

for sample analysis or instrument calibration, or associated with radioactive apparatus or components;

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

G. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Section 50.54 of Part 50, and Section 70.32 of Part 70; all applicable provisions of the Act and the rules, regulations, and orders of the Commission now or hereafter in effect; and the additional conditions specified or incorporated below:

(1) Maximum Power Level

Southern Nuclear is authorized to operate the facility at steady state reactor core power levels not in excess of 2804 megawatts thermal.

(2) Technical Specifications

The Technical Specifications (Appendix A) and the Environmental Protection Plan (Appendix B), as revised through Amendment No. 256 are hereby incorporated in the renewed license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

The Surveillance Requirement (SR) contained in the Technical Specifications and listed below, is not required to be performed immediately upon implementation of Amendment No. 195. The SR listed below shall be successfully demonstrated prior to the time and condition specified:

SR 3.8.1.18 shall be successfully demonstrated at its next regularly scheduled performance

(3) Fire Protection

Southern Nuclear shall implement and maintain in effect all provisions of the fire protection program, which is referenced in the Updated Final Safety Analysis Report for the facility, as contained in the updated Fire Hazards Analysis and Fire Protection Program for Edwin I. Hatch Nuclear Plant Units 1 and 2, which was originally submitted by letter dated July 22, 1986. Southern Nuclear may make changes to the fire protection program without prior Commission approval only if the changes

program attribute not covered by the plant-specific surveillance material testing program. The plant-specific program, if needed, will include the following actions:

- (a) Capsules will periodically be removed to determine the rate of embrittlement.
- (b) Capsules will be removed at neutron fluence levels that provide relevant data for assessing the integrity of the Plant Hatch, Unit 1 reactor pressure vessel (in particular, for the determination of reactor pressure vessel pressure-temperature limits through the period of extended operation).
- (c) Capsules will contain material to monitor the impact of irradiation on the Plant Hatch Unit 1 reactor pressure vessel and will contain dosimetry to monitor neutron fluence.

Before the renewal term begins, the licensee will notify the NRC of its decision to implement the integrated surveillance program or a plant - specific program, and provide the appropriate revisions to the Updated Final Safety Analysis Report Supplement summary descriptions of the vessel surveillance material testing program.

(8) Design Bases Accident Radiological Consequences Analyses

Southern Nuclear is authorized to credit administering potassium iodide to reduce the 30 day post-accident thyroid radiological dose to the operators in the main control room until May 31, 2012. Should design basis changes be completed rendering the crediting of potassium iodide no longer necessary prior to May 31, 2012, Southern Nuclear will remove the crediting of potassium iodide from the design basis accident radiological consequences analysis (reference Unit 2 FSAR paragraph 15.3.3.4.2.2) in the next Updated Final Safety Analysis Report update as required by 10 CFR 50.71(e).

(9) Alternative Source Term

- 1) Southern Nuclear Operating Company, Inc (SNC, the licensee) shall complete actions by April 30, 2010, as described in SNC's letters dated October 18, 2007, and March 13, 2008, to complete the design modifications to the HNP turbine building ventilation exhaust systems. Specifically, the HNP Units 1 and 2 turbine building exhaust fans shall be capable of being manually switched over from normally operating power supplies, to a Class 1E circuit that will be isolated by an appropriately rated safety related, environmentally and seismically qualified circuit breaker. For further protection and isolation, the licensee shall also use fuses

that will be located in a seismically qualified manual transfer switch housing. The aforementioned circuit breaker and fuses shall be adequately coordinated with the upstream load center breaker over the entire range. These devices shall be adequately rated to prevent adverse effects of a fault to the rest of the distribution system.

