

UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

HOUSTON LIGHTING & POWER COMPANY CITY PUBLIC SERVICE BOARD OF SAN ANTONIO

CENTRAL POWER AND LIGHT COMPANY

CITY OF AUSTIN. TEXAS

DOCKET NO. 50-498

SOUTH TEXAS PROJECT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 50 License No. NPF-76

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Houston Lighting & Power Company*
 (HL&P) acting on behalf of itself and for the City Public Service
 Board of San Antonio (CPS), Central Power and Light Company (CPL), and
 City of Austin, Texas (COA) (the licensees) dated April 15, 1991, as
 supplemented by letter dated January 24, 1992, complies with the
 standards and requirements of the Atomic Energy Act of 1954, as
 amended (the Act), and the Commission's rules and regulations 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 rules and 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;
 - 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; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

^{*} Houston Lighting & Power Company is authorized to act for the City Public Service Board of San Antonio, Central Power and Light Company and City of Austin, Texas and has exclusive responsibility and control over the physical construction, operation and maintenance of the facility.

- Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-76 is hereby amended to read as follows:
 - 2. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 50, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

 The license amendment is effective as of its date of issuance to be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Suzanne C. Black Suzanne C. Black, Director Project Directorate IV-2

Division of Reactor Projects III/IV/V Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: May 18, 1993



UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

HOUSTON LIGHTING & POWER COMPANY CITY PUBLIC SERVICE BOARD OF SAN ANTONIO CENTRAL POWER AND LIGHT COMPANY CITY OF AUSTIN, TEXAS DOCKET NO. 50-499 SOUTH TEXAS PROJECT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 39 License No. NPF-80

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Houston Lighting & Power Company*
 (HL&P) acting on behalf of itself and for the City Public Service
 Board of San Antonio (CPS), Central Power and Light Company (CPL), and
 City of Austin, Texas (COA) (the licensees) dated April 15, 1991, as
 supplemented by letter dated January 24, 1992, complies with the
 standards and requirements of the Atomic Energy Act of 1954, as
 amended (the Act), and the Commission's rules and regulations 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 rules and 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;
 - 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; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

^{*} Houston Lighting & Power Company is authorized to act for the City Public Service Board of San Antonio, Central Power and Light Company and City of Austin, Texas and has exclusive responsibility and control over the physical construction, operation and maintenance of the facility.

- Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-80 is hereby amended to read as follows:
 - 2. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 39, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

The license amendment is effective as of its date of issuance to be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Suzanne C. Black, Director Project Directorate IV-2

Division of Reactor Projects III/IV/V Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: May 18, 1993

FACILITY OPERATING LICENSE NOS. NPF-76 AND NPF-80

DOCKET NOS. 50-498 AND 50-499

Replace the following pages of the Appendix A Technical Specifications with the attached pages. The revised pages are identified by Amendment number and contain vertical lines indicating the areas of change. The corresponding overleaf pages are also provided to maintain document completeness.

REMOVE	INSERT
v	v
3/4 3-1	3/4 3-1
3/4 3-9	3/4 3-9
3/4 3-10	3/4 3-10
3/4 3-16	3/4 3-16
3/4 3-17	3/4 3-17
3/4 3-37	3/4 3-37
3/4 3-38	3/4 3-38
3/4 3-39	3/4 3-39
3/4 3-40	3/4 3-40
3/4 3-41	3/4 3-41

