

The Light company

Houston Lighting & Power South Texas Project Electric Generating Station P. O. Box 289 Waco, Texas 77783

February 15, 1993
ST-HL-AE-4330
File No.: G02
10CFR50.71

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

South Texas Project
Units 1 & 2
Docket Nos. STN 50-498 & 50-499
Monthly Operating Reports for January, 1993

Pursuant to 10CFR50.71(a) and South Texas Project Electric Generating Station (STPEGS) Technical Specification 6.9.1.5, attached are the Monthly Operating Reports for January, 1993.

If you should have any questions on this matter, please contact Mr. C. A. Ayala at (512) 972-8628.

W. H. Kinsey
W. H. Kinsey, Jr.
Vice President,
Nuclear Generation

MKJ/sr

Attachments: 1) STPEGS Unit 1 Monthly Operating Report -
January, 1993
2) STPEGS Unit 2 Monthly Operating Report -
January, 1993

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A Subsidiary of Houston Industries Incorporated

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Houston Lighting & Power Company
South Texas Project Electric Generating Station

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U.S. Nuclear Regulatory Comm.
Attn: Document Control Desk
Washington, D.C. 20555

SOUTH TEXAS PROJECT
ELECTRIC GENERATING STATION
UNIT 1
MONTHLY OPERATING REPORT
JANUARY 1993
HOUSTON LIGHTING AND POWER CO.
NRC DOCKET NO. 50-498
LICENSE NO. NPF-76

Reviewed By:

Q. P. Z. I.
Supervisor

2-8-93

Date

Reviewed By:

D. C. Logan
Plant Engineering Manager

2-9-93

Date

Approved By:

Sl. Parley
Plant Manager

2/11/93

Date

Monthly Summary

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STPEGS Unit 1 began the reporting period in Mode 1 at 28 percent reactor power with startup testing and power ascension in progress.

On January 11, during 90 percent startup testing, reactor power was reduced to 74.5 percent for calibration and troubleshooting of the nuclear instruments.

On January 12, at 1859 the unit was removed from service and the reactor shutdown to comply with Technical Specification requirements. The time constants for the steamline pressure and negative steamline pressure rate signals were not properly calibrated. Corrections were made to the pressure rate signals and additional corrective maintenance was performed on the main generator voltage regulator. The unit was returned to service on January 19, at 0416.

A reactor power reduction to 65 percent was initiated on January 27 due to oscillations on Steam Generator Feedwater Pump 13. Corrective maintenance was performed and power ascension recommenced on January 28.

On January 31, reactor power was reduced to 28 percent to safely transfer the power panel that supplies 120 VAC to the steam generator feedwater pump control circuitry back to its normal supply.

The unit concluded the reporting period at 57 percent reactor power.

OPERATING DATA REPORT

DOCKET NO. 50-498
UNIT 1
DATE Feb 4, 1993
COMPLETED BY A.P. KENT
TELEPHONE 512/972-7786

OPERATING STATUS

1. REPORTING PERIOD: 01/01-01/31 GROSS HOURS IN REPORTING PERIOD: 744
2. CURRENTLY AUTHORIZED POWER LEVEL (MWt): 3800
MAX. DEPEND. CAPACITY (MWe-Net): 1250.5
DESIGN ELECTRICAL RATING (MWe-Net): 1250.6
3. POWER LEVEL TO WHICH RESTRICTED (IF ANY) (MWe-Net): None
4. REASONS FOR RESTRICTION (IF ANY): N/A

	THIS MONTH	YR TO DATE	CUMULATIVE
5. NUMBER OF HOURS REACTOR WAS CRITICAL...	633.3	633.3	26785.8
6. REACTOR RESERVE SHUTDOWN HOURS.....	0	0	0
7. HOURS GENERATOR ON LINE.....	590.7	590.7	25837.4
8. UNIT RESERVE SHUTDOWN HOURS.....	0	0	0
9. GROSS THERMAL ENERGY GENERATED (MWt).....	1765744	1765744	94356239
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)...	596780	596780	31908350
11. NET ELECTRICAL ENERGY GENERATED (MWH)....	564906	564906	30158417
12. REACTOR SERVICE FACTOR.....	85.1%	85.1%	68.8%
13. REACTOR AVAILABILITY FACTOR.....	85.1%	85.1%	68.8%
14. UNIT SERVICE FACTOR.....	79.4%	79.4%	66.4%
15. UNIT AVAILABILITY FACTOR.....	79.4%	79.4%	66.4%
16. UNIT CAPACITY FACTOR (Using MDC).....	60.7%	60.7%	62.0%
17. UNIT CAPACITY FACTOR (Using Design MWe)...	60.7%	60.7%	62.0%
18. UNIT FORCED OUTAGE RATE.....	20.6%	20.6%	14.6%
19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH):	N/A		
20. IF SHUT DOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP:	N/A		

