

OCT 17 2019

Docket Nos.: 50-321
50-366

NL-19-1248

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

Edwin I. Hatch Nuclear Plant Units 1 and 2
Revise Technical Specification Requirements During Handling Irradiated Fuel and
Core Alterations – TSTF-51
SNC Response to NRC Request for Additional Information

Ladies and Gentlemen:

By letter dated April 24, 2019 (Agencywide Documents Access and Management System Accession Number ML19114A456), Southern Nuclear Operating Company (SNC) submitted a license amendment request (LAR) for the Edwin I. Hatch Nuclear Plant (HNP), Units 1 and 2. This LAR requested adoption of TSTF-51-A, Revision 2, "Revise Containment Requirements During Handling Irradiated Fuel and Core Alterations."

By email dated October 4, 2019, the U.S. Nuclear Regulatory Commission (NRC) staff notified SNC that additional information is needed for the staff to complete their review. Enclosure 1 to this letter provides the SNC response to the NRC request for additional information (RAI). Enclosure 2 provides associated marked-up technical specification (TS) pages. Enclosure 3 provides clean-typed TS pages. Enclosure 4 provides applicable TS Bases pages marked to show the proposed changes for information only.

The conclusions of the No Significant Hazards Consideration and Environmental Consideration contained in the original LAR have been reviewed and are unaffected by this RAI response.

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 17th day of October 2019.

Respectfully submitted,



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

CAG/tle/sm

Enclosures:

1. SNC Response to NRC RAI
2. Technical Specification Marked-up Pages
3. Technical Specification Clean-typed Pages
4. Technical Specification Bases Marked-up Pages (For 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 and 2
Revise Technical Specification Requirements During Handling Irradiated Fuel and
Core Alterations – TSTF-51
SNC Response to NRC Request for Additional Information**

Enclosure 1

SNC Response to NRC RAI

NRC RAI

By letter dated April 24, 2019, Southern Nuclear Operating Company, Inc. (SNC, the licensee) submitted a license amendment request for the Edwin I. Hatch Nuclear Plant (HNP), Units 1 and 2, (Agencywide Documents Access and Management System Accession No. ML19114A456; EPID L-2019-LLA-0091) to revise certain Technical Specifications (TSs) to remove the requirements for engineered safety feature systems (e.g., secondary containment, secondary containment valve isolation capability, and standby gas treatment system) to be operable after sufficient radioactive decay of irradiated fuel has occurred following a plant shutdown.

The NRC staff has reviewed your application and has determined that additional information is needed to complete its review.

1.0 Regulatory Evaluation

The regulation 10 CFR 30.36 states:

(2) *Limiting conditions for operation.* (i) Limiting conditions for operation are the lowest functional capability or performance levels of equipment required for safe operation of the facility. When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specifications until the condition can be met. When a limiting condition for operation of any process step in the system of a fuel reprocessing plant is not met, the licensee shall shut down that part of the operation or follow any remedial action permitted by the technical specifications until the condition can be met. In the case of a nuclear reactor not licensed under § 50.21(b) or § 50.22 of this part or fuel reprocessing plant, the licensee shall notify the Commission, review the matter, and record the results of the review, including the cause of the condition and the basis for corrective action taken to preclude recurrence. The licensee shall retain the record of the results of each review until the Commission terminates the license for the nuclear reactor or the fuel reprocessing plant. In the case of nuclear power reactors licensed under § 50.21(b) or § 50.22, the licensee shall notify the Commission if required by § 50.72 and shall submit a Licensee Event Report to the Commission as required by § 50.73. In this case, licensees shall retain records associated with preparation of a Licensee Event Report for a period of three years following issuance of the report. For events which do not require a Licensee Event Report, the licensee shall retain each record as required by the technical specifications.

(ii) A technical specification limiting condition for operation of a nuclear reactor must be established for each item meeting one or more of the following criteria:

(A) *Criterion 1.* Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.

(B) *Criterion 2.* A process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

(C) *Criterion 3.* A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

(D) *Criterion 4.* A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

2.0 Request for Additional Information

By letter dated September 4, 2019 (ADAMS Accession No. ML19198AA104), the NRC issued Amendment Nos. 298 and 243 to HNP, Units 1 and 2, respectively. Amendment No. 298 changed TS pages 3.6-34 through 3.6-36 for HNP, Unit 1. Amendment No. 243 changed TS pages 3.6-33 through 3.6-35 for HNP, Unit 2.

By letter dated April 24, 2019, SNC provided marked up TS pages 3.6-34 and 3.6-35 for HNP, Unit 1, and TS pages 3.6-33 and TS 3.6-34 for HNP, Unit 2 in Attachment 1. These TS pages contained in the letter dated April 24, 2019, no longer represent the current TS authority file. Please supplement the letter dated April 24, 2019, with the correct TS authority file TS pages marked up.

SNC Response to RAI

The requested TS markup pages 3.6-34 and 3.6-35 for Unit 1, and 3.6-33 and 3.6-34 are provided in Enclosure 2. Clean-typed pages for these markups are provided in Enclosure 3.

