

10 CFR 50.90

JAFP-20-0012

January 23, 2020

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

James A. FitzPatrick Nuclear Power Plant
Renewed Facility Operating License No. DPR-59
NRC Docket No. 50-333

SUBJECT: License Amendment Request – Application to Adopt Technical Specification Task Force Traveler TSTF-568, Revision 2, "Revise Applicability of BWR/4 TS 3.6.2.5 and TS 3.6.3.2," Using the Consolidated Line Item Improvement Process

Pursuant to 10 CFR 50.90, "Application for amendment of license, construction permit, or early site permit," Exelon Generation Company, LLC (Exelon) is requesting approval for proposed changes to the Technical Specifications (TS), Appendix A of Renewed Facility Operating License No. DPR-59 for the James A. FitzPatrick Nuclear Power Plant.

Exelon requests adoption of TSTF-568, "Revise Applicability of BWR/4 TS 3.6.2.5 and TS 3.6.3.2." TSTF-568 revises the Applicability and Actions of Technical Specification (TS) 3.6.2.5, "Drywell-to-Suppression Chamber Differential Pressure," and TS 3.6.3.2, "Primary Containment Oxygen Concentration," and presents the requirements in a manner more consistent with the Standard Technical Specifications (STS) format and content.

Attachment 1 provides a description and assessment of the proposed change.
Attachment 2 provides the existing TS pages marked to show the proposed change.
Attachment 3 provides the existing TS Bases pages marked to show revised text associated with the proposed TS changes and is provided for information only.
Attachment 4 provides revised (clean) TS and Bases pages.

Exelon requests review of this amendment request under the Consolidated Line Item Improvement Process (CLIIP). Approval of the proposed amendment is requested by March 4, 2020. Exelon acknowledges that the requested approval date is shorter than was it is usually allowed for a CLIIP.

However, after the refueling outage in September 2018, station personnel recognized that drywell Continuous Atmospheric Monitoring (CAM) particulate counts were elevated and an adverse condition monitoring plan was established. Reactor Coolant System (RCS) operational unidentified leakage was initially stable at approximately 0 gpm. However, in December 2018, RCS operational unidentified leakage started to slowly trend up above 0 gpm to approximately 0.6 gpm in December 2019. On January 22, 2020, operational unidentified leakage was identified at 0.68 gpm. RCS operational identified leakage and drywell temperature are normal and stable.

Based on maintenance history and drywell sump samples, a failure mode analysis determined that the most likely cause is packing leakage from the Reactor Water Cleanup (RWCU) inboard MOV or reactor water recirculation MOVs. Pressure boundary leakage was determined to be unlikely.

Exelon is continuing to monitor and trend the leakage with established compensatory actions to ensure the safe operation of the James A. FitzPatrick Nuclear Power Plant (JAFNPP). One of these actions is to enter the primary containment at one (1) gpm leakage, which ensure adequate time to implement corrective action plan. This leakage threshold is well below the TS limit of five (5) gpm.

In order to establish safe conditions for plant personnel in the primary containment without breathing apparatus to perform inspections and maintenance activities, the drywell atmosphere needs to be de-inerted. The process to de-inert the drywell, subsequent inert, and establish the drywell to suppression pool chamber differential pressure takes approximately 20 hours. Additional time is required for plant personnel the access to the drywell, identify the source of the Reactor Coolant System (RCS) operational leakage, and repair the equipment. The Required Actions to restore the containment parameters for JAFNPP TS 3.6.2.4 Drywell-to-Suppression Chamber Differential Pressure LCO and 3.6.3.1 Primary Containment Oxygen Concentration would be exceeded requiring maneuvering the plant to less than 15 without a corresponding health and safety benefit.

Once approved, the amendment shall be implemented within 72 hours.

Exelon has concluded that the proposed changes present no significant hazards consideration under the standards set forth in 10 CFR 50.92, "Issuance of amendments."

The proposed changes have been reviewed by the JAFNPP Plant Operations Review Committee in accordance with the requirements of the Exelon Quality Assurance Program.

In accordance with 10 CFR 50.91, "Notice for public comment; State consultation," paragraph (b), Exelon is notifying the State of New York of this application for license amendment by transmitting a copy of this letter and its attachments to the designated State Official.

If you have any questions or require additional information, please contact Enrique Villar at (610) 765-5736.

