

The Light company

Houston Lighting & Power South Texas Project Electric Generating Station P. O. Box 289 Wadsworth, Texas 77483

April 30, 1990

ST-HL-AE-3448

File No.: G2


10CFR50.36b

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 & 50-499
Annual Environmental Operating Report for 1989

Pursuant to the South Texas Project Electric Generating Station (STPEGS) Unit 1 Operating License NPF-76 and Unit 2 Operating License NPF-80 Appendix B, Environmental Protection Plan (Non-radiological), attached is the Annual Environmental Operating Report for 1989.

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


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Nuclear Licensing

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Attachment: Annual Environmental Operating
Report for 1989

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A Subsidiary of Houston Industries Incorporated

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Houston Lighting & Power Company
South Texas Project Electric Generating Station

ST-HL-AE-3448
File No.: G2
Page 2

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Revised 12/15/89

L4/NRC/



**SOUTH TEXAS PROJECT
ELECTRIC GENERATING
STATION**

NPOD

1989

ANNUAL

ENVIRONMENTAL

OPERATING REPORT

ANNUAL ENVIRONMENTAL

OPERATING REPORT

FOR 1989

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION

Prepared by:

Peggy Lofton Travis

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I. Introduction and Summary

The South Texas Project Electric Generating Station (STPEGS) is located on 12,300 acres in Matagorda County, Texas, approximately 15 miles southwest of Bay City along the west bank of the Colorado River. STPEGS consists of two 1250-MWe units, a 7,000 acre Main Cooling Reservoir (MCR), a 70 acre Essential Cooling Pond (ECP), and attendant pumping and discharge facilities. There are approximately 305 miles of transmission line corridors originating from the STPEGS site. STPEGS is jointly owned by Houston Lighting & Power Company (HL&P), Central Power & Light Company, the City of Austin, and the City of San Antonio. HL&P has been designated as Project Manager for the owners and is responsible for implementation of all environmental programs.

The following report fulfills requirements established in Sections 3.1 and 5.4.1 of the Unit 1 Operating License NPF-76 and Unit 2 Operating License NPF-80 Appendix B, Environmental Protection Plan (Non radiological), March 1989 (EPP). The time period for this report covers January 1, 1989 through December 31, 1989 inclusive. Environmental monitoring for STPEGS during 1989 was conducted by plant and corporate HL&P personnel in accordance with federal and state regulations and applicable plant procedures. The following report offers a compendium of plant environmental activities and notable events for 1989. With the exceptions noted in Sections VI and VIII of this report, STPEGS was in compliance with all nonradiological, environmental laws and regulations, license-related documents and commitments, and plant procedures.

II. Fog Monitoring Program

Requirements for the STPEGS fog monitoring program are described in Section 6.2.4.2 of the Environmental Report-Operating License Stage and Section 4.2.4 of the EPP. The visual observation aspect of Phase One (pre-operational phase) of the fog monitoring program commenced June 16, 1986. Instrument data collection commenced in April of 1987. Phase II (operational phase) began June 19, 1989, upon declaration of Unit 2 commercial operation and will continue for one year as required. A report summarizing the results of the program will be submitted following completion of the program.

III. Aquatic Monitoring Program

No aquatic monitoring was required by the U.S. Environmental Protection Agency (EPA) or the state of Texas under the authority of the Clean Water Act for this time period.

IV. Plant Operations

In order to identify and minimize or prevent any adverse environmental impact in the nonradiological area resulting from operational activities, any plant design, plant operation, test or experiment which may involve a change in the EPP or which could have a significant environmental impact is required to undergo a nonradiological environmental evaluation in accordance with applicable plant procedures. A description of plant designs, operations, tests, and experiments reviewed for potential environmental impacts as described above are discussed below.

A temporary modification (T0-PW-88-87) to enable sodium hypochlorite to be injected into the permanent plant Potable Water (PW) system for disinfection via a small chemical feed tank and feed pump within a temporary containment system was approved. A sodium hypochlorite pump was installed January 5, 1989; however, the pump has subsequently been removed as the permanent plant PW system has not yet been placed into operation. This temporary modification has been terminated. (Nonradiological Environmental Evaluation 88-38)

A temporary modification (T1-CW-89-004) to re-route the Unit 1 waterbox to an operating waterbox or secondary containment to allow for quick draindown of the condenser waterboxes in order to facilitate repairs was installed March 6, 1989. This temporary modification remained in place until installation of a permanent waterbox draindown system (Plant Modification No. 88174) was completed. This temporary modification has been terminated. (Nonradiological Environmental Evaluation 89-2)

A plant modification (Plant Modification No. 88137) to provide engineered containment on the storm drainage system at all drains which discharge offsite was approved. This modification when installed will allow for the retention of any accidental release of wastewater or chemicals that might enter the storm drain system allowing it to be recovered prior to discharge offsite and minimizing or averting potential environmental impact. Design has been completed and installation will commence upon receipt of parts. (Nonradiological Environmental Evaluation 89-24)

A temporary modification (T0-SH-88-037) which has provided for a two-inch line to supply softened water for diluting ten percent sodium hypochlorite solution

used for biological control delivered by tank truck was installed August 24, 1989. The new line has an eductor to mix and deliver sodium hypochlorite to the piping fill connection for the storage pit at the sodium hypochlorite generation building. This temporary modification also utilizes a temporary 7,000 gallon storage tank for ten percent sodium hypochlorite delivered by truck. A temporary berm sized to contain the contents of the tank in case of rupture was constructed and post-installation leak testing conducted. This temporary modification remains in effect. (Nonradiological Environmental Evaluation 89-26)

An engineering change (ECNP 89J0050) was approved to replace the Oily Waste Treatment System (OWTS) effluent totalizer in order to more reliably monitor discharge flow which is required to be reported as per TWC Permit No. 01908 and U.S. EPA Permit No. TX0064947. Installation was complete February 9, 1990 and the totalizer placed into operation. (Nonradiological Environmental Evaluation 89-43)

Installation of a septic tank system and potable water to the STPEGS Firing Range to support a restroom trailer facility for training personnel was approved in 1989 and completed February 9, 1990. The design was approved by the Matagorda County Health Department. A pressure test and final inspection were performed prior to backfill of the installation. The septic system and potable water supply are available for use but have not yet been placed into service. (Nonradiological Environmental Evaluation 89-49)

A temporary modification(TI-CW-89-062) was approved to allow the Unit 2 Circulating Water inlet header to drain down to the Unit 1 waterbox via temporary hoses. Storm drains in the vicinity of the temporary hose were blocked to prevent any possible leaks from entering the storm drain system during the transfer. Periodic inspections were also performed to check for leaks and ensure no water entered the storm drain system. This temporary modification was removed upon completion of the transfer and the system was restored to normal operations on December 1, 1989. (Nonradiological Environmental Evaluation 89-52)

A revision to a previous temporary modification (TI-OW-88-86) was approved to allow the installation of a temporary storage tank between the discharge of the OWTS Surge Tank temporary pump and the connection

to the OWTS Surge Tank permanent discharge piping. The original temporary modification installed a temporary transfer pump in the OWTS Surge Tank to be used as a backup pump for the only permanent transfer pump. The installation of the temporary tank was an interim measure until installation of a second permanent pump in the OWTS Surge Tank was completed. A leak test was performed and containment provided for the temporary tank and hose connections. In addition, storm drains in the vicinity were blocked to prevent inadvertent ingress into the storm drain system. This temporary modification was removed after the installation of the second permanent pump was completed, and the OWTS returned to normal operations January 11, 1990. (Nonradiological Environmental Evaluation 89-54)

Temporary modifications (T1-OW-89-068 and T2-OW-89-044) were approved to provide the ability to process high pH influent from the condensate system which does not contain visible oil from the Turbine Generator Building Oily Waste Sump No. 2 by redirecting flow from the sump to the Condensate Polisher (CP) Sump. This allows high pH water to be sent to the appropriate treatment system (Neutralization Basin) for processing instead of to the OWTS which is not designed to process high pH water. These modifications also allow condensate blowdown to be directed to the CP Sump for condensate inventory control. These temporary modifications are currently operational. (Nonradiological Environmental Evaluation 90-2)

No tests or experiments were conducted which may have involved a change in the EPP or which could have had a significant environmental impact.

V. Environmental Monitoring

Site environmental inspections were conducted by plant personnel in accordance with applicable plant procedures. Items of concern which did not meet reportability criteria for reporting to a regulatory agency were recorded in site logs or other appropriate documentation in accordance with applicable plant procedures. With the exceptions noted in Sections VI and VIII of this report, compliance with applicable environmental laws and regulations and site specific environmental documents was confirmed.

A. Main Cooling Reservoir

Inspections of the Main Cooling Reservoir (MCR) embankment were initially conducted in 1989 by the Harza Engineering Company. These inspection findings were documented by Harza via transmittal in a weekly inspection report to Houston Lighting & Power. HL&P subsequently assumed these responsibilities internally. Approximately 48,486 acre-feet of surface water were diverted from the Colorado

River in 1989 for MCR fill operations and the highest MCR elevation for 1989 was 43.20 feet. The condition of the MCR was satisfactory and unchanged during 1989.

B. Environmental Permit Monitoring

Monitoring for Site compliance with applicable federal and state environmental permits (Texas Air Control Board (TACB) Permit No. R-7410, EPA Permit No. PSD-TX-209, TWC Permit No. 01908, and EPA Permit No. TX0064947) was conducted by plant personnel in accordance with applicable plant procedures. The TWC conducted a wastewater compliance inspection on June 15, 1989. In addition, the Lower Colorado River Authority (LCRA) conducted monthly outfall compliance inspections.

C. Solid Waste Activities

Solid waste activities during 1989 included the shipment of 50,196 gallons of waste oil for recycle, 1,076 drums of nonhazardous waste for disposal, 126 drums of hazardous waste for disposal, 36 containers of photographic fixer and film waste for silver recovery, and 84.39 tons of nonhazardous sludge from the cleanout of the Organics Basin for landfill. The Annual Waste Summary submitted to the TWC by STPEGS documenting waste handling and disposal activities for 1989 has been attached to this report. (Attachment A) In addition to the aforementioned waste shipments, activities of the onsite Class III landfill were monitored by plant personnel for regulatory and procedural compliance by plant and corporate environmental personnel.

VI. Environmental Protection Plan Noncompliance

On August 31, 1987, the U.S. Environmental Protection Agency issued Administrative Order Docket No. VI-87-278 NPDES Permit No. TX0064947 (South Texas Project) against the South Texas Project Electric Generating Station for alleged permit exceedences in late 1986 and early 1987. This Administrative Order was closed by the EPA on June 12, 1989 based on attaining acceptable operating performance of the sanitary waste treatment facilities and the Oily Waste Treatment System. (Attachment B)

Sixteen potential noncompliances were incurred in 1989 by STPEGS which related to the effluent limits established in TWC Permit No. 01908 and U.S. EPA Permit No. TX0064947. (Attachments C and D) Five of these potential noncompliances were attributed to likely spurious analytical results from the contract laboratory. Significant improvement was made in 1989 toward the goal of reducing the number of reportable noncompliant environmental conditions observed at the STPEGS. The total number of bypasses was reduced by 82% from 1988 numbers. The sixteen reportable noncompliant environmental conditions incurred in 1989 represent a 54% overall reduction in the total number of reportable noncompliant environmental conditions observed in 1988. Below is a detailed review and description of the deficiencies that occurred during 1989.

A. Outfall 001 (Cooling Pond Discharge)

Outfall 001 has not yet been activated; however, one violation was incurred in 1989 as a result of an inadvertent bypass of this outfall. During the course of transferring cooling water from the Unit 2 waterbox to the Unit 1 waterbox in order to perform essential maintenance, a leak developed at a hose connection. Although storm drains in the vicinity had been blocked as a precautionary measure, approximately 3,000 gallons of cooling water which had leaked from the hose connection were released to the storm drain system when a leak apparently developed in the storm drain barrier. No adverse impact to the environment occurred.

B. Outfall 002 (Construction Sanitary Waste Treatment System)

During 1989, there were two violations associated with outfall 002. On March 30, 1989, the minimum total residual chlorine (TRC) was exceeded due possibly either to a chlorine tablet dispenser failure or a spurious contract laboratory result. Subsequent TRC analysis verified that the concentration was greater than the required minimum. In addition, all chlorinator tubes were placed into service to ensure adequate chlorine levels. No other exceedences of this nature occurred.

On April 4, 1989, the fecal coliform maximum limit was exceeded; however, this exceedence was attributed to a probable spurious result from the contract laboratory. As no chronic discrepancies of this type had been documented with the contract laboratory by HL&P, no further action was taken at this time.

C. Outfall 101 (Neutralization Basin)

Only one exceedence was incurred on outfall 101 in 1989. On October 1, 1989, the oil & grease maximum limit was exceeded when there was an excessive oil ingress into the Neutralization Basin from the Condensate Polisher Waste Collection System. Visible oil was removed from the Neutralization Basin and collection tanks within the Condensate Polisher Waste Collection System were inspected and cleaned. There were no other occurrences of this type in 1989.

