

The Light company

Houston Lighting & Power

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February 25, 1991

ST-HL-AE-3700

File No.: G02

10CFR20.407

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

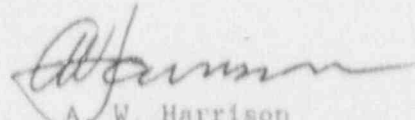
South Texas Project Electric Generating Station
Units 1 & 2

Docket Nos. STN 50-498, STN 50-499

Annual Reports Required by Tech. Spec. 6.9.1.2 and 10CFR20.407

Attached are the Annual Reports required by the South Texas Project Electric Generating Station Technical Specification 6.9.1.2 and 10CFR20.407. These reports consist of: Annual Personnel Exposure Reports required by Technical Specification 6.9.1.2a and 10CFR20.407; and a report of the results of specific activity analyses in which the primary coolant exceeded the limits of Technical Specification 3.4.8 as required by Technical Specification 6.9.1.2.b.

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



A. W. Harrison
Manager,
Nuclear Licensing

RAD/kmd

- Attachments: 1) Annual Personnel Exposure Reports
2) A Report of Results of Specific Activity Analysis in which the Primary Coolant Exceeded the Limits of Technical Specification 3.4.8

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Houston Lighting & Power Company
South Texas Project Electric Generating Station

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Revised 01/29/91

L4/NRC/

ANNUAL PERSONNEL EXPOSURE REPORTS

Technical Specification 6.9.1.2a requires a tabulation on an annual basis of the number of station, utility, and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man-rem exposures according to work and job functions. This data is presented on page two of this attachment. Specific tasks included in the Special Maintenance work and job function are listed on page three.

10CFR20.407(a) requires a report of the total number of individuals for whom personnel monitoring was provided for the reporting year. This number and a statistical summary of whole body exposure to these individuals is presented on page four of this attachment. An explanation of the statistics is provided on page five of this attachment.

During 1990, 2840 personnel were monitored and no single individual received greater than 2.0 rem. A majority of the dose, 193 rem, was received during planned refueling outages performed in each Unit. The increase in the 1990 total man-rem when compared 1989 is primarily due to the two refueling outages performed in 1990 versus one in 1989.

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ATTACHMENT 1
 ST-HL-AE-3700
 PAGE 2 OF 5