License Amendment Request
to Adopt TSTF-568, Revision 2
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I declare under penalty of perjury that the foregoing is true and correct. Executed on the 23th
day of January 2020.

Respectfully,



David T. Gudger
Senior Manager, Licensing
Exelon Generation Company, LLC

Attachments: 1. Evaluation of Proposed Changes
 2. Markup of Proposed Technical Specifications Pages
 3. Markup of Proposed Technical Specifications Bases Pages and Inserts
 (For Information Only)
 4. Revised (Clean) Technical Specifications and Bases Pages

cc:	Regional Administrator – NRC Region I	w/ attachments
	NRC Senior Resident Inspector – JAF	"
	NRC Project Manager, NRR – JAF	"
	A. L. Peterson, NYSERDA	"

ATTACHMENT 1

**James A. FitzPatrick Nuclear Power Plant
Renewed Facility Operating License No. DPR-59
NRC Docket No. 50-333**

Evaluation of Proposed Changes

Evaluation of Proposed Changes

Subject: License Amendment Request – to adopt TSTF-568, Rev 2

1.0 DESCRIPTION

2.0 ASSESSMENT

2.1 Applicability of safety Evaluation

2.2 Optional Changes and Variations

3.0 REGULATORY ANALYSIS

3.1 No Significant Hazards Consideration

3.2 Conclusions

4.0 ENVIRONMENTAL CONSIDERATION

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1.0 DESCRIPTION

Exelon requests adoption of TSTF-568, "Revise the Applicability of BWR TS 3.6.2.5 and TS 3.6.3.2." TSTF-568 revises the Applicability and Actions of Technical Specification (TS) 3.6.2.5, "Drywell-to-Suppression Chamber Differential Pressure," and TS 3.6.3.2, "Primary Containment Oxygen Concentration," and presents the requirements in a manner more consistent with the Standard Technical Specifications (STS) format and content.

Exelon requests approval of this LAR by March 4, 2020.

2.0 ASSESSMENT

2.1 Applicability of Safety Evaluation

Exelon Generation Company, LLC (EGC) has reviewed the Safety Evaluation for TSTF-568 provided to the Technical Specifications Task Force in a letter dated December 17, 2019. This review included a review of the NRC staff's evaluation, as well as the information provided in TSTF-568. Exelon has concluded that the justifications presented in TSTF-568 and the safety evaluation prepared by the NRC staff are applicable to the James A. FitzPatrick Nuclear Power Plant (JAF) Station and justify this amendment for the incorporation of the changes to the JAF TS.

2.2 Optional Changes and Variations

Exelon utilize different numbering than the Standard Technical Specifications on which TSTF-568 was based. Specifically, the numbering differences are as follow:

1. TSTF TS 3.6.2.5 "Drywell-to-Suppression Chamber Differential Pressure" corresponds to TS 3.6.2.4 for the JAFNPP plant
2. TSTF TS 3.6.3.2 "Primary Containment Oxygen Concentration" corresponds to TS 3.6.3.1 for the JAFNPP plant

These variations are administrative and do not affect the applicability of TSTF-568 Rev 2 or the NRC's safety evaluation to the proposed license amendment.

3.0 REGULATORY ANALYSIS

3.1 No Significant Hazards Consideration

Exelon requests adoption of TSTF-568, "Revise Applicability of BWR/4 TS 3.6.2.5 and TS 3.6.3.2." TSTF-568 revises the Applicability and Actions of the James A. FitzPatrick Nuclear Power Plant (JAFNPP) Technical Specification (TS) 3.6.2.4, "Drywell-to-Suppression Chamber Differential Pressure," and TS 3.6.3.1, "Primary Containment Oxygen Concentration," and presents the requirements in a manner more consistent with the Standard Technical Specifications (STS) format and content.

Exelon has evaluated if a significant hazards consideration is involved with the proposed amendment(s) by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed change revises the Applicability and Actions of TS 3.6.2.4, "Drywell-to- Suppression Chamber Differential Pressure," and TS 3.6.3.1, "Primary Containment Oxygen Concentration," and presents the requirements in a manner more consistent with the STS format and content. Drywell-to-suppression chamber differential pressure and primary containment oxygen concentration are not initiators to any accident previously evaluated. As a result, the probability of any accident previously evaluated is not affected by the proposed change.

