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Washington, D. C. 20555-0001

Edwin I. Hatch Nuclear Plant – Units 1 & 2
Revision to Technical Specification 3.6.4.1 – Secondary Containment

Ladies and Gentlemen:

Pursuant to the provisions of Section 50.90 of Title 10 of the Code of Federal Regulations, Southern Nuclear Operating Company (SNC) hereby requests amendments to the Technical Specifications (TS) for Edwin I. Hatch Nuclear Plant (HNP) Unit 1 Renewed Facility Operating License DPR-57 and Unit 2 Renewed Facility Operating License NPF-5, and includes the results of the no significant hazards determination. The proposed license amendments modify the HNP TS Actions associated with the secondary containment. Specifically, when one or more combinations of required standby gas treatment (SGT) subsystems cannot maintain adequate vacuum in the secondary containment, SNC requests 7 days to determine and correct the cause of the secondary containment degradation provided at least one combination of Operable SGT subsystems can establish and maintain adequate secondary containment vacuum.

SNC requests approval of the proposed license amendments by October 4, 2019. The proposed changes would be implemented within 90 days of issuance of the amendments.

This letter contains no NRC commitments. If you have any questions, please contact Jamie Coleman at 205.992.6611.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 1 day of October 2018.

Respectfully submitted,


C. A. Gayheart
Director, Regulatory Affairs
Southern Nuclear Operating Company

CAG/RMJ

Enclosure: 1. Basis for Proposed Change

Attachments: 1. HNP Unit 1 and Unit 2 Technical Specifications Marked-Up Pages
2. HNP Unit 1 and Unit 2 Revised Technical Specifications Pages
3. HNP Unit 1 and Unit 2 Technical Specifications Bases Marked-Up Pages
(Information Only)

cc: Regional Administrator, Region II
NRR Project Manager – Hatch
Senior Resident Inspector – Hatch
Director, Environmental Protection Division – State of Georgia
RType: CHA02.004

Edwin I. Hatch Nuclear Plant – Units 1 & 2
Revision to Technical Specification 3.6.4.1 – Secondary Containment

Enclosure

Basis for Proposed Change

1.0 Summary Description

Southern Nuclear Operating Company (SNC) requests amendments to Facility Operating Licenses DPR-57 and NPF-5 for Edwin I. Hatch Nuclear Plant Units 1 and 2 (HNP), respectively. The proposed license amendments modify the HNP Technical Specification (TS) Actions associated with the secondary containment. Specifically, when one or more combinations of required standby gas treatment (SGT) subsystems cannot establish or maintain adequate vacuum in the secondary containment, SNC requests 7 days to determine and correct the cause of the secondary containment degradation provided at least one combination of Operable SGT subsystems can establish and maintain adequate secondary containment vacuum.

2.0 Detailed Description

2.1 System Design and Operation

The HNP Units 1 and 2 secondary containments are comprised of structures that completely enclose the respective primary containments and those components that may be postulated to contain primary system fluid. The secondary containment system includes the reactor building, SGT system, reactor building isolation control system, and main stack. In addition, when the equipment and refueling floor hatches between the respective reactor building and the refueling floor are open, secondary containment includes the common refueling area and the opposite unit reactor building volume, as applicable. These zones (i.e., reactor buildings and common refueling area) also serve as the primary containment when the primary containment system is open, as during unit refueling. The Unit 1 reactor building comprises Zone 1, the Unit 2 reactor building comprises Zone 2, and the common refueling area comprises Zone 3. Depending on the plant configuration, the three zones may be interconnected or isolated resulting in varying secondary containment volumes associated with each unit.

The secondary containment structure forms a control volume that serves to hold up fission products that may leak from primary containment following a design basis accident. In conjunction with operation of the SGT system and closure of the secondary containment isolation dampers, the secondary containment is designed to reduce the activity level of the fission products prior to release to the environment and to isolate and contain fission products that are released during certain operations that take place inside primary containment when primary containment is not required to be Operable, or that take place outside primary containment.

HNP has a total of four SGT subsystems: two Unit 1 SGT subsystems and two Unit 2 SGT subsystems. Each SGT subsystem takes suction from its respective reactor building or from the common refueling area. The nominal flowrate through each filter is 3500 cfm.

The inlet and discharge flow paths associated with each Unit 1 SGT subsystem converge into single headers that take suction from the reactor building and refueling floor and discharge into the main stack mixing chamber as shown in simplified Figure 1 herein. Because of the common suction and discharge arrangement in the Unit 1 SGT system, the total flow achieved with both Unit 1 SGT subsystems operating is only slightly greater than the nominal flow associated with one Unit 1 SGT subsystem in operation.

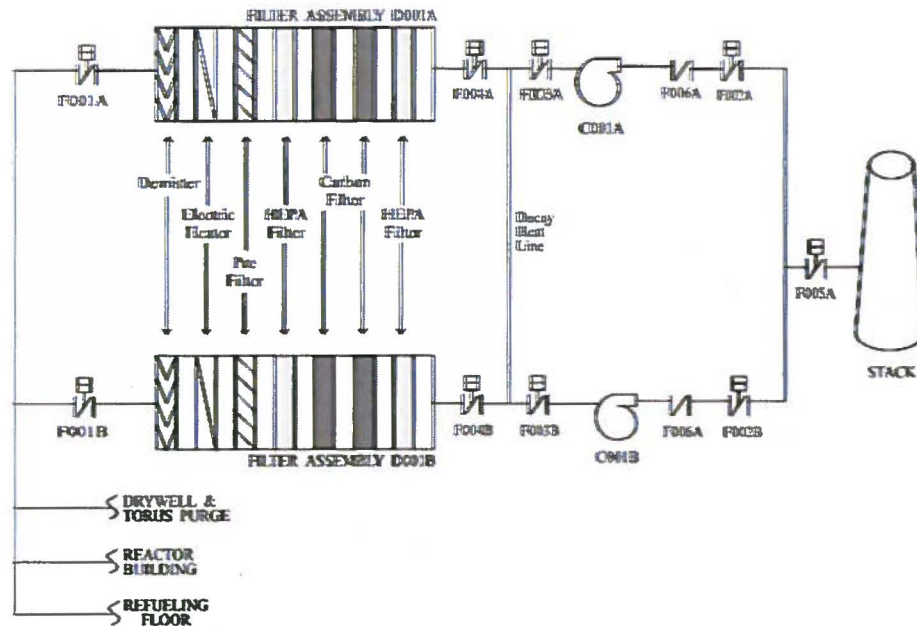


Figure 1 – Simplified Diagram Unit 1 SGT System

The discharge flow from each Unit 2 SGT subsystem discharges into separate headers, which are connected to the off-gas mixing chambers in the main stack, independent of each other as shown in simplified Figure 2 herein. As a result, a total nominal discharge flow of roughly double that of one Unit 2 SGT subsystem can be established when both Unit 2 SGT subsystems are operating.