D. Outfall 201 (Oily Waste Treatment System)

During 1989, there were nine violations associated with outfall 201. The total suspended solids daily average was exceeded in June, July, and August when the samples for that month exceeded or were near the permitted daily average although maximum daily limits were not exceeded. On July 11, 1989, August 4, 1989, and August 13, 1989, a mechanical failure which resulted in excessive oil ingress into the OWTS caused an exceedence of the oil & grease maximum limit. Also on August 13, 1989, a contract laboratory error resulted in the required weekly TSS analysis not being conducted. On October 29, 1989, the oil & grease maximum limit was exceeded due to possible excessive oil ingress into the system or possible spurious contract laboratory result. This high oil & grease value also resulted in the oil & grease daily average for October being exceeded.

Exceedences of permit parameters for outfall 201 (OWTS) accounted for fifty-six percent of the reportable environmental conditions incurred at STPEGS in 1989. Several minor operational problems were identified and corrected resulting in a reduction in the amount of oil entering the system and in more effective operations as evidenced by only one violation on this outfall in the last quarter of 1989. In addition, an Oily Waste Task Force was created to address the main concern of excessive oil ingress to the system. Significant reductions in the volume of oil entering the OWTS have been made and further reductions are anticipated as recommendations of the task force are implemented.

E. Outfall 301 (East Sanitary Waste Treatment System)

No exceedences occurred at outfall 301 in 1989. This system was taken out of service in July of 1989 due to decreased flow.

F. Outfall 401 (West Sanitary Waste Treatment System)

Two potential noncompliances were observed at outfall 401 in 1989. The TSS daily average limitation was exceeded in February when samples for this period exceeded or were near the permitted daily average although no maximum limits were exceeded. On December 22-26, 1989, approximately 58,000 gallons of treated effluent water entered the storm drain system when a discharge line froze and burst during uncharacteristically cold weather.

G. Outfall 501 (Metal Cleaning Waste)

No violations were incurred on this outfall in 1989.

H. Outfall 601 (Training Facility Sanitary Waste Treatment System)

Only one violation was incurred on outfall 601 in 1989, due to a contract laboratory error when a BOD-5 analysis was missed on October 17, 1989.

No other items of noncompliance were noted for the time period of this report.

VII. Unreviewed Environmental Questions

As defined in the EPP, an unreviewed environmental question consists of "... (1) a matter which may result in a significant increase in any adverse environmental impact previously evaluated in the FES-OL, environmental impact appraisals, or in any decisions of the Atomic Safety and Licensing Board; or (2) a significant change in effluents or power level; or (3) a matter, not previously reviewed and evaluated in the documents specified in (1) of [this] Subsection, which may have a significant adverse environmental impact." Any plant design, operation, test, or experiment which may involve an unreviewed environmental question must have a nonradiological environmental evaluation performed per applicable plant procedures to determine whether such an unreviewed question is involved. Any such question would require prior Nuclear Regulatory Commission (NRC) approval. Documents determined to require prior NRC approval must be submitted to the NRC for approval in accordance with plant procedures. No such unreviewed environmental questions were presented in 1989.

VIII. Nonroutine Reports

On May 13, 1989, approximately 5,460 gallons of Class I nonhazardous waste oil were inadvertently transported offsite without a manifest for recycling in a manner inconsistent with 31 TAC 335.6 and 31 TAC 335.10. A letter was transmitted to the TWC outlining the details associated with this incident. No other nonroutine reports than those discussed in Section VI of this report were submitted. (Attachment E)

IX. References

A. Houston Lighting & Power Company Office Memoranda and Correspondence

1. ST-P2-HL-416, Environmental Activity Report, February 9, 1989
2. ST-P2-HL-435, Environmental Activity Report, March 15, 1989
3. ST-P2-HL-437, Environmental Activity Report, April 5, 1989
4. ST-P2-HL-446, Environmental Activity Report, May 3, 1989
5. ST-P2-HL-461, Environmental Activity Report, June 9, 1989
6. ST-P2-HL-482, Environmental Activity Report, August 7, 1989
7. ST-P2-HL-486, Environmental Activity Report, August 18, 1989
8. ST-P2-HL-491, Environmental Activity Report, September 3, 1989
9. ST-P2-HL-497, Environmental Activity Report, October 3, 1989
10. ST-P2-HL-508, Environmental Activity Report, November 8, 1989
11. ST-P2-HL-515, Environmental Activity Report, December 5, 1989
12. ST-P2-HL-529, Environmental Activity Report, January 9, 1990
13. ST-HL-P2-136, South Texas Project Monthly Effluent Reports, March 7, 1989
14. ST-HL-P2-138, South Texas Project Monthly Effluent Reports, March 28, 1989
15. ST-HL-P2-142, South Texas Project Monthly Effluent Reports, April 25, 1989

16. ST-HL-P2-147, South Texas Project Monthly Effluent Reports, May 26, 1989
17. ST-HL-P2-149, South Texas Project Monthly Effluent Reports, June 28, 1989
18. ST-HL-P2-152, South Texas Project Monthly Effluent Reports, August 3, 1989
19. ST-HL-P2-155, South Texas Project Monthly Effluent Reports, September 5, 1989
20. ST-HL-P2-156, South Texas Project Monthly Effluent Reports, September 29, 1989
21. ST-HL-P2-160, South Texas Project Monthly Effluent Reports, November 7, 1989
22. ST-HL-P2-167, South Texas Project Monthly Effluent Reports, December 4, 1989
23. ST-HL-P2-170, South Texas Project Monthly Effluent Reports, January 4, 1990
24. ST-HL-P2-172, South Texas Project Monthly Effluent Reports, January 31, 1990
25. ST-P2-HL-557, 1989 Groundwater Monitoring Program Analytical Results, March 20, 1990
26. ST-HL-FD-305, Administrative Order Docket No. VI-87-278 South Texas Project Electric Generating Station NPDES Permit No. TX0064947, March 6, 1989
27. ST-P2-P2-420, Status Report for the Oily Waste Treatment System Operations, April 20, 1989
28. ST-HL-TX-731, South Texas Project Electric Generating Station (STPEGS), TWC No. 30651 - Unmanifested Shipment of Waste Oil, June 28, 1989
29. P. L. Travis to T. E. Underwood, STPEGS Oil Spill Reporting Practices in Relation to the Unit 2 Main Transformer Rupture, July 27, 1989
30. ST-HL-TX-762, 1989 Annual Waste Summary TWC Registration No. 30651, January 23, 1990.
31. R. W. Lawhn to Allan Seils, 1989 Waste Minimization Reports Houston Lighting & Power Company Facilities, February 27, 1990

32. Stephen S. Davies to Tom Buckingham, Houston Lighting & Power Company Annual Water Use Reports - 1989, February 27, 1989
33. Oily Waste Task Force to Distribution, Status of Oily Waste System Modifications and Recommendations to Management Concerning Upgrades to the System to Prevent Future Environmental Violations, March 27, 1990

B. Inspection and Audits

1. ST-HL-P2-135, STPEGS Monthly Solid Waste Review-February 17, 1989, March 3, 1989
2. ST-HL-P2-140, STPEGS Monthly Solid Waste Review-March 30, 1989, April 13, 1989
3. ST-HL-P2-145, STPEGS Monthly Solid Waste Review-May 11, 1989, May 19, 1989
4. ST-HL-P2-150, STPEGS Monthly Solid Waste Review-June 22, 1989, June 28, 1989
5. ST-HL-P2-159, STPEGS Monthly Solid Waste Review-October 26, 1989, November 9, 1989
6. ST-HL-P2-169, STPEGS Monthly Solid Waste Review-November 30, 1989, December 21, 1989
7. ST-HL-HS-2721, Texas Water Commission (TWC) Annual Compliance Inspection STPEGS - June 15, 1989, August 9, 1989
8. ST-HS-HS-12688, Nuclear Assurance Audit Report 89-64 (X) Nonradiological Effluent & Environmental Monitoring, January 5, 1990
9. ST-P2-HS-1697, Response to Nuclear Assurance Audit Report 89-64 (X) Nonradiological Effluent & Environmental Monitoring, February 1, 1990
10. ST-HL-HS-164, Environmental Compliance Review Program-South Texas Project Field Review, January 30, 1990
11. ST-P2-HL-560, 1989 Environmental Compliance Review Program Response, March 20, 1990
12. ST-HL-TX-726, W. Fred McGuire to Charles F. Dvorsky, April 10, 1989

C. Lower Colorado River Authority Transmittals

1. Charles F. Dvorsky to Bill Scott, March 25, 1989
2. Charles F. Dvorsky to Bill Scott, May 25, 1989
3. Charles F. Dvorsky to Bill Scott, June 28, 1989
4. Charles F. Dvorsky to Bill Scott, July 26, 1989
5. Charles F. Dvorsky to Bill Scott, September 26, 1989
6. Charles F. Dvorsky to Bill Scott, October 25, 1989
7. Charles F. Dvorsky to W. F. McGuire, November 28, 1989
8. Charles F. Dvorsky to W. F. McGuire, December 20, 1989
9. Charles F. Dvorsky to W. F. McGuire, January 26, 1990

D. United States Environmental Protection Agency
Administrative Order Docket No. VI-87-278 NPDES Permit No.
TX0064947, August 31, 1987

E. Robin Morse to Terry Lane, Answer to Findings of Violation
and Administrative Order of August 31, 1987, September 29,
1987

F. James L. Graham, Jr. to W. Fred McGuire, Administrative
Order Docket No. VI-87-278 NPDES Permit No. TX0064947,
June 12, 1989

G. Houston Lighting & Power Company Wastewater Permit
Exceedence Notifications

1. ST-HL-FD-307, ST-HL-TX-722, April 6, 1989
2. ST-HL-FD-308, ST-HL-TX-725, April 7, 1989
3. ST-HL-FD-17, ST-HL-TX-56, July 25, 1989
4. ST-HL-FD-314, ST-HL-TX-742, August 25, 1989
5. ST-HL-FD-315, ST-HL-TX-743, August 31, 1989
6. ST-HL-FD-317, ST-HL-TX-751, October 24, 1989
7. ST-HL-FD-319, ST-HL-TX-754, November 13, 1989

8. ST-HL-FD-320, ST-HL-TX-756, November 30, 1989

9. ST-HL-FD-321, ST-HL-TX-758, January 2, 1990

H. Harza Engineering Company Weekly Inspection Reports

1. Report No. MCR-85-WIR-106 for period ending January 7, 1989

2. Report No. MCR-85-WIR-107 for period ending January 21, 1989

3. Report No. MCR-85-WIR-108 for period ending February 4, 1989

4. Report No. MCR-85-WIR-109 for period ending February 18, 1989

5. Report No. MCR-85-WIR-110 for period ending March 4, 1989

6. Report No. MCR-85-WIR-111 for period ending March 18, 1989

7. Report No. MCR-85-WIR-112 for period ending April 1, 1989

8. Report No. MCR-85-WIR-113 for period ending April 15, 1989

9. Report No. MCR-85-WIR-114 for period ending April 29, 1989

10. Report No. MCR-85-WIR-115 for period ending May 13, 1989

11. Report No. MCR-85-WIR-116 for period ending May 27, 1989

12. Report No. MCR-85-WIR-117 for period ending June 10, 1989

Attachment A

1989 Annual Waste Summary

TEXAS WATER COMMISSION
SHIPPING CONTROL UNIT
HAZARDOUS AND SOLID WASTE DIVISION
P. O. BOX 13087, CAPITOL STATION
AUSTIN, TEXAS 78711

Generator's TWC Registration number 30651
EPA Gen. Number TXD020810503

ANNUAL WASTE SUMMARY
DW0500

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GENERATORS' NAME : Houston Lighting & Power Company: SOUTH TEXAS PROJECT
BUSINESS ADDRESS : P. O. Box 1700 Houston, Texas Zip 77001 Phone : (713) 922-2205

Part 1:	2	3	4	5	6	7	8
Texas Waste Code 12-17	Quantity Generated 18-26	*	Quantity Handled 28-36	*	Facility Com- ponent Number 37 38-42	Hand- ling Codes 43-45	Comments 46-92
108320	715 G		715 G	03	S01		
110450	45996 G		2000 G	04	S01		
110450	45996 G		48196 G	DW186	T16		FUELS BLENDING AT DW186 PRIOR TO USE
110910	660 G		3100 G	03	S01		
170750	0 Y		0 Y	03	S01		
180440	1265 G		550 G	50089	T07		
180440	1265 G		715 G	03	S01		
181490	1898 P		1898 P	51081	T24		
183230	0 G		0 G	03	S01		
900040	0 G		0 G	03	S01		
900070	0 G		0 G	03	S01		
901760	60 G		60 G	67822	T34		SILVER RECOVERY
910020	275 G		110 G	50089	T06		
910020	275 G		165 G	03	S01		
910100	2530 G		2475 G	50089	T06		
910100	2530 G		110 G	03	S01		
910110	0 G		0 G	03	S01		
910650	2255 G		55 G	03	S01		
910650	2255 G		2420 G	50089	T06		
910910	0 G		0 G	50089	T06		
913650	0 G		0 G	03	S01		
950840	5250 P		600 P	03	S01		