Drywell-to-Suppression Chamber Differential Pressure and Primary Containment Oxygen Concentration are assumptions in the mitigation of some accidents previously evaluated. The Applicability of TS 3.6.3.1 is changed from Mode 1 when thermal power is greater than 15% to Modes 1 and 2. This expands the Applicability of the TS and will not have an effect on the consequences of an accident. The existing Applicability exceptions are removed and replaced with a longer Completion Time of 72 hours. The consequences of an event that could affect the drywell-to-suppression chamber differential pressure and primary containment oxygen concentration are no different during the proposed Completion Time than the consequences of the same event during the existing Completion Times. A note referencing Limiting Condition for Operation (LCO) 3.0.4.c is added to the Actions to permit entering the Applicability with the LCO not met. The note replaces the existing Applicability exceptions. This change is administrative and has no effect on the consequences of an accident.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed change revises the Applicability and Actions of TS 3.6.2.4, "Drywell-to- Suppression Chamber Differential Pressure," and TS 3.6.3.1, "Primary Containment Oxygen Concentration," and presents the requirements in a manner more consistent with the STS format and content.

The proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed). No credible new failure mechanisms, malfunctions, or accident initiators that would have been considered a design basis accident in the UFSAR are created because the Nuclear Regulatory Commission has determined that hydrogen generation is not risk significant for design basis accidents.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No.

The proposed change revises the Applicability and Actions of TS 3.6.2.4, "Drywell-to- Suppression Chamber Differential Pressure," and TS 3.6.3.1, "Primary Containment Oxygen Concentration," and presents the requirements in a manner more consistent with the STS format and content. No safety limits are affected. No Limiting Conditions for Operation or Surveillance limits are affected. The Drywell-to-Suppression Chamber Differential Pressure and Primary Containment Oxygen Concentration Technical Specification requirements assure sufficient safety margins are maintained, and that the design, operation, surveillance methods, and acceptance criteria specified in applicable codes and standards (or alternatives approved for use by the NRC) will continue to be met as described in the plants' licensing basis. The proposed change does not adversely affect existing plant safety margins or the reliability of the equipment assumed to operate in the safety analysis. As such, there are no changes being made to safety analysis assumptions, safety limits, or limiting safety system settings that would adversely affect plant safety.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based upon the above, Exelon concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

3.2 Conclusions

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) 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.

4.0 ENVIRONMENTAL CONSIDERATION

The proposed change does not change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or does not change an inspection or surveillance requirement. The proposed change does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9).

Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed change.

5.0 REFERENCES

1. Technical Specification Task Force Traveler TSTF 568, Revision 2, "Revise Applicability of BWR/4 TS 3.6.2.5 and TS 3.6.3.2," Using the Consolidated Line Item Improvement Process (EPDI L-2017-PMP-0024).
2. Final Safety Evaluations of Technical Specification Task Force Traveler TSTF 568, Revision 2, "Revise Applicability of BWR/4 TS 3.6.2.5 and TS 3.6.3.2," Using the Consolidated Line Item Improvement Process (EPDI L-2017-PMP-0024), dated December 17, 2019. \

ATTACHMENT 2

Markup of Proposed Technical Specifications Pages

TS LCO Pages

3.6.2.4-1

3.6.3.1-1

3.6 CONTAINMENT SYSTEMS

3.6.2.4 Drywell-to-Suppression Chamber Differential Pressure

LCO 3.6.2.4 The drywell pressure shall be maintained ≥ 1.7 psi above the pressure of the suppression chamber.

NOTE

~~Not required to be met for 4 hours during Surveillances that cause or require the drywell-to-suppression chamber differential pressure to be outside the limit.~~

APPLICABILITY: ~~MODE 1 during the time period with THERMAL POWER > 15% RTP.~~

~~a. From 24 hours after THERMAL POWER is > 15% RTP following startup, to~~

~~b. 24 hours prior to reducing THERMAL POWER to < 15% RTP prior to the next scheduled reactor shutdown.~~

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Drywell-to-suppression chamber differential pressure not within limit.	<p>A.1 ----- NOTE ----- LCO 3.0.4.c is Applicable. -----</p> <p>Restore differential pressure to within limit.</p>	8-72 hours
B. Required Action and associated Completion Time not met.	B.1 Reduce THERMAL POWER to $\leq 15\%$ RTP.	12 hours

3.6 CONTAINMENT SYSTEMS

3.6.3.1 Primary Containment Oxygen Concentration

LCO 3.6.3.1 The primary containment oxygen concentration shall be < 4.0 volume percent.