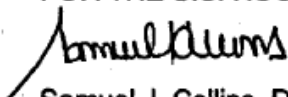
- 2) SNC shall implement modifications by May 31, 2010, as described in Enclosure 1, section 2.7.3.2, of the LAR and section 5.7 of SNC's letter dated February 25, 2008 (NL 08-0175) to modify the design for the air supply to the turbine building exhaust ventilation dampers, such that operating air to the dampers will be supplied from a non-interruptible instrument air source to eliminate single failure point vulnerability to loss of system/instrument air.
- 3) SNC shall complete actions by May 31, 2010, as described in SNC's letter dated February 25, 2008 (NL-08-0175) to install and implement the capability for Standby Liquid Control System hand switch jumpers for HNP Units 1 and 2.
- 4) SNC shall complete actions by May 31, 2012 for HNP Unit 1, as described in SNC's letters dated February 25, 2008 (NL-08-0175) and July 2, 2008 (NL-08-1022), to modify the following Main Steam Isolation Valve alternate leakage treatment boundary valves, such that they can be closed in the event of a loss of offsite power without requiring local operation:

1N38-F101A, 1N38-F101B, 1N33-F012, 1N33-F013
- 5) SNC shall implement actions by May 31, 2010, as described in SNC's letter dated February 27, 2008, to assure that temperature switches which monitor charcoal bed temperature meet the environmental qualification requirements of 10 CFR 50.49.

D. Southern Nuclear shall not market or broker power or energy from Edwin I. Hatch Nuclear Plant, Unit 1.

3. **This renewed license is effective as of the date of issuance and shall expire at midnight, August 6, 2034.**

FOR THE U.S. NUCLEAR REGULATORY COMMISSION



**Samuel J. Collins, Director
Office of Nuclear Reactor Regulation**

Attachments:

Appendix A – Technical Specifications

Appendix B – Environmental Protection Plan

Date of Issuance: January 15, 2002

**Renewed License No. DPR-57
Amendment No. 256**

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1.1 Definitions (continued)

CHANNEL CHECK	A CHANNEL CHECK shall be the qualitative assessment, by observation, of channel behavior during operation. This determination shall include, where possible, comparison of the channel indication and status to other indications or status derived from independent instrument channels measuring the same parameter.
CHANNEL FUNCTIONAL TEST	A CHANNEL FUNCTIONAL TEST shall be the injection of a simulated or actual signal into the channel as close to the sensor as practicable to verify OPERABILITY, including required alarm, interlock, display, and trip functions, and channel failure trips. The CHANNEL FUNCTIONAL TEST may be performed by means of any series of sequential, overlapping, or total channel steps so that the entire channel is tested.
CORE ALTERATION	<p>CORE ALTERATION shall be the movement of any fuel, sources, or reactivity control components within the reactor vessel with the vessel head removed and fuel in the vessel. The following exceptions are not considered to be CORE ALTERATIONS:</p> <ul style="list-style-type: none"> a. Movement of source range monitors, local power range monitors, intermediate range monitors, traversing incore probes, or special movable detectors (including undervessel replacement); and b. Control rod movement, provided there are no fuel assemblies in the associated core cell. <p>Suspension of CORE ALTERATIONS shall not preclude completion of movement of a component to a safe position.</p>
CORE OPERATING LIMITS REPORT (COLR)	The COLR is the unit specific document that provides cycle specific parameter limits for the current reload cycle. These cycle specific limits shall be determined for each reload cycle in accordance with Specification 5.6.5. Plant operation within these limits is addressed in individual Specifications.
DOSE EQUIVALENT I-131	DOSE EQUIVALENT I-131 shall be that concentration of I-131 (microcuries/gram) that alone would produce the same Committed Effective Dose Equivalent as the quantity and isotopic mixture of I-131, I-132, I-133, I-134, and I-135 actually present. The dose conversion factors used for this calculation shall be those listed in Federal Guidance Report (FGR) 11, "Limiting Values of Radionuclide Intake and Air Concentration and Dose Conversion Factors for Inhalation, Submersion, and Ingestion," 1988.

(continued)

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.6 RCS Specific Activity

LCO 3.4.6 The specific activity of the reactor coolant shall be limited to DOSE EQUIVALENT I-131 specific activity $\leq 0.2 \mu\text{Ci/gm}$.