NRC License Number(s): NPF - 76; NPF - 80

REPORTING YEAR: 1990

APPENDIX A
 STANDARD FORMAT FOR REPORTING NUMBER OF PERSONNEL AND MAN-REM BY WORK AND JOB FUNCTION

| WORK & JOB FUNCTION | NUMBER OF PERSONNEL (> 100 MREM) | | | TOTAL MAN-REM | | |
|---------------------------------------|----------------------------------|-------------------|------------------------|-------------------|-------------------|------------------------|
| | STATION EMPLOYEES | UTILITY EMPLOYEES | CONTRACTORS AND OTHERS | STATION EMPLOYEES | UTILITY EMPLOYEES | CONTRACTORS AND OTHERS |
| REACTOR OPS & SURVEILLANCE | | | | | | |
| Maintenance Personnel | 0 | 0 | 0 | 0.587 | 0.000 | 0.064 |
| Operating Personnel | 9 | 0 | 0 | 3.261 | 0.000 | 0.000 |
| Health Physics Personnel | 24 | 0 | 13 | 6.124 | 0.000 | 4.929 |
| Supervisory Personnel | 3 | 0 | 0 | 0.816 | 0.117 | 0.000 |
| Engineering Personnel | 0 | 0 | 0 | 0.246 | 0.000 | 0.023 |
| Nuclear Assurance Personnel | 0 | 0 | 0 | 0.131 | 0.000 | 0.000 |
| Other Personnel | 0 | 2 | 1 | 0.000 | 1.071 | 0.674 |
| ROUTINE MAINTENANCE | | | | | | |
| Maintenance Personnel | 60 | 0 | 14 | 15.298 | 0.000 | 3.979 |
| Operating Personnel | 0 | 0 | 0 | 0.340 | 0.000 | 0.016 |
| Health Physics Personnel | 20 | 0 | 26 | 5.492 | 0.000 | 7.886 |
| Supervisory Personnel | 1 | 0 | 0 | 0.986 | 0.017 | 0.000 |
| Engineering Personnel | 1 | 0 | 1 | 0.381 | 0.000 | 0.424 |
| Nuclear Assurance Personnel | 3 | 0 | 0 | 1.163 | 0.000 | 0.000 |
| Other Personnel | 0 | 1 | 25 | 0.000 | 0.352 | 8.740 |
| IN-SERVICE INSPECTION | | | | | | |
| Maintenance Personnel | 9 | 0 | 5 | 2.743 | 0.000 | 1.461 |
| Operating Personnel | 0 | 0 | 0 | 0.020 | 0.000 | 0.000 |
| Health Physics Personnel | 2 | 0 | 0 | 0.481 | 0.000 | 0.246 |
| Supervisory Personnel | 0 | 0 | 0 | 0.027 | 0.053 | 0.000 |
| Engineering Personnel | 7 | 0 | 2 | 1.698 | 0.000 | 0.446 |
| Nuclear Assurance Personnel | 3 | 0 | 0 | 1.150 | 0.000 | 0.000 |
| Other Personnel | 0 | 0 | 19 | 0.000 | 0.259 | 7.812 |
| SPECIAL MAINTENANCE | | | | | | |
| Maintenance Personnel | 27 | 0 | 13 | 7.051 | 0.000 | 4.741 |
| Operating Personnel | 1 | 0 | 0 | 0.280 | 0.000 | 0.003 |
| Health Physics Personnel | 11 | 0 | 12 | 3.716 | 0.000 | 4.826 |
| Supervisory Personnel | 0 | 0 | 1 | 0.438 | 0.114 | 0.185 |
| Engineering Personnel | 0 | 0 | 27 | 0.180 | 0.000 | 9.305 |
| Nuclear Assurance Personnel | 8 | 0 | 0 | 2.004 | 0.000 | 0.000 |
| Other Personnel | 0 | 3 | 117 | 0.000 | 0.921 | 43.226 |
| WASTE PROCESSING | | | | | | |
| Maintenance Personnel | 0 | 0 | 0 | 0.025 | 0.000 | 0.024 |
| Operating Personnel | 0 | 0 | 0 | 0.003 | 0.000 | 0.000 |
| Health Physics Personnel | 3 | 0 | 53 | 1.302 | 0.000 | 15.597 |
| Supervisory Personnel | 0 | 0 | 0 | 0.291 | 0.000 | 0.000 |
| Engineering Personnel | 0 | 0 | 0 | 0.003 | 0.000 | 0.025 |
| Nuclear Assurance Personnel | 0 | 0 | 0 | 0.002 | 0.000 | 0.000 |
| Other Personnel | 0 | 0 | 12 | 0.000 | 0.115 | 1.224 |
| REFUELING | | | | | | |
| Maintenance Personnel | 32 | 0 | 3 | 10.518 | 0.000 | 0.992 |
| Operating Personnel | 9 | 0 | 0 | 3.772 | 0.000 | 0.318 |
| Health Physics Personnel | 4 | 0 | 5 | 1.398 | 0.000 | 1.627 |
| Supervisory Personnel | 0 | 0 | 0 | 1.667 | 0.153 | 0.000 |
| Engineering Personnel | 0 | 0 | 0 | 0.920 | 0.000 | 0.679 |
| Nuclear Assurance Personnel | 0 | 0 | 0 | 0.508 | 0.000 | 0.000 |
| Other Personnel | 0 | 3 | 25 | 0.000 | 0.902 | 6.225 |
| TOTAL WORK & JOB FUNCTION | | | | | | |
| Maintenance Personnel | 128 | 0 | 35 | 36.223 | 0.000 | 11.261 |
| Operating Personnel | 19 | 0 | 0 | 7.676 | 0.000 | 0.337 |
| Health Physics Personnel | 64 | 0 | 109 | 18.512 | 0.000 | 35.111 |
| Supervisory Personnel | 10 | 0 | 1 | 4.226 | 0.454 | 0.185 |
| Engineering Personnel | 11 | 0 | 33 | 3.428 | 0.000 | 10.903 |
| Nuclear Assurance Personnel | 16 | 0 | 0 | 4.958 | 0.000 | 0.000 |
| Other Personnel | 0 | 9 | 189 | 0.000 | 3.621 | 67.901 |
| GRAND TOTAL | 248 | 9 | 367 | 75.023 | 4.074 | 125.698 |