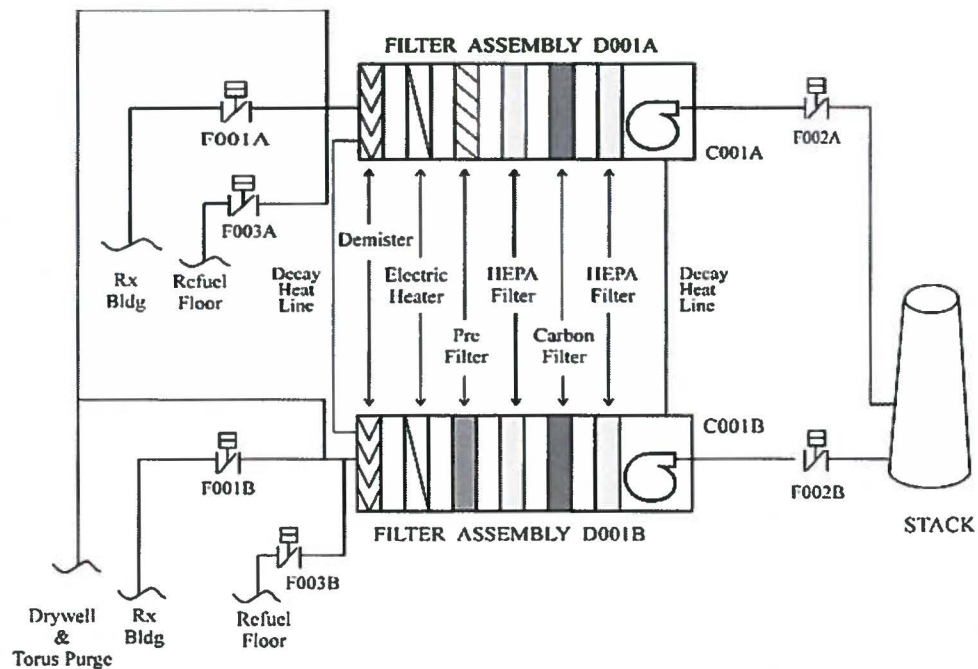
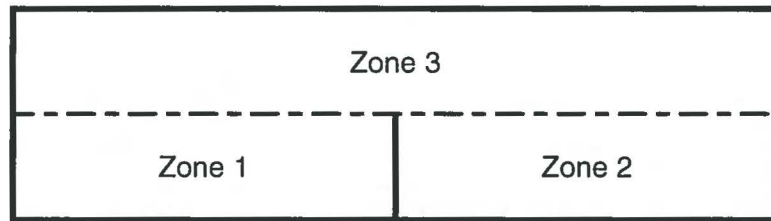


Figure 2 – Simplified Diagram of Unit 2 SGT System

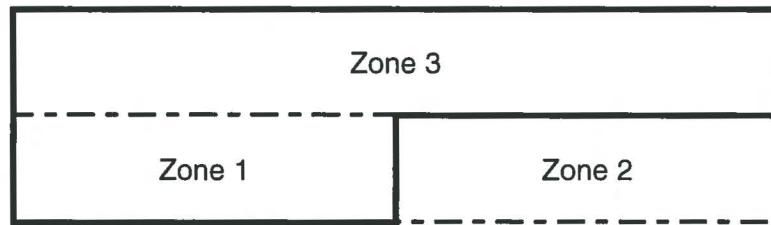
The following provides a pictorial representation of the various secondary containment configurations as described in the HNP Technical Requirements Manual (TRM):

Type A Configuration



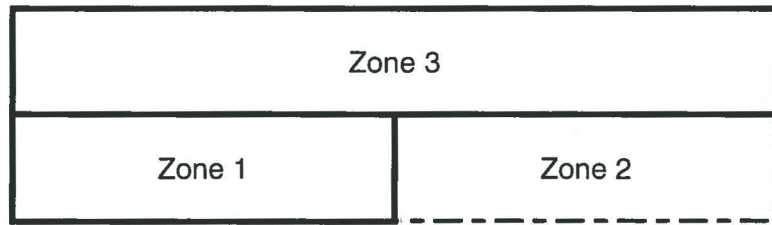
Type A – Zone 1 or Zone 2 may be isolated or inter-connected with Zone 3. In this configuration, whether zones are isolated or interconnected, four SGT subsystems are required to ensure at least three SGT subsystems are available to establish and maintain adequate vacuum in the secondary containment during an accident on either Unit 1 or Unit 2 assuming a worst case single active failure. This is due to the design of the SGT subsystems, which draw from both their respective reactor building and the common refueling area volumes. A minimum of any combination of three SGT subsystems ensures adequate subsystems are available to meet the safety function irrespective of the various Type A configurations.

Type B1 Configuration



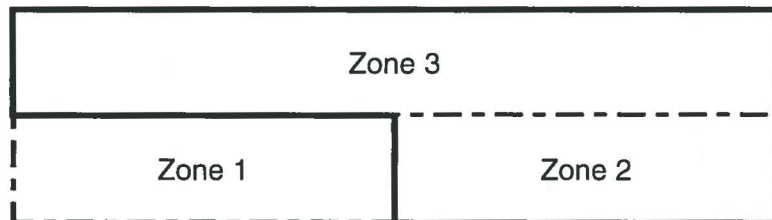
Type B1 – Unit 2 outage with secondary containment breached; Unit 1 refueling floor and equipment hatches open/removed; and Unit 2 refueling floor and equipment hatches installed. In this configuration, one Unit 1 SGT subsystem and both Unit 2 SGT subsystems are required to ensure at least two SGT subsystems are available (one which must be a Unit 2 SGT subsystem) to establish and maintain adequate vacuum in the secondary containment during an accident on Unit 1 assuming a worst case single active failure. A minimum of one Unit 2 SGT subsystem with one additional subsystem is necessary to meet the safety function in this configuration because both Unit 1 SGT subsystems cannot maintain secondary containment vacuum in the combined volume of Zones 1 and 3.

Type B2 Configuration



Type B2 – Unit 2 outage with secondary containment breached; Unit 1 refueling floor and equipment hatches installed; and Unit 2 refueling floor and equipment hatches installed. In this configuration, four SGT subsystems are required to ensure at least two SGT subsystems are available, one Unit 1 SGT subsystem available to Zone 1 and one Unit 2 SGT subsystem available to Zone 3, to establish and maintain adequate vacuum in the secondary containment during an accident on Unit 1 assuming a worst case single active failure.

Type C Configuration



Type C – Unit 1 outage with secondary containment breached; Unit 1 refueling floor and equipment hatches installed; and Unit 2 refueling floor and equipment hatches open/removed. In this configuration, both Unit 2 SGT subsystems and one Unit 1 SGT subsystem are required to ensure at least two SGT subsystems are available (one of which must be a Unit 2 SGT subsystem) to establish and maintain adequate vacuum in the secondary containment during an accident on Unit 2 assuming a worst case single active failure. A minimum of one Unit 2 SGT subsystem with one additional subsystem is necessary to meet the safety function in this configuration because both Unit 1 SGT subsystems cannot maintain secondary containment vacuum in the combined volume of Zones 2 and 3.

2.2 Current Technical Specifications Requirements

The current TS Limiting Condition for Operation (LCO) 3.6.4.1 requires the secondary containment to be Operable and is applicable in Modes 1, 2 and 3; during movement of irradiated fuel assemblies in the secondary containment; and during Core Alterations.