Applicable TS Bases markups, as tracked changes, are provided for information in Enclosure 4. Note that because of changes due to Amendments 298 for Unit 1 and 243 for Unit 2, the TS Bases page numbers are different than those originally provided in the SNC letter dated April 24, 2019.

**Edwin I. Hatch Nuclear Plant Units 1 and 2
Revise Technical Specification Requirements During Handling Irradiated Fuel and
Core Alterations – TSTF-51
SNC Response to NRC Request for Additional Information**

Enclosure 2

Technical Specification 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, ^{recently}
 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> B.2 Restore secondary containment to OPERABLE status.	7 days

(continued)

ACTIONS (continued)

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

recently

recently

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, ^{recently}
 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> B.2 Restore secondary containment to OPERABLE status.	7 days

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
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

recently

recently

**Edwin I. Hatch Nuclear Plant Units 1 and 2
Revise Technical Specification Requirements During Handling Irradiated Fuel and
Core Alterations – TSTF-51
SNC Response to NRC Request for Additional Information**

Enclosure 3

Technical Specification Clean-typed 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 recently irradiated fuel assemblies in the secondary
containment.

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> B.2 Restore secondary containment to OPERABLE status.	7 days

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
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 recently irradiated fuel assemblies in the secondary containment.	E.1 -----NOTE----- LCO 3.0.3 is not applicable. ----- Suspend movement of recently irradiated fuel assemblies in the secondary containment.	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 recently irradiated fuel assemblies in the secondary containment.

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> B.2 Restore secondary containment to OPERABLE status.	7 days

(continued)

ACTIONS (continued)

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

**Edwin I. Hatch Nuclear Plant Units 1 and 2
Revise Technical Specification Requirements During Handling Irradiated Fuel and
Core Alterations – TSTF-51
SNC Response to NRC Request for Additional Information**

Enclosure 4

**Technical Specification Bases Marked-up Pages
(For Information Only)**

BASES

BACKGROUND
(continued)

- a. All hatches separating Zone III from Zone I are closed and sealed; and
- b. At least one door in each access path separating Zone III from Zone I is closed.

To prevent ground level exfiltration while allowing the secondary containment to be designed as a conventional structure, the secondary containment requires support systems to maintain the control volume pressure at less than the external pressure. Requirements for these systems are specified separately in LCO 3.6.4.2, "Secondary Containment Isolation Valves (SCIVs)," and LCO 3.6.4.3, "Standby Gas Treatment (SGT) System." When one or more zones are excluded from secondary containment, the specific requirements for the support systems will also change (e.g., securing particular SGT or drain isolation valves).

APPLICABLE
SAFETY ANALYSES

There are two principal accidents for which credit is taken for secondary containment OPERABILITY. These are a loss of coolant accident (LOCA) (Ref. 1) and a fuel handling accident [involving handling recently irradiated fuel \(i.e., fuel that has occupied part of a critical reactor core within the previous 24 hours\)](#) inside secondary containment (Ref. 2). The secondary containment performs no active function in response to either of these limiting events; however, its leak tightness is required 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. Postulated LOCA leakage paths from the primary containment into secondary containment include those into both the reactor building and refueling floor areas (e.g., drywell head leakage).

Secondary containment satisfies Criterion 3 of the NRC Policy Statement (Ref. 4).

LCO

An OPERABLE secondary containment provides a control volume into which fission products that bypass or leak from primary containment, or are released from the reactor coolant pressure boundary

(continued)

BASES

LCO
(continued)

components located in secondary containment, can be diluted and processed prior to release to the environment. For the secondary containment to be considered OPERABLE, it must have adequate leak tightness to ensure that the required vacuum (0.20 inch of vacuum) can be established and maintained. The secondary containment boundary required to be OPERABLE is dependent on the operating status of both units, as well as the configuration of doors, hatches, refueling floor plugs, SCIVs, and available flow paths to SGT Systems. The required boundary encompasses the zones which can be postulated to contain fission products from accidents required to be considered for the Condition of each unit, and furthermore, must include zones not isolated from the SGT subsystems being credited for meeting LCO 3.6.4.3. Allowed configurations, associated SGT subsystem requirements, and associated SCIV requirements are detailed in the Technical Requirements Manual (Ref. 3).

APPLICABILITY

In MODES 1, 2, and 3, a LOCA could lead to a fission product release to primary containment that leaks to secondary containment (the reactor building zone and potentially the refueling floor zone). Therefore, secondary containment OPERABILITY is required during the same operating conditions that require primary containment OPERABILITY.

In MODES 4 and 5, the probability and consequences of the LOCA are reduced due to the pressure and temperature limitations in these MODES. Therefore, maintaining secondary containment OPERABLE is not required in MODE 4 or 5 to ensure a control volume, except for other situations for which significant releases of radioactive material can be postulated, such as ~~during CORE ALTERATIONS, or~~ during movement of recently irradiated fuel assemblies in the secondary containment. ~~(Note: Moving irradiated fuel assemblies in the secondary containment may also occur in MODES 1, 2, and 3.)~~ Due to radioactive decay, secondary containment is only required to be OPERABLE during fuel handling involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 24 hours). Since ~~CORE ALTERATIONS and~~ movement of recently irradiated fuel assemblies are only postulated to release radioactive material to the refueling floor zone, the secondary containment configuration may consist of only Zone III during ~~these~~ this conditions.