G=gallons, L=liters, P=pounds, T=tons, Y=cubic yards, K=kilograms, M=metric tons, N=cubic meter

Part II A. Cost estimate - Facility Closure

93

B. Cost estimate - Facility Post-Closure

102

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

SA Jones

Prepared by

Signature of Authorized Agent

1-22-90
Date

TEXAS WATER COMMISSION
SHIPPING CONTROL UNIT
HAZARDOUS AND SOLID WASTE DIVISION
P. O. BOX 13087, CAPITOL STATION
AUSTIN, TEXAS 78711

Generator's TWC Registration number 30651
EPA Gen. Number TXD020810503

ANNUAL WASTE SUMMARY
DW0500

G1
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MO VR
12 1989
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GENERATORS' NAME : Houston Lighting & Power Company: SOUTH TEXAS PROJECT
BUSINESS ADDRESS : P. O. Box 1700 Houston, Texas Zip 77001 Phone : (713) 922-2205

Part 1:							
1	2	3	4	5	6	7	8
Texas Waste Code	Quantity Generated *		Quantity Handled		Facility Com- ponent	Hand- ling Codes	Comments
12-17	18-26	27	28-36	37	38-42	43-45	46-92
950840	5250 P		5250 P		50089 T07		
952870	0 G		0 G		50089 T07		
979710	0 G		0 G		20022 D81		
979740	0 G		0 G		03 S01		
981490	44 P		44 P		67822 T34		SILVER RECOVERY

* G=gallons, L=liters, P=pounds, T=tons, Y=cubic yards, K=kilograms, M=metric tons, N=cubic meter

Part II A. Cost estimate - Facility Closure

93

B. Cost estimate - Facility Post-Closure

102

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Row

J. A. Jones

Prepared by

R. W. Lawhorn

Signature of Authorized Agent

1-22-90

Date

Attachment B

Notification of Closure

of

U.S. Environmental Protection Agency

Administrative Order Docket No. VI-87-278



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8
1445 MOORE AVENUE, SUITE 1700
DALLAS, TEXAS 75202

June 12, 1989

REPLY TO: 6W-ET

CERTIFIED MAIL: RETURN RECEIPT REQUESTED (P 105 323 549)

Mr. W. Fred McGuire
Manager, Environmental Department
Houston Lighting and Power
P.O. Box 1700
Houston, Texas 77001

Re: Administrative Order Docket No. VI-87-278
NPDES Permit No. TX0064947

Dear Mr. McGuire:

This is to acknowledge receipt of your letter dated March 6, 1989, and your continued compliance as reflected on your Discharge Monitoring Reports. After a review by our technical staff, the materials you submitted have been determined to be a satisfactory response and the above referenced Administrative Order is hereby closed. Thank you for your attention to this matter.

Sincerely yours,

James L. Graham, Jr., P.E.
Chief
Compliance Section TX/NM (6W-ET)

cc: Mr. Ramon Dasch, Section Chief
Wastewater Enforcement
Texas Water Commission

Attachment C

Environmental Permit Exceedence

Notifications for 1989

Houston Lighting & Power Company

P.O. Box 1700 Houston, Texas 77251 (713) 228-9211

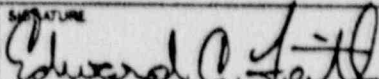
WASTEWATER PERMIT EXCEEDENCE NOTIFICATION

DATE 04/06/89		CORRESPONDENCE NO. ST-HL-FD-307, ST-HL-TX-722, SPN-W2	
TO Mr. Myron O. Knudson, P.E. Water Management Division (EW) U.S. Environmental Protection Agency Region VI 1445 Ross Avenue Dallas, Texas 75202-2733		Mr. Allen P. Beinke, Jr. Executive Director Texas Water Commission P.O. Box 13087 Capitol Station Austin, Texas 78711	
NPODES PERMIT NO. TX0064947		TWC PERMIT NO. 01908	
FACILITY NAME South Texas Project EOS			
EXCEEDENCE TYPE MAXIMUM _____ MINIMUM <input checked="" type="checkbox"/> OVERFLOW _____ OTHER _____			
EXCEEDENCE DATE 03/30/89		OUTFALL NO. & DESCRIPTION 002 - Treated Sanitary Wastewater (Construction)	
PARAMETER Chlorine Minimum	PERMIT LIMIT 1.0 mg/l	SAMPLE RESULT .05 mg/l	
CAUSE OF EXCEEDENCE/ACTION TAKEN/CURRENT STATUS			

The most probable cause for this low chlorine result was either analytical error or failure of the passive chlorine tablet dispenser to function properly. The technician involved has viewed the analytical procedure and operators have been reminded as to the proper methods verify operation of the chlorinator.

SSD:rmt

bcc: J. H. Goldberg
G. E. Vaughn
S. L. Rosen
W. H. Kinsey
G. L. Parkey
M. R. Wisenberg
J. R. Lovell
W. F. McGuire
M. A. McBurnett
W. F. Scott II
J. Tapia (NRC)
R. D. Martin (NRC)
J. E. Bess (NRC)
B. W. Taylor
STP/RMS (1)
File (STP-170)

RESPONSIBLE OFFICIAL (Name/Title) EDWARD A. FEITH, DIVISION MANAGER ENVIRONMENTAL DEPARTMENT	SIGNATURE 	PHONE NO. (713) 922-2205
--	---	-----------------------------

Houston Lighting & Power Company

P.O. Box 1700 Houston, Texas 77251 (713) 228-9211

WASTEWATER PERMIT EXCEEDENCE NOTIFICATION

DATE 04/07/89		CORRESPONDENCE NO. ST-HL-PT-308, ST-HL-TX-725, SFN-W2	
TO: Mr. Myron O. Knudson, P.E. Water Management Division (6W) U.S. Environmental Protection Agency Region VI 1445 Ross Avenue Dallas, Texas 75202-2733		Mr. Allen P. Beinke, Jr. Executive Director Texas Water Commission P.O. Box 13087 Capitol Station Austin, Texas 78711	
NPDES PERMIT NO. TX0064947		TWC PERMIT NO. 01908	
FACILITY NAME South Texas Project			
EXCEEDENCE TYPE MAXIMUM <input checked="" type="checkbox"/> MINIMUM <input type="checkbox"/> OVERFLOW <input type="checkbox"/> OTHER <input type="checkbox"/>			
EXCEEDENCE DATE 04/04/89		OUTFALL NO. & DESCRIPTION 002 - Sanitary Waste Treatment	
PARAMETER Fecal Coliform		PERMIT LIMIT 400/100 ml	SAMPLE RESULT 490/100 ml
CAUSE OF EXCEEDENCE/ACTION TAKEN/CURRENT STATUS			

On the date of the exceedence, compliance monitoring of the system indicated a chlorine residual in excess of the permit minimum limit of 1.0 mg/l existed. Plant personnel are aware of any condition that could have caused elevated fecal coliform levels. This exceedence is believed to be the result of laboratory analytical error or inadvertent sample contamination.

SSD:rmf

bcc: J. H. Goldberg
C. E. Vaughn
S. L. Rosen
W. H. Kinsey
C. L. Parkey
M. R. Wisenberg
J. R. Lovell
W. F. McGuire
M. A. McBurnett
W. F. Scott II
J. Tapia (NRC)
R. D. Martin (NRC)
J. E. Bess (NRC)
B. W. Taylor
STP/RMS (1)
File: STP 170

RESPONSIBLE OFFICIAL (Name/Title)
EDWARD A. FEITH, DIVISION MANAGER

SIGNATURE

PHONE NO.

(713) 228-9211

Houston Lighting & Power Company

PO Box 1700 Houston, Texas 77251 (713) 228-9211

WASTEWATER PERMIT EXCEEDENCE NOTIFICATION

DATE July 25, 1989		CORRESPONDENCE NO. ST-HL-FD-17, ST-HL-TX-56, SFN-W2	
TO Mr. Myron O. Rhudson, P.E. Water Management Division (6W) U.S. Environmental Protection Agency Region VI 1445 Ross Avenue Dallas, Texas 75202-2732		Mr. Allen P. Beinko, Jr. Executive Director Texas Water Commission P.O. Box 13087 Capitol Station Austin, Texas 78711	
NPDES PERMIT NO. TX0006497		TWC PERMIT NO. 01908	
FACILITY NAME South Texas Project			
EXCEEDENCE TYPE MAXIMUM <u>X</u> MINIMUM _____ OVERFLOW _____ OTHER _____			
EXCEEDENCE DATE 07/11/89		OUTFALL NO & DESCRIPTION 201 Flood Drainage Treatment System	
PARAMETER Oil and grease		PERMIT LIMIT 20 mg/l	SAMPLE RESULT 22.2 mg/l
CAUSE OF EXCEEDENCE/ACTION TAKEN/CURRENT STATUS			
<p>After thorough investigation, plant personnel have determined that at the time of the exceedence flows through the system were normal and the visual appearance of the effluent was clear. Possible mechanical problems associated with the tricellulator process pumps may have attributed to the exceedence. The priority of the work request to repair the pumps has been increased. Plant personnel will continue to closely observe and monitor the system and if any problems are detected, appropriate corrective action will be taken. No adverse impacts to the environment were observed as a result of this exceedence.</p>			
SSD/pla/E_STP		bcc: J. M. Goldberg G. E. Vaughn S. L. Rosen W. M. Kinsey G. L. Parkey M. R. Wisenberg J. R. Lovell W. F. McGuire M. A. McBurnett W. F. Scott II J. Topis (NRC) R. D. Martin (NRC) J. E. Bess (ERC) B. S. Taylor STP/RMS (1) File: STP 170	
RESPONSIBLE OFFICIAL (Name/Title) EDWARD A. FEITH, DIVISION MANAGER ENVIRONMENTAL DEPARTMENT		SIGNATURE <i>Edward A. Feith</i>	PHONE NO. (713) 922-2205

Houston Lighting & Power Company

P.O. Box 1700 Houston, Texas 77251 (713) 228-9211

WASTEWATER PERMIT EXCEEDENCE NOTIFICATION

DATE August 25, 1989		CORRESPONDENCE NO.: ST-HL-FD-314 ST-HL-TX-742 SFN-W2	
TO: Mr. Myron O. Knudson, P.E. Water Enforcement Branch (6W-E) U.S. Environmental Protection Agency Region VI 1645 Ross Avenue Dallas, Texas 75202-2733		Mr. Allen P. Belnke, Jr. Executive Director Texas Water Commission P.O. Box 13087 Capital Station Austin, Texas 78711	
NPDES PERMIT NO.: TX0006697		TWC PERMIT NO.: 01908	
FACILITY NAME: South Texas Project			
EXCEEDENCE TYPE: MAXIMUM <input checked="" type="checkbox"/> MINIMUM <input type="checkbox"/> OVERFLOW <input type="checkbox"/> OTHER <input type="checkbox"/>			
EXCEEDENCE DATE: 08/04/89		OUTFALL NO. & DESCRIPTION: 201 Floor Drainage Treatment System	
PARAMETER: Oil and grease	PERMIT LIMIT: 20 mg/l	SAMPLE RESULT: 22.2 mg/l	
CAUSE OF EXCEEDENCE/ACTION TAKEN/CURRENT STATUS:			
<p>The high oil and grease level was attributed to mechanical problems associated with the oily waste treatment system. Corrective actions have been taken to expedite repairs to the equipment. Plant personnel will increase surveillance of the system and take compensatory actions if any problems are detected. No adverse impacts to the environment were observed as a result of this exceedence.</p> <p>SSD/pln/E_STP</p> <p>bcc: J. H. Goldberg C. E. Vaughn S. L. Rosen W. H. Kinsey G. L. Parkey M. R. Wisenberg J. R. Lovell W. P. McGuire H. A. McBurnett W. P. Scott II J. Tapia (NRC) R. D. Martin (NRC) J. E. Bess (NRC) B. W. Taylor STP/RMS (1) File: STP 170</p>			
RESPONSIBLE OFFICIAL (Name/Title): EDWARD A. FEITH, DIVISION MANAGER ENVIRONMENTAL DEPARTMENT		SIGNATURE: <i>Edward A. Feith</i> PHONE NO.: (713) 922-2206	

Houston Lighting & Power Company

P.O. Box 1700 Houston, Texas 77251 (713) 228-9211

WASTEWATER PERMIT EXCEEDENCE NOI

DATE October 26, 1989		CORRESPONDENCE NO. ST-ML-FD-317 ST-ML-	
TO: Mr. Myron O. Knudson, P.E. Water Enforcement Branch (6W-E) U.S. Environmental Protection Agency Region VI 1445 Ross Avenue Dallas, Texas 75202-2733		Mr. Allen P. Belinko, Jr. Executive Director Texas Water Commission P.O. Box 13087 Capitol Station Austin, Texas 78711	
NPDES PERMIT NO. TX0006497		TWC PERMIT NO. 01908	
FACILITY NAME South Texas Project			
EXCEEDENCE TYPE MAXIMUM <u>R</u> MINIMUM _____ OVERFLOW _____ OTHER _____			
EXCEEDENCE DATE 10/01/89		OUTFALL NO. & DESCRIPTION 101 Neutralization basin	
PARAMETER Oil and grease		PERMIT LIMIT 20 mg/l	SAMPLE RESULT 48.5 mg/l
CAUSE OF EXCEEDENCE/ACTION TAKEN/CURRENT STATUS			

The high oil and grease level may be attributed to ingress into the chemical treatment system neutralization basin. The oil entered the system from a turbine building sump which was temporarily lined up to the condensate polisher sump. The discharge from the sump has been diverted to the oily waste treatment system. No adverse impacts to the environment were observed as a result of this exceedence.