APPLICABILITY: ~~MODE 1 during the time period; and~~ 2.

a. ~~From 24 hours after THERMAL POWER is > 15% RTP following startup, to~~

b. ~~24 hours prior to reducing THERMAL POWER to < 15% RTP prior to the next scheduled reactor shutdown.~~

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Primary containment oxygen concentration not within limit.	A.1 ----- NOTE----- LCO 3.0.4.c is Applicable. ----- Restore oxygen concentration to within limit.	24 <u>72</u> hours
B. Required Action and associated Completion Time not met.	B.1 Reduce THERMAL POWER to <u>< 15% RTP.</u> Be in <u>MODE 3.</u>	8-12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.6.3.1.1 Verify primary containment oxygen concentration is within limit.	In accordance with the Surveillance Frequency Control

Primary Containment Oxygen Concentration
3.6.3.1

SURVEILLANCE	FREQUENCY
	Program

ATTACHMENT 3

Markup of Proposed Technical Specifications Bases Pages and Inserts **(For Information Only)**

TS Bases Pages

B 3.6.2.4-2

B 3.6.2.4-3

B 3.6.3.1-2

BASES

LCO
(continued)

LCO 3.6.2.2. Failure to maintain the required differential pressure could result in excessive forces on the suppression chamber due to higher water clearing loads from downcomer pipes and higher pressure buildup in the drywell. ~~The LCO is modified by a Note which states that the LCO is not required to be met up to four hours during Surveillances that cause or require drywell to suppression chamber differential pressure to be outside of limits. These Surveillances include required OPERABILITY testing of the High Pressure Coolant Injection System, the Reactor Core Isolation Cooling System, and the suppression chamber to drywell vacuum breakers. The 4 hour allowance is adequate to perform the Surveillances and to restore the drywell to suppression chamber differential pressure to within limits.~~

APPLICABILITY

Drywell-to-suppression chamber differential pressure must be controlled when the primary containment is inert. The primary containment must be inert in MODE 1 with THERMAL POWER >15% RTP, since this is the condition with the highest probability for an event that could impose large loads on the primary containment. ~~Drywell to suppression chamber differential pressure must be controlled when the primary containment is inert. The primary containment must be inert in MODE 1, since this is the condition with the highest probability for an event that could produce hydrogen. It is also the condition with the highest probability of an event that could impose large loads on the primary containment.~~

~~Inerting primary containment is an operational problem because it prevents primary containment access without an appropriate breathing apparatus. Therefore, the primary containment is inerted as late as possible in the plant startup and is de inerted as soon as possible in the plant shutdown. As long as reactor power is < 15% RTP, the probability of an event that generates hydrogen or excessive loads on primary containment occurring within the first 24 hours following a startup or within the last 24 hours prior to a shutdown is low enough that these "windows," with the primary containment not inerted, are also justified. The 24 hour time period is a reasonable amount time to allow plant personnel to perform inerting or de inerting.~~

ACTIONS

A.1

If drywell-to-suppression chamber differential pressure is not within the limit, the conditions assumed in the safety analyses are not met

BASES (continued)

and the differential pressure must be restored to within the limit within ~~8-72~~ hours. The ~~8-72~~ hour Completion Time ~~provides sufficient time to restore differential pressure to within limit and takes into account the low probability of an event that would create excessive suppression chamber loads occurring during this time period.~~

A Note permits the use of the provisions of LCO 3.0.4.c. This allowance permits entry into the applicable MODE(s) while relying on the ACTIONS. This allowance is acceptable because inerting the primary containment prevents containment access without an appropriate breathing apparatus. Therefore, the primary containment is inerted as late as possible in the plant startup, after entering MODE 1 with THERMAL POWER > 15% RTP, and de-inerted as soon as possible in the plant shutdown. It is acceptable to intentionally enter the Required Action A.1 prior to a shutdown in order to begin de-inerting the primary containment prior to exiting the Applicability.

B.1

If the differential pressure cannot be restored to within limits within the associated Completion Time, the plant must be placed in a MODE in which the LCO does not apply. This is done by reducing power to $\leq 15\%$ RTP within 12 hours. The 12 hour Completion Time is reasonable, based on operating experience, to reduce reactor power from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE
REQUIREMENTS

SR 3.6.2.4.1

The drywell-to-suppression chamber differential pressure is regularly monitored to ensure that the required limits are satisfied. ~~The 12 hour~~ Frequency of this SR was developed based on operating experience relative to differential pressure variations during applicable MODES. Furthermore, the 12 hour Frequency is considered adequate in view of other indications available in the control room, including alarms, to alert the operator to an abnormal pressure condition.