(continued)

BASES

ACTIONS
(continued)

E.1 and E.2

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

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

Required Action E.1 has been modified by a Note stating that LCO 3.0.3 is not applicable. If moving recently irradiated fuel assemblies while in MODE 4 or 5, LCO 3.0.3 would not specify any action. If moving recently 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 recently 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

(continued)

BASES

BACKGROUND
(continued)

- a. All hatches separating Zone III from Zone II are closed and sealed; and
- b. At least one door in each access path separating Zone III from Zone II is closed.

To prevent ground level exfiltration while allowing the secondary containment to be designed as a conventional structure, the secondary containment requires support systems to maintain the control volume pressure at less than the external pressure. Requirements for these systems are specified separately in LCO 3.6.4.2, "Secondary Containment Isolation Valves (SCIVs)," and LCO 3.6.4.3, "Standby Gas Treatment (SGT) System." When one or more zones are excluded from secondary containment, the specific requirements for the support systems will also change (e.g., securing particular SGT or drain isolation valves).

APPLICABLE
SAFETY ANALYSES

There are two principal accidents for which credit is taken for secondary containment OPERABILITY. These are a loss of coolant accident (LOCA) (Ref. 1) and a fuel handling accident [involving handling recently irradiated fuel \(i.e., fuel that has occupied part of a critical reactor core within the previous 24 hours\)](#) inside secondary containment (Ref. 2). The secondary containment performs no active function in response to either of these limiting events; however, its leak tightness is required 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. Postulated LOCA leakage paths from the primary containment into secondary containment include those into both the reactor building and refueling floor zones (e.g., drywell head leakage).

Secondary containment satisfies Criterion 3 of the NRC Policy Statement (Ref. 4).

LCO

An OPERABLE secondary containment provides a control volume into which fission products that bypass or leak from primary containment, or are released from the reactor coolant pressure boundary

(continued)

BASES

LCO
(continued)

components located in secondary containment, can be diluted and processed prior to release to the environment. For the secondary containment to be considered OPERABLE, it must have adequate leak tightness to ensure that the required vacuum (0.20 inch of vacuum) can be established and maintained. The secondary containment boundary required to be OPERABLE is dependent on the operating status of both units, as well as the configuration of doors, hatches, refueling floor plugs, SCIVs, and available flow paths to SGT Systems. The required boundary encompasses the zones which can be postulated to contain fission products from accidents required to be considered for the condition of each unit, and furthermore, must include zones not isolated from the SGT subsystems being credited for meeting LCO 3.6.4.3. Allowed configurations, associated SGT subsystem requirements, and associated SCIV requirements are detailed in the Technical Requirements Manual (Ref. 3).

APPLICABILITY

In MODES 1, 2, and 3, a LOCA could lead to a fission product release to primary containment that leaks to secondary containment (the reactor building zone and potentially the refueling floor zone). Therefore, secondary containment OPERABILITY is required during the same operating conditions that require primary containment OPERABILITY.

In MODES 4 and 5, the probability and consequences of the LOCA are reduced due to the pressure and temperature limitations in these MODES. Therefore, maintaining secondary containment OPERABLE is not required in MODE 4 or 5 to ensure a control volume, except for other situations for which significant releases of radioactive material can be postulated, such as ~~during CORE ALTERATIONS, or~~ during movement of recently irradiated fuel assemblies in the secondary containment. ~~(Note, moving irradiated fuel assemblies in the secondary containment may also occur in MODES 1, 2, and 3.)~~ Due to radioactive decay, secondary containment is only required to be OPERABLE during fuel handling involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 24 hours). Since ~~CORE ALTERATIONS and~~ movement of recently irradiated fuel assemblies are only postulated to release radioactive material to the refueling floor zone, the secondary containment configuration may consist of only Zone III during ~~these~~ this conditions.

(continued)

BASES

ACTIONS

C.1 (continued)

Conditions A or B, it must be restored to OPERABLE status within 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.

D.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 D.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.

E.1 and E.2

Movement of recently irradiated fuel assemblies in the secondary containment ~~and CORE ALTERATIONS~~ can be postulated to cause

(continued)

BASES

ACTIONS

~~E.1 and E.2~~ (continued)

~~significant~~ fission product release to the secondary containment. In such ~~a~~ cases, the secondary containment is the only barrier to release of fission products to the environment. ~~CORE ALTERATIONS and Therefore,~~ movement of ~~recently~~ irradiated fuel assemblies must be immediately suspended if the secondary containment is inoperable.

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

Required Action E.1 has been modified by a Note stating that LCO 3.0.3 is not applicable. If moving ~~recently~~ irradiated fuel assemblies while in MODE 4 or 5, LCO 3.0.3 would not specify any action. If moving ~~recently~~ 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 ~~recently~~ 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 and doors 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 excludes Zone I and/or Zone II, this SR also includes verifying the doors separating the common refueling floor zone from the reactor building(s).

(continued)