SSD/pla/E_STP1

RESPONSIBLE OFFICIAL (Name/Title) EDWARD A FEITH, DIVISION MANAGER ENVIRONMENTAL DEPARTMENT	SIGNATURE <i>Edward A. Feith</i>	PHONE NO. (713) 922-2205
---	-------------------------------------	-----------------------------

LOC: C. L. Vaughn
S. L. Rosen
W. H. Kinsey
G. L. Parkey
J. R. Lovell
W. F. McGuire
M. A. McBurnett
R. A. Gangluff
J. Tapia (NRC)
R. D. Martin (NRC)
J. E. Bess (NRC)
D. W. Taylor
STP/RMS (1)
File: STP 170

FILED 7:42 (11-19-89)

Houston Lighting & Power Company

P.O. Box 1700 Houston, Texas 77251 (713) 228-9211

WASTEWATER PERMIT EXCEEDENCE NC

DATE November 13, 1989

CORRESPONDENCE NO. 0319, ST

TO:

Mr. Myron O. Knudson, P.E.
Water Enforcement Branch (EW-E)
U.S. Environmental Protection Agency
Region VI
1445 Ross Avenue
Dallas, Texas 75202-2733

Mr. Allen P. Belinko, Jr.
Executive Director
Texas Water Commission
P.O. Box 13087
Capital Station
Austin, Texas 78711

NPDES PERMIT NO. TX00064947

TWC PERMIT NO. 01908

FACILITY NAME

South Texas Project

EXCEEDENCE TYPE

X

MAXIMUM

MINIMUM

OVERFLOW

OTHER

EXCEEDENCE DATE

10/29/89

OUTFALL NO. & DESCRIPTION

201 Floor Drain Treatment

PARAMETER

Oil and grease

PERMIT LIMIT

20 mg/l

SAMPLE RESULT

34 mg/l

CAUSE OF EXCEEDENCE/ACTION TAKEN-CURRENT STATUS

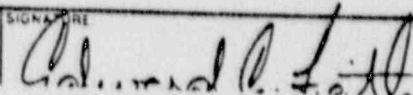
After thorough investigation, the exact cause of this exceedence has not been determined. At the time of the discharge the visual appearance of the effluent was clear. Possible analytical problems may have contributed to the occurrence since system observations and data trending have not correlated to the reported concentration. Plant personnel will continue to closely observe and monitor the system and if any problems are detected, appropriate corrective action will be taken. No adverse impacts to the environment were observed as a result of this exceedence.

SSD/plm/E_STP2

RESPONSIBLE OFFICIAL (Name Title)

EDWARD A. FEITH, DIVISION MANAGER
ENVIRONMENTAL DEPARTMENT

SIGNATURE



PHONE NO.

(713) 922-2205

UCC: G. E. Vaughn
S. L. Rosen
R. W. Chewing
W. H. Kinsey
J. R. Lovell
W. F. McGuire
M. A. McBurnett
R. A. Gangloff
J. Tapia (NRC)
R. D. Martin (NRC)
J. E. Bess (NRC)
B. W. Taylor
STP/RMS (1)
File: STP 170

The Light company

Houston Lighting & Power

P.O. Box 1700 Houston, Texas 772

November 30, 1989
ST-HL-FD-320
ST-HL-TX-756
SFN: W2

bcc: G. E. Vaughn
S. L. Rosen
R. W. Cheeming
W. H. Kinsey
J. R. Lovell
W. F. McGuire
M. A. McBurnett
R. A. Cangluff
J. Tapia (NRC)
R. D. Martin (NRC)
J. E. Bess (NRC)
B. W. Taylor
STP/RMS (1)
File: STP 170

Mr. Myron O. Knudson, P.E.
Water Management Branch (6W-E)
U. S. Environmental Protection Agency
Region VI
1445 Ross Avenue
Dallas, Texas 75202-2733

Mr. Allen P. Beinke
Executive Director
Texas Water Commission
P. O. Box 13087
Capitol Station
Austin, Texas 78711

SUBJECT: SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION
NPDES PERMIT NO. TX0064947
TWC PERMIT NO. 01908

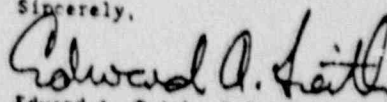
Gentlemen:

In order to perform essential maintenance on the Unit 2 condenser waterbox, cooling water was transferred from the Unit 2 waterbox to the Unit 1 waterbox over a two-day period beginning November 18, 1989. During the course of this transfer, a leak developed at a hose connection and resulted in the release of approximately 3000 gallons of cooling water to the plant yard. As a precautionary measure, plant personnel had previously blocked storm drains in the vicinity to contain any leakage. As preparations were being made to transfer the cooling water to an appropriate wastewater treatment facility, a leak apparently developed in the storm drain barriers and the water was released to the storm drain system. The following analytical results were obtained on a sample of the transferred cooling water:

pH - 8.3
TSS - 6 ppm
TRC - 0.1 ppm

No adverse impact to the environment is anticipated as a result of this incident. Please contact Mr. Steve Davies (713/922-2196) with regard to any questions.

Sincerely,



Edward A. Feith, P.E.
Manager, Water and Ecological
Resources Division
Environmental Department

SSD/plm/L23

A Subsidiary of Houston Industries Incorporated

HL&P 7460 (8-89)

Houston Lighting & Power Company

P.O. Box 1700 Houston, Texas 77251 (713) 228-9211

WASTEWATER PERMIT EXCEEDENCE NC

DATE: <u>JANUARY 2, 1990</u>		CORRESPONDENCE NO.: <u>ST-HL-FD-321 ST-HL</u>	
TO: Mr. Myron O. Knudson, P.E. Water Enforcement Branch (BW-E) U.S. Environmental Protection Agency Region VI 1445 Ross Avenue Dallas, Texas 75202-2733		Mr. Allen P. Belinke, Jr. Executive Director Texas Water Commission P.O. Box 13087 Capital Station Austin, Texas 78711	
NPDES PERMIT NO.: <u>TX00064947</u>		TWC PERMIT NO.: <u>01908</u>	
FACILITY NAME: <u>South Texas Project</u>			
EXCEEDENCE TYPE: <u>MAXIMUM</u> <u>MINIMUM</u> <u>OVERFLOW</u> <u>X</u> <u>OTHER</u>			
EXCEEDENCE DATE: <u>12/22/89-12/26/89</u>		OUTFALL NO. & DESCRIPTION: <u>401 - Sanitary Waste Treatment</u>	
PARAMETER: <u>N/A</u>	PERMIT LIMIT: <u>N/A</u>	SAMPLE RESULT: <u>N/A</u>	
CAUSE OF EXCEEDENCE/ACTION TAKEN/CURRENT STATUS:			

Approximately 58,000 gallons of treated sanitary system wastewater overflowed the effluent tank and entered the yard storm drainage system. The overflow was caused by ice which blocked the treatment system discharge line during extremely cold weather conditions. Process monitoring during the exceedence period indicated the system was operating compliantly. No adverse impact to the receiving system is anticipated as a result of this incident.

SSD/plm/E_STP2

cc: C. E. Vaughn
S. L. Rosen
R. W. Chearning
V. H. Kinsey
J. R. Lovell
W. F. McGuire
M. A. McBurnett
R. A. Gangluff
J. Tapia (NRC)
R. D. Martin (NRC)
J. E. Bess (NRC)
B. W. Taylor
STP/RMS (1)
File: STP 170

RESPONSIBLE OFFICIAL (Name/Title)

EDWARD A. FEITH, DIVISION MANAGER
ENVIRONMENTAL DEPARTMENT

SIGNATURE

Edward A. Feith

PHONE NO.

(713) 922-2705

Attachment D

Environmental Exceedence Summary
for 1989

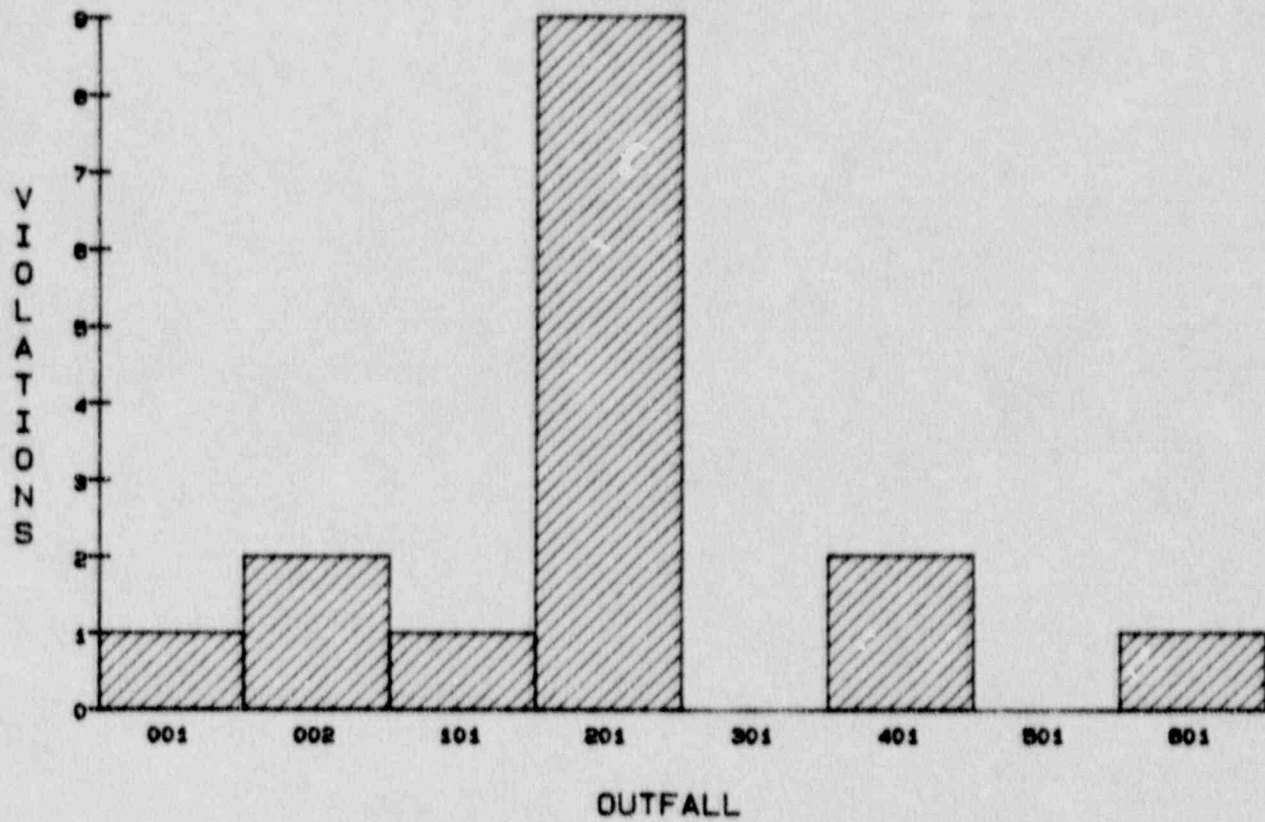
1989 ENVIRONMENTAL EXCEEDANCE SUMMARY

Outfall	Number of Violation: per Parameter										Total Violations per Outfall
	pH	TSS	BOD-5	O&G	Flow	TRC	Fecal Coliform	Bypass	Frequency	Total	% Total
001								1		1	6.25
002						1	1			2	12.5
101				1						1	6.25
201		4		5						9	56.25
301										0	0
401		1						1		2	12.5
501										0	0
601									1	1	6.25
Totals	0	5	0	6	0	1	1	2	1	16	100