In the condition when the secondary containment is inoperable in Mode 1, 2, or 3 (Condition A of TS 3.6.4.1), the required action is to restore the secondary containment to Operable status within 4 hours. If the required action and the associated completion time are not met (Condition B of TS 3.6.4.1), the plant must be placed in Mode 3 in 12 hours.

In addition, TS LCO 3.6.4.3, "Standby Gas Treatment (SGT) System," requires the Unit 1 and Unit 2 SGT subsystems required to support LCO 3.6.4.1 to be Operable and is

applicable in Modes 1, 2 and 3; during movement of irradiated fuel assemblies in the secondary containment; and during Core Alterations. When secondary containment is aligned in Type A or B2 configuration, two Unit 1 and two Unit 2 SGT subsystems are required to be Operable to meet LCO 3.6.4.3. When the secondary containment is aligned in Type B1 or C configuration, at least one Unit 1 SGT and two Unit 2 SGT subsystems are required to be Operable to meet LCO 3.6.4.3.

In the condition when one required Unit 1 SGT subsystem is inoperable when four SGT subsystems are required Operable and the Unit 1 reactor building-to-refueling floor plug is not installed (Condition A of TS 3.6.4.3) the required action is to restore the required Unit 1 SGT subsystem to Operable status within 30 days from discovery of failure to meet the LCO. In the condition when one required Unit 2 SGT subsystem is inoperable or one required Unit 1 SGT subsystem is inoperable for reasons other than Condition A (Condition B of TS 3.6.4.3) the required action is to restore the required SGT subsystem to Operable status within 7 days. If the required action and the associated completion time are not met (Condition C of TS 3.6.4.3), the plant must be placed in Mode 3 in 12 hours.

2.3 Reason for the Proposed Change

In January 2018 with both HNP units operating and secondary containment configured in a Type A configuration as specified in the HNP TRM, it was discovered that a combination of SGT subsystems could not draw adequate secondary containment vacuum within the required timing during the performance of surveillance requirement (SR) 3.6.4.1.3 for HNP Units 1 and 2. The surveillance test was re-performed using a different combination of SGT subsystems and the SR was met. Initially, the cause of not being able to draw adequate vacuum in the secondary containment was reasoned to be a degraded SGT subsystem, which was declared inoperable. However, subsequent investigation determined that the failure to meet the required drawdown time was due to increased total leakage in the secondary containment due to degraded door seals and not due to an inoperable SGT subsystem; i.e., the SGT subsystem met the required acceptance criteria for Operability. Corrective action was taken to repair the degraded door seals. An open penetration and two degraded secondary containment isolation dampers were also repaired to improve secondary containment leakage margin. SNC determined this event was reportable in accordance with the requirements of 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by TS since the secondary containment was inoperable longer than the completion times allowed by TS 3.6.4.3 Actions.

Secondary containment leak tightness, which includes overall penetration and door seal leakage, is determined by the capability of the SGT system to establish and maintain vacuum within the secondary containment. Therefore, secondary containment continues to be capable of performing its associated safety function, provided at least one combination of required Operable SGT subsystems are capable of establishing and maintaining adequate vacuum within the secondary containment. However, TS 3.6.4.1 Required Action A.1 only allows 4 hours to restore secondary containment to Operable status when the secondary containment is inoperable, including conditions where the leakage results in one or more combinations of SGT subsystems not capable of establishing adequate secondary containment vacuum within the required time. This completion time does not provide adequate time to determine the underlying cause of the inoperability; whether a degraded secondary containment or an inoperable SGT subsystem. The TS 3.6.4.1 Bases indicates that the 4-hour Completion Time is

commensurate with the importance of maintaining secondary containment leak tightness to ensure that the release of radioactive materials from the primary containment is restricted to those leakage paths and associated leakage rates assumed in the accident analysis and that fission products entrapped within the secondary containment structure will be treated by the Unit 1 and Unit 2 SGT systems prior to discharge to the environment. When any combination of SGT subsystems can establish and maintain adequate secondary containment vacuum within the required time periods, the safety function of secondary containment can still be performed, although the unit can no longer support the failure of a single SGT subsystem. The proposed TS change will provide additional time to determine the cause of the degraded secondary containment and restore it to Operable status, provided at least one combination of Operable SGT subsystems can establish and maintain adequate secondary containment vacuum within the required time periods. The proposed change also obviates the need for a dual unit shutdown and the associated risk as a result of this condition when both HNP units are operating.

2.4 Description of the Proposed Change

The proposed amendments would add TS Condition A, which states:

“Secondary containment inoperable in MODE 1, 2, or 3 due to SR 3.6.4.1.3 not met.”

Proposed Required Action A.1 states:

“Verify secondary containment vacuum of ≥ 0.20 inch water gauge can be established in ≤ 10 minutes using one or more OPERABLE standby gas treatment (SGT) subsystem(s);” with a Completion Time of 4 hours.

Proposed Required Action A.2 states:

“Restore secondary containment to OPERABLE status;” with a Completion Time of 7 days.

The proposed amendments would also add TS Condition B, which states:

“Secondary containment inoperable in MODE 1, 2, or 3 due to SR 3.6.4.1.4 not met.”

Proposed Required Action B.1 states:

“Verify secondary containment vacuum of ≥ 0.20 inch water gauge can be maintained for 1 hour using one or more OPERABLE SGT subsystem(s) at a flow rate ≤ 4000 cfm per subsystem;” with a Completion Time of 8 hours.

Proposed Required Action B.2 states:

“Restore secondary containment to OPERABLE status;” with a Completion Time of 7 days.

Existing Conditions A, B, and C and associated required actions are renumbered. In addition, the following revisions are proposed as a result of the new conditions (added text in *italics*):

- Existing Condition A (proposed Condition C) is revised to state, "Secondary containment inoperable in MODE 1, 2, or 3 *for reasons other than Condition A or B.*"
- Existing Condition B (proposed Condition D) is revised to state, "Required Action and associated Completion Time of Condition A, *B, or C* not met."

The proposed changes are shown in the marked-up and revised Unit 1 and Unit 2 TS pages provided in Attachments 1 and 2. In addition, Attachment 3 provides, for information only, mark-ups of anticipated corresponding changes to affected TS Bases pages.

3.0 Technical Evaluation

3.1 Current Licensing Basis and Accident Analysis

The two principal accidents for which credit is taken for secondary containment Operability are a loss of coolant accident (LOCA) and a fuel handling accident (FHA) inside secondary containment. As indicated in Section 15.3.3 of the Unit 2 final safety analysis report (FSAR), which also applies to Unit 1 as referenced in the Unit 1 FSAR, the LOCA analysis assumes secondary containment is drawn down to a negative pressure of 0.2 inches water gauge with respect to the atmosphere in 10 minutes. The radioactive release into the secondary containment from a LOCA bound other events that release radioactive material into the secondary containment. The FHA analysis evaluates two cases, one assuming the SGT system is in operation and a second case assuming no operation of the SGT system. For the FHA analysis case that credits SGT system operation, it is assumed that the SGT system establishes a negative secondary containment pressure of 0.2 inches water gauge with respect to the atmosphere in 10 minutes.