APPLICABILITY: MODE 1,
 MODES 2 and 3 with any main steam line not isolated.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Reactor coolant specific activity $> 0.2 \mu\text{Ci/gm}$ and $\leq 2.0 \mu\text{Ci/gm}$ DOSE EQUIVALENT I-131.	-----NOTE----- LCO 3.0.4.c is applicable. -----	
	A.1 Determine DOSE EQUIVALENT I-131.	Once per 4 hours
	<u>AND</u> A.2 Restore DOSE EQUIVALENT I-131 to within limits.	48 hours
B. Required Action and associated Completion Time of Condition A not met. <u>OR</u> Reactor coolant specific activity $> 2.0 \mu\text{Ci/gm}$ DOSE EQUIVALENT I-131.	B.1 Determine DOSE EQUIVALENT I-131.	Once per 4 hours
	<u>AND</u>	
	B.2.1 Isolate all main steam lines.	12 hours
	<u>OR</u>	
	B.2.2.1 Be in MODE 3.	12 hours
	<u>AND</u>	
	B.2.2.2 Be in MODE 4.	36 hours

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.6.1.3.6	Verify the isolation time of each MSIV is ≥ 3 seconds and ≤ 5 seconds.	In accordance with the Inservice Testing Program
SR 3.6.1.3.7	Verify each automatic PCIV, excluding EFCVs, actuates to the isolation position on an actual or simulated isolation signal.	24 months
SR 3.6.1.3.8	Verify each reactor instrumentation line EFCV (of a representative sample) actuates to restrict flow to within limits.	24 months
SR 3.6.1.3.9	Remove and test the explosive squib from each shear isolation valve of the TIP system.	24 months on a STAGGERED TEST BASIS
SR 3.6.1.3.10	<p>Verify combined MSIV leakage rate for all four main stream lines is ≤ 100 scfh when tested at ≥ 28.0 psig and < 50.8 psig.</p> <p><u>OR</u></p> <p>Verify combined MSIV leakage rate for all four main steam lines is ≤ 144 scfh when tested at ≥ 50.8 psig.</p>	In accordance with the Primary Containment Leakage Rate Testing Program
SR 3.6.1.3.11	Deleted	
SR 3.6.1.3.12	Cycle each 18 inch excess flow isolation damper to the fully closed and fully open position.	24 months
SR 3.6.1.3.13	Verify the combined leakage rate for all secondary containment bypass leakage paths is $\leq 0.02 L_a$ when pressurized to $\geq P_a$.	In accordance with the Primary Containment Leakage Rate Testing Program

3.6 CONTAINMENT SYSTEMS

3.6.2.5 Residual Heat Removal (RHR) Drywell Spray

LCO 3.6.2.5 Two RHR drywell spray subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One RHR drywell spray subsystem inoperable.	A.1 Restore RHR drywell spray subsystem to OPERABLE status.	7 days
B. Two RHR drywell spray subsystems inoperable.	B.1 Restore one RHR drywell spray subsystem to OPERABLE status.	8 hours
C. Required Action and associated Completion Time not met.	C.1 Be in MODE 3. <u>AND</u>	12 hours
	C.2 Be in MODE 4.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.6.2.5.1 Verify each RHR drywell spray subsystem manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in the correct position or can be aligned to the correct position.	31 days

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.6.2.5.2	Verify each drywell spray nozzle is unobstructed.	Following maintenance which could result in nozzle blockage.

3.6 CONTAINMENT SYSTEMS

3.6.3.1 Containment Atmosphere Dilution (CAD) System

LCO 3.6.3.1 Two CAD subsystems shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One CAD subsystem inoperable.	A.1 Restore CAD subsystem to OPERABLE status.	30 days
B. Two CAD subsystems inoperable.	B.1 Verify by administrative means that the hydrogen control function is maintained.	1 hour <u>AND</u> Once per 12 hours thereafter
	<u>AND</u> B.2 Restore one CAD subsystem to OPERABLE status.	7 days
C. Required Action and associated Completion Time not met.	C.1 Be in MODE 3.	12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.3.1.1	Verify ≥ 2000 gal of liquid nitrogen are contained in each N ₂ storage tank.	31 days
SR 3.6.3.1.2	Verify each CAD subsystem manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in the correct position or can be aligned to the correct position.	31 days

3.6 CONTAINMENT SYSTEMS

3.6.3.2 Primary Containment Oxygen Concentration

LCO 3.6.3.2 The primary containment oxygen concentration shall be < 4.0 volume percent.

