

The Light company

Houston Lighting & Power

P.O. Box 1700 Houston, Texas 77001 (713) 228-9211

January 30, 1991
ST-HL-AE-3676
File No.: G02.04
10CFR2.201

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

South Texas Project Electric Generating Station
Units 1 and 2
Docket Nos. STN 50-498 and STN 50-499
Response to Notices of Violation 9034-02 and 9034-03
Regarding An AC Distribution Panel Energized by
Alternate Power Source in Violation of Technical Specification
and Failure to Follow Procedures During Surveillance Activities

Houston Lighting & Power Company has reviewed Notices of Violation 9034-02 and 9034-03 dated December 31, 1990. HL&P concurs that the cited violations occurred. Attachment 1 provides our response to these violations.

Violation 9034-02 has been fully addressed as the subject of the attached Unit 2 Licensee Event Report 90-017, "Regarding Class 1E 120 Volt AC Distribution Panel Energized by Alternate Power Source in Violation of Technical Specification" (Attachment 2).

As indicated in the attached response, HL&P is in full compliance and appropriate actions are being taken to prevent recurrence.

HL&P does not believe these violations are indications of a continuing declining trend in maintenance and surveillance activities due to procedural non-compliance. HL&P has reviewed the LER events caused by procedural non-compliance over the past two years (1989 and 1990) and found that the trend actually improved over the two year period. In particular, there was a substantial improvement during the last half of 1990.

As discussed in previous correspondence and meetings between HL&P and NRC, and noted in the inspection report, HL&P is in the process of implementing an operational improvement plan to improve personnel performance at STPEGS. The plan consists of interfacing programs, program elements and actions intended to remove barriers inhibiting organizational performance and to improve the tools (hardware, programs, processes and procedures) which have the most effect on performance. This plan will be used by all STPEGS departments in achieving a definitive improvement in performance and plant material conditions. This plan is designed to achieve a steady improvement in performance and will be continued and modified as appropriate to attain this goal.

A1/014.N20

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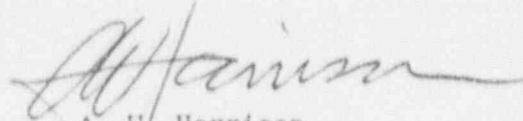
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Houston Lighting & Power Company
South Texas Project Electric Generating Station

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If you should have any questions on this matter, please contact
Mr. C. A. Ayala at (512) 972-8628 or myself at (512) 972-7298.



A. W. Harrison
Manager
Nuclear Licensing

AKK/kmd

- Attachments: 1. Response to Notice of Violations 9034-02 and 9034-03
2. Unit 2, Licensee Event Report 90-017 (ST-HL-AE-3645)

Houston Lighting & Power Company
South Texas Project Electric Generating Station

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cc:

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Revised 01/29/91

L4/NRC/

I. Statement of Violations:

1. TS 3.8.3.2 requires that, in Modes 5 and 6, four 120-volt ac vital distribution panels consisting of DPO01, DP1201, DPO02, DP1204 be energized from their associated inverter connected to its respective dc Bus E2A11 and E2C11 (Unit 2).

Contrary to the above, between November 2, 1990, at 10:57 p.m. and November 4, 1990, at 2 p.m. with Unit 2 operating in Mode 6, 120-volt Vital Distribution Panel DPO01 was not powered from its associated inverter.

This is a Severity Level IV violation. (Supplement I)
(499/9034-02)

2. Technical Specification (TS) Section 6.8.1.a requires, in part, that written procedures shall be established, implemented, and maintained, including the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978. Appendix A includes requirements for procedure adherence. Procedure OPGP03-ZA-0010, Revision 11, "Plant Procedure Compliance, Implementation and Review," establishes controls governing procedure compliance. Step 3.1.1 of OPGP03-ZA-0010 states that procedures shall be strictly adhered to when performing plant activities.