3.2 Testing Demonstrating Secondary Containment Leak Tightness

Leak tightness of the secondary containment is determined based on the ability of the required combinations of SGT subsystems to establish and maintain secondary containment vacuum within the initial assumptions of the applicable safety analyses. Overall secondary containment leak tightness is verified by the performance of SR 3.6.4.1.3 and SR 3.6.4.1.4. These surveillances are performed at a frequency in accordance with the HNP TS surveillance frequency control program (SFCP). The current performance frequency for these tests is 24 months on a Staggered Test Basis. Additionally, the equipment hatch and door seals are periodically inspected and maintained in accordance with the requirements of Sections X and XI of 10 CFR 50, Appendix B as described in the HNP quality assurance program and associated plant procedures. Seal integrity of the equipment hatches is verified in accordance with the requirements of SR 3.6.4.1.1 at a frequency in accordance with the SFCP. The current performance frequency for this verification is every 31 days. Door seals are inspected in accordance with the plant preventative maintenance schedule at an interval based on the

history of seal degradation. Leak tightness of equipment hatch and door seals are verified during performance of secondary containment drawdown and duration tests (SRs 3.6.4.1.3 and 3.6.4.1.4).

During the time periods between testing and inspections, operators are alerted to a degradation of secondary containment leak tightness by reactor building-to-outside air differential pressure low and refueling floor-to-outside air differential pressure low annunciation provided in the main control room.

3.3 Acceptability of the Proposed Change

TS currently allow at least 7 days for continued operation when the secondary containment system is degraded due to a single failure of a SGT subsystem. TS also allow indefinite operation when the secondary containment system is degraded due to an inoperable single isolation damper provided the penetration is isolated within 8 hours. Proposed TS 3.6.4.1 Conditions A and B provide required actions that allow an equivalent 7 day time period to determine the cause of the inability of one combination of SGT subsystems to establish and maintain adequate vacuum within the required time assumed in the safety analysis provided at least one combination of Operable SGT subsystems are available to perform this function.

When secondary containment is inoperable in operating Modes 1, 2, or 3 due to SR 3.6.4.1.3 or SR 3.6.4.1.4 not met, the proposed TS required actions allow 7 days to restore secondary containment to Operable status provided secondary containment vacuum can be established and maintained with one or more Operable SGT subsystems within the required time periods (i.e., proposed Required Actions A.1 and B.1). In proposed Conditions A and B, the inability to establish and maintain secondary containment vacuum with one combination of SGT subsystems for the given configuration does not necessarily result in a loss of the secondary containment safety function. With a reduced secondary containment leak tightness, a single combination of SGT subsystems may not be capable of meeting the criteria of SR 3.6.4.1.3 or SR 3.6.4.1.4 although each individual SGT subsystem may still be Operable in accordance with the requirements of TS 3.6.4.3 and TS 5.5.7, "Ventilation Filter Testing Program (VFTP)." The proposed 7 day completion time of proposed Required Actions A.2 and B.2 to restore secondary containment to Operable status is equivalent to the 7 day completion time of Required Action B.1 of TS 3.6.4.3, which is based on consideration of such factors as the availability of at least one combination of Operable SGT subsystems to establish and maintain the required vacuum in the required time periods and the low probability of a DBA occurring during this period. In addition, the acceptability of the proposed 7 day completion time also takes into consideration that the operators are alerted to significant degradation of secondary containment leak tightness during normal ventilation system operation by low secondary containment vacuum annunciation provided in the main control room.

Proposed Required Action A.1 ensures one or more Operable SGT subsystems is capable of establishing a vacuum of ≥ 0.20 inch water gauge in ≤ 10 minutes. The 4 hour completion time is equivalent with the current Required Action A.1 (proposed Required Action C.1) and provides a reasonable time period to lineup and start combinations of Operable SGT subsystems to determine a combination capable of establishing the required vacuum. Proposed Required Action B.1 ensures one or more Operable SGT subsystems is capable of maintaining a vacuum of ≥ 0.20 inch water gauge for at least 1

hour at a system flow rate ≤ 4000 cfm per subsystem. The 8 hour completion time provides a reasonable time period to lineup, start, and run combinations of Operable SGT subsystems and maintain the required vacuum for at least 1 hour. The acceptability of the 8 hour completion time also considered that at least one combination of Operable SGT subsystems is available to establish the required vacuum in ≤ 10 minutes and that a secondary containment penetration with one of two isolation dampers inoperable can remain open for up to 8 hours before the secondary containment penetration is required to be isolated.

The proposed change is acceptable on the basis that any degradation in the secondary containment system does not necessarily result in the inability of the secondary containment system to perform its intended safety function of establishing and maintaining the required secondary containment vacuum within the time assumed in the safety analysis. Providing these additional required actions also precludes an unnecessary unit shutdown, and potentially a dual unit shutdown, due to a secondary containment system degradation that remains within the capabilities and assumptions of the safety analyses.

4.0 Regulatory Evaluation

4.1 Applicable Regulatory Requirements / Criteria

The secondary containment satisfies 10 CFR 50.36, "Technical specifications," paragraph (c)(2)(ii), Criterion 3. The leak tightness of the secondary containment ensures that the release of radioactive materials from the primary containment is restricted to those leakage paths and associated leakage rates assumed in the accident analysis and that fission products entrapped within the secondary containment structure will be treated by the SGT systems prior to discharge to the environment. As a result, secondary containment integrity is considered a primary success path in the mitigation of radioactive dose release to the environment.

The proposed change does not delete requirements associated with the secondary containment and LCO 3.6.4.1 continues to maintain requirements associated with structures, systems, and components that are part of the primary success path and actuate to mitigate the related design basis accidents and transients. In addition, the proposed change does not eliminate remedial actions or shutdown requirements required by 10 CFR 50.36(c)(2)(i); rather, the proposed change provides additional action requirements similar to action requirements currently provided in the SGT system TS for a similar condition. The additional time proposed to restore the secondary containment allows time to determine the cause of the secondary containment integrity degradation; e.g., degraded door seals and dampers or a degraded SGT system. The risk of a providing additional time to restore the leak-tightness of the secondary containment to support any combination of SGT subsystems is offset by the proposed requirement to verify at least one or more Operable SGT subsystems can establish and maintain vacuum within the required time periods. Because the secondary containments for both Units 1 and 2 are interconnected during plant operation, the proposed change also reduces the need for a dual unit shutdown and the associated risk during this condition by allowing more time to identify the degraded components and restore the secondary containments to Operable status.

NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition," Section 6.2.3, "Secondary Containment Functional Design," outlines the requirements for the secondary containment system. The HNP secondary containment design is consistent with the guidance in Section 6.2.3, as previously licensed and approved by the NRC, and is not altered by the proposed change.

