SOUTH CAROLINA ELECTRIC & GAS COMPANY

SOUTH CAROLINA PUBLIC SERVICE AUTHORITY

DOCKET NO. 50-395

VIRGIL C. SUMMER NUCLEAR STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 2
License No. NPF-12

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

   A. The application for amendment to the Virgil C. Summer Nuclear Station, Unit No. 1 (the facility) Facility Operating License No. NPF-12 filed by the South Carolina Electric & Gas Company acting for itself and South Carolina Public Service Authority (the licensees), dated August 13, 1982, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations as set forth in 10 CFR Chapter I;

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

   C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;

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

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

2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachments to this license amendment. Paragraph 2.C(2) of Facility Operating License No. NPF-12 is hereby amended to read as follows:

   (2) Technical Specifications

   The Technical Specifications contained in Appendix A, as revised through Amendment No. 2, are hereby incorporated into this license. South Carolina Electric & Gas Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by:
William Kane /for

B. J. Youngblood, Chief
Licensing Branch No. 1
Division of Licensing

Attachment:
Technical Specification
Changes

Date of Issuance: AUG 27 1982

NRC FORM 318 (10-80) NRCM 0240

OFFICE	DL:LB#1	DL:LB#1	DL:LB#1	OELD			
SURNAME	MRushbrook/yt	WKane	JYoungblood				
DATE	8/25/82	8/26/82	8/27/82	8/26/82			

USGPO: 1981—335-960

3/4.9.9 WATER LEVEL - REFUELING CAVITY AND FUEL TRANSFER CANAL

LIMITING CONDITION FOR OPERATION

3.9.9 At least 23 feet of water shall be maintained over the top of the reactor pressure vessel flange.

APPLICABILITY: During movement of fuel assemblies or control rods within the reactor pressure vessel or the refueling cavity when either the fuel assemblies being moved or the fuel assemblies seated within the reactor pressure vessel are irradiated.

ACTION:

With the requirements of the above specification not satisfied, suspend all operations involving movement of fuel assemblies or control rods within the pressure vessel.

SURVEILLANCE REQUIREMENTS

4.9.9 The water level shall be determined to be at least its minimum required depth within 2 hours prior to the start of and at least once per 24 hours thereafter during movement of fuel assemblies or control rods.

3/4.9.8 REACTOR BUILDING PURGE SUPPLY AND EXHAUST ISOLATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.9.8 The Reactor Building Purge Supply and Exhaust Isolation System shall be OPERABLE.

APPLICABILITY: During CORE ALTERATIONS or movement of irradiated fuel within the containment.

ACTION:

With the Reactor Building Purge Supply and Exhaust Isolation System inoperable, close each of the Purge and Exhaust penetrations providing direct access from the reactor building atmosphere to the outside atmosphere. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.8 The Reactor Building Purge Supply and Exhaust Isolation System shall be demonstrated OPERABLE within 100 hours prior to the start of and at least once per 7 days during CORE ALTERNATIONS by verifying that Reactor Building Purge Supply and Exhaust isolation occurs on manual initiation and on a high radiation test signal from each of the containment radiation monitoring instrumentation channels, and by verifying that isolation occurs on the 36-inch lines of the Purge Supply and Exhaust Isolation System on a high radiation test signal from the reactor building manipulator crane area channels.

TABLE 3.8-1

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICE TEST SETPOINT CRITERIA

EQUIP NO.-SYS/DESCRIPTION	DEVICE	LOCATION	TEST SETPOINT		RESPONSE TIME
7.2 KV Swgr.					
1) XPP0030A-RC Reactor Coolant Pump A	PRIMARY	XSW1A #9	LONG TIME	3960 Amps	< 15.75 Sec.
			INSTANT	5808 Amps	N/A
			GROUND INST.	11 Amps	N/A
BUS1A Normal Feed	BACKUP	XSW1A #5	LONG TIME	5544 Amps	< 15.33 Sec.
BUS1A Emergency Feed	BACKUP	XSW1A #3	LONG TIME	5544 Amps	≤ 15.33 Sec.
2) XPP0030B-RC Reactor Coolant Pump B	PRIMARY	XSW1B #7	LONG TIME	3690 Amps	< 15.75 Sec.
			INSTANT	5808 Amps	N/A
			GROUND INST.	11 Amps	N/A
BUS1B Normal Feed	BACKUP	XSW1B #5	LONG TIME	5544 Amps	≤ 15.33 Sec.
BUS1B Emergency Feed	BACKUP	XSW1B #3	LONG TIME	5544 Amps	≤ 15.33 Sec.
3) XPP0030C-RC Reactor Coolant Pump C	PRIMARY	XSW1C #3	LONG TIME	3960 Amps	< 15.75 Sec.
			INSTANT	5808 Amps	N/A
			GROUND INST.	11 Amps	N/A
BUS1C Normal Feed	BACKUP	XSW1C #9	LONG TIME	5544 Amps	≤ 15.33 Sec.
BUS1C Emergency Feed	BACKUP	XSW1C #13	LONG TIME	5544 Amps	≤ 15.33 Sec.

