ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Inspection Report: 50-498/96-014
50-499/96-014

Licenses: NPF-76
NPF-80

Licensee: Houston Lighting & Power Company
P.O. Box 1700
Houston, Texas

Facility Name: South Texas Project Electric Generating Station, Units 1 and 2

Inspection At: Wadsworth, Texas

Inspection Conducted: February 5-8, 1996

Inspector: Thomas H. Andrews, Radiation Specialist, Plant Support Branch
Division of Reactor Safety

Approved: Blaine Murray 2/26/96
Blaine Murray, Plant Support Branch Chief
Division of Reactor Safety
Date

Inspection Summary

Areas Inspected (Units 1 and 2): Routine, announced inspection of the following areas: audits and appraisals; changes; training and qualification of personnel; implementation of the solid radioactive waste program; shipping of low level radioactive waste for disposal, and transportation of other radioactive material; and, dose commitments.

Results (Units 1 and 2):

Plant Support

- Very good audits and assessments of the solid radioactive waste and transportation programs were performed (Section 2.1).

- There were no significant changes made to the solid radioactive waste management program or transportation of radioactive materials processes since the last inspection. The licensee was in the process of making procedure changes to address the revisions in 10 CFR Part 49 that take affect April 1, 1996 (Section 2.2).

- Personnel performing duties associated with the management, handling, processing, packaging, and transporting of solid radioactive waste and other radioactive materials were highly qualified and well trained (Section 2.3).

- The licensee maintained current copies of regulations, licenses, certificates of compliance, and procedures available for personnel. The licensee was upgrading their computer system to allow use of a CDROM version of the regulations on their network that would allow more consistent and regular updates (Section 2.4).

- The licensee had implemented good procedures for the handling and transport of radioactive materials and radioactive waste (Section 2.5).

- Corrective actions associated with the effluent monitoring program were readily identified by workers and aggressively followed up on by management (Section 3.1).

- Results of dose commitment calculations using the licensee's methodology were consistent with the NRC's PC-DOSE program (Section 3.2).

- Minor deviations from the descriptions of systems contained in the Final Safety Analysis Report were identified and discussed with the licensee (Section 4).

Attachment:

- Attachment - Persons Contacted and Exit Meeting

DETAILS

1 PLANT STATUS

During the inspection period, both units operated at 100 percent power. There were no plant occurrences that affected the outcome of this inspection.

2 SOLID RADIOACTIVE WASTE MANAGEMENT AND TRANSPORTATION OF RADIOACTIVE MATERIALS (86750)

2.1 Audits and Appraisals

The inspector reviewed the following quality assurance documents:

- Quality Assurance Audit 94-17, "Radioactive Waste,"
- Quality Assurance Surveillance Report 94-167, "Shipment of Radioactive Materials/Radioactive Waste," and
- Quality Assurance Surveillance Report 95-077, "Radioactive Materials Transfer."

These assessments of the licensee's program were performed by qualified personnel. Concerns and recommendations were addressed through the use of condition reports. The inspector reviewed selected condition reports and determined that management's review and followup were timely and adequately addressed the issues identified.

During the inspection, a shipment of radioactive material was made from the site. The inspector observed a quality control inspector who was responsible for reviewing shipping activities and signing the procedure when various steps were completed. The inspector discussed these activities and determined that the quality control inspector was knowledgeable in the areas addressed in the procedure.

The inspector also noted that the quality control inspector reviewed the rigging tags and checked the transport vehicle for potential safety concerns. When asked, the quality control inspector indicated that he did not have any formal training associated with performing safety checks of rigging or transport vehicles. This was discussed with the licensee with references to industry events associated with rigging and transport vehicles. The licensee stated that there was no regulatory requirement for quality control personnel to have formal training in these areas but improving inspector training could be an enhancement to their program they could consider.

The inspector reviewed a change in the procedures that involved the reduction of the quality contr oversite of shipments of radioactive materials and radioactive waste. Because there had not been any problems identified associated with "Class A" and "less than Class A" shipments, the licensee

Procedure OPRP03-ZR-0002, "Radioactive Waste Shipments" was revised to only require quality control oversite of all shipments that were classified in excess of "Class A" quantities.