APPLICABILITY: MODE 1 during the time period:

- a. From 24 hours after THERMAL POWER is > 15% RTP following startup, to
- b. 24 hours prior to reducing THERMAL POWER to < 15% RTP prior to the next scheduled reactor shutdown.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Primary containment oxygen concentration not within limit.	A.1 Restore oxygen concentration to within limit.	24 hours
B. Required Action and associated Completion Time not met.	B.1 Reduce THERMAL POWER to \leq 15% RTP.	8 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.6.3.2.1 Verify primary containment oxygen concentration is within limits.	7 days

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,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Secondary containment inoperable in MODE 1, 2, or 3.	A.1 Restore secondary containment to OPERABLE status.	4 hours
B. Required Action and associated Completion Time of Condition A not met.	B.1 Be in MODE 3. <u>AND</u> B.2 Be in MODE 4.	12 hours 36 hours
C. Secondary containment inoperable during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.	C.1 -----NOTE----- LCO 3.0.3 is not applicable. ----- Suspend movement of irradiated fuel assemblies in the secondary containment. <u>AND</u>	Immediately (continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. (continued)	C.2 Suspend CORE ALTERATIONS.	Immediately
	<u>AND</u> C.3 Initiate action to suspend OPDRVs.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.4.1.1	Verify all secondary containment equipment hatches are closed and sealed.	31 days
SR 3.6.4.1.2	Verify one secondary containment access door in each access opening is closed.	31 days
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 required SGT subsystem(s) will draw down the secondary containment to ≥ 0.20 inch of vacuum water gauge in ≤ 120 seconds.</p>	24 months on a STAGGERED TEST BASIS

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.6.4.1.4</p> <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 required SGT subsystem(s) can maintain ≥ 0.20 inch of vacuum water gauge in the secondary containment for 1 hour at a flow rate ≤ 4000 cfm for each subsystem.</p>	<p>24 months on a STAGGERED TEST BASIS</p>

3.6 CONTAINMENT SYSTEMS

3.6.4.2 Secondary Containment Isolation Valves (SCIVs)

LCO 3.6.4.2 Each SCIV shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
During movement of irradiated fuel assemblies in the secondary containment,
During CORE ALTERATIONS,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

- NOTES-----
1. Penetration flow paths may be unisolated intermittently under administrative controls.
 2. Separate Condition entry is allowed for each penetration flow path.
 3. Enter applicable Conditions and Required Actions for systems made inoperable by SCIVs.
-

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more penetration flow paths with one SCIV inoperable.	A.1 Isolate the affected penetration flow path by use of at least one closed and deactivated automatic valve, closed manual valve, or blind flange.	8 hours
	<p><u>AND</u></p> <p>A.2 -----NOTE----- Isolation devices in high radiation areas may be verified by use of administrative means. -----</p> <p>Verify the affected penetration flow path is isolated.</p>	Once per 31 days

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. One or more penetration flow paths with two SCIVs inoperable.	B.1 Isolate the affected penetration flow path by use of at least one closed and deactivated automatic valve, closed manual valve, or blind flange.	4 hours
C. Required Action and associated Completion Time of Condition A or B not met in MODE 1, 2, or 3.	C.1 Be in MODE 3. <u>AND</u> C.2 Be in MODE 4.	12 hours 36 hours
D. Required Action and associated Completion Time of Condition A or B not met during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.	D.1 -----NOTE----- LCO 3.0.3 is not applicable. ----- Suspend movement of irradiated fuel assemblies in the secondary containment. <u>AND</u> D.2 Suspend CORE ALTERATIONS. <u>AND</u> D.3 Initiate action to suspend OPDRVs.	Immediately Immediately Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.4.2.1	<p>-----NOTES-----</p> <ol style="list-style-type: none"> 1. Valves and blind flanges in high radiation areas may be verified by use of administrative means. 2. Not required to be met for SCIVs that are open under administrative controls. <p>-----</p> <p>Verify each secondary containment isolation manual valve and blind flange that is required to be closed during accident conditions is closed.</p>	31 days
SR 3.6.4.2.2	Verify the isolation time of each power operated and each automatic SCIV is within limits.	92 days
SR 3.6.4.2.3	Verify each automatic SCIV actuates to the isolation position on an actual or simulated actuation signal.	24 months