HNP Unit 1 secondary containment system was designed to the following applicable Atomic Energy Commission preliminary general design criteria (GDC) identified in Federal Register 32 FR 10213, published July 11, 1967 (ADAMS Accession No. ML043310029):

1967 GDC 10: The reactor building encompasses the primary containment and, in conjunction with the SGT system and main stack, provides secondary containment when the primary containment is closed and in service, in addition to providing containment when the primary containment is open, e.g., during refueling periods. The proposed amendments do not alter the design of the secondary containment system, SGT system, or main stack. The proposed amendments provide additional action requirements similar to action requirements currently provided in the SGT system TS. The proposed action requirements continue to ensure the release of radioactive materials from the primary containment is restricted to those leakage paths and associated leakage rates assumed in the accident analysis and that fission products entrapped within the secondary containment structure will be treated by the SGT systems prior to discharge to the environment.

1967 GDC 62, 63, 64, and 65: The SGT system is designed to permit periodic testing of the system performance and the system can be physically inspected and its operability demonstrated. The proposed amendments do not alter the design of the secondary containment system or the SGT system. Provisions to facilitate periodic inspections of active components and other important equipment of the secondary containment system, including the SGT system, isolation dampers, penetrations and door seals, is not altered by the proposed change and the secondary containment continues to provide sufficient test connections and isolation valves to permit periodic vacuum testing.

The HNP Unit 2 secondary containment system was designed to the following 10 CFR Part 50, Appendix A General Design Criteria for Nuclear Power Plants:

10 CFR 50, Appendix A – Single failure: The proposed change does not alter the design of the secondary containment or the SGT system. Therefore, the SGT system continues to meet the single failure definition as previously approved in the HNP Unit 2 license. The proposed change provides additional action requirements similar to action requirements currently provided in the SGT system TS for a similar single active failure condition and does not allow continued operation with a potential single failure condition beyond that currently allowed for the SGT system.

GDC 5: Sharing of structures, systems, and components: The proposed change does not alter the design of the secondary containment or SGT system and these shared systems continue to be capable of performing their safety functions,

including, in the event of an accident in one unit and an orderly shutdown and cooldown of the remaining unit, as previously licensed and approved by the NRC.

GDC 41, 42, and 43: Containment atmosphere cleanup, inspection, and testing: The proposed change does not alter the design of the secondary containment system or the SGT system. The proposed amendments provide additional action requirements similar to action requirements currently provided in the SGT system TS. The proposed action requirements continue to ensure the release of radioactive materials from the primary containment is restricted to those leakage paths and associated leakage rates assumed in the accident analysis and that fission products entrapped within the secondary containment structure will be treated by the SGT systems prior to discharge to the environment. Provisions to facilitate periodic inspections of active components and other important equipment of the secondary containment system, including the SGT system, isolation dampers, penetrations and door seals, is not altered by the proposed change and the secondary containment continues to provide sufficient test connections and isolation valves to permit periodic vacuum testing.

4.2 No Significant Hazards Consideration Determination Analysis

Southern Nuclear Operating Company (SNC) proposes amendments to Facility Operating Licenses DPR-57 and NPF-5 for Edwin I. Hatch Nuclear Plant Units 1 and 2 (HNP), respectively to modify the HNP Technical Specification (TS) Actions associated with the secondary containment. Specifically, when one or more combinations of required standby gas treatment (SGT) subsystems cannot establish or maintain adequate vacuum in the secondary containment, SNC requests additional TS action requirements be added that will allow 7 days to restore secondary containment to Operable status provided at least one combination of Operable SGT subsystems can establish and maintain adequate secondary containment vacuum. The proposed action requirements are similar to action requirements currently provided in the SGT system TS for a similar condition. The additional time proposed to restore the secondary containment allows time to determine and correct the cause of the secondary containment integrity degradation; e.g., degraded door seals and dampers or a degraded SGT system.

SNC has evaluated whether 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 secondary containment is not an initiator of any accident previously evaluated but is assumed to mitigate some accidents previously evaluated. However, the proposed change does not alter the design or safety function of the secondary containment or associated support systems. Therefore, the probability of an accident previously evaluated is not increased.

The consequences of accidents previously evaluated that assume the secondary containment function in accident mitigation are not altered by the proposed

change. The change includes proposed requirements to verify at least one or more Operable SGT subsystems can establish and maintain vacuum within the required time assumed in the safety analysis, thereby conserving the safety analysis assumptions. Therefore, the consequences of any accident that assumes the secondary containment function are not affected by this change.

Consequently, 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 does not change the design function or operation of the secondary containment function. No plant modifications or changes to the plant configuration or method of operation are involved. The change includes proposed requirements to verify at least one or more Operable SGT subsystems can establish and maintain vacuum within the required time assumed in the safety analysis.

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 does not affect any of the controlling values or parameters used to avoid exceeding regulatory or licensing limits. The proposed change does not exceed or alter the design basis or safety limits, or any limiting safety system settings. The requirement for the secondary containment to perform its designated safety function is unaffected. The proposed change provides additional action requirements similar to action requirements currently provided in the SGT system TS for a similar condition. The risk of providing additional time to restore the leak-tightness of the secondary containment to support any combination of SGT subsystems is offset by the proposed requirements to verify at least one or more Operable SGT subsystems can establish and maintain vacuum within the required time periods. Because the secondary containments for both Units 1 and 2 are interconnected during plant operation, the proposed change also reduces the need for a dual unit shutdown and the associated risk during this condition by allowing more time to identify the degraded components and restore the secondary containments to Operable status. SNC has determined that the acceptability of the allowable outage time for a single SGT subsystem, which was previously evaluated, is also acceptable for the allowable outage time for the secondary containment in the proposed conditions.

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

Based on the above, SNC concludes that the proposed amendment does not involve a 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.

4.3 Conclusion

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.

5.0 **Environmental Considerations**

SNC has evaluated the proposed amendment for environmental considerations. The review has determined that the proposed amendment would 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 would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or a 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 amendment 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 amendment.

Edwin I. Hatch Nuclear Plant – Units 1 & 2
Revision to Technical Specification 3.6.4.1 – Secondary Containment

Attachment 1

HNP Unit 1 and Unit 2 Technical Specifications Marked-Up Pages

3.6 CONTAINMENT SYSTEMS

3.6.4.1 Secondary Containment

LCO 3.6.4.1 The secondary containment shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
During movement of irradiated fuel assemblies in the secondary
containment,
During CORE ALTERATIONS.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<u>A. Secondary containment inoperable in MODE 1, 2, or 3 due to SR 3.6.4.1.3 not met.</u>	<u>A.1 Verify secondary containment vacuum of ≥ 0.20 inch water gauge can be established in ≤ 10 minutes using one or more OPERABLE standby gas treatment (SGT) subsystem(s).</u>	<u>4 hours</u>
	<u>AND</u> <u>A.2 Restore secondary containment to OPERABLE status.</u>	<u>7 days</u>
<u>B. Secondary containment inoperable in MODE 1, 2, or 3 due to SR 3.6.4.1.4 not met.</u>	<u>B.1 Verify secondary containment vacuum of ≥ 0.20 inch water gauge can be maintained for 1 hour using one or more OPERABLE SGT subsystem(s) at a flow rate ≤ 4000 cfm per subsystem.</u>	<u>8 hours</u>
	<u>AND</u>	<u>(continued)</u>