SURVEILLANCE REQUIREMENTS (Continued)

(c) For each circuit breaker found inoperable during these functional tests, an additional representative sample of at least 10% of all the circuit breakers of the inoperable type shall also be functionally tested until no more failures are found or all circuit breakers of that type have been functionally tested.

2. By selecting and functionally testing a representative sample of at least 10% of each type of lower voltage circuit breakers. Circuit breakers selected for functional testing shall be selected on a rotating basis. Testing of these circuit breakers shall consist of injecting a current in excess of the breakers nominal setpoint and measuring the response time. The measured response time will be compared to the manufacturer's data to insure that it is less than or equal to a value specified by the manufacturer. Circuit breakers found inoperable during functional testing shall be restored to OPERABLE status prior to resuming operation. For each circuit breaker found inoperable during these functional tests, an additional representative sample of at least 10% of all the circuit breakers of the inoperable type shall also be functionally tested until no more failures are found or all circuit breakers of that type have been functionally tested.

3. By selecting and functionally testing a representative sample of each type of fuse on a rotating basis. Each representative sample of fuses shall include at least 10% of all fuses of that type. The functional test shall consist of a non-destructive resistance measurement test which demonstrates that the fuse meets its manufacturer's design criteria. Fuses found inoperable during these functional tests shall be replaced with OPERABLE fuses prior to resuming operation. For each fuse found inoperable during these functional tests, an additional representative sample of at least 10% of all fuses of that type shall be functionally tested until no more failures are found or all fuses of that type have been functionally tested.

b. At least once per 60 months by subjecting each circuit breaker to an inspection and preventive maintenance in accordance with procedures prepared in conjunction with its manufacturer's recommendations.

TABLE 3.3-12

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

INSTRUMENT	MINIMUM CHANNELS OPERABLE	ACTION
1. GROSS RADIOACTIVITY MONITORS PROVIDING ALARM AND AUTOMATIC TERMINATION OF RELEASE		
a. Liquid Radwaste Effluent Line - RM-L5 or RM L9	1	31
b. Nuclear (Processed Steam Generator) Blowdown Effluent Line RM-L7 or RM-L9	1	32
c. Steam Generator Blowdown Effluent Line		
1. Unprocessed during Power Operation - RM-L10 or RM-L3	1	32
2. Unprocessed during Startup - RM-L3	1	32
d. Turbine Building Sump Effluent Line - RM-L8	1	33
2. FLOW RATE MEASUREMENT DEVICES*		
a. Liquid Radwaste Effluent Line - Tanks 1 and 2	1/tank	34
b. Penstocks Minimum Flow Interlock**	1	34
c. Nuclear Blowdown Effluent Line	1	34
d. Steam Generator (Unprocessed) Blowdown Effluent Line	1	34
3. TANK LEVEL INDICATING DEVICES		
a. Condensate Storage Tank	1	35

*Flow rate for the monitor RM-L9 is determined by adding flow rates for monitors RM-L5 and RM-L7.
**Minimum dilution flow is assured by an interlock terminating liquid waste releases if minimum dilution flow is not available.

INSTRUMENTATION

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.8 The radioactive liquid effluent monitoring instrumentation channels shown in Table 3.3-12 shall be OPERABLE with their alarm/trip setpoints set to ensure that the limits of Specification 3.11.1.1 are not exceeded. The alarm/trip setpoints of these channels shall be determined in accordance with the OFFSITE DOSE CALCULATION MANUAL (ODCM).

APPLICABILITY: At all times.

ACTION:

a. With a radioactive liquid effluent monitoring instrumentation channel alarm/trip setpoint less conservative than required by the above specification, immediately suspend the release of radioactive liquid effluents monitored by the affected channel or declare the channel inoperable.

b. With less than the minimum number of radioactive liquid effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-12. Additionally if this condition prevails for more than 30 days, in the next semiannual effluent report, explain why this condition was not corrected in a timely manner.

c. The provisions of Specifications 6.9.1.12.b, 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.8.1 Each radioactive liquid effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION and ANALOG CHANNEL OPERATIONAL TEST operations at the frequencies shown in Table 4.3-8.