3.6 CONTAINMENT SYSTEMS

3.6.4.3 Standby Gas Treatment (SGT) System

LCO 3.6.4.3 The Unit 1 and Unit 2 SGT subsystems required to support LCO 3.6.4.1, "Secondary Containment," shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
During movement of irradiated fuel assemblies in the secondary containment,
During CORE ALTERATIONS,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. One required Unit 1 SGT subsystem inoperable while:</p> <ol style="list-style-type: none"> Four SGT subsystems required OPERABLE, and Unit 1 reactor building-to-refueling floor plug not installed. 	<p>A.1 Restore required Unit 1 SGT subsystem to OPERABLE status.</p>	<p>30 days from discovery of failure to meet the LCO</p>
<p>B. One required Unit 2 SGT subsystem inoperable.</p> <p><u>OR</u></p> <p>One required Unit 1 SGT subsystem inoperable for reasons other than Condition A.</p>	<p>B.1 Restore required SGT subsystem to OPERABLE status.</p>	<p>7 days</p> <p><u>AND</u></p> <p>30 days from discovery of failure to meet the LCO</p>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Required Action and associated Completion Time of Condition A or B not met in MODE 1, 2, or 3.	C.1 Be in MODE 3. <u>AND</u> C.2 Be in MODE 4.	12 hours 36 hours
D. Required Action and associated Completion Time of Condition A or B not met during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.	<p align="center">-----NOTE----- LCO 3.0.3 is not applicable. -----</p> D.1 Place remaining OPERABLE SGT subsystem(s) in operation. <u>OR</u> D.2.1 Suspend movement of irradiated fuel assemblies in secondary containment. <u>AND</u> D.2.2 Suspend CORE ALTERATIONS. <u>AND</u> D.2.3 Initiate action to suspend OPDRVs.	Immediately Immediately Immediately Immediately
E. Two or more required SGT subsystems inoperable in MODE 1, 2, or 3.	E.1 Enter LCO 3.0.3.	Immediately

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
F. Two or more required SGT subsystems inoperable during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.	F.1 -----NOTE----- LCO 3.0.3 is not applicable. -----	
	Suspend movement of irradiated fuel assemblies in secondary containment.	Immediately
	<u>AND</u>	
	F.2 Suspend CORE ALTERATIONS.	Immediately
	<u>AND</u>	
	F.3 Initiate action to suspend OPDRVs.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.4.3.1	Operate each required SGT subsystem for ≥ 10 continuous hours with heaters operating.	31 days
SR 3.6.4.3.2	Perform required SGT filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.6.4.3.3	Verify each required SGT subsystem actuates on an actual or simulated initiation signal.	24 months

3.7 PLANT SYSTEMS

3.7.9 Turbine Building Ventilation (TB HVAC) Exhaust System Fans

LCO 3.7.9 One Unit 1 and one Unit 2 TB HVAC exhaust system fan shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One required TB HVAC exhaust system fan inoperable.	A.1 Restore required TB HVAC exhaust system fan to OPERABLE status.	7 days
B. Two required TB HVAC exhaust system fans inoperable.	B.1 Restore one required TB HVAC exhaust system fan to OPERABLE status.	24 hours
C. Required Action and associated Completion Time not met.	C.1 Be in MODE 3.	12 hours
	<u>AND</u> C.2 Be in MODE 4.	36 hours

SURVEILLANCE REQUIREMENTS

-----NOTE-----

When a TB HVAC exhaust system fan, with associated filter trains, ductwork and dampers, is placed in an inoperable status for the performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours.