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<u>B.</u> (continued)	<u>B.2</u> Restore secondary containment to <u>OPERABLE status.</u>	<u>7 days</u>
<u>AC.</u> Secondary containment inoperable in MODE 1, 2, or 3 <u>for reasons other than Condition A or B.</u>	<u>AC.1</u> Restore secondary containment to OPERABLE status.	4 hours
<u>BD.</u> Required Action and associated Completion Time of Condition A <u>B. or C</u> not met.	<u>BD.1</u> -----NOTE----- LCO 3.0.4.a is not applicable when entering MODE 3. ----- Be in MODE 3.	12 hours
<u>GE.</u> Secondary containment inoperable during movement of irradiated fuel assemblies in the secondary containment or during CORE ALTERATIONS.	<u>GE.1</u> -----NOTE----- LCO 3.0.3 is not applicable. ----- Suspend movement of irradiated fuel assemblies in the secondary containment. <u>AND</u> <u>GE.2</u> Suspend CORE ALTERATIONS.	Immediately Immediately

3.6 CONTAINMENT SYSTEMS

3.6.4.1 Secondary Containment

LCO 3.6.4.1 The secondary containment shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
During movement of irradiated fuel assemblies in the secondary
containment,
During CORE ALTERATIONS.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<u>A. Secondary containment inoperable in MODE 1, 2, or 3 due to SR 3.6.4.1.3 not met.</u>	<u>A.1 Verify secondary containment vacuum of ≥ 0.20 inch water gauge can be established in ≤ 10 minutes using one or more OPERABLE standby gas treatment (SGT) subsystem(s).</u>	<u>4 hours</u>
	<u>AND</u> <u>A.2 Restore secondary containment to OPERABLE status.</u>	<u>7 days</u>
<u>B. Secondary containment inoperable in MODE 1, 2, or 3 due to SR 3.6.4.1.4 not met.</u>	<u>B.1 Verify secondary containment vacuum of ≥ 0.20 inch water gauge can be maintained for 1 hour using one or more OPERABLE SGT subsystem(s) at a flow rate ≤ 4000 cfm per subsystem.</u>	<u>8 hours</u>
	<u>AND</u>	<u>(continued)</u>

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<u>B.</u> (continued)	<u>B.2</u> Restore secondary containment to <u>OPERABLE status.</u>	<u>7 days</u>
<u>AC.</u> Secondary containment inoperable in MODE 1, 2, or 3 <u>for reasons other than Condition A or B.</u>	<u>AC.1</u> Restore secondary containment to OPERABLE status.	4 hours
<u>BD.</u> Required Action and associated Completion Time of Condition A, <u>B, or C</u> not met.	<u>BD.1</u> -----NOTE----- LCO 3.0.4.a is not applicable when entering MODE 3. ----- Be in MODE 3.	12 hours
<u>CE.</u> Secondary containment inoperable during movement of irradiated fuel assemblies in the secondary containment or during CORE ALTERATIONS.	<u>CE.1</u> -----NOTE----- LCO 3.0.3 is not applicable. ----- Suspend movement of irradiated fuel assemblies in the secondary containment. <u>AND</u> <u>CE.2</u> Suspend CORE ALTERATIONS.	Immediately Immediately

Edwin I. Hatch Nuclear Plant – Units 1 & 2
Revision to Technical Specification 3.6.4.1 – Secondary Containment

Attachment 2

HNP Unit 1 and Unit 2 Revised Technical Specifications Pages

3.6 CONTAINMENT SYSTEMS

3.6.4.1 Secondary Containment

LCO 3.6.4.1 The secondary containment shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
During movement of irradiated fuel assemblies in the secondary
containment,
During CORE ALTERATIONS.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Secondary containment inoperable in MODE 1, 2, or 3 due to SR 3.6.4.1.3 not met.	A.1 Verify secondary containment vacuum of ≥ 0.20 inch water gauge can be established in ≤ 10 minutes using one or more OPERABLE standby gas treatment (SGT) subsystem(s).	4 hours
	<u>AND</u> A.2 Restore secondary containment to OPERABLE status.	7 days
B. Secondary containment inoperable in MODE 1, 2, or 3 due to SR 3.6.4.1.4 not met.	B.1 Verify secondary containment vacuum of ≥ 0.20 inch water gauge can be maintained for 1 hour using one or more OPERABLE SGT subsystem(s) at a flow rate ≤ 4000 cfm per subsystem.	8 hours
	<u>AND</u>	(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. (continued)	B.2 Restore secondary containment to OPERABLE status.	7 days
C. Secondary containment inoperable in MODE 1, 2, or 3 for reasons other than Condition A or B.	C.1 Restore secondary containment to OPERABLE status.	4 hours
D. Required Action and associated Completion Time of Condition A, B, or C not met.	D.1 -----NOTE----- LCO 3.0.4.a is not applicable when entering MODE 3. ----- Be in MODE 3.	12 hours
E. Secondary containment inoperable during movement of irradiated fuel assemblies in the secondary containment or during CORE ALTERATIONS.	E.1 -----NOTE----- LCO 3.0.3 is not applicable. ----- Suspend movement of irradiated fuel assemblies in the secondary containment. <u>AND</u> E.2 Suspend CORE ALTERATIONS.	Immediately Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.4.1.1	Verify all secondary containment equipment hatches are closed and sealed.	In accordance with the Surveillance Frequency Control Program
SR 3.6.4.1.2	Verify one secondary containment access door in each access opening is closed, except when the access opening is being used for entry and exit.	In accordance with the Surveillance Frequency Control Program
SR 3.6.4.1.3	<p>-----NOTE-----</p> <p>The number of standby gas treatment (SGT) subsystem(s) required for this Surveillance is dependent on the secondary containment configuration, and shall be one less than the number required to meet LCO 3.6.4.3, "Standby Gas Treatment (SGT) System," for the given configuration.</p> <p>-----</p> <p>Verify secondary containment can be drawn down to ≥ 0.20 inch of vacuum water gauge in ≤ 10 minutes using required standby gas treatment (SGT) subsystem(s).</p>	In accordance with the Surveillance Frequency Control Program
SR 3.6.4.1.4	<p>-----NOTE-----</p> <p>The number of SGT subsystem(s) required for this Surveillance is dependent on the secondary containment configuration, and shall be one less than the number required to meet LCO 3.6.4.3, "Standby Gas Treatment (SGT) System," for the given configuration.</p> <p>-----</p> <p>Verify the secondary containment can be maintained ≥ 0.20 inch of vacuum water gauge for 1 hour using required SGT subsystem(s) at a flow rate ≤ 4000 cfm per subsystem.</p>	In accordance with the Surveillance Frequency Control Program

3.6 CONTAINMENT SYSTEMS

3.6.4.1 Secondary Containment

LCO 3.6.4.1 The secondary containment shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
During movement of irradiated fuel assemblies in the secondary
containment,
During CORE ALTERATIONS