Contrary to the above, on October 30 and November 16, 1990, two examples of failure to follow approved procedures were observed: (1) a technician failed to follow safety-related Procedures OPMOP5-NA-0001, "General Electric 13.8 kV Breaker Tests," Step 6.36 in that Step 6.36 was not to be performed for the existing Unit 2 conditions, thereby resulting in an inadvertent ESF actuation signal; and (2) FCR 90-1891 which was issued to change Procedure OPMOP5-ZE-0107, "Varmeter Calibration," was changed without the specified reviews required by Procedure OPGP03-ZA-0002, "Plant Procedures."

This is a Severity Level IV violation. (Supplement I)
(498;499/9034-03)

II. Houston Lighting & Power Position:

1. HL&P concurs that this violation occurred. The reason for the violation and the corrective actions to address it are discussed in LER 90-017, a copy of which is attached.
2. HL&P concurs that this violation occurred.

III. Reason for Violation:

1. See attached LER 90-017.
- 2a. For the first example, the cause of this event was the failure of the electrical maintenance personnel to comply with the breaker test procedure. The specific procedural steps were not followed and the precautions included in the procedure were not noted. In addition, inappropriate actions were taken during the event which were not allowed by the procedure. Contributing to this event was less than adequate supervision by the foreman who was directing the work activity.
- b. The second example was caused by a lack of written procedural guidance on the Field Change Request (FCR) "corrected original" process.

IV. Corrective Actions:

1. See attached LER 90-017.
- 2a. The following corrective actions have been taken to address the first example of failure to follow procedures:
 - i) The electricians involved in this incident were given an oral reminder in accordance with HL&P's Constructive Disciplinary Policy. The session emphasized procedural compliance and attention to detail.
 - ii) Appropriate electrical maintenance department personnel (including foremen) attended training which described the details of this event and stressed adherence to detail and following procedural steps when performing duties. The training also included a review of similar breakers which if improperly manipulated could also result in an inadvertent ESF actuation.
 - iii) The foreman was counseled regarding the incident. The focus of the counseling session was proper use of procedures.
 - iv) The 13.8 kV breaker test procedures and associated surveillance procedures were revised to further enhance the direction to use extreme caution when testing these breakers.

b. The following corrective actions have been taken to address the second example of failure to follow procedures.

- 1) The practice of issuing "corrected originals" was discontinued immediately. The method of issuing another FCR to make corrections will be utilized.
- ii) A technical analysis review was performed on the "corrected original" FCR 90-1891. The analysis determined that the accuracy of the test was not compromised and the addition of the words to complete the sentence was an administrative change and in agreement with other procedural steps.
- iii) A 100 percent review of the current FCRs was conducted to determine the extent of the problem. Thirty-one (31) "corrected original" FCRs were identified as a result of this review.
- iv) A further review of the 31 "corrected original" FCRs was performed to determine the nature of changes involved. 22 of the FCRs had administrative changes (dates, typos, etc.) on the cover pages of the FCR only. Nine had corrections within the body of the procedure.
- v) A technical review of the nine "corrected original" FCRs determined that there was no impact on the performance of the affected procedures. However, new FCRs were issued for seven of the nine "corrected original" FCRs to ensure technical review requirements were met. For the other two "corrected original" FCRs, it was determined that new FCRs were not necessary and technical reviews were documented by memorandums.

V. Date of Full Compliance

HL&P is in full compliance at this time.

The Light company

Houston Lighting & Power

Attachment 2
ST-HL-AE-3676

P.O. Box 1700 Houston, Texas 77001 (713) 228-9211

December 12, 1990
ST-HL-AE-3645
File No.: G26
10CFR50.73

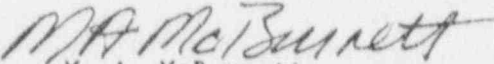
U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

South Texas Project Electric Generating Station
Unit 2
Docket No. STN 50-499
Licensee Event Report 90-017
Regarding Class 1E 120 Volt AC Distribution Panel
Energized by Alternate Power Source in
Violation of Technical Specification

Pursuant to 10CFR50.73, Houston Lighting & Power Company (HL&P) submits the attached Licensee Event Report (LER 90-017) regarding a Class 1E 120 volt AC distribution panel energized by alternate power source during core alterations in violation of Technical Specifications. This event did not have any adverse impact on the health and safety of the public.