AVERAGE DAILY UNIT POWER LEVEL

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DOCKET NO. 50-498
UNIT 1
DATE Feb 4, 1993
COMPLETED BY A.P. Kent
TELEPHONE 512/972-7786

MONTH JANUARY

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

1	239
2	454
3	511
4	795
5	943
6	946
7	931
8	916
9	932
10	1059
11	1087
12	642
13	0
14	0
15	0
16	0

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

17	0
18	0
19	601
20	1185
21	1186
22	1188
23	1191
24	1203
25	1214
26	1218
27	1020
28	1077
29	1235
30	1232
31	529

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-498
 UNIT 1
 DATE Feb 4, 1993
 COMPLETED BY A.P. Kent
 TELEPHONE 512/972-7786

REPORT MONTH JANUARY

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
93-01	930111	F	0	B	5	N/A	JC	DET	Reactor power was reduced to 74.5 percent for calibration and troubleshooting the nuclear instruments.
93-02	930112	F	153.3	D	1	1-93-003	AB	PI	The unit was removed from service and the reactor shutdown to comply with Technical Specification requirements. While reviewing surveillance procedure data for a steam pressure loop calibration it was determined that some instrument setpoints had been improperly set due to deficiencies in the governing procedures. When the setpoints could not be corrected in the required time, a plant shutdown was initiated. Corrections were made to the instrument setpoints and additional corrective maintenance was performed on the main generator voltage regulator.

¹
 F: Forced
 S: Scheduled

²
 Reason:
 A-Equipment Failure (Explain)
 B-Maintenance or Test
 C-Refueling
 D-Regulatory Restriction
 E-Operator Training & License Exam
 F-Administrative
 G-Operational Error (Explain)
 H-Other (Explain)

³
 Method:
 1-Manual
 2-Manual Scram
 3-Automatic Scram
 4-Cont. of Existing
 Outage
 5-Reduction
 9-Other

⁴
 IEEE 805-1983

⁵
 IEEE 803A-1983

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UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50 498
 UNIT 1
 DATE Feb 4, 1993
 COMPLETED BY A.P. Kent
 TELEPHONE 512/972-7786

REPORT MONTH JANUARY

Nc.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
93-03	930127	F	0.0	B	5	N/A	SJ	P	Reactor power was reduced to 65 percent due to oscillations on Steam Generator Feedwater Pump Turbine 13. Corrective maintenance was performed.
93-04	930131	F	0.0	B	5	N/A	SJ	P	Reactor power was reduced to 28 percent to safely transfer the power panel that supplies 120 VAC to the steam generator feedwater pump control circuitry back to its normal supply.

¹
 F: Forced
 S: Scheduled

²
 Reason:
 A-Equipment Failure (Explain)
 B-Maintenance or Test
 C-Refueling
 D-Regulatory Restriction
 E-Operator Training & License Exam
 F-Administrative
 G-Operational Error (Explain)
 H-Other (Explain)

³
 Method:
 1-Manual
 2-Manual Scram
 3-Automatic Scram
 4-Cont. of Existing
 Outage
 5-Reduction
 9-Other

⁴ IEEE 805-1983

⁵ IEEE 803A-1983

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PORVs and Safety Valves Summary

There were no PORV or Safety Valves challenged during the reporting period.

SOUTH TEXAS PROJECT
ELECTRIC GENERATING STATION
UNIT 2
MONTHLY OPERATING REPORT
JANUARY 1993
HOUSTON LIGHTING AND POWER CO.
NRC DOCKET NO. 50-499
LICENSE NO. NPF-76

Reviewed By:

CC PZL
Supervisor

2-12-93

Date

Reviewed By:

D. C. Lagan
Plant Engineering Manager

2-12-93

Date

Approved By:

Al Parbury
Plant Manager

2-15-93

Date

Monthly Summary

ATTACHMENT 2
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STPEGS Unit 2 began the reporting period at 100% reactor power.