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Secondary containment inoperable in MODE 1, 2, or 3 due to SR 3.6.4.1.3 not met.	A.1 Verify secondary containment vacuum of ≥ 0.20 inch water gauge can be established in ≤ 10 minutes using one or more OPERABLE standby gas treatment (SGT) subsystem(s).	4 hours
	<u>AND</u> A.2 Restore secondary containment to OPERABLE status.	7 days
B. Secondary containment inoperable in MODE 1, 2, or 3 due to SR 3.6.4.1.4 not met.	B.1 Verify secondary containment vacuum of ≥ 0.20 inch water gauge can be maintained for 1 hour using one or more OPERABLE SGT subsystem(s) at a flow rate ≤ 4000 cfm per subsystem.	8 hours
	<u>AND</u>	(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. (continued)	B.2 Restore secondary containment to OPERABLE status.	7 days
C. Secondary containment inoperable in MODE 1, 2, or 3 for reasons other than Condition A or B.	C.1 Restore secondary containment to OPERABLE status.	4 hours
D. Required Action and associated Completion Time of Condition A, B, or C not met.	D.1 -----NOTE----- LCO 3.0.4.a is not applicable when entering MODE 3. ----- Be in MODE 3.	12 hours
E. Secondary containment inoperable during movement of irradiated fuel assemblies in the secondary containment or during CORE ALTERATIONS.	E.1 -----NOTE----- LCO 3.0.3 is not applicable. ----- Suspend movement of irradiated fuel assemblies in the secondary containment. <u>AND</u> E.2 Suspend CORE ALTERATIONS.	Immediately Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.4.1.1	Verify all secondary containment equipment hatches are closed and sealed.	In accordance with the Surveillance Frequency Control Program
SR 3.6.4.1.2	Verify one secondary containment access door in each access opening is closed, except when the access opening is being used for entry and exit.	In accordance with the Surveillance Frequency Control Program
SR 3.6.4.1.3	<p>-----NOTE----- The number of standby gas treatment (SGT) subsystem(s) required for this Surveillance is dependent on the secondary containment configuration, and shall be one less than the number required to meet LCO 3.6.4.3, "Standby Gas Treatment (SGT) System," for the given configuration.</p> <p>-----</p> <p>Verify secondary containment can be drawn down to ≥ 0.20 inch of vacuum water gauge in ≤ 10 minutes using required standby gas treatment (SGT) subsystem(s).</p>	In accordance with the Surveillance Frequency Control Program
SR 3.6.4.1.4	<p>-----NOTE----- The number of SGT subsystem(s) required for this Surveillance is dependent on the secondary containment configuration, and shall be one less than the number required to meet LCO 3.6.4.3, "Standby Gas Treatment (SGT) System," for the given configuration.</p> <p>-----</p> <p>Verify the secondary containment can be maintained ≥ 0.20 inch of vacuum water gauge for 1 hour using required SGT subsystem(s) at a flow rate ≤ 4000 cfm per subsystem.</p>	In accordance with the Surveillance Frequency Control Program

Edwin I. Hatch Nuclear Plant – Units 1 & 2
Revision to Technical Specification 3.6.4.1 – Secondary Containment

Attachment 3

HNP Unit 1 and Unit 2 Technical Specifications Bases Marked-Up Pages (Information Only)

BASES (continued)

ACTIONS

A.1, A.2, B.1, and B.2

If secondary containment is inoperable in MODE 1, 2, or 3 due to SR 3.6.4.1.3 or SR 3.6.4.1.4 not met and secondary containment vacuum can be established and maintained with one or more OPERABLE SGT subsystems within the required time periods, secondary containment must be restored to OPERABLE status within 7 days. In these conditions, the inability to establish and maintain secondary containment vacuum with one combination of SGT subsystems for the given configuration does not necessarily result in a loss of the secondary containment safety function. With a reduced secondary containment leak tightness, a single combination of SGT subsystems may not be capable of meeting the criteria of SR 3.6.4.1.3 or SR 3.6.4.1.4 although each individual SGT subsystem may still be OPERABLE in accordance with the requirements of LCO 3.6.4.3 and the Ventilation Filter Testing Program.

Conditions A and B provide Required Actions that allow time to determine the cause of the inability of one combination of SGT subsystems to establish and maintain adequate vacuum within the required time assumed in the safety analysis. Required Action A.1 ensures one or more OPERABLE SGT subsystems is capable of establishing a vacuum of ≥ 0.20 inch water gauge in ≤ 10 minutes. The 4 hour Completion Time is consistent with Required Action C.1 and is reasonable to lineup and start combinations of OPERABLE SGT subsystems to determine a combination capable of establishing the required vacuum. Required Action B.1 ensures one or more OPERABLE SGT subsystems is capable of maintaining a vacuum of ≥ 0.20 inch water gauge for at least 1 hour at a system flow rate ≤ 4000 cfm per subsystem. The 8 hour Completion Time is reasonable to lineup, start, and run combinations of OPERABLE SGT subsystems and maintain the required vacuum for at least 1 hour. The 8 hour Completion Time is consistent with Required Action A.1 of LCO 3.6.4.2 and considered reasonable because at least one combination of OPERABLE SGT subsystems is available to establish the required vacuum in ≤ 10 minutes.

The Completion Time of Required Actions A.2 and B.2 to restore secondary containment to OPERABLE status is consistent with Required Action B.1 of LCO 3.6.4.3 and based on consideration of such factors as the availability of at least one combination of OPERABLE SGT subsystems to establish and maintain the required vacuum in the required time periods and the low probability of a DBA occurring during this period.

AC.1

If secondary containment is inoperable for reasons other than Conditions A or B, it must be restored to OPERABLE status within

(continued)

4 hours. The 4 hour Completion Time provides a period of time to correct the problem that is commensurate with the importance of maintaining secondary containment during MODES 1, 2, and 3. This time period also ensures that the probability of an accident (requiring secondary containment OPERABILITY) occurring during periods where secondary containment is inoperable is minimal.

BD.1

If secondary containment cannot be restored to OPERABLE status within the required Completion Time, the plant must be brought to a MODE in which overall plant risk is minimized. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours.

Remaining in the Applicability of the LCO is acceptable because the plant risk in MODE 3 is similar to or lower than the risk in MODE 4 (Ref. 5), because the time spent in MODE 3 to perform the necessary repairs to restore the system to OPERABLE status will be short. However, voluntary entry into MODE 4 may be made as it is also an acceptable low-risk state.

Required Action BD.1 is modified by a Note that states that LCO 3.0.4.a is not applicable when entering MODE 3. This Note prohibits the use of LCO 3.0.4.a to enter MODE 3 during startup with the LCO not met. However, there is no restriction on the use of LCO 3.0.4.b, if applicable, because LCO 3.0.4.b requires performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering MODE 3, and establishment of risk management actions, if appropriate. LCO 3.0.4 is not applicable to, and the Note does not preclude, changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit. The allowed Completion Time is reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

(continued)

BASES

ACTIONS
(continued)

GE1 and GE2

Movement of irradiated fuel assemblies in the secondary containment and CORE ALTERATIONS can be postulated to cause fission product release to the secondary containment. In such cases, the secondary containment is the only barrier to release of fission products to the environment. CORE ALTERATIONS and movement of irradiated fuel assemblies must be immediately suspended if the secondary containment is inoperable.

