

# The Light company

Houston Lighting & Power

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July 11, 1990

ST-HL-AE-3497

File No.: G.02.04

10CFR50.47

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

To: Mr. R. D. Martin  
Regional Administrator, Region IV

South Texas Project Electric Generating Station  
Units 1 and 2

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

Response to NRC Emergency Preparedness Exercise Weaknesses

498/9010-01, 02, 03, 04, 05, 06, 07;

499/9010-01, 02, 03, 04, 05, 06, 07

Dear Mr. Martin:

Houston Lighting & Power Company (HL&P) has reviewed Inspection Report (IR) 90-10 dated June 5, 1990. Areas examined during the inspection included implementation of the South Texas Project Electric Generating Station (STPEGS) Emergency Plan and procedures during the 1990 annual emergency response exercise. HL&P submits the attached responses to the seven exercise weaknesses identified in the Emergency Preparedness program.

HL&P considers the weakness relative to emergency exercise scenario development must be addressed with high priority. In addition to the actions identified in the attachment, future exercise scenarios will be reviewed by senior station management including the Group Vice President, Nuclear. Prior to the 1991 Graded Exercise, HL&P representatives will request a meeting with NRC Region IV to discuss details of the scenario with NRC personnel.

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In addition to performing the attached actions, HL&P is contracting an outside consultant to review and provide recommendations for improving the overall STPEGS Emergency Preparedness Program.

If you should have any questions on this matter, please contact Mr. V. A. Simonis at (512) 972-8330.



S. P. Hall  
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Attachments

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Response to NRC Emergency Preparedness Exercise Weaknesses  
498/9010-01; 499/9010-01

I. Weakness

The full scope of the security threat involved in the scenario was not considered.

II. Response

- The emergency plan implementing procedures will be reviewed and revised to provide additional direction to the Emergency Managers and Security Supervisor and/or Managers during security-related events.

Appropriate task analyses will be reviewed and revised to include specific actions to be taken during security-related events. Training on this task will then be provided. A review of this weakness will be incorporated into the annual requalification.

These actions will be completed by October 31, 1990.

- A security threat scenario will be developed and a drill performed using this scenario to practice the required specific actions.

This action will be completed prior to the next STPEGS Graded Exercise.

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Response to NRC Emergency Preparedness Exercise Weaknesses  
498/9010-02; 499/9010-02

I. Weakness

No habitability checks were performed in the Control Room and no dosimetry was issued to the emergency responders in the Control Room during the exercise.

Plan and Schedule:

II. Response

The Radiological Manager in the Technical Support Center (TSC) is responsible for ensuring habitability checks are performed in the Control Room. Because the plant simulator located in the Nuclear Training Facility (NTF) was used for the exercise Control Room, the TSC Radiological Manager was uncertain where to send the Health Physics (HP) technicians to perform the habitability checks.

During future drills using the simulator, the TSC drill controller will direct the TSC Radiological Manager to send the HP technicians to the affected unit Control Room to perform habitability checks.

Performance of Control Room habitability checks will be demonstrated during the 1990 and 1991 emergency drills and exercises.

Dosimeters are maintained in the Control Room emergency locker for personnel who may be required to exit and return to the Control Room during emergency conditions. HL&P considers the numbers and types of dosimeters available sufficient to monitor the expected number of people leaving the area.

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Lockers with appropriate equipment will be provided at the simulator so that simulator operators can comply with Emergency Plan requirements for entry and exit during drills. This action will be completed by October 31, 1990.

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Response to NRC Emergency Preparedness Exercise Weaknesses  
498/9010-03; 499/9010-03

I. Weakness

Poor radiological practices and failure to follow the radiation protection procedure were observed in the process of determining habitability in the TSC.

- o The air sampler was not made functional until 10:34 a.m., although the first radiation habitability survey was logged at 8:55 a.m. This contradicts paragraph 1.1, Addendum 1 of Procedure OEPP01-2A-0005, "Onsite Radiological Controls," which requires air sampling as one of the conditions for establishing habitability in the TSC.
- o Self-reading dosimeters were not issued to the TSC staff. The number of self-reading dosimeters was not consistent with the number of personnel requiring radiation monitoring protection in the TSC. Only six low-range and six high-range dosimeters were available in the facility.
- o The TSC ventilation was not shifted to a recirculation mode until 11:36 a.m., approximately 1 hour after the simulated release of radioactivity to the environs had been detected. Apparently, the licensee's policy is for the TSC to remain in normal ventilation line-up until unacceptable levels of radioactive contamination are sensed in the induction air plenum. This could lead to unnecessary inhalation of radioactive contamination by members of the TSC staff.