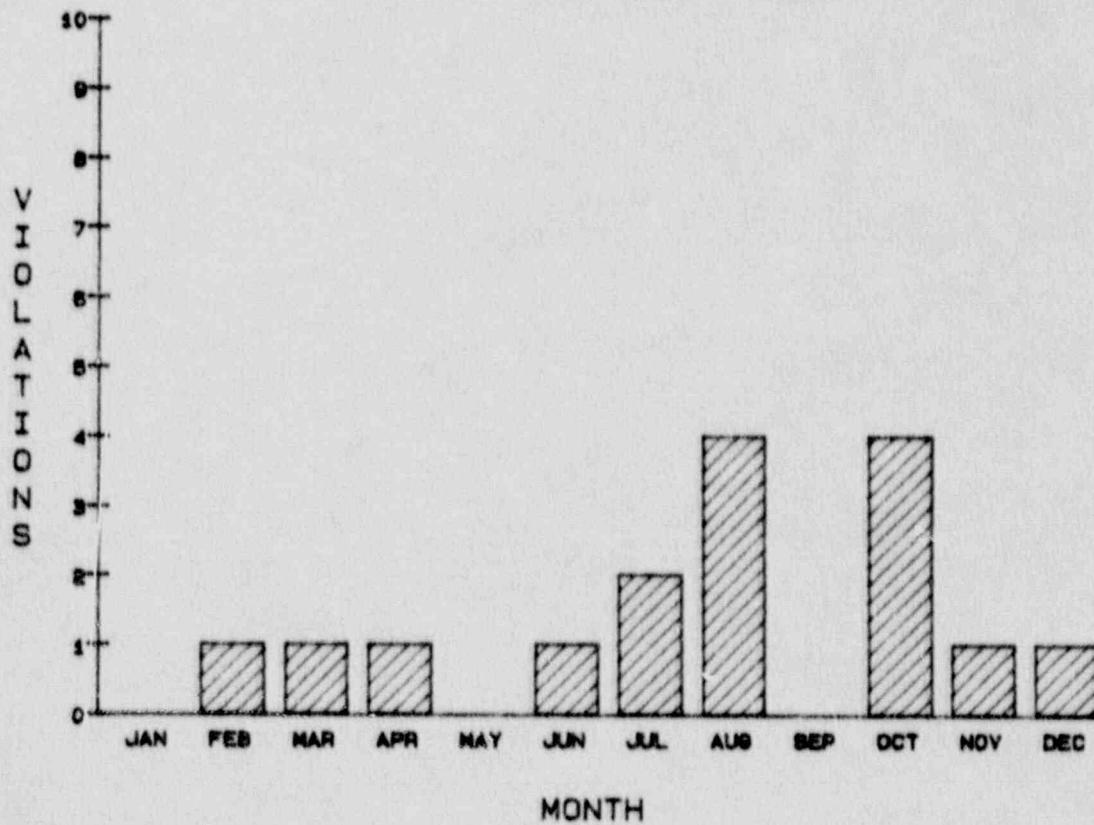
Legend:

- TSS - Total Suspended Solids
- BOD-5 - Biological Oxygen Demand (5-day)
- O&G - Oil and Grease
- TRC - Total Residual Chlorine

TOTAL EXCEEDENCES



OUTFALL MONTHLY TOTALS



Attachment E

Notice to TWC

of

Unmanifested Shipment of Waste Oil from STPEGS

The Light company

Houston Lighting & Power

P.O. Box 1700 Houston, Texas 7700

June 28, 1989
ST-HL-TX-731
SFN: W13.

bcc: W. H. Finney, Jr
T. E. Underwood
J. R. Lovell
W. P. Cinn
W. F. Jocher
C. A. Ayala
R. D. Groover
R. T. Bye
*W. F. Scott
*P. L. Travis
*STP-RMS
(*RCRA File No. 2)

Mr. Alan Seils, Head
Technical Support Unit
Hazardous & Solid Waste Division
Texas Water Commission
P. O. Box 13087, Capitol Station
Austin, Texas 78711

RE: SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION (STPEGS),
TWC NO. 30651 - UNMANIFESTED SHIPMENT OF WASTE OIL

Dear Mr. Seils:

On May 13, 1989, approximately 5460 gallons of Class 1 nonhazardous waste oil were inadvertently transported offsite for recycling in a manner inconsistent with the requirements of 31 TAC 335.6 and 31 TAC 335.10. The sequence of events resulting in this event is narrated below.

Waste oil is routinely transferred onsite from collection/treatment units associated with the facility's oily waste treatment system (OWTS) to a waste oil storage tank prior to transport offsite to a permitted facility. Key Services, Inc. is under contract to provide only the onsite transfer of waste oil via vacuum truck. In addition, Key Services, Inc. has Texas Railroad Commission permits for water disposal (NO. 660) and oily water hauling (No. 1168) related to oilfield waste management. An internal HL&P work order prepared on Friday, May 12, 1989, instructed site personnel to authorize Key Services, Inc. onsite on Saturday, May 13, 1989, to transfer approximately 1680 gallons of waste oil from a temporary storage tank to the onsite waste oil tank. However, Key Services also collected an additional 3780 gallons of waste oil from another onsite storage tank. Upon attempting to transfer the waste oil from the vacuum truck to the waste oil tank, Key Services determined the tank had insufficient volume. The Key Services driver related that Key Services also operates a processing facility for oilfield related wastes and would be capable of managing the waste oil. HL&P environmental personnel were not requested to evaluate the Key Services suggestion. As such, the Key Services vacuum truck transported the waste oil offsite without a proper manifest. The waste oil was taken to the Key Services processing facility which is located on FM 521, three miles west of FM 1095 in Matagorda County. The oil was stored in a tank and ultimately sold for recycling while the water was processed and discharged.

A Subsidiary of Houston Industries Incorporated

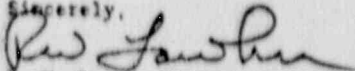
Houston Lighting & Power Company

Mr. Alan Seils
June 28, 1989
Page 2

Although the waste oil was managed in an environmentally acceptable manner, technically the incident was inconsistent with the TWC's Industrial Solid Waste Regulations. To minimize the potential recurrence of this type of incident, a memorandum has been issued which outlines proper waste oil management procedures and emphasizes that Key Services, Inc. is not permitted to transport Class I waste oil offsite. In addition, a letter has been sent to Key Services to re-emphasize that the scope of their services is for onsite transfer only. Any subsequent offsite shipments of waste oil will be managed in accordance with all applicable shipping and disposal requirements for industrial waste.

Should you have any questions or need further information pursuant to this matter, please contact Mr. R. D. Carpenter at 713/922-2197.

Sincerely,



R. W. Lawhn, Manager
Environmental Assessment & Waste Management
Environmental Department

RDC/sls:Bl8

cc: W. F. McGuire

Attachment F

1989 Groundwater Monitoring Program

Analytical Results

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION
Groundwater Monitoring Program
Spring 1989

	1 DATE	2 pH	3 CONDUCTIVITY (uohm/cm)	4 T. HARDNESS (ppm)	5 TDS (ppm)	6 ALKALINITY (ppm)	7 CHLORIDE (ppm)	8 SILICA (ppm)	9 SULPHATE (ppm)	10 SODIUM (ppm)
WELL B-1B	16-MAY-89	7.30	1080	284	654	434	177	36.0	42	122
WELL B-2	16-MAY-89	7.06	3325	679	2188	475	356	39.0	135	445
WELL B-3	16-MAY-89	7.35	1575	399	1012	297	314	35.0	83	170
WELL B-4	16-MAY-89	6.99	2140	542	1532	340	352	34.0	65	190
RESERVOIR 1	15-MAY-89	8.44	2200	275	1332	154	630	11.4	114	344
RESERVOIR 2	15-MAY-89	8.51	2250	303	1452	156	719	13.3	113	312
RESERVOIR 3	15-MAY-89	8.47	2250	297	1116	147	614	11.8	113	318

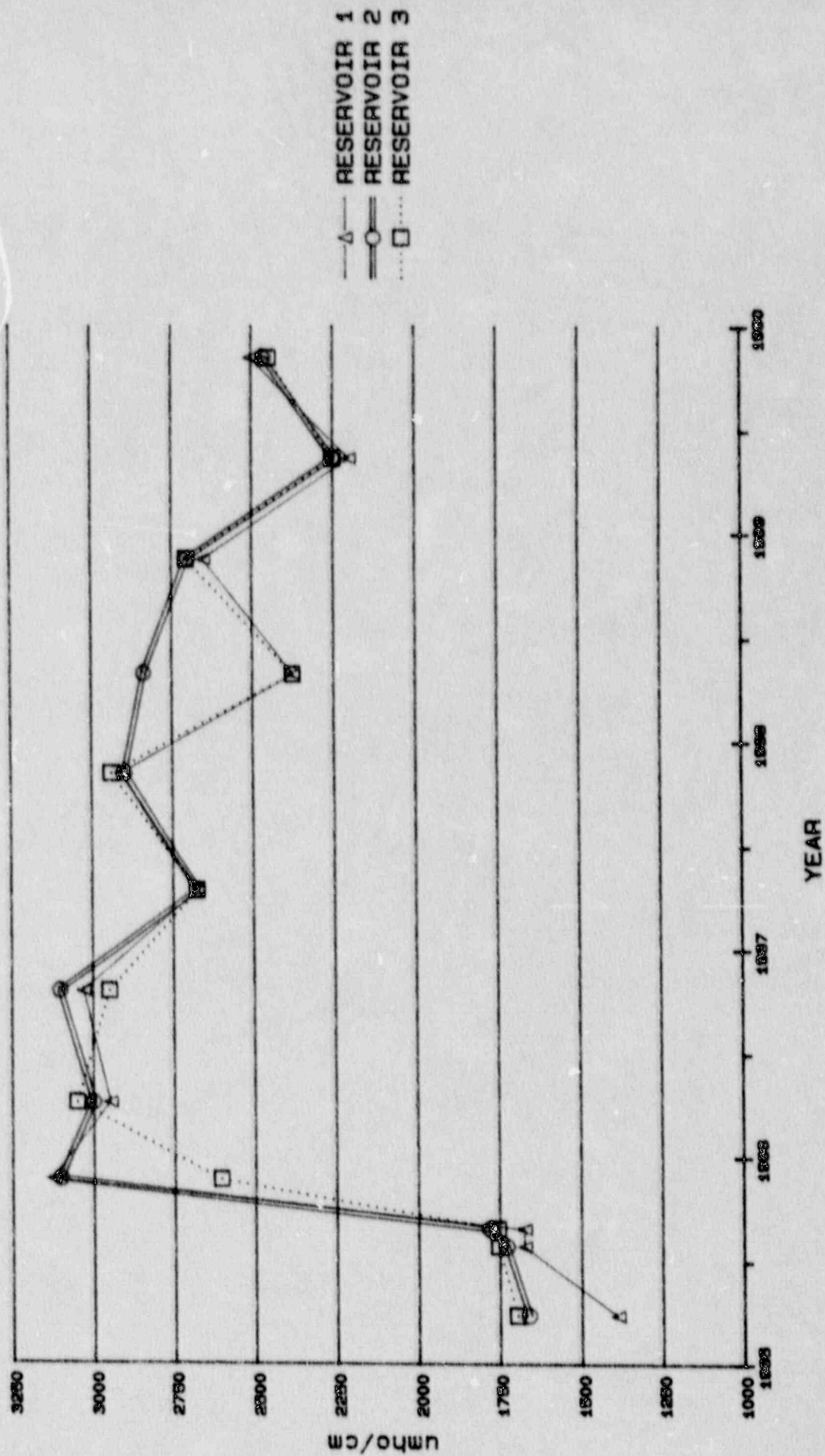
- (1) Reservoir analyses performed on surface samples.
 (2) Total hardness reported as ppm CaCO₃.
 (3) Reservoir 1 - Southeast Corner of Reservoir
 (4) Reservoir 2 - South Side of Reservoir Just East of Middle Dike
 (5) Reservoir 3 - Southwest Corner of Reservoir
 Continue? [Yes]

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION
Groundwater Monitoring Program
Spring 1989