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

Functional Unit	Total Allowance (TA)	Z	S	Trip Setpoint	Allowable Value
3. CONTAINMENT ISOLATION					
a. Phase "A" Isolation					
1. Manual	NA	NA	NA	NA	NA
2. Safety Injection	See 1 above for all safety injection setpoints and allowable values				
3. Automatic Actuation Logic and Actuation Relays	NA	NA	NA	NA	NA
b. Phase "B" Isolation					
1. Automatic Actuation Logic and Actuation Relays	NA	NA	NA	NA	NA
2. Reactor Building Pressure-High 3	3.0	0.71	1.5	$\leq$12.05 psig	$\leq$12.31 psig
c. Purge and Exhaust Isolation					
1. Safety Injection	See 1 above for all safety injection setpoints and allowable values				
2. Containment Radioactivity High	NA	NA	NA	*	*
3. Automatic Actuation Logic and Actuation Relays	NA	NA	NA	NA	NA

* Trip setpoints shall be set to ensure that the limits of Specification 3.11.2.1 are not exceeded.

TABLE 3.3-4

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

Functional Unit	Total Allowance (TA)	Z	S	Trip Setpoint	Allowable Value
1. SAFETY INJECTION, REACTOR TRIP, FEEDWATER ISOLATION, CONTROL ROOM ISOLATION, START DIESEL GENERATORS, CONTAINMENT COOLING FANS AND ESSENTIAL SERVICE WATER.					
a. Manual Initiation	NA	NA	NA	NA	NA
b. Automatic Actuation Logic	NA	NA	NA	NA	NA
c. Reactor Building Pressure-High 1	3.0	0.71	1.5	$\leq$3.6 psig	$\leq$3.86 psig
d. Pressurizer Pressure--Low	13.1	10.71	1.5	$\geq$1850 psig	$\geq$1839 psig
e. Differential Pressure Between Steamlines--High	3.0	0.87	1.5/ 1.5	$\leq$97 psig	$\leq$106 psi
f. Steamline Pressure--Low	20.0	10.71	1.5	$\geq$675 psig	$\geq$635 psig(1)
2. REACTOR BUILDING SPRAY					
a. Manual Initiation	NA	NA	NA	NA	NA
b. Automatic Actuation Logic and Actuation Relays	NA	NA	NA	NA	NA
c. Reactor Building Pressure-High 3 (Phase 'A' isolation aligns spray system discharge valves and NaOH tank suction valves)	3.0	0.71	1.5	$\leq$12.05 psig	$\leq$12.31 psig

(1) Time constants utilized in lead lag controller for steamline pressure-low are as follows $\tau_1 \geq 50$ secs. $\tau_2 \leq 5$ secs.

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
3. CONTAINMENT ISOLATION					
a. Phase "A" Isolation					
1) Manual	2	1	2	1, 2, 3, 4	18
2) Safety Injection	See 1 above for all safety injection initiating functions and requirements.				
3) Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3, 4	14
b. Phase "B" Isolation					
1) Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3, 4	14
2) Reactor Building Pressure--High-3	4	2	3	1, 2, 3	16
c. Purge and Exhaust Isolation					
1) Safety Injection	See 1 above for all safety injection initiating functions and requirements.				
2) Containment Radioactivity- High	2	1	2	1, 2, 3, 4	17
3) Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3, 4	17

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
f. Steam Line Pressure-Low	1 pressure/ loop	1 pressure and 2 loops	1 pressure and 2 loops	1, 2, 3##	19*
2. REACTOR BUILDING SPRAY					
a. Manual	2 sets - 2 switches/set	1 set	2 sets	1, 2, 3, 4	18
b. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3, 4	14
c. Reactor Building Pressure--High-3 (Phase 'A' isolation aligns spray system discharge valves and NaOH tank suction valves)	4	2	3	1, 2, 3	16

ATTACHMENT TO LICENSE AMENDMENT NO. 2

FACILITY OPERATING LICENSE NO. NPF-12

DOCKET NO. 50-395

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of the changes.

Amended Page	
3/4	3-18
3/4	3-26
3/4	3-68
3/4	8-18
3/4	9-9

OFFICE ▶							
SURNAME ▶							
DATE ▶							