IE Bulletins 79-19 and 79-20 stated that licensees were to establish and implement a management-controlled audit function of all transfer, packaging, and transport activities to provide assurance that personnel, instructions and procedures, and process and transport equipment were functioning to ensure safety and compliance with regulatory requirements. The inspector reviewed the change in light of commitments to IE Bulletins 79-19 and 79-20 and determined that the existing quality assurance audits still provided a management audit function of these activities. Therefore, this change was considered to be minor.

The inspector reviewed documentation packages for selected shipments made since the last inspection in this area. A mixture of radioactive material, low specific activity, and dry active wastes shipments were reviewed. The inspector confirmed that these shipments were properly classified in accordance with 10 CFR 61. Documentation was provided when necessary to demonstrate that waste stability requirements were satisfied.

2.2 Changes

There were no significant changes made to the organization associated with the solid radioactive waste management program or transportation of radioactive materials processes since the last inspection. The organization was consistent with the description in Chapter 12.5.1 of the Final Safety Analysis Report.

The contractor-operated portion of the solid radioactive waste processing system was purchased by the licensee and incorporated into the liquid radioactive waste processing system. The inspector reviewed the design of the area in the truck bay in the radwaste building and determined that the design was consistent with the description in the Final Safety Analysis Report.

The licensee was in the process of making procedure changes to address the revisions in 10 CFR Part 49 that take affect April 1, 1996. The licensee noted that some of the revisions would be challenging to implement, but that training had already been provided to personnel. According to the licensee, approved procedures would be in place prior to April 1, 1996.

2.3 Training and Qualification of Personnel

The inspector reviewed training records and experience for personnel who were responsible for processing, testing, storage, and shipping of low level radioactive wastes and transportation of other radioactive materials. The

inspector also reviewed training requirements to ensure that periodic retraining in the Department of Transportation and NRC requirements, and waste burial license requirements. This training was in accordance with the licensee's commitments to IE Bulletin 79-19 and Information Notice 92-72.

Personnel that directly performed duties associated with packaging, transfer, storage, and transportation of radioactive materials and radioactive wastes were very experienced and knowledgeable. Discussions with personnel demonstrated that they were well informed regarding industry events and upcoming regulatory changes. They had direct input into the procedure change process, and showed a strong sense of pride and ownership in their work.

2.4 Implementation of the Solid Radioactive Waste Program

The inspector verified that the licensee had current copies of Department of Transportation and NRC regulations, as well as, copies of state regulations associated with the low level radioactive waste transportation, processing, and disposal. The licensee stated that they were in the process of obtaining software for their local area network where they would maintain the current copies of the federal regulations. This would substantially reduce the number of hard copies that had to be maintained and would reduce the likelihood of an error being made in updating these documents.

The licensee had the updated version of the Department of Transportation regulations that are to be implemented April 1, 1996. Work was in process to revise the procedures to reflect these changes. The inspector discussed the potential changes with the licensee and determined that the licensee was very knowledgeable about the associated changes.

Current copies of approved procedures were readily available to individuals who process, prepare for shipping, and transport radioactive materials / radioactive waste. The licensee had designated specific individuals who were allowed to approve shipments of radioactive materials/radioactive waste. These individuals were directly involved in the procedure maintenance process, and were very knowledgeable regarding the change history associated with the procedures.

The licensee had current copies of licenses for receivers of shipments of radioactive materials and radioactive wastes. Certificates of compliance were provided for all of the applicable waste packages.

During the review of shipping documentation, the inspector reviewed the waste classification and stability requirements determination process contained in the licensee's procedures. These were in accordance with NRC regulations. The determination of scaling factors for isotopes that were not readily detectable were properly determined on a regular basis and applied properly in the instances reviewed.

2.5 Shipping of Low Level Radioactive Waste for Disposal, and Transportation of Other Radioactive Material

The inspector reviewed shipping records on file for selected shipments since the previous inspection in this area. Selected shipments included radioactive materials, samples sent offsite for analysis, dry active waste shipments, and low specific activity waste shipments. Calculations associated with waste classification, stability requirements, and labeling requirements were verified. A check of documentation for these shipments was made to ensure that all required information was present. There were no problems identified.