II. Response

The TSC HVAC system is designed to provide a suitable environment during normal and post-accident operation, including protection from post-accident radiological releases. Both STPEGS TSCs are continuously monitored by area radiation monitors. Detection of high airborne radiation levels in the TSC HVAC system intake results in an automatic switch to the filtration/recirculation mode of operation. Detection of high toxic gas or smoke levels in the TSC HVAC system intake will also result in automatic isolation of the system. Manual activation of the TSC HVAC recirculation system is achievable; however, this is not required under normal conditions of system availability. Habitability checks are required during emergency response conditions which confirm satisfactory system function. Therefore, members of the TSC will not be exposed to unnecessary inhalation of radioactive contamination during emergency conditions.

In addition, dosimeters are maintained in the TSC emergency locker for personnel who may be required to exit and return to the TSC during emergency conditions. HL&P considers the numbers and types of dosimeters available sufficient to monitor the expected number of people leaving the area.

Addendum 1 of procedure OEPP01-ZA-0005 addresses emergency accumulative exposure limits. Addendum 8, paragraph 1.1 of the same procedure states initial habitability checks (including air sampling) shall be performed if a release of radioactive material has occurred or is in progress at the time the facility is activated. Records indicate the release of radioactive material began at approximately 10:30 a.m. Consequently, in accordance with procedural requirements, air sampling at 10:34 a.m. was appropriate.

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Response to NRC Emergency Preparedness Exercise Weaknesses  
498/9010-04; 499/9010-04

I. Weakness

Although the ED properly classified the event based on his judgement of plant conditions, procedures failed to clearly include the conditions for classifying a GE involving an interfacing systems LOCA or a steam generator tube rupture accident.

II. Response

Emergency Plan implementing procedures (i.e., OEPP01-2A-0001, "Emergency Classification") will be reviewed and revised to clarify conditions for classifying emergencies involving challenges to the primary coolant boundary.

This action will be completed by August 31, 1990.

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Response to NRC Emergency Preparedness Exercise Weaknesses  
498/9010-05; 499/9010-05

I. Weakness

The locations of all missing persons within the protected area were not established within 30 minutes.

II. Response

HL&P will improve accountability to reduce the number of missing personnel during accountability drills. The names and last location of those individuals will be known within 30 minutes of a clearly specified start of the emergency and search and rescue for these individuals will be initiated. Beginning in August, 1990, HL&P will conduct monthly accountability drills prior to the 1991 Graded Exercise to improve accountability performance. Instances of missing personnel in future drills will be reviewed to determine additional corrective actions.

The computer software used to perform personnel accountability will be enhanced to provide more accurate data to identify badge numbers and names of unaccounted for personnel. A purchase order is in the process of being issued to complete the necessary work.

Finally, office facilities being constructed outside the Protected Area will result in a reduction in the number of people inside the Protected Area and reduce the difficulty of performing personnel accountability.

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Response to NRC Emergency Preparedness Exercise Weaknesses  
498/9010-06; 499/9010-06

I. Weakness

The number of technical inadequacies and multiple scenario problems attributed to the lack of realism and free play noted during the exercise.

II. Response

The Emergency Preparedness Division will develop and implement an Emergency Preparedness Scenario Development and Review Plan. The plan will describe appointment of individuals from specific Departments to a Scenario Development Committee (SDC) including qualifications, responsibilities, and duties. Candidates for the SDC will be reviewed and approved by the Manager, Emergency Preparedness and the Group Vice President, Nuclear.

The plan will include additional technical and management review and approval requirements for exercise scenarios. A committee consisting of managers from Operations, Technical Services, and Engineering will review and approve scenarios developed for graded exercises.

The plan will also specifically address identified problems related to realism and free play during the exercise. Every attempt will be made to utilize the plant simulator to its full capability in the dynamic mode for future drills and exercises.

The plan will be developed and implemented by August 31, 1990.

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Response to NRC Emergency Preparedness Exercise Weaknesses  
493/9010-07; 499/9010-07

I. Weakness

Important exercise weaknesses were not properly characterized during the formal self-critique.

II. Response

The critique process will be reviewed and enhanced to include additional management involvement during the process.

Additional training will be provided to controllers. The training will include identification and characterization of deficiencies, weaknesses, and areas for improvement during the self-critique process.

The exercise process will be enhanced through use of Exercise Evaluators for specific key emergency response locations during exercise scenarios, instead of requiring the controllers to double as evaluators. These locations will include but not be limited to the EOF, TSC, and Control Room (Simulator). Use of Evaluators will strengthen the total exercise critique process and will allow Controllers to be more involved with control of the exercise.

These actions will be completed and demonstrated during the 1991 Graded Exercise.