Suspension of these activities shall not preclude completing an action that involves moving a component to a safe position.

Required Action GE1 has been modified by a Note stating that LCO 3.0.3 is not applicable. If moving irradiated fuel assemblies while in MODE 4 or 5, LCO 3.0.3 would not specify any action. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Therefore, in either case, inability to suspend movement of irradiated fuel assemblies would not be a sufficient reason to require a reactor shutdown.

SURVEILLANCE
REQUIREMENTS

SR 3.6.4.1.1

Verifying that secondary containment equipment hatches are closed ensures that the infiltration of outside air of such a magnitude as to prevent maintaining the desired negative pressure does not occur and provides adequate assurance that exfiltration from the secondary containment will not occur. SR 3.6.4.1.1 also requires equipment hatches to be sealed. In this application, the term "sealed" has no connotation of leak tightness. When the secondary containment configuration excludes Zone I and/or Zone II, this SR also includes verifying the hatches separating the common refueling floor zone from the reactor building(s). The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

SR 3.6.4.1.2

Verifying that one secondary containment access door in each access opening is closed provides adequate assurance that exfiltration from the secondary containment will not occur. An access opening contains one inner and one outer door. The intent is to not breach the secondary containment, which is achieved by maintaining the inner or outer portion of the barrier closed except when the access opening is being used for entry and exit. The phrase "being used for entry and exit" ensures the time both doors may be open simultaneously is limited to the time it takes to traverse through a door, which is insignificant. When the secondary containment configuration

BASES (continued)

ACTIONS

A.1, A.2, B.1, and B.2

If secondary containment is inoperable in MODE 1, 2, or 3 due to SR 3.6.4.1.3 or SR 3.6.4.1.4 not met and secondary containment vacuum can be established and maintained with one or more OPERABLE SGT subsystems within the required time periods, secondary containment must be restored to OPERABLE status within 7 days. In these conditions, the inability to establish and maintain secondary containment vacuum with one combination of SGT subsystems for the given configuration does not necessarily result in a loss of the secondary containment safety function. With a reduced secondary containment leak tightness, a single combination of SGT subsystems may not be capable of meeting the criteria of SR 3.6.4.1.3 or SR 3.6.4.1.4 although each individual SGT subsystem may still be OPERABLE in accordance with the requirements of LCO 3.6.4.3 and the Ventilation Filter Testing Program.

Conditions A and B provide Required Actions that allow time to determine the cause of the inability of one combination of SGT subsystems to establish and maintain adequate vacuum within the required time assumed in the safety analysis. Required Action A.1 ensures one or more OPERABLE SGT subsystems is capable of establishing a vacuum of ≥ 0.20 inch water gauge in ≤ 10 minutes. The 4 hour Completion Time is consistent with Required Action C.1 and is reasonable to lineup and start combinations of OPERABLE SGT subsystems to determine a combination capable of establishing the required vacuum. Required Action B.1 ensures one or more OPERABLE SGT subsystems is capable of maintaining a vacuum of ≥ 0.20 inch water gauge for at least 1 hour at a system flow rate ≤ 4000 cfm per subsystem. The 8 hour Completion Time is reasonable to lineup, start, and run combinations of OPERABLE SGT subsystems and maintain the required vacuum for at least 1 hour. The 8 hour Completion Time is consistent with Required Action A.1 of LCO 3.6.4.2 and considered reasonable because at least one combination of OPERABLE SGT subsystems is available to establish the required vacuum in ≤ 10 minutes.

The Completion Time of Required Actions A.2 and B.2 to restore secondary containment to OPERABLE status is consistent with Required Action B.1 of LCO 3.6.4.3 and based on consideration of such factors as the availability of at least one combination of OPERABLE SGT subsystems to establish and maintain the required vacuum in the required time periods and the low probability of a DBA occurring during this period.

AC.1

If secondary containment is inoperable for reasons other than Conditions A or B, it must be restored to OPERABLE status within
(continued)

4 hours. The 4 hour Completion Time provides a period of time to correct the problem that is commensurate with the importance of maintaining secondary containment during MODES 1, 2, and 3. This time period also ensures that the probability of an accident (requiring secondary containment OPERABILITY) occurring during periods where secondary containment is inoperable is minimal.

BD.1

If secondary containment cannot be restored to OPERABLE status within the required Completion Time, the plant must be brought to a MODE in which overall plant risk is minimized. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours.

Remaining in the Applicability of the LCO is acceptable because the plant risk in MODE 3 is similar to or lower than the risk in MODE 4 (Ref. 5), because the time spent in MODE 3 to perform the necessary repairs to restore the system to OPERABLE status will be short. However, voluntary entry into MODE 4 may be made as it is also an acceptable low-risk state.

Required Action BD.1 is modified by a Note that states that LCO 3.0.4.a is not applicable when entering MODE 3. This Note prohibits the use of LCO 3.0.4.a to enter MODE 3 during startup with the LCO not met. However, there is no restriction on the use of LCO 3.0.4.b, if applicable, because LCO 3.0.4.b requires performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering MODE 3, and establishment of risk management actions, if appropriate. LCO 3.0.4 is not applicable to, and the Note does not preclude, changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit. The allowed Completion Time is reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

(continued)

BASES

ACTIONS
(continued)

GE.1 and GE.2

Movement of irradiated fuel assemblies in the secondary containment and CORE ALTERATIONS can be postulated to cause fission product release to the secondary containment. In such cases, the secondary containment is the only barrier to release of fission products to the environment. CORE ALTERATIONS and movement of irradiated fuel assemblies must be immediately suspended if the secondary containment is inoperable.

Suspension of these activities shall not preclude completing an action that involves moving a component to a safe position.

Required Action GE.1 has been modified by a Note stating that LCO 3.0.3 is not applicable. If moving irradiated fuel assemblies while in MODE 4 or 5, LCO 3.0.3 would not specify any action. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Therefore, in either case, inability to suspend movement of irradiated fuel assemblies would not be a sufficient reason to require a reactor shutdown.

SURVEILLANCE
REQUIREMENTS

SR 3.6.4.1.1

Verifying that secondary containment equipment hatches are closed ensures that the infiltration of outside air of such a magnitude as to prevent maintaining the desired negative pressure does not occur and provides adequate assurance that exfiltration from the secondary containment will not occur. SR 3.6.4.1.1 also requires equipment hatches to be sealed. In this application, the term "sealed" has no connotation of leak tightness. When the secondary containment configuration excludes Zone I and/or Zone II, this SR also includes verifying the hatches separating the common refueling floor zone from the reactor building(s). The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

SR 3.6.4.1.2

Verifying that one secondary containment access door in each access opening is closed provides adequate assurance that exfiltration from the secondary containment will not occur. An access opening contains one inner and one outer door. The intent is to not breach the secondary containment, which is achieved by maintaining the inner or outer portion of the barrier closed except when the access opening is being used for entry and exit. The phrase "being used for entry and exit" ensures the time both doors may be open simultaneously is limited to the time it takes to traverse through a door, which is insignificant. When the secondary containment configuration