During this inspection, the licensee made a shipment of radioactive materials to an offsite vendor. The inspector verified documentation associated with this shipment was consistent with regulations and with the licensee's procedures. The inspector observed the surveying of the packages, loading and placarding of the vehicle, and briefing of the driver associated with the shipment.

The inspector reviewed the storage of radioactive materials and radioactive waste in the onsite staging facilities and in the solid waste processing areas of the plant. During these tours, the inspector observed good material conditions in these areas, and did not identify any concerns. The inspector reviewed controls used to transport materials from the individual units to the onsite staging area and determined that the procedures contained adequate guidance to ensure safe transport of these materials.

3 RADIOACTIVE WASTE TREATMENT, AND EFFLUENT AND ENVIRONMENTAL MONITORING (84750)

3.1 Audits and Appraisals

The inspector reviewed selected condition reports associated with the effluent and environmental monitoring programs. The inspector determined that corrective actions associated with these condition reports were aggressively followed up on by management.

The licensee had a very good trending program to track the causes codes assigned to problems identified in the condition reports. The inspector reviewed reports summarizing these trends and determined that these reports provided useful insight into the issues and conditions identified. The licensee routinely prepared and distributed these reports on a regular basis to management. The trending program allowed managers to take "snapshots" of data to assess trends in performance.

3.2 Dose Commitments

The inspector performed independent calculations using the NRC's PC-DOSE computer program to verify the licensee's dose commitment calculation methodology. The inspector's calculation results were compared with the licensee's results and were within the acceptance criteria for the comparison of NRC and licensee methodologies.

These calculations were performed using data contained in the draft version of the "1995 Annual Radioactive Effluent Release Report." This data summarized releases made from January 1 through December 31, 1995. Calculations were performed for the liquid and noble gas release pathways. The licensee provided "adjusted" release amounts for each of the three liquid effluent paths. These adjustments were necessary to account for transition time and deposition losses in the cooling reservoir inside the restricted area that were not addressed in the generic model used for the PC-DOSE calculation.

4 REVIEW OF UPDATED FINAL SAFETY ANALYSIS REPORT COMMITMENTS

A recent discovery of a licensee operating their facility in a manner contrary to the Updated Final Safety Analysis Report description highlighted the need for a special focused review that compares plant practices, procedures and/or parameters to the Updated Final Safety Analysis Report description. While performing the inspections discussed in this report, the inspector reviewed the applicable portions of the Updated Final Safety Analysis Report that related to the areas inspected. The following inconsistencies were noted between the wording of the Updated Final Safety Analysis Report and the plant practices, procedures, and/or parameters observed by the inspectors.

Chapter 11.4.1.2, Section 1.b, stated that tanks containing waste had cone-shaped bottoms, were heat traced, and were provided with mechanical mixers and internal spray headers. Chapter 11.4.1.2, Section 1.c, stated that tanks were provided with vents sized to prevent overpressure or vacuum and were connected to the plant vent header for monitoring prior to release in accordance with 10 CFR 50, Appendix A, "General Design Criteria 60 and 64." The inspector noted that there were three tanks in the solid waste processing system for each unit; two chemical feed tanks and one concentrate storage tank.

The heat tracing on the concentrate storage tanks had been disconnected as a minor design change. The concentrate storage tanks also did not have spray headers installed. The concentrate storage tanks were part of the system that had never been used by the licensee for radioactive waste processing. This was reinforced by a statement in Section 11.4.2.1.1 stating that this system was not currently being used. Therefore, the lack of spray header or heat tracing on this tank was considered to be a minor deviation.

The chemical feed tanks did not have internal spray headers or vents. The chemical feed tanks were part of the chemical addition system described in Chapter 11.4.2.1.6. Therefore, the lack of a spray header or vent was considered to be a minor deviation.