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS	
SECTION	PAGE
3/4.2 POWER DISTRIBUTION LIMITS	
3/4.2.1 AXIAL FLUX DIFFERENCE	3/4 2-
FIGURE 3.2.1 AXIAL FLUX DIFFERENCE LIMITS AS A FUNCTION OF RATED THERMAL POWER	
3/4.2.2 HEAT FLUX HOT CHANNEL FACTOR - Fo(Z)	3/4 2-
FIGURE 3.2-2 $K(Z)$ - NORMALIZED $F_{\phi}(Z)$ AS A FUNCTION OF CORE HEIGHT	
3/4.2.3 NUCLEAR ENTHALPY RISE HOT CHANNEL FACTOR	3/4 2-
3/4.2.4 QUADRANT POWER TILT RATIO	3/4 2-
3/4.2.5 DNB PARAMETERS	3/4 2-
3/4.3 INSTRUMENTATION	
3/4.3.1 REACTOR TRIP SYSTEM INSTRUMENTATION	3/4 3-
TABLE 3.3-1 REACTOR TRIP SYSTEM INSTRUMENTATION	
TABLE 3.3-2 (This table number not used)	
TABLE 4.3-1 REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS	
3/4.3.2 ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION	
TABLE 3.3-3 ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION	3/4 3-
TABLE 3.3-4 ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS	3/4 3-
TABLE 3.3-5 (This table number not used)	3/4 3-
TABLE 4.3-2 ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS	3/4 3-
3/4.3.3 MONITORING INSTRUMENTATION	
Radiation Monitoring for Plant Operations	3/4 3-
TABLE 3.3-6 RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS	3/4 3-
TABLE 4.3-3 RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS SURVEILLANCE REQUIREMENTS	3/4 3-
Movable Incore Detectors	3/4 3-
Seismic Instrumentation	
TABLE 3.3-7 SEISMIC MONITORING INSTRUMENTATION	3/4 3-
SOUTH TEXAS - UNITS 1 & 2 v Unit 1 - Amendment No. 7	27. 50

INDEX

LIMIT	ING (CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS	
SECTIO	ON		PAGE
TABLE	4.3-	4 SEISMIC MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS	3/4 3-57
		Meteorological Instrumentation	3/4 3-58
TABLE	3.3	-8 METEOROLOGICAL MONITORING INSTRUMENTATION	3/4 3-59
TABLE	4.3	5 METEOROLOGICAL MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS	. 3/4 3-60
		Remote Shutdown System	3/4 3-61
TABLE	3.3	9 REMOTE SHUTDOWN SYSTEM	3/4 3-62
TABLE	4.3	6 REMOTE SHUTDOWN MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS	3/4 3-66
		Accident Monitoring Instrumentation	3/4 3-67
TABLE	3.3	-10 ACCIDENT MONITORING INSTRUMENTATION	3/4 3-68
TABLE	4.3	-7 ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS	. 3/4 3-73
		Chemical Detection Systems	3/4 3-75
TABLE	3.3	-11 (This table number is not used)	. 3/4 3-77
		Radioactive Liquid Effluent Monitoring Instrumentation	DELETED
TABLE	3.3	-12 RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION	DELETED
TABLE	4.3	-8 RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS	DELETED
		Explosive Gas Monitoring Instrumentation	. 3/4 3-79
TABLE	3.3	-13 EXPLOSIVE GAS MONITORING INSTRUMENTATION	. 3/4 3-80
TABLE	4.3	9 EXPLOSIVE GAS MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS	. 3/4 3-82
3/4.3	.4	TURBINE OVERSPEED PROTECTION	. 3/4 3-84

3/4.3 INSTRUMENTATION

3/4.3.1 REACTOR TRIP SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.1 As a minimum, the Reactor Trip System instrumentation channels and interlocks of Table 3.3-1 shall be OPERABLE with RESPONSE TIMES as shown in Chapter 16 in the Updated Final Safety Analysis Report (UFSAR).

APPLICABILITY: As shown in Table 3.3-1.

ACTION:

As shown in Table 3.3-1.

SURVEILLANCE REQUIREMENTS

- 4.3.1.1 Each Reactor Trip System instrumentation channel and interlock and the automatic trip logic shall be demonstrated OPERABLE by the performance of the Reactor Trip System Instrumentation Surveillance Requirements specified in Table 4.3-1.
- 4.3.1.2 The REACTOR TRIP SYSTEM RESPONSE TIME of each Reactor trip function shall be demonstrated to be within its limit at least once per 18 months. Each test shall include at least one train such that both trains are tested at least once per 36 months and one channel per function such that all channels are tested at least once every N times 18 months where N is the total number of redundant channels in a specific Reactor trip function as shown in the "Total No. of Channels" column of Table 3.3-1.