REFERENCES

1. UFSAR, Section 5.2.3.3.
2. 10 CFR 50.36(c)(2)(ii).

BASES (continued)

APPLICABILITY

The primary containment oxygen concentration must be within the specified limit when primary containment is inerted, ~~except as allowed by the relaxations during startup and shutdown addressed below.~~ The primary containment must be inert in MODE 1 and 2, since this is the condition with the highest probability of an event that could produce hydrogen. ~~Inerting the primary containment is an operational problem because it prevents containment access without an appropriate breathing apparatus. Therefore, the primary containment is inerted as late as possible in the plant startup and de-inerted as soon as possible in the plant shutdown. As long as reactor power is < 15% RTP, the potential for an event that generates significant hydrogen is low and the primary containment need not be inert. Furthermore, the probability of an event that generates hydrogen occurring within the first 24 hours of a startup, or within the last 24 hours before a shutdown, is low enough that these "windows," when the primary containment is not inerted, are also justified. The 24 hour time period is a reasonable amount of time to allow plant personnel to perform inerting or de-inerting.~~

ACTIONS

A.1

If oxygen concentration is ≥ 4.0 v/o at any time while operating in MODE 1 or 2, with the exception of the relaxations allowed during startup and shutdown, oxygen concentration must be restored to < 4.0 v/o within 24-72 hours. The 24-72 hour Completion Time is allowed when oxygen concentration is ≥ 4.0 v/o because of the availability of other hydrogen mitigating systems (e.g., the CAD-System) and the low probability and long duration of an event that would generate significant amounts of hydrogen occurring during this period.

A Note permits the use of the provisions of LCO 3.0.4.c. This allowance permits entry into the applicable MODE(S) while relying on the ACTIONS. This allowance is acceptable because inerting the primary containment prevents containment access without an appropriate breathing apparatus. Therefore, the primary containment is inerted as late as possible in the plant startup, after entering MODE 1 with THERMAL POWER > 15% RTP, and de-inerted as soon as possible in the plant shutdown. It is acceptable to intentionally enter the Required Action A.1 prior to a shutdown in order to begin de-inerting the primary containment prior to exiting the Applicability.

INSERT 1

Drywell-to-suppression chamber differential pressure must be controlled when the primary containment is inert. The primary containment must be inert in MODE 1 with THERMAL POWER >15% RTP, since this is the condition with the highest probability for an event that could impose large loads on the primary containment.

INSERT 2

A Note permits the use of the provisions of LCO 3.0.4.c. This allowance permits entry into the applicable MODE(S) while relying on the ACTIONS. This allowance is acceptable because inerting the primary containment prevents containment access without an appropriate breathing apparatus. Therefore, the primary containment is inerted as late as possible in the plant startup, after entering MODE 1 with THERMAL POWER > 15% RTP, and de-inerted as soon as possible in the plant shutdown. It is acceptable to intentionally enter the required Action A.1 prior to a shutdown in order to begin de-inerting the primary containment prior to exiting the Applicability.

ATTACHMENT 4

Revised (Clean) Technical Specifications and Bases Pages

TS LCO Pages

3.6.2.4-1

3.6.3.1-1

TS Bases Pages

B 3.6.2.4-2

B 3.6.2.4-3

B 3.6.3.1-2

Drywell-to-Suppression Chamber Differential Pressure
3.6.2.4

3.6 CONTAINMENT SYSTEMS

3.6.2.4 Drywell-to-Suppression Chamber Differential Pressure

LCO 3.6.2.4 The drywell pressure shall be maintained ≥ 1.7 psi above the pressure of the suppression chamber.

APPLICABILITY: MODE 1 with THERMAL POWER $> 15\%$ RTP.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Drywell-to-suppression chamber differential pressure not within limit.	A.1 ----- NOTE----- LCO 3.0.4.c is Applicable. ----- Restore differential pressure to within limit.	72 hours
B. Required Action and associated Completion Time not met.	B.1 Reduce THERMAL POWER to $\leq 15\%$ RTP.	12 hours

Primary Containment Oxygen Concentration
3.6.3.1

3.6 CONTAINMENT SYSTEMS

3.6.3.1 Primary Containment Oxygen Concentration

LCO 3.6.3.1 The primary containment oxygen concentration shall be < 4.0 volume percent.