On January 12, at 1957 the unit was removed from service and the reactor shutdown to comply with Technical Specification requirements. The time constants for the steamline pressure and negative steamline pressure rate signals were not properly calibrated. Corrections were made to the pressure rate signals and additional corrective maintenance was performed on a failed power supply in the Rod Control System. The unit was returned to service on January 14, at 2056.

On January 15, with the unit at 48 percent, reactor power was reduced to 25 percent to allow troubleshooting and corrective maintenance on the main feedwater pump speed controllers. Reactor power was reduced to 30 percent on January 18 to remove all three steam generator feedwater pump turbines from service and allow corrective maintenance on the power supplies in the control system. The unit was returned to full power on January 21.

A reactor trip occurred on January 23 at 2324 due to the depressurization of the electro-hydraulic control (EHC) supply header. The low EHC System pressure was due to a leak on the low pressure governor valve line of Steam Generator Feedwater Pump #22. The cause was the rupture of the EHC line which resulted from fatigue. Rapid changes in the EHC fluid levels within the actuator created excessive movement within the valve and low pressure line. The excessive movement was apparently the result of an exposed wire on the Linear Variable Differential Transformer. Following corrective maintenance, the unit was returned to service on January 26, at 0721.

The unit completed the reporting period operating at 100% reactor power.

OPERATING DATA REPORT

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DOCKET NO. 50-499
UNIT 2
DATE Feb 4, 1993
COMPLETED BY A.P. Kent
TELEPHONE 512/972-7786

OPERATING STATUS

1. REPORTING PERIOD: 01/01-01/31 GROSS HOURS IN REPORTING PERIOD: 744
2. CURRENTLY AUTHORIZED POWER LEVEL (MWt): 3800
MAX. DEPEND. CAPACITY (MWe-Net): 1250.6
DESIGN ELECTRICAL RATING (MWe-Net): 1250.6
3. POWER LEVEL TO WHICH RESTRICTED (IF ANY) (MWe-Net): None
4. REASONS FOR RESTRICTION (IF ANY): N/A

	THIS MONTH	YR TO DATE	CUMULATIVE
5. NUMBER OF HOURS REACTOR WAS CRITICAL.....	<u>676.1</u>	<u>676.1</u>	<u>24692.7</u>
6. REACTOR RESERVE SHUTDOWN HOURS.....	<u>0</u>	<u>0</u>	<u>0</u>
7. HOURS GENERATOR ON LINE.....	<u>639.1</u>	<u>639.1</u>	<u>23670.3</u>
8. UNIT RESERVE SHUTDOWN HOURS.....	<u>0</u>	<u>0</u>	<u>0</u>
9. GROSS THERMAL ENERGY GENERATED (MWt)....	<u>1988535</u>	<u>1988535</u>	<u>86191035</u>
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)..	<u>648790</u>	<u>648790</u>	<u>29123910</u>
11. NET ELECTRICAL ENERGY GENERATED (MWH)....	<u>613337</u>	<u>613337</u>	<u>27658317</u>
12. REACTOR SERVICE FACTOR.....	<u>90.9%</u>	<u>90.9%</u>	<u>77.8%</u>
13. REACTOR AVAILABILITY FACTOR.....	<u>90.9%</u>	<u>90.9%</u>	<u>77.8%</u>
14. UNIT SERVICE FACTOR.....	<u>85.9%</u>	<u>85.9%</u>	<u>74.5%</u>
15. UNIT AVAILABILITY FACTOR.....	<u>85.9%</u>	<u>85.9%</u>	<u>74.5%</u>
16. UNIT CAPACITY FACTOR (Using MDC).....	<u>65.9%</u>	<u>65.9%</u>	<u>69.7%</u>
17. UNIT CAPACITY FACTOR (Using Design MWe)...	<u>65.9%</u>	<u>65.9%</u>	<u>69.7%</u>
18. UNIT FORCED OUTAGE RATE.....	<u>14.1%</u>	<u>14.1%</u>	<u>11.9%</u>
19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE AND DURATION OF EACH):	Scheduled 85 day refueling outage to begin February 27, 1993.		
20. IF SHUT DOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP:	<u>N/A</u>		