Chapter 11.4.2.1, Section 6, stated that the solid waste processing system was designed to process the maximum volume of waste tabulated in Table 11.4-4, "Estimated Annual Quantities of Solid Radwaste for One Unit." The text throughout Chapter 11.4 appeared to imply that the system was a "site" type system with identical configurations in both units. Therefore, it could be implied that each unit was only capable of processing 50 percent of a single unit's waste. The licensee verified that the system installed in each unit was capable of processing the amounts listed in Table 11.4-4. Because this was a matter of interpretation and did not affect actual operations of the systems, this was considered to be a minor deviation.

In each of the above cases, the licensee initiated condition reports to investigate and to make corrections as necessary. Because of the minor nature of these items, no further discussion was needed in this report.

ATTACHMENT

PERSONS CONTACTED AND EXIT MEETING

1 PERSONS CONTACTED

1.1 Licensee Personnel

C. Armstrong, Senior Staff Consultant
D. Bi.ski, Security Force Supervisor
T. Broadwater, Administrative Clerk
R. Brown, Shift Supervisor
H. Butterworth, Operations Manager, Unit 2
C. Campbell, Health Physics Technician
T. Cloninger, Vice President, Engineering
K. Coates, Maintenance Manager, Unit 2
W. Cottle, Group Vice President, Nuclear
J. Drymiller, Supervisor, Security Operations
J. Enoch, Offsite Emergency Response Specialist
R. Galiley, Reactor Operator
R. Gangluff, Chemistry Manager
J. Groth, Vice President, Nuclear Operations
M. Hardt, Director, Nuclear Division, City of San Antonio
S. Head, Supervisor, Compliance
R. Hutchinson, Staff Emergency Planning Specialist
J. Inman, ALARA Specialist
T. Jordan, Manager
K. Keyes, Staff Specialist
K. Klienhans, Health Physics Technician
K. Kruger, Emergency Response Specialist
B. Kruse, Senior Quality Assurance Specialist
M. Lance, Junior Coordinator
P. Lara, Reactor Operator
G. Lamberth, Senior Health Physics Technician
R. Logan, Radiation Protection Manager
P. Losoya, Health Physics Technician
R. Lovell, Manager, Unit 1 Operations
F. Mangan, General Manager, Plant Services
L. Martin, General Manager, Nuclear Assurance & Licensing
R. Masse, Plant Manger, Unit 2
T. Mayberry, Emergency Planning Specialist
L. Meier, Emergency Planning Specialist
L. Myers, Plant Manager, Unit 1
E. Pomeroy, Security Coordinator
G. Powell, General Supervisor
F. Puleo, Supervisor, Onsite Emergency Response
R. Rehkugler, Director, Quality
M. Rejcek, Consulting Engineer
E. Rivera, Administrator, Resource Planning
A. Rodriguez, Security Coordinator
S. Rosen, Director, Industry Relations
J. Sands, Supervisor, Security Training
D. Schulker, Compliance Engineer

P. Serra, Manager, Emergency Response
D. Sheesley, Supervisor, Security Systems
J. Sheppard, Assistant to Vice President, Nuclear
J. Sherwood, Supervisor, Radiation Lab
S. Sieben, Unit Supervisor
W. Smith, Senior Health Physics Technician
K. Taplett, Licensing Engineer
F. Timmons, Manager
T. Underwood, Administrator, Participant Services
W. Waddell, Maintenance Specialist, Unit 1
F. Wagon, Manager, Human Resources
V. Wagner, Emergency Response Specialist
P. Weldon, Manager, Staff Training
M. Woodard-Hall, Supervisor, Support

1.2 NRC Personnel

L. Callan, Regional Administrator
T. Dexter, Senior Security Specialist
G. Good, Senior Emergency Planning Analyst
D. Loveless, Senior Resident Inspector
M. Murphy, Licensing Examiner

The above individuals attended the exit meeting. In addition to the personnel listed above, the inspector contacted other personnel during this inspection period.

2 EXIT MEETING

An exit meeting was conducted on February 8, 1996. During this meeting, the inspector reviewed the scope and findings of the report. The licensee did not express a position on the inspection findings documented in this report. The licensee did not identify as proprietary, any information provided to, or reviewed by the inspector.