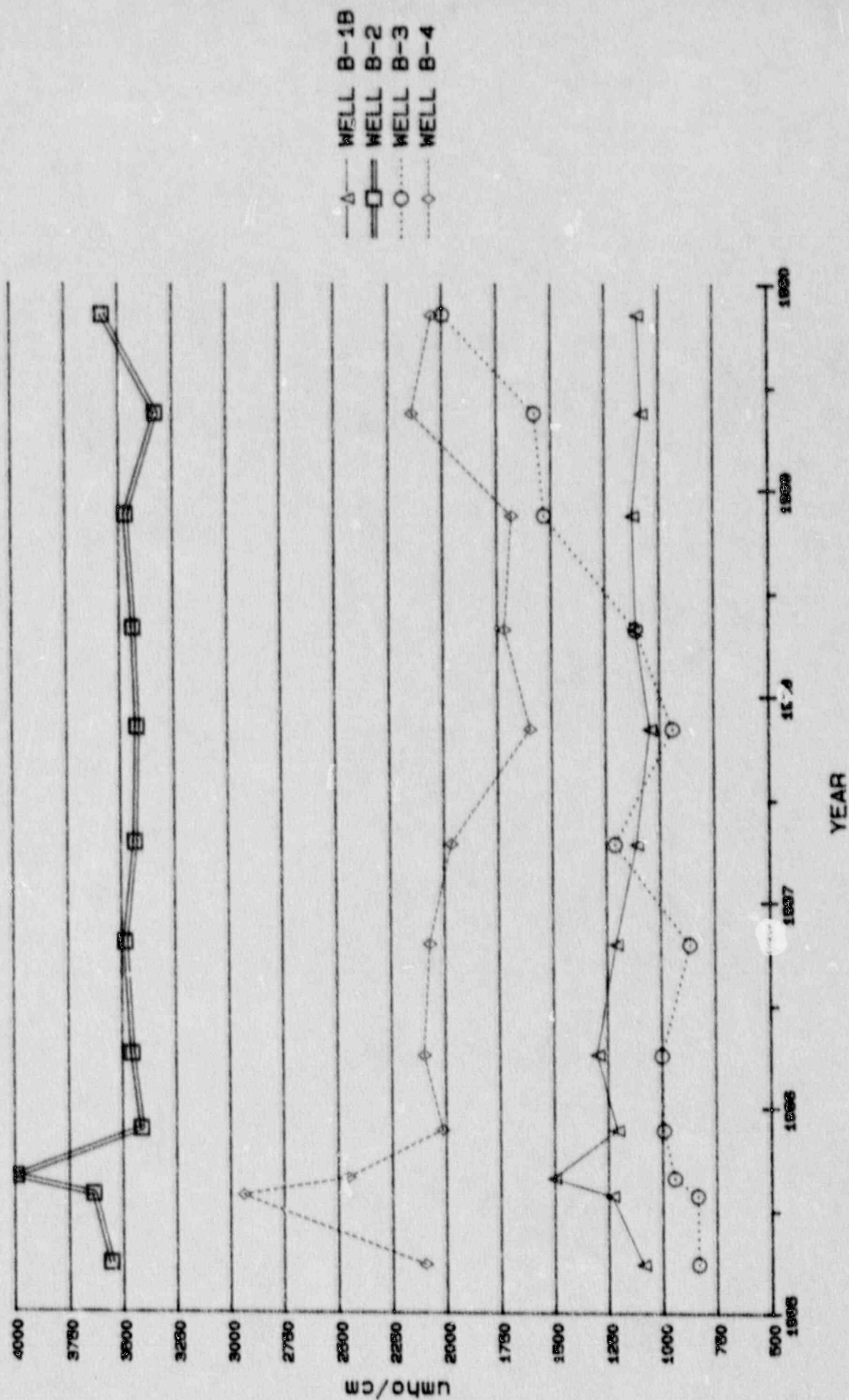
	11 POTASSIUM	12 CALCIUM	13 MAGNESIUM	14 WELL DEPTH
	(ppm)	(ppm)	(ppm)	(Feet)
WELL B-1B	1.1	74	24	14
WELL B-2	3.5	163	86	5
WELL B-3	2.0	92	41	3
WELL B-4	5.9	138	48	2
RESERVOIR 1	8.3	44	40	
RESERVOIR 2	8.8	52	42	
RESERVOIR 3	7.8	51	41	

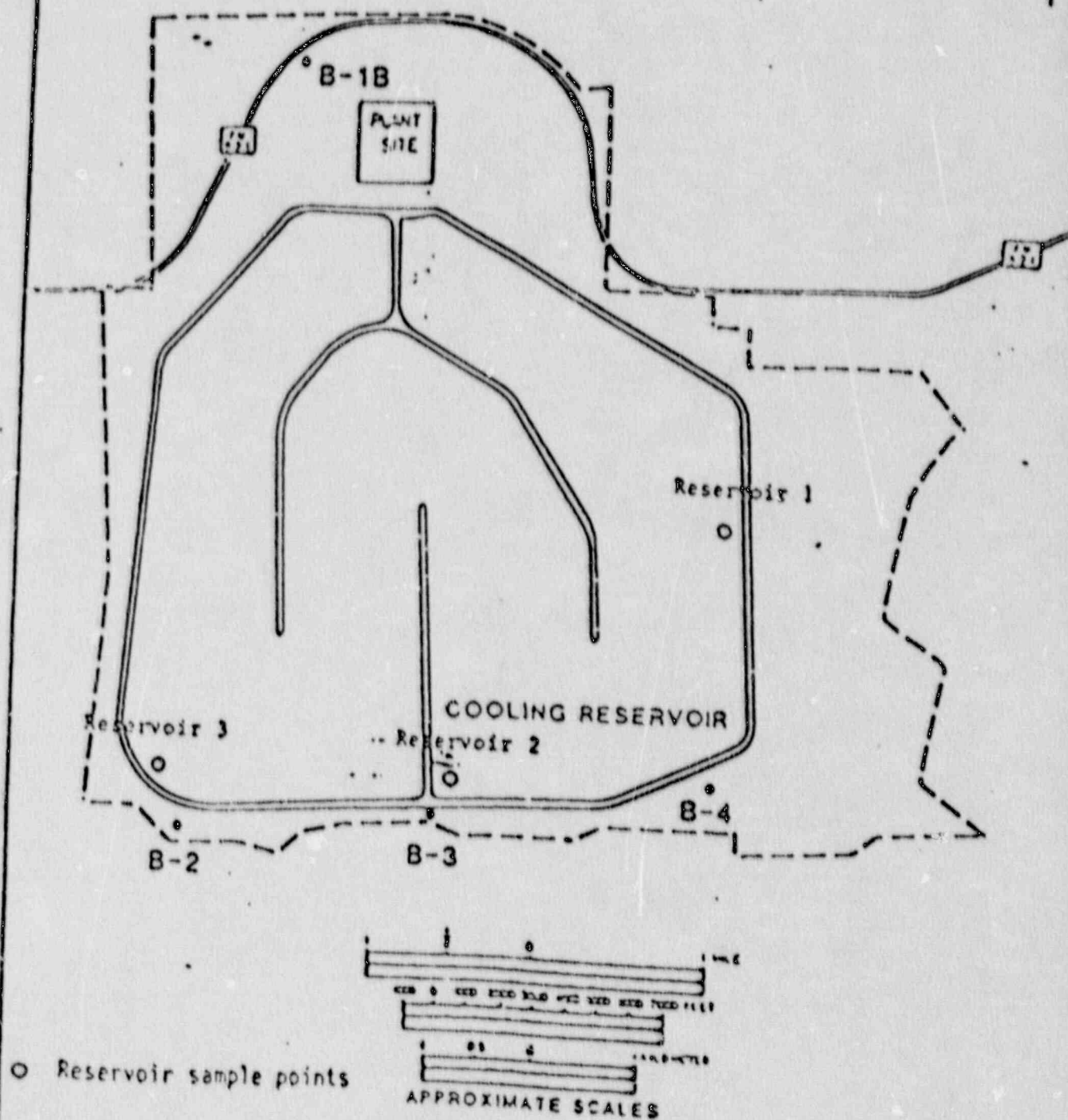
- (1) Reservoir analyses performed on surface samples.
 (2) Total hardness reported as ppm CaCO₃.
 (3) Reservoir 1 - Southeast Corner of Reservoir
 (4) Reservoir 2 - South Side of Reservoir Just East of Middle Dike
 (5) Reservoir 3 - Southwest Corner of Reservoir

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION
Groundwater Monitoring Program
Conductivity Graph of Reservoir Samples



SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION
Groundwater Monitoring Program
Conductivity Graph of Wells





H.L.&P. SOUTH TEXAS NUCLEAR PLANT SITE PLAN

Attachment G

1989 Waste Minimization Reports for STPEGS

BEFORE COMPLETING FORM, ATTACH SITE IDENTIFICATION LABEL OR ENTER

SITE NAME Houston Lighting & Power Company
South Texas Project

EPA ID NO. TXID1012101B1110151013

TEXAS WATER COMMISSION

1989 Waste Minimization Report

FORM
IC

IDENTIFICATION AND
CERTIFICATION

INSTRUCTIONS: Read the detailed instructions beginning on page 6 of the 1989 Hazardous Waste Report booklet before completing this form.

SEC. I Site name and location address. Complete items A through H. Check the box ☒ in items A, B, D, E, F, G, and H if same as label; if different, enter corrections. If label is absent, enter information. Instruction page 6.

A. EPA ID No. Same as label ☒ or ☐ B. Site/company name Same as label ☒ or ☐

C. Has the site name associated with the EPA ID changed since 1987? ☐ 1 Yes ☒ 2 No

D. Street name and number. If not applicable, enter industrial park, building name or other physical location description. Same as label ☒ or ☐ Highway 521, 5 miles west of Wadsworth, Texas

E. City, town, village, etc. Same as label ☒ or ☐ Wadsworth F. County Same as label ☒ or ☐ Matagorda

G. State Same as label ☒ or ☐ TX H. Zip Code Same as label ☒ or ☐ 77141

SEC. II Mailing address of site. Instruction page 6.

A. Is the mailing address the same as the location address? ☐ 1 Yes (SKIP TO SEC. III) ☒ 2 No (COMPLETE SEC. II)

B. Number and street name of mailing address P. O. Box 1700

C. City, town, village, etc. Same as label ☒ or ☐ Houston D. State Same as label ☒ or ☐ TX

E. Zip Code Same as label ☒ or ☐ 77121

SEC. III Name, title, and telephone number of the person who should be contacted if questions arise regarding this report. Instruction page 6.

A. Person's name Last name First name MI Bye Richard T.

B. Title Lead Environmental Specialist

C. Telephone (713) (912) (2121) Extension 1111

SEC. IV Enter the Standard Industrial Classification (SIC) Code that describes the principal products, group of products, produced or distributed, or the services rendered at the site's physical location. Enter more than one SIC Code only if no one industry description includes the combined activities of the site. Instruction page 7.

A. 1411 B. 1411 C. 1411 D. 1411

SEC. V I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. Number of form pages submitted Form IC 111 Form WM 11101

B. Person's name Last name First name MI Lawhn Robert W.

C. Title Manager, Environmental Assessment & Waste Management

D. Signature RW Lawhn E. Date of signature MO 01 DAY 20 YR 89

Page 1 of 2

Sec. VI Waste Minimization Activity during 1988 or 1989

<p>A. Did this site begin or expand a <u>source reduction</u> activity during 1988 or 1989? Instruction page 8</p> <p><input type="checkbox"/> 1 Yes <input checked="" type="checkbox"/> 2 No</p>	<p>B. Did this site begin or expand a <u>recycling</u> activity during 1988 or 1989? Page 8</p> <p><input type="checkbox"/> 1 Yes <input checked="" type="checkbox"/> 2 No</p>	<p>C. Did this site conduct a source reduction or recycling <u>opportunity assessment</u> during 1988 or 1989? Page 8</p> <p><input type="checkbox"/> 1 Yes <input checked="" type="checkbox"/> 2 No</p>
---	--	--

D. What factors have limited this site from initiating new source reduction activities during 1988 or 1989?
(CHECK ALL THAT APPLY)
Page 8

☐ 01 No factors have limited new source reduction activities.
☐ 02 Insufficient capital to install new source reduction equipment or implement new source reduction practices.
☐ 03 Lack of technical information on source reduction techniques, applicable to my specific production processes.
☐ 04 Source reduction is not economically feasible: cost savings in waste management or production will not recover the capital investment.
☐ 05 Concern that product quality may decline as a result of source reduction.
☐ 06 Technical limitations of the production processes.
☐ 07 Permitting burdens.
☒ 08 Other (SPECIFY IN COMMENTS)

E. What factors have limited this site from initiating new on-site or off-site recycling activities during 1988 or 1989?
(CHECK ALL THAT APPLY)
Page 8

<p><input type="checkbox"/> 01 No factors have limited new recycling activities. <input type="checkbox"/> 02 Insufficient capital to install new recycling equipment or implement new recycling practices. <input type="checkbox"/> 03 Lack of technical information on recycling techniques applicable to this site's specific production processes. <input type="checkbox"/> 04 Recycling is not economically feasible: cost savings in waste management or production will not recover the capital investment. <input type="checkbox"/> 05 Concern that product quality may decline as a result of recycling. <input type="checkbox"/> 06 Requirements to manifest wastes inhibit shipments off site for recycling.</p>	<p><input type="checkbox"/> 07 Financial liability provisions inhibit shipments off site for recycling. <input type="checkbox"/> 08 Technical limitations of product processes inhibit shipments off site for recycling. <input type="checkbox"/> 09 Technical limitations of production processes inhibit on-site recycling. <input type="checkbox"/> 10 Permitting burdens inhibit recycling. <input type="checkbox"/> 11 Lack of permitted off-site recycling facilities. <input type="checkbox"/> 12 Unable to identify a market for recyclable materials. <input checked="" type="checkbox"/> 13 Other (SPECIFY IN COMMENTS)</p>
---	---

Comments:

Section VI, Boxes D. and E.

Hazardous waste is generated intermittently by various maintenance related functions. As a result, opportunities for source reduction and recycling are limited.

Attachment H

1989 Annual Water Use Reports for STPEGS

TEXAS WATER COMMISSION
 TEXAS DEPARTMENT OF WATER RESOURCES
 P.O. BOX 13087, CAPITOL STATION
 AUSTIN, TEXAS 78711

ORIGINAL - RETURN TO DEPARTMENT

REPORT OF GROUND AND SURFACE WATER USE FOR THE YEAR ENDING ON DECEMBER 31 1989

NOTE: Water used under each surface water permit, certified filing or other claim of surface water right must be reported on a separate report of water use unless combined reporting has been authorized by Commission order. Use additional sheets if necessary to complete answers to any question Texas Statutes require this report of water use to be filed with the Department on or before March 1 of each year.