APPLICABILITY: MODE 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Primary containment oxygen concentration not within limit.	A.1 ----- NOTE----- LCO 3.0.4.c is Applicable. ----- Restore oxygen concentration to within limit.	72 hours
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3.	12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.3.1.1	Verify primary containment oxygen concentration is within limit.	In accordance with the Surveillance Frequency Control Program

BASES

LCO (continued)	LCO 3.6.2.2. Failure to maintain the required differential pressure could result in excessive forces on the suppression chamber due to higher water clearing loads from downcomer pipes and higher pressure buildup in the drywell.
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APPLICABILITY	Drywell-to-suppression chamber differential pressure must be controlled when the primary containment is inert. The primary containment must be inert in MODE 1 with THERMAL POWER >15% RTP, since this is the condition with the highest probability for an event that could impose large loads on the primary containment.
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ACTIONS	<p><u>A.1</u></p> <p>If drywell-to-suppression chamber differential pressure is not within the limit, the conditions assumed in the safety analyses are not met and the differential pressure must be restored to within the limit within 72 hours. The 72 hour Completion Time takes into account the low probability of an event that would create excessive suppression chamber loads occurring during this time period.</p> <p>A Note permits the use of the provisions of LCO 3.0.4.c. This allowance permits entry into the applicable MODE(s) while relying on the ACTIONS. This allowance is acceptable because inerting the primary containment prevents containment access without an appropriate breathing apparatus. Therefore, the primary containment is inerted as late as possible in the plant startup, after entering MODE 1 with THERMAL POWER > 15% RTP, and de-inerted as soon as possible in the plant shutdown. It is acceptable to intentionally enter the Required Action A.1 prior to a shutdown in order to begin de-inerting the primary containment prior to exiting the Applicability.</p> <p><u>B.1</u></p> <p>If the differential pressure cannot be restored to within limits within the associated Completion Time, the plant must be placed in a MODE in which the LCO does not apply. This is done by reducing power to ≤ 15% RTP within 12 hours. The 12 hour Completion Time is reasonable, based on operating experience, to reduce reactor power from full power conditions in an orderly manner and without challenging plant systems.</p>
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(continued)

BASES (continued)

SURVEILLANCE
REQUIREMENTS

SR 3.6.2.4.1

The drywell-to-suppression chamber differential pressure is regularly monitored to ensure that the required limits are satisfied. The 12 hour Frequency of this SR was developed based on operating experience relative to differential pressure variations during applicable MODES. Furthermore, the 12 hour Frequency is considered adequate in view of other indications available in the control room, including alarms, to alert the operator to an abnormal pressure condition.

REFERENCES

1. UFSAR, Section 5.2.3.3.
 2. 10 CFR 50.36(c)(2)(ii).
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-

BASES (continued)

APPLICABILITY The primary containment oxygen concentration must be within the specified limit when primary containment is inerted. The primary containment must be inert in MODE 1 and 2, since this is the condition with the highest probability of an event that could produce hydrogen.

ACTIONS **A.1**

If oxygen concentration is ≥ 4.0 v/o while operating in MODE 1 or 2, oxygen concentration must be restored to < 4.0 v/o within 72 hours. The 72 hour Completion Time is allowed when oxygen concentration is ≥ 4.0 v/o because of the low probability and long duration of an event that would generate significant amounts of hydrogen occurring during this period.

A Note permits the use of the provisions of LCO 3.0.4.c. This allowance permits entry into the applicable MODE(S) while relying on the ACTIONS. This allowance is acceptable because inerting the primary containment prevents containment access without an appropriate breathing apparatus. Therefore, the primary containment is inerted as late as possible in the plant startup, after entering MODE 1 with THERMAL POWER $> 15\%$ RTP, and de-inerted as soon as possible in the plant shutdown. It is acceptable to intentionally enter the Required Action A.1 prior to a shutdown in order to begin de-inerting the primary containment prior to exiting the Applicability.

B.1

If oxygen concentration cannot be restored to within limits within the required Completion Time, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, power must be reduced to $\leq 15\%$ RTP within 8 hours. The 8 hour Completion Time is reasonable, based on operating experience, to reduce reactor power from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE REQUIREMENTS **SR 3.6.3.1.1**

The primary containment must be determined to be inert by verifying that oxygen concentration is < 4.0 v/o. The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

(continued)