SURVEILLANCE		FREQUENCY
SR 3.7.9.1	Operate each TB HVAC exhaust system fan for ≥ 15 minutes.	92 days
SR 3.7.9.2	Verify manual transfer capability to alternate power supply for each TB HVAC exhaust system fan.	24 months

- (6) Southern Nuclear, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. This renewed license shall be deemed to contain, and is subject to, the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Section 50.54 of Part 50, and Section 70.32 of Part 70; all applicable provisions of the Act and the rules, regulations, and orders of the Commission now or hereafter in effect; and the additional conditions² specified or incorporated below:
- (1) Maximum Power Level
- Southern Nuclear is authorized to operate the facility at steady state reactor core power levels not in excess of 2,804 megawatts thermal, in accordance with the conditions specified herein.
- (2) Technical Specifications
- The Technical Specifications (Appendix A) and the Environmental Protection Plan (Appendix B), as revised through Amendment No. 200, are hereby incorporated in the renewed license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.
- (3) Additional Conditions
- The matters specified in the following conditions shall be completed to the satisfaction of the Commission within the stated time periods following the issuance of the renewed license or within the operational restrictions indicated. The removal of these conditions shall be made by an amendment to the license supported by a favorable evaluation by the Commission.
- (a) Fire Protection
- Southern Nuclear shall implement and maintain in effect all provisions of the fire protection program, which is referenced in the the Updated Final Safety Analysis Report for the facility, as contained

² The original licensee authorized to possess, use, and operate the facility was Georgia Power Company (GPC). Consequently, certain historical references to GPC remain in certain license conditions.

Boiling Water Reactor Vessel Internals Project program or through a staff-approved plant-specific program. The plant-specific program, if needed, will be developed in a manner consistent with other aging management programs, will include consideration of the 10 program attributes utilized for other aging management programs, and will provide a technical justification for any program attribute not covered by the plant-specific surveillance material testing program. The plant-specific program, if needed, will include the following actions:

- i. Capsules will periodically be removed to determine the rate of embrittlement.
- ii. Capsules will be removed at neutron fluence levels that provide relevant data for assessing the integrity of the Plant Hatch Unit 2 reactor pressure vessel (in particular, for the determination of reactor pressure vessel pressure-temperature limits through the period of extended operation).
- iii. Capsules will contain material to monitor the impact of irradiation on the Plant Hatch Unit 2 reactor pressure vessel and will contain dosimetry to monitor neutron fluence.

Before the renewal term begins, the licensee will notify the NRC of its decision to implement the integrated surveillance program or a plant-specific program, and provide the appropriate revisions to the Updated Final Safety Analysis Report Supplement summary descriptions of the vessel surveillance material testing program.

(f) Design Bases Accident Radiological Consequences Analyses

Southern Nuclear is authorized to credit administering potassium iodide to reduce the 30 day post-accident thyroid radiological dose to the operators in the main control room until May 31, 2011. Should design basis changes be completed rendering the crediting of potassium iodide no longer necessary prior to May 31, 2011, Southern Nuclear will remove the crediting of potassium iodide from the design basis accident radiological consequences analysis (reference Unit 2 FSAR paragraph 15.3.3.4.2.2) in the next Updated Final Safety Analysis Report update as required by 10 CFR 50.71(e).

(g) Alternative Source Term

- i) Southern Nuclear Operating Company, Inc (SNC, the licensee) shall complete actions by April 30, 2010, as described in SNC's letters dated October 18, 2007, and March 13, 2008, to complete the design modifications to the HNP turbine building ventilation exhaust systems. Specifically, the HNP Units 1 and 2 turbine building exhaust fans shall be capable of being

manually switched over from normally operating power supplies, to a Class - 1E circuit that will be isolated by an appropriately rated safety related, environmentally and seismically qualified circuit breaker. For further protection and isolation, the licensee shall also use fuses that will be located in a seismically qualified manual transfer switch housing. The aforementioned circuit breaker and fuses shall be adequately coordinated with the upstream load center breaker over the entire range. These devices shall be adequately rated to prevent adverse effects of a fault to the rest of the distribution system.