- UNITS 1 &		FUN	ICTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
	STINU	1.	Manual Reactor Trip	2 2	1	2 2	1, 2 3*, 4*, 5*	1 10
	1 & 2	2.	Power Range, Neutron Flux a. High Setpoint b. Low Setpoint	4	2 2	3	1, 2	2 2
		3.	Power Range, Neutron Flux High Positive Rate	4	2	3	1, 2	2
		4.	Deleted					
	3/4 3	5.	Intermediate Range, Neutron Flux	2	1	2	1###, 2	3
	3-2	6.	Source Range, Neutron Flux a. Startup b. Shutdown	2 2	1	2 2	2## 3*, 4*, 5*	4
2 - AMENDMENT		7.	Extended Range, Neutron Flux	2	0	2	3, 4, 5	4
		8.	Overtemperature ΔT	4	2	3	1, 2	6
	Unit	9.	Overpower AT	4	2	3	1, 2	6
	21	10.	Pressurizer PressureLow (Interlocked with P-7)	4	2	3	1	6
	MEND	11.	Pressurizer PressureHigh	4	2	3	1, 2	6
	MENT NO	12.	Pressurizer Water LevelHigh (Interlocked with P-7)	4	2	3	1	6

254

TABLE 3.3-2

TABLE NOTATIONS (Continued)

- (10) Setpoint verification is not applicable.
- (11) The TRIP ACTUATING DEVICE OPERATIONAL TEST shall independently verify the OPERABILITY of the undervoltage and shunt trip attachments of the Reactor Trip Breakers.
- (12) OPERABILITY shall be verified by a check of memory devices, input accuracies, Boron Dilution Alarm setpoints, output values, and software functions.
- (13) (Not used)
- *(14) The TRIP ACTUATING DEVICE OPERATIONAL TEST shall independently verify the OPERABILITY of the undervoltage and shunt trip circuits for the Manual Reactor Trip Function. The test shall also verify the OPERABILITY of the Bypass Breaker trip circuit(s).
 - (15) Local manual shunt trip prior to placing breaker in service.
- (16) Automatic undervoltage trip.
- (17) Each channel shall be tested at least every 92 days on a STAGGERED TEST BASIS.
- (18) The surveillance frequency and/or MODES specified for these channels in Table 4.3-2 are more restrictive and, therefore, applicable.

^{*}Complete verification of operability of the shunt trip relay circuitry shall be initially implemented for each unit prior to the affected unit's startup from the first planned or unplanned shutdown occurring after May 19, 1992.

INSTRUMENTATION

3/4.3.2 ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.2 The Engineered Safety Features Actuation System (ESFAS) instrumentation channels and interlocks shown in Table 3.3-3 shall be OPERABLE with their Trip Setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3-4 and with RESPONSE TIMES as shown in Chapter 16 in the UFSAR.

APPLICABILITY: As shown in Table 3.3-3.

ACTION:

- a. With an ESFAS Instrumentation or Interlock Trip Setpoint trip less conservative than the value shown in the Trip Setpoint column but more conservative than the value shown in the Allowable Value column of Table 3.3-4, adjust the Setpoint consistent with the Trip Setpoint value.
- b. With an ESFAS Instrumentation or Interlock Trip Setpoint less conservative than the value shown in the Allowable Value column of Table 3.3-4, either:
 - Adjust the Setpoint consistent with the Trip Setpoint value of Table 3.3-4, and determine within 12 hours that Equation 2.2-1 was satisfied for the affected channel, or
 - Declare the channel inoperable and apply the applicable ACTION statement requirements of Table 3.3-3 until the channel is restored to OPERABLE status with its Setpoint adjusted consistent with the Trip Setpoint value.