~~HOUSTON LIGHTING & POWER COMPANY~~
~~U. F. McGUIRE, MANAGER~~
~~P. O. BOX 1700~~
~~ENVIRONMENTAL DEPT.~~
~~HOUSTON, TEXAS 77251~~

Give name and address for changes, if any, in ownership

Houston Lighting & Power CompanyEdward A. Feith, ManagerEnvironmental DepartmentP. O. Box 1700Houston, TX 77251City State Zip CodeADJUDICATION CERT 5937

Certified Filing No. _____ Permit No. _____ Claim No. _____ TDWR Code No. 397560

1. SURFACE WATER USE

1. Source of diversion: County: Matagorda County(ies) in which water was used: Matagorda
2. Name of stream, canal or other source from which water was diverted: Colorado River
 If you have a reservoir, please state:
 (a) Name of reservoir: Present (1) Main Cooling Reservoir Original (if different) _____
 (b) Present capacity of reservoir: (1) 202,600 acre-feet (2) 388 acre-feet
 (c) Condition of dam: (1) Good (2) Good
3. The amount of water used was determined by: (a) Recording meter X (b) Weir _____
 (c) Flume _____ (d) Other method of estimating quantity used (explain) _____
4. Record of surface water taken or diverted (Enter the amount of water taken or diverted each month under the water right or claim of water right shown above.)

For Reporting Purposes: 1 cfs = 450 gallons per minute 1 cfs = 2 acre-feet per 24 hours 1 cubic foot = 7.481 gallons
 1 acre-foot = 325,851 gallons 1 million gallons per day = 3 acre-feet

Enter the Units of Measure: Gallons, or Acre-Feet Being Reported

Month	Maximum Diversion Rate (Specify) cfs or gpm	PURPOSE OF USE						Return Flow
		Municipal	Industrial	Irrigation	Mining	Hydroelectric Power	Other Use (Specify)	
Jan								
Feb		SEE REPORT FOR PERMIT NO. CP-327						
Mar								
Apr								
May								
Jun								
Jul								
Aug								
Sep								
Oct								
Nov								
Dec								
Total								

Total surface water used _____ (gallons or acre-feet)

5. Users of surface water for irrigation purposes

- (a) During the year, _____ acres were irrigated one or more times under this water right.
 On _____ acres only 1 crop was produced.
 On _____ acres only 2 crops were produced.
 On _____ acres _____ crops were produced.
- (b) Irrigation Districts supplying water for irrigation complete the following:
 During the year, _____ acres were irrigated one or more times within the district's boundaries.
 During the year, water was furnished to irrigate _____ acres one or more times outside of the district's boundaries.
- (c) Irrigated land is located in the _____ Survey or Surveys.
 No(s) _____ in _____ County.

Page 1

6 If you purchased surface water and/or received surface water under a water right NOT owned by you, complete the following

Indicate Gallons or Acre-Feet

MONTH	SUPPLIER NO. 1	SUPPLIER NO. 2	MONTH	SUPPLIER NO. 1	SUPPLIER NO. 2	MONTH	SUPPLIER NO. 1	SUPPLIER NO. 2
Jan.			May			Sep.		
Feb.			Jun.			Oct.		
Mar.			Jul.			Nov.		
Apr.			Aug.			Dec.		

Total surface water intake during the calendar year from: Supplier No. 1 _____ Supplier No. 2 _____

(a) Name and Address of Owner of Water Right or Facilities Used

Supplier No. 1 _____ Supplier No. 2 _____

(b) Purpose of Use

Supplier No. 1 _____ Supplier No. 2 _____

(c) Name of stream, canal or other source from which water was diverted

Supplier No. 1 _____ Supplier No. 2 _____

(d) Source of diversion: County:

Supplier No. 1 _____ Supplier No. 2 _____

(e) County(ies) in which water was used

Supplier No. 1 _____ Supplier No. 2 _____

(f) Was purchased water raw or treated

Supplier No. 1 _____ Supplier No. 2 _____

(g) How did you arrive at the surface water use figures which you provided above?

Supplier No. 1 _____ Supplier No. 2 _____

(h) Was this water reported in Section 4?

Supplier No. 1 _____ Supplier No. 2 _____

NOTE If you received surface water from more suppliers than the above space allows, use additional paper as necessary to complete answers

II GROUND (WELL) WATER USE

1 Please answer the following questions if you used or pumped ground water for this location

(a) Number of and location (county(ies)) of water wells owned, operated or leased by you

4 wells in Matagorda County

(b) County(ies) in which water was used Matagorda County

(c) Please complete the following table. Indicate the total quantity of ground water purchased from others and the amount that was self-supplied. Self-supplied water is the total quantity produced from wells owned, operated or leased including any water sold to others.

Indicate Gallons or Acre-Feet

MONTH	SELF-SUP.	PURCHASED	MONTH	SELF-SUP.	PURCHASED	MONTH	SELF-SUP.	PURCHASED
Jan.	29,013,000		May	40,287,000		Sep.	50,755,000	
Feb.	29,690,000		Jun.	36,264,000		Oct.	55,598,000	
Mar.	34,095,000		Jul.	34,099,000		Nov.	56,221,000	
Apr.	31,002,000		Aug.	26,221,000		Dec.	53,195,000	

(d) Total ground water intake during the calendar year for Self-Supplied, 476,440,000 ; Purchased, _____

2 If purchased, from whom: (Name) _____ (Address) _____

Was purchased water raw ☐ or treated ☐? If both, % raw _____ % treated _____

3 How did you arrive at the ground water use figures which you provided above?

(a) master meter ☒ (b) customer meters ☐ (c) estimated ☐ (d) other ☐ _____

NOTE If you received ground water from more suppliers than the above space allows, use additional paper as necessary to complete answers

III SALINE WATER USE NA

NOTE It is not necessary to complete Part III if saline water is reported separately under a water right on Part I.

(Please indicate Perm. No.) _____

1 Total saline water intake during the calendar year _____ (Indicate gallons or acre-feet)

2 Source of saline water _____ County(ies) in which water was used _____

How did you arrive at the saline water figures which you provided above? (a) meter ☐ (b) estimated ☐

Page 2

1. WATER SALES: Please list the names, location (country/ies), and the quantities of water you sold during the year to:

- Industrial or commercial firms who purchased 10 million gallons or more from your system, (or any firm who you feel places a more than average demand on your supply); and
- Public water systems who purchased all or part of their supply from you and operate outside your direct service area (i.e. other cities, water districts, private water companies, etc.).

[illegible]

2. PUBLIC WATER SUPPLIERS: Please complete parts applicable to this system. Responses should not include information for the wholesale water customers you listed in 1. (Water Sales) above.

- A. Estimated total population served directly by this system _____
- B. Total number of service connections served directly by this system _____
- C. Total number of service connections served directly by you outside city limits _____
- D. Percentage of total service connections that are metered _____ %
- E. Percentage of the total service connections that are residential _____ %, commercial _____ %, industrial _____ %
- F. Was it necessary to place water use restrictions into effect during the past year? Yes ☐ No ☐
If yes, what was the primary reason(s)? (1) inadequate supply ☐; (2) inadequate storage ☐; (3) inadequate treatment facilities ☐; (4) other (specify) _____
- G. Does this system's service lines extend into several counties? Yes ☐ No ☐
If yes, please indicate the estimated number of connections in each county:
- | | | | |
|--------------|----------------------|--------------|----------------------|
| County _____ | No Connections _____ | County _____ | No Connections _____ |
| County _____ | No Connections _____ | County _____ | No Connections _____ |
- H. Does this system directly serve an incorporated city(ies) not reflected in the system name as shown on page one of this report? Yes ☐ No ☒
If yes, please name the incorporated city(ies) and the estimated number of connections served in each city _____
- I. If the primary use of water supplied by this system is not for normal municipal or residential use, please indicate its primary use (i.e. work and/or non-resident use, apartment or office bldg., military installation, golf course, cemetery, etc.) _____
- J. If treated wastewater (sewage effluent) from your plant is reused directly by you or is sold for other reuse, please indicate the volume in gallons that is used for:
- (1) Industrial _____ (2) Irrigation (including parks, golf courses, etc.) _____
- (3) Other (specify) _____ By whom are these amounts used?

Please provide your water rate schedule in the space below, or attach a preprinted rate schedule if available.

WATER RATE SCHEDULE

Please make any additional comments you may feel will be of assistance to us in understanding your present and future water needs and water problems _____

1. The first step in the process of the scientific method is to make an observation or ask a question. For example, you might notice that plants in a sunny location grow faster than plants in a shady location. This leads to the question: "Does the amount of sunlight affect the growth rate of plants?"

2. Next, you formulate a hypothesis, which is a tentative answer to your question. In this case, your hypothesis might be: "If a plant receives more sunlight, then it will grow faster." This hypothesis is testable and falsifiable, meaning it can be proven wrong through experimentation.

3. The third step is to design an experiment to test your hypothesis. You would need to identify the independent variable (the amount of sunlight) and the dependent variable (the growth rate of the plants). You would also need to control for other factors that could affect plant growth, such as water and soil quality.

4. Once you have designed your experiment, you conduct it and collect data. You might measure the height of the plants at regular intervals over a period of several weeks. You would then compare the growth rates of the plants in the sunny location to the growth rates of the plants in the shady location.

5. Finally, you analyze the data and draw a conclusion. If the plants in the sunny location grew faster than the plants in the shady location, your hypothesis is supported. If not, your hypothesis is rejected, and you may need to revise it or ask a new question.

Page 3

V. FOR INDUSTRIAL WATER USERS

1. TREATED WASTEWATER USE: NA Reuse of wastewater from your plant or another treating system such as a municipal wastewater treatment facility (treatment includes any process necessary to make wastewater reusable)
- A. Total treated wastewater used during calendar year (excluding in-plant recirculation) _____ gallons
- B. From your plant _____ % From other sources _____ %
- C. Name of other source(s) _____
- D. How did you arrive at the treated wastewater figures which you provided above? meter ☐ estimated ☐

2. WATER SALES (If Applicable): NA Please list the names of water purchasers, their location (country/ies), and the quantity of fresh water you sold to them during the calendar year. Please indicate treated or raw water. Use additional paper if necessary.

Name of Purchaser	Location (Country/ies)	Quantity Sold (Gallons)

NOTE: The above quantities should be included in the amounts you indicated in questions I and II.

3. WATER USE CATEGORIES: Of the fresh water, saline water, and treated wastewater you withdraw or purchase, what percent is estimated to be used in each of the following water use categories applicable to your plant?

CATEGORY	% GROUND WATER	% SURFACE WATER	% SALINE	% TREATED WASTEWATER
Cooling, Condensing & Refrigeration				
Process & Washdown	80			
Boiler Feed	5			
Air Conditioning				
Sanitary & Drinking	10			
Other	5	100		
TOTAL	100%	100%	100%	100%

4. COOLING SYSTEMS: Please indicate the percent of cooling and condensing water described above handled by each system for each water source.

SYSTEM	% GROUND AND/OR SURFACE	% SALINE WATER	% TREATED WASTEWATER
Cooling Towers			
Ponds	100		
Once Through			
Other			
TOTAL	100%	100%	100%

5. ADDITIONAL INFORMATION:

- A. Major Standard Industrial Classification Code 49113 (or major products manufactured) Electric Power Service
- B. Total number of employees at this facility 2,748 Total number of production employees 2,748
- C. Was fresh water recirculated at this facility? Yes ☒ No ☐
- D. Was electric power generated at this facility (for in-plant use or sale)? Yes ☒ No ☐
- E. If this facility has a State of Texas wastewater discharge permit, please provide the permit number(s) 01908
- F. If this facility disposes wastewater into a treatment system not owned by you, please name the system(s) (i.e. city name or system name) _____
- G. What quantity of fresh water was consumed and therefore not returned to a wastewater treatment system (public or private) or to a water course (including loss to product, evaporation, injection, etc.) 19,573 acre-feet
- H. Please make any additional comments that may be of assistance to us in understanding your present and future water needs and water problems. Please use additional paper if necessary.

VI. ALL USERS MUST EXECUTE THE FOLLOWING

Witness my hand at Houston Texas, this the 28 day of February, 1990

Telephone Number (713) 922-2196 SSDawie
(Signature)

TEXAS WATER COMMISSION
TEXAS DEPARTMENT OF WATER RESOURCES
P.O. BOX 13087, CAPITOL STATION
AUSTIN, TEXAS 78711

ORIGINAL - RETURN TO DEPARTMENT

REPORT OF GROUND AND SURFACE WATER USE FOR THE YEAR ENDING ON DECEMBER 31 1989

NOTE: Water used under each surface water permit, certified filing or other claim of surface water right must be reported on a separate report of water use unless combined reporting has been authorized by Commission order. Use additional sheets if necessary to complete answers to any question. Texas Statutes require this report of water use to be filed with the Department on or before March 1 of each year.