On December 3, 1990, an extension of the due date of this letter to December 14, 1990 was requested of, and granted by, Mr. Art Howell of NRC Region IV.

If you should have any questions on this matter, please contact Mr. C. A. Ayala at (512) 972-8628 or myself at (512) 972-8530.


M. A. McBurnett
Manager,
Nuclear Licensing

RAD/sgs

Attachment: LER 90-017 (South Texas, Unit 2)

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) **South Texas, Unit 2** DOCKET NUMBER (2) **0 5 0 0 0 0 4 9 9 1** OF **0 4** PAGE (3)

TITLE (4) **Class 1E 120 Volt AC Distribution Panel Energized by Alternate Power Source in Violation of Technical Specification**

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)			
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER (8)		
11	04	90	90	017	00	12	12	90	South Texas Unit 2	0 5 0 0 0 0 4 9 9		
										0 5 0 0 0 0 0 0 0		

OPERATING MODE (9) **6** THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)

POWER LEVEL (10) 0.00	20.402(b)	20.406(e)	90.734(i)(2)(iv)	73.71(b)
	20.406(a)(1)(i)	80.36(a)(1)	90.734(i)(2)(v)	73.71(d)
	20.406(a)(1)(ii)	80.36(a)(2)	90.734(i)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
	20.406(a)(1)(iii)	<input checked="" type="checkbox"/> 80.734(i)(2)(i)	90.734(i)(2)(vii)(A)	
	20.406(a)(1)(iv)	80.734(i)(2)(ii)	90.734(i)(2)(vii)(B)	
	20.406(a)(1)(v)	80.734(i)(2)(iii)	90.734(i)(2)(viii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME **Charles Ayala - Supervising Licensing Engineer** TELEPHONE NUMBER **5 1 2 9 7 2 - 8 6 2 8**

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14) YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15) MONTH **11** DAY **04** YEAR **90**

ABSTRACT (Limit to 1400 spaces, i.e. approximately fifteen single space typewritten lines) (16)

On November 4, 1990, Unit 2 was in Mode 6 in its first refueling outage. At 0200 hours during performance of a surveillance test, it was discovered that the train A Class 1E 120 volt distribution panel DP001 was energized from its alternate power supply in violation of Technical Specification 3.8.3.2. Immediate actions were taken to restore the distribution panel to its proper alignment. The causes of this event were the result of less than adequate administrative controls to support outage activities. Corrective actions include utilization of a checklist to ensure readiness for re-entry into Mode 6, inclusion of this event in the licensed operator continuing training and enhancement of surveillance expected test data sheets.

A1/LER017J2.L01

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) South Texas, Unit 2	DOCKET NUMBER (2) 0500049990	LER NUMBER (3)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		90	017	00	02	OF 04

TEXT (if more space is required, use additional NRC Form 366A-1) (17)

DESCRIPTION OF EVENT:

On November 4, 1990, Unit 2 was in Mode 6 in its first refueling outage. At 0200 hours, during performance of the ESF Power Availability surveillance, it was discovered that the train A Class 1E 120 volt vital distribution panel DPO01 was energized from its alternate power supply. Unit 2 entered Mode 6 (refueling) on November 2, 1990, at 1057 hours. Unit 2 was in a refueling outage with the core off loaded prior to this re-entry to Mode 6. Core alterations were performed on November 2, 1990 and November 3, 1990 for approximately 14 hours in violation of Technical Specification 3.8.3.2 which requires that distribution panel DPO01 be energized from its associated inverter or immediately suspend core alterations, positive reactivity changes or movement of irradiated fuel. Immediate actions were taken to restore distribution panel DPO01 to its proper alignment.