Equation 2.2-1

 $Z + R + S \leq TA$

Where:

- Z = The value from Column Z of Table 3.3-4 for the affected channel,
- R = The "as-measured" value (in percent span) of rack error for the affected channel.
- S = Either the "as-measured" value (in percent span) of the sensor error, or the value from Column S (Sensor Error) of Table 3.3-4 for the affected channel, and
- TA = The value from Column TA (Total Allowance) of Table 3.3-4 for the affected channel.
- c. With an ESFAS instrumentation channel or interlock inoperable, take the ACTION shown in Table 3.3-3.

INSTRUMENTATION

SURVEILLANCE REQUIREMENTS

- 4.3.2.1 Each ESFAS instrumentation channel and interlock and the automatic acutation logic and relays shall be demonstrated OPERABLE by performance of the ESFAS Instrumentation Surveillance Requirements specified in Table 4.3.2.
- 4.3.2.2 The ENGINEERED SAFETY FEATURES RESPONSE TIME of each ESFAS function shall be demonstrated to be within the limit at least once per 18 months. Each test shall include at least one train so that:
 - Each logic train is tested at least once per 36 months,
 - Each actuation train is tested at least once per 54 months*, and
 - One channel per function so that all channels are tested at least once per N times 18 months where N is the total number of redundant channels in a specific ESFAS function as shown in the "Total No. of Channels" column of Table 3.3-3.

^{*}If an ESFAS instrumentation channel is inoperable due to response times exceeding the required limits, perform an engineering evaluation to determine if the test failure is a result of degradation of the actuation relays. If degradation of the actuation relays is determined to be the cause, increase the ENGINEERED SAFETY FEATURES RESPONSE TIME surveillance frequency such that all trains are tested at least once per 36 months.

TABLE 3.3-3 ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

XAS - UN	UNCTION	NAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
UNITS 1 & 2	Tri Cor Ver Die Cor	fety Injection (Reactor ip, Feedwater Isolation, itrol Room Emergency itilation, Start Standby esel Generators, Reactor itainment Fan Coolers, if Essential Cooling Water)					
3/4	a.	Manual Initiation	2	1	2	1, 2, 3, 4	19
4 3-18	b.	Automatic Actuation Logic	2	1	2	1, 2, 3, 4	14
	с.	Actuation Relays	3	2	3	1, 2, 3, 4	14
Un	d.	Containment PressureHigh-1	3	2	2	1, 2, 3, 4	15
Unit 1 -	e.	Pressurizer PressureLow	4	2	3	1, 2, 3#	20
Amendme	f.	Compensated Steam Line Pressure-Low	3/steam line	2/steam line any steam line	2/steam line in each steam line	1, 2, 3#	15

TABLE 3.3-5

TABLE 4.3-2

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FU	JNCT	CHANNEL IONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	DIGITAL OR ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	MODES FOR WHIC SURVEIL IS REQU	LANCE
1. Safety Injection (Reactor Trip, Feedwater Isolation, Control Room Emergency Ventilation, Start Standby Diesel Generators, Reactor Containment Fan Coolers, and Essential Cooling Wate			y r								
	a.	Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3	, 4
	b.	Automatic Actuation Logic	N.A.	N.A.	N.A.	N.A.	M(1)	N.A.	N.A.	1, 2, 3	, 4
	c.	Actuation Relays	N.A.	N.A.	N.A.	N.A.	N.A.	M(6)	Q(4,5)	1, 2, 3	, 4
	d.	Containment Pressure- High-1	5	R	М	N.A.	N.A.	N.A.	N.A.	1, 2, 3	, 4
	e.	Pressurizer Pressure- Low	S	R	М	N.A.	N.A.	N.A.	N.A.	1, 2, 3	
	f.	Compensated Steam Line Pressure-Low	S	R	М	N.A.	N.A.	N.A.	N.A.	1, 2, 3	