- ii) SNC shall implement modifications by May 31, 2010, as described in Enclosure 1, section 2.7.3.2, of the LAR and section 5.7 of SNC's letter dated February 25, 2008 (NL 08-0175) to modify the design for the air supply to the turbine building exhaust ventilation dampers, such that operating air to the dampers will be supplied from a non-interruptible instrument air source to eliminate single failure point vulnerability to loss of system/instrument air.
- iii) SNC shall complete actions by May 31, 2010, as described in SNC's letter dated February 25, 2008 (NL-08-0175) to install and implement the capability for Standby Liquid Control System hand switch jumpers for HNP Units 1 and 2.
- iv) SNC shall complete actions by May 31, 2011 for HNP Unit 2, as described in SNC's letters dated February 25, 2008 (NL-08-0175) and July 2, 2008 (NL-08-1022), to modify the following Main Steam Isolation Valve alternate leakage treatment boundary valves, such that they can be closed in the event of a loss of offsite power without requiring local operation:

2N11-F004A, 2N11-F004B, 2N33-F003, 2N33-F004
- v) SNC shall implement actions by May 31, 2010, as described in SNC's letter dated February 27, 2008, to assure that temperature switches which monitor charcoal bed temperature meet the environmental qualification requirements of 10 CFR 50.49.

D. This renewed license is subject to the following antitrust conditions:

(1) As used herein:

- (a) "Entity" means any financially responsible person, private or public corporation, municipality, county, cooperative, association, joint stock association or business trust, owning, operating or proposing to own or operate equipment or facilities within the state of Georgia (other than Chatham, Effingham, Fannin, Towns and Union Counties) for

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(continued)

1.1 Definitions (continued)

CHANNEL CHECK	A CHANNEL CHECK shall be the qualitative assessment, by observation, of channel behavior during operation. This determination shall include, where possible, comparison of the channel indication and status to other indications or status derived from independent instrument channels measuring the same parameter.
CHANNEL FUNCTIONAL TEST	A CHANNEL FUNCTIONAL TEST shall be the injection of a simulated or actual signal into the channel as close to the sensor as practicable to verify OPERABILITY, including required alarm, interlock, display, and trip functions, and channel failure trips. The CHANNEL FUNCTIONAL TEST may be performed by means of any series of sequential, overlapping, or total channel steps so that the entire channel is tested.
CORE ALTERATION	<p>CORE ALTERATION shall be the movement of any fuel, sources, or reactivity control components within the reactor vessel with the vessel head removed and fuel in the vessel. The following exceptions are not considered to be CORE ALTERATIONS:</p> <ul style="list-style-type: none"> a. Movement of source range monitors, local power range monitors, intermediate range monitors, traversing incore probes, or special movable detectors (including undervessel replacement); and b. Control rod movement, provided there are no fuel assemblies in the associated core cell. <p>Suspension of CORE ALTERATIONS shall not preclude completion of movement of a component to a safe position.</p>
CORE OPERATING LIMITS REPORT (COLR)	The COLR is the unit specific document that provides cycle specific parameter limits for the current reload cycle. These cycle specific limits shall be determined for each reload cycle in accordance with Specification 5.6.5. Plant operation within these limits is addressed in individual Specifications.
DOSE EQUIVALENT I-131	DOSE EQUIVALENT I-131 shall be that concentration of I-131 (microcuries/gram) that alone would produce the same Committed Effective Dose Equivalent as the quantity and isotopic mixture of I-131, I-132, I-133, I-134, and I-135 actually present. The dose conversion factors used for this calculation shall be those listed in Federal Guidance Report (FGR) 11, "Limiting Values of Radionuclide Intake and Air Concentration and Dose Conversion Factors for Inhalation, Submersion, and Ingestion," 1988.

(continued)

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.6 RCS Specific Activity

LCO 3.4.6 The specific activity of the reactor coolant shall be limited to DOSE EQUIVALENT I-131 specific activity $\leq 0.2 \mu\text{Ci/gm}$.