Additional Information

o The following is a listing of Special Maintenance , as referenced in the attached Tech Spec 6.1.9.2.a report performed at South Texas Project Electric Generating Station (STPEGS) for the year 1990:

1. Inspection & repair of Steam Generator (S/G) secondary access covers in Unit 1.
2. Chemical Volume Control System (CVCS) letdown valve repairs in both units.
3. Motor operated valve actuator testing in both units.
4. Machining of residue heat removal pump gasket seating surfaces in Unit One.
5. Eddy current testing of Unit 2 S/G.
6. S/G hot leg shot peening in all four S/Gs in Unit 2.
7. S/G bowl drain valve removal from all S/Gs in both units.
8. Sludge lancing in Unit 2 S/G.
9. Polishing of gasket seating areas on S/G secondary handholes all S/Gs in both units.
10. Repair of upender in both units.
11. Relocation of vessel loose parts monitor Unit Two.
12. Relocation of S/G loose parts monitor on all S/G in Unit Two.
13. Seal replacement on Reactor Coolant Pumps.
14. Replacement of incore detectors.
15. Addition of letdown isolation valve in Unit One.
16. Repairs on the reactor head vent valve Unit Two.
17. Repairs to the incore seal table in Unit Two.
18. Installation of mid-loop level indication in Unit Two.
19. Removal of irradiated specimen from Unit Two reactor core.
20. Disassembly & inspection of safety injection check valves in both units.

02/15/91 AT 10:37 Plant Radiation Exposure Planning And Reporting Database
 PERSONNEL MONITORING - ANNUAL STATISTICAL REPORT FOR 1990

This report is furnished to the Office of Nuclear Regulatory Research as required by Part 20.407 of the Code of Federal Regulations, Title 10

Licensee: HOUSTON LIGHTING & POWER COMPANY
 Address: Post Office Box 289
 Wadsworth, Texas 77483

NRC License Number(s): NPF - 76; NPF - 80

 Total number of individuals for whom personnel monitoring was provided for the Reporting Year submitted in accordance with paragraph (a) (2) of Section 20.407 2840

STATISTICAL SUMMARY

| Estimated Whole Body Exposure(1,3) (rems) | Number of Individuals in each range/man-rem | |
|--|--|--------|
| No Measurable Exposure(2) | 1704 | 0.058 |
| Measurable Exposure less than 0.1 | 562 | 24.290 |
| 0.1 to 0.25 | 268 | 45.336 |
| 0.25 to 0.5 | 205 | 69.465 |
| 0.5 to 0.75 | 77 | 45.753 |
| 0.75 to 1 | 18 | 14.945 |
| 1 to 2 | 6 | 6.161 |
| 2 to 3 | 0 | 0.000 |
| 3 to 4 | 0 | 0.000 |
| 4 to 5 | 0 | 0.000 |
| 5 to 6 | 0 | 0.000 |
| 6 to 7 | 0 | 0.000 |
| 7 to 8 | 0 | 0.000 |
| 8 to 9 | 0 | 0.000 |
| 9 to 10 | 0 | 0.000 |
| 10 to 11 | 0 | 0.000 |
| 11 to 12 | 0 | 0.000 |
| 12+ | 0 | 0.000 |

- *****
 1. As determined using PANASONIC TLDs.
 2. Includes exposure less than 0.010 rem.
 3. Individual values exactly equal to the value separating ranges shall be reported in the higher range.

TOTAL NUMBER OF INDIVIDUALS IN ALL RANGES: 2840 TOTAL MAN-REM 206.008

APPROVED BY: JR Loman
 HEALTH PHYSICS MANAGER

DATE: 2/18/91

- o The difference in total man-rem recorded on page 2 and page 4 of this attachment is due to round off errors.
- o Single individuals are listed in more than one work category on page 2 of this attachment. This accounts for the apparent discrepancy in the number of individuals with a whole body exposure greater than 100 mrem on page 4 of this attachment.

A REPORT OF RESULTS OF SPECIFIC ACTIVITY ANALYSIS IN WHICH THE
PRIMARY COOLANT EXCEEDED THE LIMITS OF TECHNICAL SPECIFICATION 3.4.8

Technical Specification 6.9.1.2.b requires the results of specific activity analyses in which the primary coolant exceeded the limits of Technical Specification 3.4.8.

Unit 1 and Unit 2 have not exceeded the limits of Technical Specification 3.4.8 for the calendar year of 1990.