AVERAGE DAILY UNIT POWER LEVEL

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DOCKET NO. 50-499
UNIT 2
DATE Feb 4, 1993
COMPLETED BY A.P. Kent
TELEPHONE 512/972-7786

MONTH JANUARY

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

1	1222
2	1223
3	1224
4	1224
5	1223
6	1224
7	1223
8	1223
9	1225
10	1223
11	1176
12	882
13	0
14	0
15	409
16	262

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

17	1077
18	1043
19	237
20	250
21	883
22	1220
23	1191
24	0
25	0
26	138
27	691
28	743
29	750
30	1149
31	1223

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-499
 UNIT 2
 DATE Feb. 4, 1993
 COMPLETED BY A.P. Kent
 TELEPHONE 512/972-7786

REPORT MONTH JANUARY

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	License Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
93-01	930112	F	49.0	D	1	1-93-003	AB	PI	The unit was removed from service and the reactor shutdown to comply with Technical Specification requirements. While reviewing surveillance procedure data for steam pressure loop calibration, it was determined that some instrument setpoints had been improperly set due to deficiencies in the governing procedures. When the setpoints could not be corrected in the required time, a plant shutdown was initiated. Corrections were made to the setpoints and additional corrective maintenance was performed on a failed power supply in the Rod Control System.

¹
 F: Forced
 S: Scheduled

² Reason:
 A-Equipment Failure (Explain)
 B-Maintenance or Test
 C-Refueling
 D-Regulatory Restriction
 E-Operator Training & License Exam
 F-Administrative
 G-Operational Error (Explain)
 H-Other (Explain)

³ Method:
 1-Manual
 2-Manual Scram
 3-Automatic Scram
 4-Cont. of Existing
 Outage
 5-Reduction
 9-Other

⁴ IEEE 805-1983

⁵ IEEE 803A-1983

ATTACHMENT 2
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UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-499
 UNIT 2
 DATE Feb 4, 1993
 COMPLETED BY A.P. Kent
 TELEPHONE 512/974-7786

REPORT MONTH JANUARY

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
93-02	930115	F	0.0	B	5	N/A	SJ	F	With the unit at 48 percent, reactor power was reduced to 25 percent to allow troubleshooting and corrective maintenance on the main feedwater pump speed controllers.
93-03	930118	F	0.0	B	5	N/A	SJ	P	Reactor power was reduced to 30 percent to remove all three steam generator feedwater pump turbines from service and allow corrective maintenance on the power supplies in the control system.
93-04	930123	F	55.9	A	3	N/A	SJ	P	A reactor trip occurred due to the depressurization of the electro-hydraulic control (EHC) supply header. The low EHC System pressure was due to a leak on the low pressure governor valve line of Steam Generator Feedwater Pump #22. The cause was the rupture of the EHC line which resulted from fatigue. Rapid changes in

¹
 F: Forced
 S: Scheduled

² Reason:
 A-Equipment Failure (Explain)
 B-Maintenance or Test
 C-Refueling
 D-Regulatory Restriction
 E-Operator Training & License Exam
 F-Administrative
 G-Operational Error (Explain)
 H-Other (Explain)

³ Method:
 1-Manual
 2-Manual Scram
 3-Automatic Scram
 4-Cont. of Existing
 Outage
 5-Reduction
 9-Other

⁴ IEEE 805-1983

⁵ IEEE 803A-1983

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UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-499
 UNIT 2
 DATE Feb 4, 1993
 COMPLETED BY A.P. Kent
 TELEPHONE 512/972-7786

REPORT MONTH JANUARY

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
									the EHC fluid levels within the actuator created excessive movement within the valve and low pressure line. The excessive movement was apparently the result of an exposed wire on the Linear Variable Differential Transformer.

¹
 F: Forced
 S: Scheduled

²
 Reason:
 A-Equipment Failure (Explain)
 B-Maintenance or Test
 C-Refueling
 D-Regulatory Restriction
 E-Operator Training & License Exam
 F-Administrative
 G-Operational Error (Explain)
 H-Other (Explain)

³
 Method:
 1-Manual
 2-Manual Scram
 3-Automatic Scram
 4-Cont. of Existing
 Outage
 5-Reduction
 9-Other

⁴
 IEEE 803-1983

⁵
 IEEE 803A-1983

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PORVs and Safety Valves Summary

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There were no PORV or Safety Valves challenged during the reporting period.