APPLICABILITY: MODE 1,
MODES 2 and 3 with any main steam line not isolated.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Reactor coolant specific activity $> 0.2 \mu\text{Ci/gm}$ and $\leq 2.0 \mu\text{Ci/gm}$ DOSE EQUIVALENT I-131.	-----NOTE----- LCO 3.0.4.c is applicable. -----	
	A.1 Determine DOSE EQUIVALENT I-131.	Once per 4 hours
	<u>AND</u> A.2 Restore DOSE EQUIVALENT I-131 to within limits.	48 hours
B. Required Action and associated Completion Time of Condition A not met. <u>OR</u> Reactor coolant specific activity $> 2.0 \mu\text{Ci/gm}$ DOSE EQUIVALENT I-131.	B.1 Determine DOSE EQUIVALENT I-131.	Once per 4 hours
	<u>AND</u>	
	B.2.1 Isolate all main steam lines.	12 hours
	<u>OR</u>	
	B.2.2.1 Be in MODE 3.	12 hours
	<u>AND</u> B.2.2.2 Be in MODE 4.	36 hours

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.6.1.3.6	Verify the isolation time of each MSIV is ≥ 3 seconds and ≤ 5 seconds.	In accordance with the Inservice Testing Program
SR 3.6.1.3.7	Verify each automatic PCIV, excluding EFCVs, actuates to the isolation position on an actual or simulated isolation signal.	24 months
SR 3.6.1.3.8	Verify each reactor instrumentation line EFCV (of a representative sample) actuates to restrict flow to within limits.	24 months
SR 3.6.1.3.9	Remove and test the explosive squib from each shear isolation valve of the TIP system.	24 months on a STAGGERED TEST BASIS
SR 3.6.1.3.10	Verify the combined leakage rate for all secondary containment bypass leakage paths is $\leq 0.02 L_a$ when pressurized to $\geq P_a$.	In accordance with the Primary Containment Leakage Rate Testing Program
SR 3.6.1.3.11	<p>Verify combined MSIV leakage rate for all four main steam lines is ≤ 100 scfh when tested at ≥ 28.8 psig and < 47.3 psig.</p> <p><u>OR</u></p> <p>Verify combined MSIV leakage rate for all four main steam lines is ≤ 144 scfh when tested at ≥ 47.3 psig.</p>	In accordance with the Primary Containment Leakage Rate Testing Program
SR 3.6.1.3.12	Deleted	
SR 3.6.1.3.13	Cycle each 18 inch excess flow isolation damper to the fully closed and fully open position.	24 months

3.6 CONTAINMENT SYSTEMS

3.6.2.5 Residual Heat Removal (RHR) Drywell Spray

LCO 3.6.2.5 Two RHR drywell spray subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One RHR drywell spray subsystem inoperable.	A.1 Restore RHR drywell spray subsystem to OPERABLE status.	7 days
B. Two RHR drywell spray subsystems inoperable.	B.1 Restore one RHR drywell spray subsystem to OPERABLE status.	8 hours
C. Required Action and associated Completion Time not met.	C.1 Be in MODE 3. <u>AND</u>	12 hours
	C.2 Be in MODE 4.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.6.2.5.1 Verify each RHR drywell spray subsystem manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in the correct position or can be aligned to the correct position.	31 days

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.6.2.5.2	Verify each drywell spray nozzle is unobstructed.	Following maintenance which could result in nozzle blockage.

3.7 PLANT SYSTEMS

3.7.9 Turbine Building Ventilation (TB HVAC) Exhaust System Fans

LCO 3.7.9 One Unit 1 and one Unit 2 TB HVAC exhaust system fan shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One required TB HVAC exhaust system fan inoperable.	A.1 Restore required TB HVAC exhaust system fan to OPERABLE status.	7 days
B. Two required TB HVAC exhaust system fans inoperable.	B.1 Restore one required TB HVAC exhaust system fan to OPERABLE status.	24 hours
C. Required Action and associated Completion Time not met.	C.1 Be in MODE 3.	12 hours
	<u>AND</u> C.2 Be in MODE 4.	36 hours

SURVEILLANCE REQUIREMENTS

-----NOTE-----

When a TB HVAC exhaust system fan, with associated filter trains, ductwork and dampers, is placed in an inoperable status for the performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours.

SURVEILLANCE		FREQUENCY
SR 3.7.9.1	Operate each TB HVAC exhaust system fan for ≥ 15 minutes.	92 days
SR 3.7.9.2	Verify manual transfer capability to alternate power supply for each TB HVAC exhaust system fan.	24 months