~~HOUSTON LIGHTING & POWER CO.~~
~~W. F. MCQUIRE, MANAGER~~
~~ENVIRONMENTAL DEPARTMENT~~
~~P. O. BOX 1700~~
~~HOUSTON, TEXAS 77251~~

Give name and address for changes, if any, in ownership:
Houston Lighting & Power Company
Edward A. Feith, Manager
Environmental Department
City _____ State _____ Zip Code _____

Give changes, if any, in address:
P. O. Box 1700
Houston, Texas 77251
City _____ State _____ Zip Code _____

CONTRACT NUMBER 327

Certified Filing No. _____ Permit No. _____ Claim No. _____ TDWR Code No. 397560

I. SURFACE WATER USE

1. Source of diversion: County Matagorda County(ies) in which water was used Matagorda
2. Name of stream, canal or other source from which water was diverted Colorado River
If you have a reservoir, please state:
(a) Name of reservoir: Present _____ Original: (if different) _____
(b) Present capacity of reservoir _____
(c) Condition of dam _____
3. The amount of water used was determined by: (a) Recording meter _____ (b) Weir _____
(c) Flume _____ (d) Other method of estimating quantity used (explain) _____
4. Record of surface water taken or diverted (Enter the amount of water taken or diverted each month under the water right or claim of water right shown above.)

For Reporting Purposes: 1 cfs = 450 gallons per minute 1 cfs = 2 acre-feet per 24 hours 1 cubic foot = 7.481 gallons
1 acre-foot = 325,851 gallons 1 million gallons per day = 3 acre-foot

Indicate the Units of Measure: ~~Gal~~ ~~MM~~ or Acro-Foot Being Reported

Month	Maximum Diversion Rate (Specify cfs or GPM)	PURPOSE OF USE						Return Flow
		Municipal	Industrial	Irrigation	Mining	Hydroelectric Power	Other Use (Specify)	
Jan	950		8,790					0
Feb	900		4,831					0
Mar	660		1,409					0
Apr	420		2,986					0
May	1,200		16,407					0
Jun	900		8,186					0
Jul	540		3,934					0
Aug	480		1,869					0
Sep	0		0					0
Oct	132		74					0
Nov	0		0					0
Dec	0		0					0
Total			48,486					0

Total surface water used 48,486 (~~XXXX~~ in thousands or acre-feet)

5. Users of surface water for irrigation purposes:

- (a) During the year _____ acres were irrigated one or more times under this water right.
On _____ acres only 1 crop was produced.
On _____ acres only 2 crops were produced.
On _____ acres _____ crops were produced.
- (b) Irrigation Districts supplying water for irrigation complete the following:
During the year _____ acres were irrigated one or more times within the district's boundaries.
During the year, water was furnished to irrigate _____ acres one or more times outside of the district's boundaries.
- (c) Irrigated land is located in the _____ Survey or Surveys.
No(s) _____ in _____ County.

Page 1

6. If you purchased surface water and/or received surface water under a water right NOT owned by you, complete the following

Indicate Gallons or Acre-Feet

MONTH	SUPPLIER NO. 1	SUPPLIER NO. 2	MONTH	SUPPLIER NO. 1	SUPPLIER NO. 2	MONTH	SUPPLIER NO. 1	SUPPLIER NO. 2
Jan.			May			Sep.		
Feb.			Jun.			Oct.		
Mar.			Jul.			Nov.		
Apr.			Aug.			Dec.		

Total surface water intake during the calendar year from: Supplier No. 1. _____ Supplier No. 2. _____

(a) Name and Address of Owner of Water Right or Facilities Used

Supplier No. 1. _____ Supplier No. 2. _____

(b) Purpose of Use

Supplier No. 1. _____ Supplier No. 2. _____

(c) Name of stream, canal or other source from which water was diverted

Supplier No. 1. _____ Supplier No. 2. _____

(d) Source of diversion. County:

Supplier No. 1. _____ Supplier No. 2. _____

(e) County(ies) in which water was used

Supplier No. 1. _____ Supplier No. 2. _____

(f) Was purchased water raw or treated

Supplier No. 1. _____ Supplier No. 2. _____

(g) How did you arrive at the surface water use figures which you provided above?

Supplier No. 1. _____ Supplier No. 2. _____

(h) Was this water reported in Section 4?

Supplier No. 1. _____ Supplier No. 2. _____

NOTE If you received surface water from more suppliers than the above space allows, use additional paper as necessary to complete answers.

II GROUND (WELL) WATER USE SEE REPORT FOR PERMIT NO. 3233A.

1. Please answer the following questions if you used or pumped ground water for this location.

(a) Number of and location [county(ies)] of water wells owned, operated or leased by you

(b) County(ies) in which water was used _____

(c) Please complete the following table. Indicate the total quantity of ground water purchased from others and the amount that was self-supplied. Self-supplied water is the total quantity produced from wells owned, operated or leased including any water sold to others.

Indicate Gallons or Acre-Feet

MONTH	SELF-SUP.	PURCHASED	MONTH	SELF-SUP.	PURCHASED	MONTH	SELF-SUP.	PURCHASED
Jan.			May			Sep.		
Feb.			Jun.			Oct.		
Mar.			Jul.			Nov.		
Apr.			Aug.			Dec.		

(d) Total ground water intake during the calendar year for: Self-Supplied. _____; Purchased. _____

2. If purchased, from whom: (Name) _____ (Address) _____

Was purchased water raw ☐ or treated ☐? If both, % raw _____ % treated _____

3. How did you arrive at the ground water use figures which you provided above?

(a) master meter ☐ (b) customer meters ☐ (c) estimated ☐ (d) other ☐ _____

NOTE If you received ground water from more suppliers than the above space allows, use additional paper as necessary to complete answers.

III SALINE WATER USE NA

NOTE It is not necessary to complete Part III if saline water is reported separately under a water right on Part I.

(Please indicate Permit No.) _____

1. Total saline water intake during the calendar year. _____ (Indicate gallons or acre-feet)

2. Source of saline water. _____ County(ies) in which water was used. _____

How did you arrive at the saline water figures which you provided above? (a) meter ☐ (b) estimated ☐

Page 2

IV. FOR MUNICIPAL WATER USERS NA

1. **WATER SALES:** Please list the names, location (countyies), and the quantities of water you sold during the year to:
- A. Industrial or commercial firms who purchased 10 million gallons or more from your system, for any firm who you feel places a more than average demand on your supply; and
 - B. Public water systems who purchased all or part of their supply from you and operate outside your direct service area (i.e. other cities, water districts, private water companies, etc.).

Please indicate treated or raw fresh water.

Name of Purchaser	Location (Countyies)	Quantity Sold (Gallons)

Please use additional paper if necessary. The above quantities should be included in the amounts you indicated in questions I and II.

2. **PUBLIC WATER SUPPLIERS:** Please complete parts applicable to this system. Responses should not include information for the wholesale water customers you listed in 1. (Water Sales) above.
- A. Estimated total population served directly by this system _____
 - B. Total number of service connections served directly by this system _____
 - C. Total number of service connections served directly by you outside city limits _____
 - D. Percentage of total service connections that are metered _____ %
 - E. Percentage of the total service connections that are residential _____ % commercial _____ % Industrial _____ %
 - F. Was it necessary to place water use restrictions into effects during the past year? Yes ☐ No ☐
If yes, what was the primary reason(s)? (1) Inadequate supply ☐ (2) Inadequate storage ☐ (3) Inadequate treatment facilities ☐ (4) other (specify) _____
 - G. Does this system's service lines extend into several counties? Yes ☐ No ☐
If yes, please indicate the estimated number of connections in each county:
County _____ No Connections _____ County _____ No Connections _____
County _____ No Connections _____ County _____ No Connections _____
 - H. Does this system directly serve an incorporated city(ies) not reflected in the system name as shown on page one of this report? Yes ☐ No ☐
If yes, please name the incorporated city(ies) and the estimated number of connections served in each city _____
 - I. If the primary use of water supplied by this system is not for normal municipal or residential use, please indicate its primary use (i.e. week-end or non-resident use, apartment or office bldg., military installation, golf course, cemetery, etc.) _____
 - J. If treated wastewater (sewage effluent) from your plant is reused directly by you or is sold for other reuse, please indicate the volume in gallons that is used for:
(1) Industrial _____ (2) Irrigation (including parks, golf courses, etc.) _____
(3) Other (specify) _____ By whom are these amounts used? _____

Please provide your water rate schedule in the space below, or attach a preprinted rate schedule if available.

WATER RATE SCHEDULE

Please make any additional comments you may feel will be of assistance to us in understanding your present and future water needs and water problems _____

(OVER)

Page 3

V. FOR INDUSTRIAL WATER USERS

1. TREATED WASTEWATER USE: NA

Reuse of wastewater from your plant or another treating system such as a municipal wastewater treatment facility (treatment includes any process necessary to make wastewater reusable)

- A. Total treated wastewater used during calendar year (excluding in-plant recirculation) _____ gallons
 B. From your plant _____ % From other sources _____
 C. Name of other source(s) _____
 D. How did you arrive at the treated wastewater figures which you provided above? meter ☐ estimated ☐

2. WATER SALES (If Applicable): NA

Please list the names of water purchasers, their location (county/ies), and the quantities of fresh water you sold to them during the calendar year. Please indicate treated or raw water. Use additional paper if necessary.

Name of Purchaser	Location (County/ies)	Quantity Sold (Gallons)

NOTE: The above quantities should be included in the amounts you indicated in questions I and II.

3. WATER USE CATEGORIES:

Of the fresh water, saline water, and treated wastewater you withdraw or purchase, what percent is estimated to be used in each of the following water use categories applicable to your plant?

CATEGORY	% GROUND WATER	% SURFACE WATER	% SALINE	% TREATED WASTEWATER
Cooling, Condensing, & Refrigeration				
Process & Washdown				
Boiler Feed				
Air Conditioning				
Sanitary & Drinking				
Other				
TOTAL	100%	100%	100%	100%

4. COOLING SYSTEMS:

Please indicate the percent of cooling and condensing water described above handled by each system for each water source.

SYSTEM	% GROUND AND/OR SURFACE	% SALINE WATER	% TREATED WASTEWATER
Cooling Tower(s)			
Pond(s)			
Once Through			
Other			
TOTAL	100%	100%	100%

5. ADDITIONAL INFORMATION:

- A. Major Standard Industrial Classification Code 491111 (for major products manufactured) Electric Power Service
 B. Total number of employees at this facility 2748 Total number of production employees 2748
 C. Was fresh water recirculated at this facility? Yes ☒ No ☐
 D. Was electric power generated at this facility (for in plant use or sale)? Yes ☒ No ☐
 E. If this facility has a State of Texas wastewater discharge permit, please provide the permit number(s) 01908
 F. If this facility disposes wastewater into a treatment system not owned by you, please name the system(s) (i.e. city name or system name) _____
 G. What quantity of fresh water was consumed and therefore not returned to a wastewater treatment system (public or private) or to a water course (including loss to product, evaporation, injection, etc.) _____ (gallons)
 H. Please make any additional comments that may be of assistance to us in understanding your present and future water needs and water problems. Please use additional paper if necessary.

VI. ALL USERS MUST EXECUTE THE FOLLOWING

Witness my hand at Houston, Texas, this 27th day of February, 19 90.
 Telephone Number (713) 922-2196
S. S. Daskis
 (Signature)

TEXAS WATER COMMISSION
TEXAS DEPARTMENT OF WATER RESOURCES
P. O. Box 13087 Capitol Station
Austin, Texas 78711

REPORT OF WEEKLY DIVERSIONS FOR 19 80

295.202(d)
RULE 306.002-50.003 requires the regular annual reports of water used each month and, in addition, it requires a report of the total amount of water diverted each week. This form may be used for the reports of weekly diversions.

Name South Texas Project
Houston Lighting & Power Co.

Water
Contract No. CP-327

Week Ending	Gallons or Acre-Feet	Week Ending	Gallons or Acre-Feet	Week Ending	Gallons or Acre-Feet
1-7-89	0	5-12	0	9-16	0
1-14	0	5-20	0	9-23	0
1-21	0	5-27	0	9-30	0
1-28	0	6-3	0	10-7	0
2-4	0	6-10	0	10-14	0
2-11	0	6-17	0	10-21	0
2-18	0	6-24	0	10-28	0
2-25	0	7-1	0	11-4	0
3-4	0	7-8	0	11-11	0
3-11	0	7-15	0	11-18	0
3-18	0	7-22	0	11-25	0
3-25	0	7-29	0	12-2	0
4-1	0	8-5	0	12-9	0
4-8	0	8-12	0	12-16	0
4-15	0	8-19	0	12-23	0
4-22	0	8-26	0	12-30	0
4-29	0	9-2	0	12-31	0
5-6	0	9-9	0		

Total water diverted during the year: 0 acre-feet*

* There was no diversion of releases from upstream reservoirs made under this water contract in 1989. However, diversion of run-of-the-river flows under this water contract is reported in the Report of Ground and Surface Water Use.

Note: A "week" is Saturday midnight to Saturday midnight.