On October 30, 1990, an equipment clearance order on distribution panel DPO01 was released and clearance tags removed following maintenance activities. The respective operability tracking log entry was also closed. The distribution panel was not aligned to its associated inverter due to additional inspections and surveillance testing which were on-going. This action was inconsistent with operating practices since the status tracking mechanism (the operability tracking log entry) was closed. There was no fuel in the reactor vessel during this period; therefore, the Mode 6 requirement to align the distribution panel to its associated inverter did not apply. In addition, a recent change to the equipment clearance order procedure allowed the independent verification requirements for restoration of the equipment to be waived provided the equipment was independently verified prior to operation (in this case prior to re-entry to Mode 6). However, the procedure change did not incorporate any controls to track restoration requirements nor did any controls exist to track requirements for entry into Mode 6.

Outage activities continued in preparation for entry into Mode 6. Operator logs from October 30, 1990 until discovery of this event indicated that the 120 volt Uninterruptible Power Supply (UPS) (i.e., the associated inverter) was bypassed. During the period prior to Mode 6 operations, this was an acceptable configuration. At 0630 hours on November 2, 1990, the ESF Power Availability surveillance was performed in preparation for entry into Mode 6. The licensed operators responsible for reviewing the surveillance test, misread the breaker alignment and incorrectly noted that the test results were acceptable. The operators failed to recognize that a pen and ink correction was made on the data sheet which showed the bypassed alignment still existed.

A1/LER017J2.L01

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) South Texas, Unit 2	DOCKET NUMBER (2) 0 5 0 6 0 4 9 9 9 0 - 0 1 7 - 0 0 0 3 OF 0 4	LER NUMBER (8)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		

TEXT: If more space is required, use additional NRC Form 306A (17)

CAUSE OF EVENT:

The cause of this event was the result of less than adequate administrative controls to support outage activities during the time period that no fuel was in the reactor vessel. The equipment clearance order and operability tracking log are primarily designed for Mode 1-6 operation. A substantial administrative burden on the operator is created by the controls currently in place which increases the potential for tracking and equipment restoration errors.

Contributing to this event was a less than adequate review of the operator logs due to less than adequate administrative controls to support outage activities which ultimately resulted in desensitization of the operators. The plant was in a configuration, prior to re-entry to Mode 6 operation, that did not require DPO01 to be aligned to its respective inverter. This resulted in the operators viewing the notation as a normal configuration during on-going maintenance.

Also, contributing to this event was a less than adequate review of the ESP Power Availability surveillance test results prior to Mode 6 entry. Contributing to this cause was less than adequate human factored data sheet to support pen and ink corrections which may be necessary.

ANALYSIS OF EVENT:

This event resulted in a violation of Technical Specifications and is therefore reportable pursuant to 10CFR.73(a)(2)(1). The inverter for distribution panel DPO01 was fully functional although not aligned as required by Technical Specification 3.8.3.2. In addition, the redundant train was available and correctly powered from its associated inverter throughout this event.

An evaluation was conducted which determined that the most limiting condition in Modes 5 and 6 is a fuel handling accident. The safety analyses for a fuel handling accident do not assume a loss of offsite power (LOOP), therefore both radiation monitoring actuation trains would be assumed to be operable when the event initiated. In the event of a single failure, at least one train would generate the required actuation signal to the ventilation system. Therefore, it is concluded that there were no safety or radiological consequences as a result of this event.

A1/LER017U2.L01

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) South Texas, Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 4 9 9 9 0 - 0 1 7 - 0 0 0 4 OF 0 4	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		

TEXT (if more space is required, use additional NRC Form 366A's) (17)

CORRECTIVE ACTION:

The following corrective actions will be taken as a result of this event:

1. An operability tracking log entry will be used to confirm readiness for re-entry into Mode 6. A checklist will be included that contains plant configurations and surveillance status to insure Technical Specification compliance prior to core reloading activities. This action will be in place prior to the next re-entry into Mode 6.
2. The details of this event will be included in licensed operator "Lessons Learned" Training. This action will be completed prior to April 12, 1991.
3. The ESF Power Availability procedure will be modified to enhance the human factor concerns of the breaker lineup data sheet. This action will be completed by February 1991.

ADDITIONAL INFORMATION:

There have been no previous Technical Specification violations regarding the alignment of the Class 1E electrical distribution system.

A1/LER017U2.L01