG-0800, Standard Review Plan, Section 19.2, "Review of Risk Information Used to Support Permanent Plant-Specific Changes to the Licensing Basis: General Guidance," dated June 2007. (ADAMS Accession Number ML071700658)

5. Final Safety Evaluation of Pressurized Water Reactor Owners' Group TR WCAP-16125-NP, Revision 2, "Justification For Risk-Informed Modifications to Selected Technical Specifications for Conditions Leading to Exigent Plant Shutdown," dated May 24, 2010. (ADAMS Accession Number ML093560466)

6. NUREG/CR-5750, "Rates of Initiating Events at U. S. Nuclear Power Plants: 1987 – 1995," dated February 1999. (ADAMS Accession Number ML070580080)

7. NUREG/CR-1570, "Risk Assessment of Severe Accident Induced Steam Generator Tube Rupture," dated March 1998. (ADAMS Legacy Accession Number 8101290745)

8. NUREG/CR-6338, "Resolution of Direct Containment Heating Issue for all Westinghouse Plants with Large Dry Containments or Subatmospheric Containments," dated February 1996. (ADAMS Accession Number ML081920672)

9. Responses to the NRC RAI on TR WCAP-16125-NP, Revision 1, "Justification for Risk-Informed Modifications to Selected Technical Specifications for Conditions Leading to Exigent Plant Shutdown," dated August 10, 2009. (ADAMS Accession Number ML092260399)

10. TSTF-448-A, Revision 3, "Control Room Habitability," dated August 8, 2006, and corrected pages dated December 29, 2006. (ADAMS Accession Numbers ML062210095 and ML063630467)

11. Responses to the NRC RAI #2 on TR WCAP-16125-NP, Revision 1, "Justification for Risk-Informed Modifications to Selected Technical Specifications for Conditions Leading to Exigent Plant Shutdown," dated July 8, 2009. (ADAMS Accession Number ML091940063)

Principal Contributor: P. Snyder

Date: January 14, 2015

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular biweekly FR notice.

Sincerely,

/RA/

Nadiyah S. Morgan, Project Manager
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-317 and 50-318

Enclosures:
1. Amendment No. 309 to DPR-53
2. Amendment No. 287 to DPR-69
3. Safety Evaluation

cc w/encls: Distribution via Listserv

ADAMS Accession No. ML14307A842 ***See dated memo**

OFFICE	LPLI-1/PM	LPLI-1/PM	LPLI-1/LA	STSB/BC	OGC	LPLI-1/BC
NAME	AChereskin	NMorgan	KGoldstein	RElliot*	AGhosh	BBeasley
DATE	11/04/2014	12/03/2014	11/21/2014	09/05/2014	12/15/2014	1/14/2015

OFFICIAL RECORD COPY